CG 201 - Health

Diploma and Certificate Level

Teacher Handbook

Nazarene Theological Institute

Church of the Nazarene

Nazarene Theological Institute
Church of the Nazarene--Africa Region

CG 201 - Health
Diploma and Certificate level
Syllabus

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Please send notice of any errors or misprints found in the handbook to admin.itn@gmail.com, so that the mistakes may be rectified in the next printing.

Course Description

This course is designed to examine and promote holistic healthy life styles in a personal and community environment, with a Christ-like, Biblically based foundation. Practical application of this information in context of Africa will be addressed.

Rational

Pastors and laypersons in Africa are potential key leaders in role modeling Christ-like lives in a society needing Christ. As they live out holy lives in every aspect-- spiritually, physically, socially, emotionally/mentally-- they can impact their communities with the truth of Christ in practical and compassionate ways. Role modeling and teaching others about holistic healthy Christ-centered life styles can make a significant impact in the lives of others.

At the end of this course, each student should have a practical understanding of holistic health with the interconnectedness between spiritual, physical, social and mental health. Though mental/emotional health is not specifically examined, it is interwoven in thoughts and behaviors of how people respond to others.

Program Outcomes

Content

CON 14 - Learn the fundamentals of personal and community health
CON 5 - Realization of the biblical, theological, and practical implications of holiness doctrine when taught from a Wesleyan perspective
CON 12 - Application of Christian morality in daily life
CON 13 - Understanding of principles of interpersonal relationships

Competence

COM 8 - Ability to provide pastoral care, visit the sick, engage in important rites of passage, and give Biblical counseling

Character

CAR 2 - Ability to show sexual purity before and after marriage and apply principles of marriage to the Christian family
CAR 1 - Ability to give value to Christian morality and apply this ethic to life
CAR 4 - Ability to allow Christ's character to form the attitudes and actions of one's daily life
CAR 6 - Ability to give value to relationships through openness, righteousness and honesty
CAR 12 - Ability to exert self-control

Context

CXT 5 - Ability to interpret, on a scientific and biblical basis, the Christian position on magic, spiritism, medicine and traditional healing

The following sessions and activities of this course offer the following percentages of the four C's:

Content 40%, Competence 20%, Character 10%, Context 30%

Course Outline and Outcomes

1. Definition of holistic health from a Christian holiness perspective, interconnecting physical, mental/emotional, social and spiritual well-being (CON 5, CON 14)

2. Review of major aspects of African Traditional Religion, as this has an important influence in the lives of Africans; Review of Biblical directives with regards to ATR and Christ-like responses in everyday contextual situations (CON 5, CON 8, CAR 4, COM 8, CXT 2, CXT 5)

3. Examination of spiritual health, looking at cultural, personal and spiritual factors; Overview of six spiritual formation disciplines: Worship, Bible reading, prayer, fasting, giving, hospitality and the practical application of holistic health. (CON 12, CON 13, CON 14, COM 8, CAR 1, CAR 4, CXT 2)

4. Examination of social health, based on relationships: with Christ, with others (family: husband/wife, parent/children/others) (CON 5, CON 12, CON 13, CON 14, COM 8, CAR 1, CAR 2, CAR 6)

5. Examining sexual purity before and after marriage, with practical applications; the risks of premarital sex will be identified. (CON 12, CON 13, CON 14, CAR 1, CAR 2, CAR 4, CAR 6, CAR 12, COM 8, CXT 2)

6. Examination of physical well-being: brief overview of anatomy and physiology of the eleven body systems. (CON 14)

7. Understanding what an infectious and non-infectious disease is. (CON 14, COM 8)

8. Identification of healthy hygiene practices: personal, community, and within the local environment (CON 14, CON 13, COM 8, CAR 4, CAR 12)

9. Nutrition: identifying healthy eating habits for a healthy body (CON 14, COM 8)

10. Information on Basic HIV/AIDS (CON 14, COM 8)

11. Identifying eight common infectious diseases found in sub-Saharan Africa; understanding the cause, how it is spread to others, description of the disease, prevention, treatment and care (measles, typhoid, malaria, T.B. scabies, polio, conjunctivitis, tetanus) (CON 14, COM 8)

12. Diarrhea and dehydration: causes, prevention, and treatment will be covered. (CON 14)

13. Examining two common non-infectious diseases: cardiovascular diseases and diabetes (CON 14, COM 8, CAR 12)

14. First Aid: Identifying and responding to airway, breathing, circulatory, nervous system, musculoskeletal, soft tissue and other conditions that pose a threat and emergency situation to self or others (CON 14, COM 8, CAR 1, CAR 4)

Course Requirements

1. The student must be present and on time for all course sessions with a Bible and any other required materials. Any absence (session or full day) will result in deduction of points in attendance, participation and demonstrations/ presentations, if missed.

2. Students must attend each session and be able to participate in discussions related to the course content (Course outcomes 1-14).

3. Students must complete their assignments as directed by the leader (Course outcome 3, 9).

4. Students must participate in classroom discussion, group demonstrations/ activities, and scenario presentations in each session (Course outcomes 1-14).

5. Each student is required to write the final examination. If the student does not comprehend the written examination, opportunity will be provided to give oral answers, if a translator is available (certificate level students only) (Course outcomes 1-14).

Course Evaluation

Attendance: /40 (8 points per day- total deducted per day missed and partial points deducted for late or missed sessions)

Class participation: /50 (10 points per day)

Group Demonstrations/Scenario presentations: /50 (10 points per day)

Assignments: /60 (Matthew 5-7, dietary recording/questions, reading assignment--20 points per assignment)

Final Exam: /100

TOTAL GRADE IS /300 (teachers will calculate and record final grade based on a 100% scale by dividing the student's final point total by the total number of points possible, 300.)

Course schedule: based on a 40 hour course (including homework assignments)

Day 1 Introduction, Definitions, Holistic Health, ATR, Spiritual Well-Being

Day 2 Social Well-Being

Day 3 Physical Well-Being, finish up Communicable diseases

Day 4 Complete Physical Well Being, Begin First Aid

Day 5 First Aid, Summary

Works consulted

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Warren, R., 2002, *The Purpose-Driven Life,* Grand Rapid, Michigan: Zondervan Publishing

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Nazarene Theological Institute
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CG 201 - HEALTH

Introduction: This course is designed to examine and promote holistic healthy life styles in a personal and community environment, with a Christ-like, Biblically based foundation. Practical application of this information in context of Africa will be addressed.

As pastors and laypersons you have the great potential to role model and teach Christ-like lives in a society needing Christ. As you live out holy lives in every aspect - spiritually, physically, socially, and emotionally/mentally - in relationship with others, you can impact your communities with the truth of Christ in practical and compassionate ways.

Leader: The course outline is noted in the student workbook. Refer to the class syllabus for the outline. Refer to student workbook to see what information they have to fill in.

Definitions:

1**. Holistic**: interconnectedness between physical, social, mental, and spiritual aspects in one's state of health.

2. **Health**: The World Health Organization (WHO) defines health as a "state of complete physical, mental, and social well being and not merely the absence of disease and infirmity." Such a definition of health does not allow for any variation in the degrees of wellness or illness. The concept of a health-illness continuum allows for a greater range in describing a person's health status. By viewing health and illness on a continuum, it is possible to consider a person as having neither complete health nor complete illness.

Instead, a person's state of health is ever-changing and has the potential to range from high-level wellness to extremely poor health and imminent death.[1] For example, a person who had polio as a child and cannot walk has the potential to attain a high level of wellness within the limits of their handicap.

Health encompasses more than the physical state of being—it is more than just the absence of disease; it is also referred to as WELLNESS—ability to live life fully, physically, mentally, emotionally, socially, spiritually.

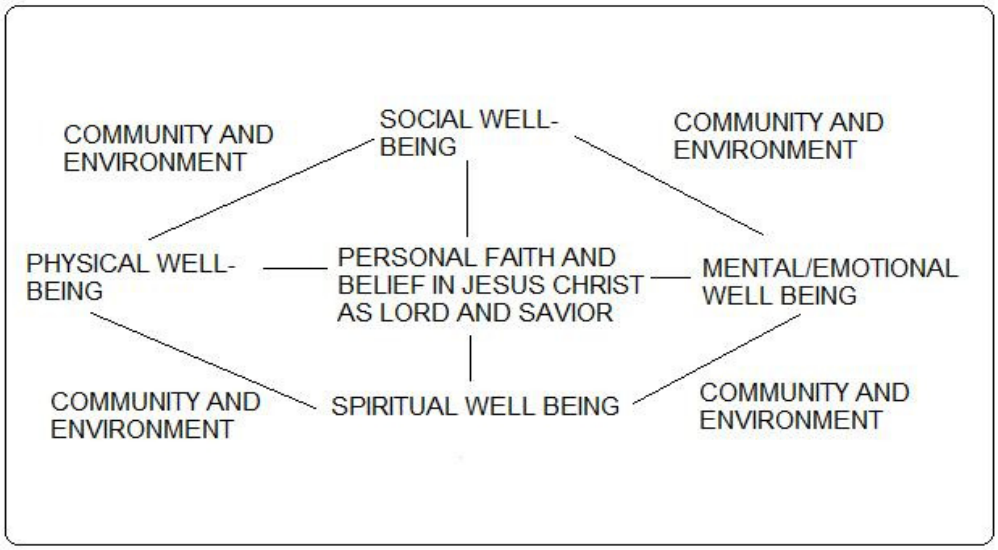
3. **Holistic Health**: is the interconnectedness between **physical**, **social, mental** and **spiritual** state of wellness experienced by a person within a **community** environment. Examples: What one believes may have a direct effect on their physical well-being. A woman who is unable to get pregnant may experience deep feelings of inadequacy and possibly stresses from family or members in the community.

- A man with known illness such as HIV/AIDS may experience isolation from others who do not understand the disease.
- A handicapped child may not receive an education because they are viewed as unworthy or incapable.

[1] Brunner & Suddarth's Textbook of Medical-Surgical Nursing, by Suzanna C. Smeltzer and Brenda G. Bare pg. 5

For the purpose of this course, we will consider the following model to direct our studies.

The Holistic Community Health: Well-Being Model (Laurie Watton, 2009)



The center of this model represents one's Christian life, a personal faith and belief in Jesus Christ as Lord and Savior, which is based on the Word of God. With Christ at the very center of the believer's life, every aspect of our well being is touched. One's physical, social, mental/emotional and spiritual well being are affected by a dynamic (growing) relationship in Christ. The Christian does not exist in isolation, but in community and environment involving family and progressing to friends, neighbors, village, country and ultimately, the world.

As we study holistic personal and community health, from a Christian perspective, keep in mind that every aspect, be it physical, mental/emotional, spiritual, and social are all connected. You cannot separate one from the other. For the sake of focus, we will be looking at Spiritual, Social, and Physical well being in separate sections. Due to time restraints, mental/emotional well being will not be covered separately. You will soon see that all the above areas are truly interconnected. Keep in mind that mental/emotional well-being is very much a part of spiritual, social and physical well being. We all come from different backgrounds and experiences; therefore it is important to understand how culture and African Traditional Religion influences our well-being.

African Traditional Religion:
Affects on Health and Wellness and a Biblical Response

When individuals or groups experience difficulties physically, emotionally, socially, or spiritually, one may be tempted to revert to practices that are not in agreement with the Word of God, but are common, acceptable practices seen within their own culture. Some may profess to be a Christian during the daytime, then at night, or in private, they participate in acts of their traditional religion. There may also be times when one is

pressured by family or community members to participate in activities that are contrary to the Word of God.

Highlight and Summary points of information with regards to ATR

1. "The Gospel in its content is unchanging and supra-cultural. It is relevant to all men in every culture because it is God's message addressed to mankind which is one in origin, nature and spiritual need. The Gospel must come alive to the people by clothing the biblical message in African culture and life-ways." [2]
2. The traditional religion of Africa must be evaluated in the light of God's eternal and unchanging **Word.** Only then can we sort out the culturally relative elements and absolutes. Only then can we maintain a biblical Christianity with a genuine, authentic stamp of Africa upon her.[3]
3. Magic and Religion: According to Noss, a specialist in world religions, magic refers to "an endeavor through utterance of set words, or the performance of set acts, or both to control or bend the powers of the world to man's will. It is discernibly present when emphasis is placed on forcing things to happen rather than asking that they do." Magic is the manipulation and use of impersonal powers through ritual and ceremony, whereas religion is the belief in unseen spirits, deities and gods and the attempt to pray to them for aid.[4] Many students of ATR affirm that religion and magic cannot be separated. Jomo Kenyatta states that "magical practices and religious rites go hand in hand, and sometimes it is not easy to separate the two, especially in dealing with beneficial magical practices." He shows that prayer to the ancestral spirits is combined with use of magical ritual.[5]

   Different kinds of Magic: White magic/good magic "is primarily used for protection against the evil forces that are found everywhere. The use of charms, amulets, herbs, seeds, powder, skins, feathers, chanting of magical formula, cuts on the body and many other magical practices are used to protect individuals, animals, houses and possessions from evil powers. They are given by the medicine man. Black magic is intended primarily to harm people and property. It is feared by people. Society opposes it. It is associated with sorcery. Both sorcery and witchcraft are the most feared parts of ATR."[6]

[2] African Traditional Religion in Biblical Perspective by Dr. Richard J. Gehman pg. 21

[3] Ibid. Pg. 22

[4] Ibid. Pg 67

[5] Ibid. Pg 68

[6] Ibid. Pg. 69

"Magical power is enhanced by repetition. The more words are repeated, the more effective they will become. Likewise, the more unusual the ritual may be, the more potent will be the effects."[7]

Witchcraft and Sorcery: "Sorcery is defined as the use of black magic and medicines against others. Sorcery may be practiced by any individual who buys specifically prepared charms and then places them near someone's house."[8]

Medicine men and other specialists: Medicine men are found in all African societies who assist people in fighting off attacks from witches. The medicine man is the traditional doctor who seeks to help the sick and needy who are troubled by witchcraft. In this context, a medicine man is not a pure herbalist. He is the "doctor" of traditional African culture, endowed by his ancestral spirits with the power of counteracting witchcraft, thus using the same powers as witches![9]

A Diviner: is a "specialist who seeks to diagnosis disease, or to discover the solution to problems, by means of inspiration or manipulation of objects through various techniques."

Herbalist: a person who, in traditional culture, was familiar with the medicinal value of various herbs. The pure herbalist was distinct from the diviner who combined herbal remedies with divination and the mystical powers of the spirit world. [10] "Some herbal specialists freely give herbal medicines without any religious connotations, while others give the same herb for the same illness but with religious overtones."[11]

Group Questions

1. What practices have you seen or heard of in your communities that reflect aspects of ATR? (For example: Rites of passage, planting/harvest rites, fishing rites, etc.)
2. What challenges and pressures does a Christian experience in a family and/ or community which practices ATR?

Biblical Directives

Satan is a deceiver and he will use any means to draw people's attention, worship, faith and trust away from God. He disguises himself as an angel of light (**2 Cor. 11:14**). His deceitfulness is seen in supernatural power to perform signs and wonders. (**2 Thess. 2:2**). As a spirit, Satan is able to enter a human being and motivate that person to oppose Jesus Christ and his divine will (**Jn. 12:27**). Satan, the Adversary of God, hinders the work of

[7] Ibid pg. 70

[8] Ibid pg. 72

[9] Ibid pg. 75

[10] Ibid pg. 77

[11] Ibid pg. 78

God (**1 Thess. 2:18**) and takes advantage of any opportunity to confuse the will of God (**2 Cor. 2:11**).[12]

"All forms of witchcraft and sorcery are forbidden in Scripture because of their association with **demonic activities**. Sorcery is associated with practices of spiritism (2 Kings 23:24), spirit harlotry (Nah. 3:4) and idolatry (Mic. 5:12) the evil of witchcraft is in its dependence upon the creature in defiance to the will of God. That men seek the wizard rather than God is evidence of demonic idolatry, removing God from His rightful place in pre-eminence. (Isa. 8:19)[13]

The Christian faith, as the only true "religion," is total submission to God in faith and obedience to His divine will and purpose through Jesus Christ our Lord. Magic of any sort is a departure from true religion. [14]

"In magic and divination, man depends upon human effort and demonic powers for the purpose of controlling and subduing the earth and acquiring knowledge of the unknown. Man has two choices: either submit to God in obedience, depending upon Him for power, or rebel against God in subduing the earth by means contrary to the will of God." [15]

As we spend time looking at holistic health: spiritual, social, mental/emotional and physical well-being, we will also be examining how ATR has influenced people's responses in different situations and then how as Christians in community, we should Biblically respond. As pastors and lay leaders, what you practice in private and public has significant influence on discipling believers.

DIVINE HEALING: The Church of the Nazarene believes in divine healing. According to our Article of Faith #14 on Divine Healing, We believe in the Bible doctrine of divine healing and urge our people to seek to offer the prayer of faith for the healing of the sick. We also believe God heals through the means of medical science.

Leader: these are only for reference and are provided in the student's workbook. (2 Kings 5:1-19; Psalm 103:1-5; Matthew 4:23-24; 9:18-35; John 4:46-54; Acts 5:12-16; 9:32-42; 14:8-15; 1 Corinthians 12:7-10; James 5:13-16)

In many places, there are prayer houses and 'healing centers' as well as 'native doctors'. When people are faced with illnesses of any sort some may be told to go to one of these places. It is very important to have discernment and understanding about what practices take place at such centers in order to decide if they are Biblically sound.

Leader: Use the following question assignment to engage the students in thinking about how our beliefs shape our responses when we are sick in any form. Give the groups time to discuss the question and then report back to the whole class.

[12] Ibid. Pg. 108
[13] Ibid. Pg. 111
[14] Ibid pg. 111
[15] Ibid pg. 110

Small Group Discussion: How do you determine whether or not local prayer houses or 'healing centers' are 'of Christ' based on the summary points of ATR and Biblical response to ATR? What is your response to 'faith healers'....faith in faith thinking? Does God always heal? (Consider the Apostle Paul who prayed for healing of an unknown 'thorn in his flesh' and God's response to him)

Personal and Community Holistic Health: Spiritual Well Being.
Today, there is a strong sense of hunger in people.

Group Question: What do people 'hunger' for today? (Leader's information: possible answers may include: power, money, authority, position/prestige/fame, possessions, security, love, food....)

People are looking for answers to life..."what is my purpose?" "What is the meaning of life?" There is evidence of spiritual hunger all around us. Numerous banners, posters and sayings written on vehicles and buildings declare statements or beliefs about God, or the spiritual aspect of life. People from all walks of life and many faiths are searching for spiritual connection. There are 3 different factors that influence the hunger and thirst for a spiritual life.

A. Cultural factors: these play a very strong role in the spiritual life of an individual. (For example, one culture may place a high value on social status or material wealth. If a culture says: A woman is beautiful when she looks like...such and such, or a man is important when he has...such and such.)

Group Questions:
1. Briefly list cultural practices occurring in your community that have an influence in your spiritual life, be it positive or negative.

Leader: if the students have a difficult time responding, provide the following example: At the entrance of your compound, you discover two eggs, some red peppers, a couple pieces of charcoal, and some needles. You don't know who placed it there, but a family funeral just took place the day before and you are told that it is to ward off any curses. How does this act influence your spiritual life? How would you respond in a Christ-like manner? If you discover it was put there by someone who professed to be a Christian, how would you counsel them?
2. How does your culture value: men, women, and children? How does this compare to the Biblical perspective?

B. Personal Factors: According to Marjorie J. Thompson in her book, *Soul Feast: An Invitation to the Christian Spiritual Life*, there are 3 personal factors that influence a person's spiritual hunger.

- Suffering and tragedy—"We want to know how God is related to our pain. Suffering makes us aware of our need for a larger framework of meaning and purpose in life."[16]
- Restlessness and dissatisfaction with church—without a deep personal relationship with Christ a person does not experience the reality of God in their life.[17] The result is that they will continue to hunger for that experience and may seek means other than Biblical ones to fulfill that hunger.
- Lack of guidance and opportunity for sharing one's life experience in God within a community of believers. Without these opportunities to express one's faith, there will continue to be a hunger.[18]

C. Spiritual Factors

Mankind, by nature, is religious. St. Augustine confessed to God, "You have made us for yourself, and our heart is restless until it rests in you."[19]

Mankind was made in the image and likeness of God (Gen. 1:26-27) Because of sin, that image has been blurred. When man is in right relationship with God, our image is restored and we are reshaped according to the pattern we were created to bear. [20]

With these 3 factors, cultural, personal, and spiritual, we will now look at ways in which Scripture encourages us to be formed into Christ-likeness.
Scripture readings:

Romans 12:1-2 - *"Therefore, I urge you, brothers, in view of God's mercy, to offer your bodies as living sacrifices, holy and pleasing to God—this is your spiritual act of worship. Do not conform any longer to the patterns of this world, but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is—his good, pleasing and perfect will."*
Philippians 3:10-11 - *"I want to know Christ and the power of his resurrection and the fellowship of sharing in his sufferings, becoming like him in his death, and so, somehow, to attain to the resurrection from the dead."*

How is Christ formed in a believer's life? What practices can help with this formation? Drawing on the Apostle Paul's theology, we can say that "spiritual formation" is conformation to the image of Christ by the indwelling of the Holy Spirit. [21]

In keeping with the definition of holistic health--well being as a continuum--it is safe to say that as a Christian, God's spirit is continually challenging, changing, and maturing us

[16] Thompson, Marjorie J. Soul Feast: An Invitation to the Christian Spiritual Life, pg. 4
[17] Ibid, pg. 4
[18] Ibid. Pg. 5
[19] Ibid. Pg. 5
[20] Ibid. Pg. 7

[21] Ibid. Pg. 7

as we submit to His Lordship and walk in obedience to His Word. It is by his sustaining grace that we can develop a deeper and closer walk with God.

In order to grow in Christ, there needs to be a hunger and thirst within. Matthew 5:6 states: "Blessed are those who hunger and thirst for righteousness, for they will be filled." Our spiritual hunger is evidence of the timeless need for a real and abiding relationship with God. God defines what that relationship is, not man. Throughout history, God is the one who has continued to call man unto himself. Many choose to heed that voice, and many choose to heed the voice of the devil.

Leader: Ask this REFLECTIVE QUESTION but do not ask for answers: Are you spiritually hungry and thirsty? How are you satisfying that hunger? Are there things in your life that have taken the place of God to satisfy that hunger? Why?

Are there areas in your life that you have yet to give to God? For example, if your life was represented by a house and each room represented a part of your life (social, relationships, business, entertainment, etc.) have you invited Christ to be formed in every aspect or do you place a sign that says: "Private. Stay out."

In order to be spiritually formed in Christ, which is an ongoing process, we are called to live a life of holiness. Holiness is absolutely practical in every aspect of our lives. If I only listen to the Word of God on a Sunday morning or during my own Bible reading times and do not live it out in my life, then my faith is false. God calls us to love Him with absolutely everything and in everything. There is no separation between that which is holy and that which is not. He is either Lord of all, or not at all.

Every infant that is born is usually hungry and thirsty shortly after birth and is satisfied at a mother's breast. So too, are we, who are born again in Christ. We need to hunger and thirst for righteousness, found in Christ. In doing so, we will be filled!

We are going to examine 6 disciplines that will help us in our growth in Christ. In summary, they are: Worship, Bible Reading, Prayer, Fasting, Giving, and Hospitality.

Spiritual Formation Disciplines:

Spiritual Discipline #1 - Worship

In Thompson's book, *Soul Feast, An invitation to the Christian Spiritual Life*, she quotes from William Temple on worship. "To worship is to quicken the conscience by the holiness of God, to feed the mind with the truth of God, to purge the imagination by the beauty of God, to open the heart to the love of God, to devote the will to the purpose of God."[22] Rick Warren, in his book, *The Purpose Driven Life*, states it more simply: "***The heart of worship is SURRENDER.***" (Romans 12:1-2)

[22] Ibid. Pg. 54

In order to surrender our lives completely to God, we must be willing to obey.

Group Question: What are some things that block a person's total surrender to God (teacher's note for possible answers: fear, pride, confusion).

Warren states that trust is an essential ingredient to surrender. Together **READ** Proverbs 3:5-6. Trust means letting go and allowing God to lead your life. Trust, rather than fear, is an essential key to surrendering to God.

Pride: It is in the fallen nature of man to desire control. To control our circumstances, situations, relationships, environment, etc. Pride places self at the center of our lives, not Christ. The commandment found in Exodus 20:3, "*You shall have no other gods before me"* includes oneself.

We are to give all to Christ. Warren states that the greatest hindrance to God's blessing in your life is not others, it is yourself. A. Self-will B. Stubborn Pride C. Personal ambition.[23]

Group Question: Of the three areas mentioned, self-will, stubborn pride, and personal ambition, which one is a challenge for you?

WORSHIP THAT PLEASES GOD- (We are not going to study styles of worship, for they vary greatly from one culture to another)

In chapter 13 of *The Purpose Driven Life*, Rick Warren describes **four characteristics of the kind of worship that pleases God.**

1. God is pleased when our worship is *accurate*, based on the truth of Scripture. To "worship in truth" means to worship God as he is truly revealed in the Bible. Over history, man has attempted to 'rewrite' who God is according to their thoughts and opinions.

Group Question: How have people inaccurately described God?

2. God is pleased when our worship is *authentic*, meaning genuine and sincere. Christ had some very strong words to say to the Pharisees who in outward appearances 'worshipped God,' but their life was far from pleasing to God. God sees the intent and truth of our lives.

3. God is pleased when our worship is *thoughtful*. Love the Lord your God with your entire mind. In Thompson's book, *Soul Feast*, she emphasizes that reciting words, doing rituals may be important aspects of worship, whether private or public, but if it does not mean anything, or is 'just a habit,' take warning! (55) Is. 29:13 says: "*The Lord says, 'These people come near me with their mouth and honor me with their lips,*

[23] Warren, Rick, The Purpose Driven Life, chapter 10

but their hearts are far from me. Their worship of me is made up only of rules taught by men.' "

Group Question: Consider how you worship, whether publicly or privately. Who is being honored?

4. God is pleased when our worship is *practical*. **Read** Romans 12:1

Group Question: What are some practical ways of worshipping God? Give examples from everyday life. (Remember, worship is not just a 'Sunday' event; it is offering your bodies as living sacrifices, holy and pleasing to God.)

Worship costs us our self-centeredness. You cannot exalt God and yourself at the same time. You don't worship to be seen by others or to please yourself. You deliberately shift the focus off of yourself.

Public worship/fellowship; **READ** Hebrews 10:19-25

Visual Object lesson: Find three strands of string or rope of equal length. Hold one strand up and say. 'One cord or strand isn't very strong', and then take another strand and add it to the first one. Say: By adding a second strand, this first one is made stronger. Take a third strand and plait the three together. Say: When three are plaited together, there is much more strength.

Reasons for gathering together with other believers in corporate worship

1. Support and strength

2. Accountability - We could easily become susceptible to teachings and behaviors that are not honoring to God. We are called to encourage, admonish, rebuke, disciple, love, care for and share with one another. We need each other. We are part of the Body of Christ.

3. To remember who and whose we are--the act of sharing communion, praises, praying, sacraments, and Scriptural proclamations brings us together in unity.

4. Presents a united front--we are in a spiritual battle and we need to work together.

5. As a witness to Christ-- John 13:34-35 *"A new command I give you: Love one another, as I have loved you, so you must love one another. By this all men will know that you are my disciples, if you love one another."*

Spiritual Discipline #2 - Bible Reading

READ: Psalm 19:7, 10, John 17:17, James 1:22-25

Group Question: What is the purpose of reading God's word?

(Answers should include the following: 'information' and 'formation.' **Information** provides directives and facts and helps with problem solving, illustrations for teaching. **Formation--** has to do with the dynamics of change in the human heart, change that reshapes us into the kind of people God intends for us to be.)[24]

When formation occurs, "personal behavior, relationships, and social structures will be affected quite inevitably for the better..." [25] "Paul exhorts his Christian converts in Rome, "Do not be conformed to this world, but be transformed by the renewing of your minds." (Rom. 12:2) In Paul's view, it is having the "mind of Christ" in ourselves that effects this transformation (Phil.2:5ff) **The term *formation,* then, suggests being shaped ever more deeply according to the mind of Christ, who reveals and offers to us our full humanity.** Spiritual reading has a formative intent. Through it we seek a living, transforming relationship with God-in-Christ."[26]

Group Question: How does one go about spiritual reading with Scripture? How should you read the Bible? (Teacher: allow students to give their answers.) (Note: this is not a class on hermeneutics)

1. Pray. Ask the Holy Spirit to guide you as you read the Bible.
2. Read it, plain and simple. Ask yourself the following questions, to help you understand what you are reading.

- Who is speaking? What is being said? Who was it written to? What do the verses and chapters before and after talk about? What other books of the Bible are written by the same author? What other Scripture talks about the same topic? What message is God giving to others? How is God revealed in this Scripture? What principles are applicable to us today? What commands are applicable today? These are just a few questions to ask. Can you think of any others?

3. Study it. Spending time together with other Christians reading the Bible can help prevent one from viewing Scripture from individual interpretations. As well, as a pastor or church leader, inform yourself of Scripture and the practices of hermeneutics, which is the science and art of biblical interpretation. Too often, the Word of God is mishandled and used to say things it never intended to say. Take great care. Pastors, you are the church's role model.
4. Application. Ask the Holy Spirit to speak to your heart. 2 Timothy 3:16 tells us "*All Scripture is God breathed and is useful for teaching, rebuking, correcting and training in righteousness, so that the man of God may be thoroughly equipped for every good work."* God is faithful. The Holy Spirit is our teacher and counselor. We need to read Scriptures, not just for head knowledge, but to transform us into Christ-likeness.

[24] Thompson, Marjorie J. Soul Feast, An Invitation to the Christian Spiritual Life, pg. 18
[25] Ibid, pg 18
[26] Ibid, pg 19

Group Question: Share just one time when the Holy Spirit brought to your heart a verse which either rebuked or directed you.

Spiritual Discipline #3 - Prayer

All throughout Scripture, we read numerous prayers, people talking to God and God talking to people. Whether through praises, cries, anger, questions, repentance, silence, pleas, pain, agony, adoration, thanksgiving, supplications or confessions—God invites us to commune with Him through prayer. Knowing that there is NOTHING that He doesn't already know, I can come to Him at any time or place and talk with Him. How God relates to us and how we in turn relate to God is expressed through prayer.

"Prayer expresses our relationship with God."[27] The Apostle Paul encourages us to 'pray without ceasing'. This reflects a life that is in step with the Holy Spirit and is in constant communication with God. Communication is two-way. It involves both listening (and on the part of the Christian in response to God, it means obedience) and speaking. **Listening**: In an age where life is busy, and there are many distractions, listening can be a challenge. Active listening involves listening with our heart, mind, soul and strength. It means obedience. (For example, if you are reading Scripture and the Holy Spirit convicts you of something, you need to respond with a repentant heart.)

Group Question: How does the Holy Spirit speak to us? (Teacher: answers should include: through a) Creation, b) Holy Scripture, c) others, d) situations, and e) dreams)

Group Question: How do you recognize the difference between false teachers (those who proclaim to be prophets) and true? How can you counsel church people who may say to you: "I had a dream and in it I was told to go to my neighbor's home and take his goat. I have been praying for a goat, so I am to take his goat when he is gone in the field."? (**Leader**: it is important to stress that all must be in agreement with Scripture, directly and indirectly, applying the principles of truth. If what is said contradicts the Word of God, then it cannot be from God. If someone counsels to do harm or evil to others, or reinforces behaviors or attitudes contrary to Christ-likeness, they are not reflecting the truth.)

In all, it is important to ask: "What I am hearing, is it in agreement with the word of God?" If there is any doubt or question, then it is wise to talk it over with someone who is mature in Christ and living a godly life. Thompson states that there is "one condition that precedes every kind of prayer, and that is being present to God with conscious awareness. God is always present with us, whether or not we can feel this reality. In a very real sense, then, the foundation of all prayer is being present to the presence of God."[28]

[27] Ibid. Pg. 32
[28] Ibid pg. 33

Speaking:

Group Question: What are different ways in which people speak to God?

Along with listening, speaking is a key component of prayer. It is vital to speak from a heart with unreserved honesty. "In prayer, we need to speak whatever truth is in us: pain and grief, fear and disappointment, yearning and desire, questions and doubt, hope and faith, failure and weakness, praise and thanks, despair and sorrow, anger and yes, even hatred."[29] Thompson goes on to say that trying to keep secrets from God is like a three year old child who covers her own eyes and says, "You can't see me!"[30] God is the one who searches our hearts and thoughts. The Psalmist in Psalm 139 expresses that very fact. When we speak with honesty and listen intently, the Holy Spirit 'awakens us to what lies hidden within—sometimes gently, sometimes with a jolt, but always so God can work with our conscious consent to free us for growth.'[31]

One method of approaching the speaking aspect of prayer: **A.C.T.S.**
A = ADORATION-- Exalting the Lord through our praises. Jesus taught us how to pray with adoration in His word found in Matthew 6:9 *"Our Father who is in Heaven. Hallowed be Thy name."* He is worthy of all our praise. He deserves our highest respect.
C = CONFESSION-- The awareness of God's holiness leads us to a consciousness of our own sinfulness (Psalm 139, 1 John 1:9, James 5:16).
T = THANKSGIVING—Col. 3:17, 1 Thess. 5:18
S = SUPPLICATION—intercession involving personal petitions as well as praying for others. Christ's example calls us to pray for one another.

Scripture is filled with prayer. Many of the verses reveal why some prayers are not answered. The fact is: God answers prayer. The answer may be "yes," "no," "later" or "not that way." God is holy and just. He is Sovereign and as Jesus prayed "Thy will be done ...," let this be our prayer as well, as we walk in obedience to God.

Spiritual Discipline #4 - Fasting

Fasting—"going without food or drink voluntarily, generally for religious purposes."[32] Historically, in Jewish tradition, fasting was done for the following reasons: personal or national repentance for sin, times of grief, times of distress, prior to battle, preparing oneself inwardly for receiving strength and grace to complete a mission of faithful service in God's name, to overcome temptation, and as a part of piety.[33]

[29] Ibid pg. 37
[30] Ibid pg. 37
[31] Ibid. Pg. 37
[32] Nelson's Illustrated Bible Dictionary, copyright 1086 by Thomas Nelson Publishers, pg.378
[33] Thompson, Marjorie J. Soul Feast, An Invitation to the Christian Spiritual Life pg. 69, 70

Scripture does not dictate to the believer how often one should fast, but it does say in Matthew 6:16 *"When you fast, do not look somber as the hypocrites do, for they disfigure their faces to show men they are fasting. I tell you the truth; they have received their reward in full."*

Group Question: What does fasting do? (**Leader**: answers should include the following: Ultimately, it reveals our need to acknowledge our dependency upon Christ.)

Spiritual Discipline #5 – Giving

Group Question: What do you think of when you hear the word 'giving'? (**Leader**: possible answers may include the following: money, personal resources, time, gifts, talents, heart...)

Job seemed to understand that all was from God. He said, *"Naked I came...naked I go."* Job 1:21. God is the Creator, we are the created. As His creation, we are his stewards. Stewards of the earth, the gifts and talents He has given us, time, resources, etc. It puts our life in perspective!

Group Question: What are some attitudes and or motives of giving? (**Leader**: possible answers may include the following: Attitudes--no giving, reluctant giving, conditional giving, unconditional giving, generous giving, Motives—personal recognition, manipulation, possible reward or reciprocation, purity of heart, generosity, obedience)

Give to the Lord what is rightfully His: Give your life. How? By loving God with all your heart, soul, mind, and strength, and loving one another. We are warned in Scripture that man cannot serve both God and money. If your desire and motive in life is to depend upon money and resources, then you have placed other 'gods' before God. Tithing and giving offerings is an act of obedience. Sharing with others in need is also an act of obedience. Using our gifts and talents to honor and serve God and others is an act of obedience.

Spiritual Discipline #6 – Hospitality

In both the Old and New Testament, we see acts of hospitality extended, often to complete strangers. It was a way of meeting another person's need for shelter or food after a long journey. We also see how hospitality was shown to others when they were welcomed into another person's home.

Hospitality begins with God. He welcomes us with love. In response, we have to receive that love. We, in turn, express hospitality to another by welcoming them into our lives. Welcoming one another shows concern for the well-being of another person.

Group Questions

1. In your culture and or community, how is hospitality shown? Share a time when you were shown hospitality in an unexpected way that met your needs.

2. How is hospitality shown to one another in the following places: a) home b) workplace c) community d) church?

3. Reflective question: How do you express love to others, either known individuals or strangers, in the act of hospitality? What hinders you from being hospitable?

Love is at the heart of hospitality. "As we learn to receive God's hospitality to us, we will become more hospitable to God, to each other, and to our fellow mankind. This will make us a different kind of community. Others will see something enticing in us. Perhaps they will even say, "See how they love one another!" [34]

Summary: Spiritual health/well-being. From a Christian perspective, a personal relationship with Jesus Christ as one's Lord and Savior is pivotal in spiritual health. We looked at the importance of spiritual formation (Christ-likeness being formed in a person) through various disciplines: Worship, Bible reading, Prayer, Fasting, Giving, and Hospitality. As pastors and church members, it is important to be role modeling these disciplines as well as teaching these disciplines to new believers and encouraging maturing believers. I would encourage you as a student to have at least one spiritual mentor/accountability friend. Pray for one another. Confess to one another. Encourage one another. Support one another in your spiritual journey.

Leader: Divide the class into four groups. Give each group one of the following scenarios and have them prepare their answers as a group. Once an acceptable time has been given to each group to discuss and complete their answer, have them present their assigned scenario to the entire class, with their response. They can 'act' out the scenario, showing both what has happened and what their response would be. As time permits, allow discussion time after each group's presentation.

Based on the information received on ATR review and spiritual well-being, (spiritual formation that contributes to spiritual well-being) present to the class how you would handle the following scenarios with practical solutions, using Biblical background and cultural sensitivity.

Scenario #1 - As a pastor, one of your elders, who is gaining profit from the woman performing juju, is encouraging other members to participate in it. Some members are doing it because they feel that God isn't answering their prayers. What will you do?

Scenario #2 - A member of your church died. You have been asked by the family to perform the funeral service at the family compound. Many of the deceased member's family

[34] Ibid. Pg. 135, 136

are not Christian. During the ceremony, four family members become very upset because traditional practice has not been performed at the graveside. What will you do?
Scenario #3 - You are ill and your family has taken you to the local traditional medicine doctor in the village. Besides giving you herbs, he has asked you to perform a specific ritual with the medicine before giving it to you. What will you do?
Scenario #4 - You are the pastor of a church where some of the people have asked you to go to a 'man with power' to receive an anointed white handkerchief. They claim that with it, people are being healed. They feel that you should get one. You know that some of the people in your church want to go to this man's church, which uses an anointed handkerchief. How will you counsel and encourage your people?

Evening Student Assignment: Read Matthew chapters 5-7. Open up your time by reading and praying the prayer that Jesus taught his disciples to pray. Meditate on each part of this prayer. Answer the following questions and hand them in tomorrow morning.
1. Explain how Matthew chapters 5, 6 and 7 challenge you to live your life with Christ at the center. Also, how is God interested in every aspect of your life, and not just the spiritual?
2. Describe how the Pharisees were 'religious' but how they were not godly.
3. As you meditated on the prayer that Jesus taught his disciples to pray, what part do you find the hardest?

Personal and Community Holistic Health: Social Well Being

Group Question: What is Social health, well-being?
Leader: Answers should include the following: It is the manner (activities, thoughts, attitudes, and actions) in which we interact with one another that contributes to the overall health of a person, or group of people. It is all about 'how we relate' to one another, therefore, it is all about **RELATIONSHIPS.**

We were made to interact with others. Genesis chapters 1 and 2 describe the creation story and how God made man and was in relationship with him. Next, he made woman to be man's helpmate and companion. The first family was formed!

Group Question: What are the purposes of being a family?
Leader: answers should include the following: procreation, help, protection, working together, friendship, teaching, love, fellowship, worship, obeying God, etc.

All Scripture is Relational: From Genesis to Revelation, scripture is a powerful story of God's love and calling of mankind to be in relationship with Him and as a result, in loving relationship with others. The first four commandments, found in Exodus 20, speak of

relationship with God. The next six commandments speak of relationship with others. You should continue to see the interconnectedness of every aspect of life.

A study was once performed with two study groups consisting of newborn infants. Each group had all their physical needs attended to (feeding, bathing, changing clothes). The difference was in Group 1. These babies were held when fed, talked to, sang to, and cuddled throughout the day. Group 2 babies were left in their bed, not spoken to and were given very little touch, only as needed for feeding and bathing. Each day the babies were weighed and the average weight gain was recorded. As the study progressed, it was noticed that the babies from one of the groups were not gaining weight. Their overall weight gain average was significantly lower and they also started to develop other physical problems. The study was ended to prevent further harm.

Group Question: Which group do you think gained more weight? Why?
Answer: group 1

The point in sharing this study with you is to emphasize the necessity of interaction in order to thrive. It has been said that some prisoners in solitary confinement for long periods of time go crazy. God created us to be in relationship with him and with one another.

Relationships:

With Christ: John 3: 16-18, 1 John 3:1
We are called to walk and talk with God. To live is Christ. We looked very specifically at disciplines that help us grow in healthy relationship with Christ. All other relationships will be affected by our relationship with Christ.

With Others:

Group Question: According to Mark 12: 30-31, what is the second greatest commandment? **Leader**: Love your neighbor as yourself.

Scripture provides direction on how we ought to treat one another. These are only a few verses, and you probably know of many more.
Leader: Divide the students into three different groups and assign each group the Bible verses. Ask each group to summarize their assigned verses in the ways we are to treat one another
Group 1: 1 Cor. 13: 4-7, Exodus 20:12-17, Matthew 7: 12
Group 2: Acts 4: 32-35, Romans 12:9-21, Romans 13:8-10, Romans 15:1-7, Galatians 5:16-26

Group 3: Galatians 6:1-5, 9-10, Ephesians 4:1-6, Ephesians 4: 25-32, Philippians 2:1-4, Colossians 3:12-17.

With Family
A) Husband and wife
Biblical directives on marriage:

Leader: assign Scripture to the 3 groups and ask them to summarize what is being said. Have the group present their answers and allow discussion time.
Group 1. Genesis 2: 20b-24, Exodus 20:14, 17
Group 2. 1 Cor. 7
Group 3. Colossians 3: 18-19, Ephesians 5: 22-33, 1 Peter 3: 1-7

There is one act that separates marriage from other relationships and that is sexual intercourse. We are going to spend some time looking at sexual health in the context of Biblical directives within the relationship of husband and wife. God created man and woman in His image. He gave them the directive to multiply, through the act of becoming one, through sex. Sexual desire was created and given to man and woman by God for the purpose of uniting the two and bringing forth new life. It is also a means of husband and wife sharing in the pleasure of one another, through sexual gratification.

Unfortunately, sin has corrupted this good gift from God. It is important to realize that it is not just the ungodly, secular people who get into trouble in this area, but also God's own people who are also tempted and fall if they do not take care. We are going to look at two stories, one taken from the book *Biblical Christianity in Modern Africa*, by Wilbur O'Donovan and one very familiar story taken from 2 Samuel 11:2-11, 14-17.

"One day Dana, the prayer group leader, planned an all-night prayer program for the youth in someone's home and advertised it well in advance. On the assigned evening, however, only one girl (Ayanti) came. They waited for a while for the others to arrive. When no one else came, Dana went ahead with his program. They were alone in the house, although it had not been planned that way. Dana read the Bible and shared with Ayanti. After this, they began to pray together about different matters. About midnight, Dana suggested that they should pray for one another by laying hands on each other. He began to pray, laying hands on Ayanti. During his praying, he began to caress her lovingly. After a while both of them were overcome with emotion and they began to kiss each other. Finally, they committed sexual immorality. Ayanti was overcome with guilt and went off to another part of the house and tried to commit suicide. Fortunately, Dana found her and prevented her from taking her life. This story took place in an African country and has something in

common with the following story from the Bible, which took place three thousand years ago."[35]

One evening David got up from his bed and walked around on the roof of the palace. From the roof he saw a woman bathing. The woman was very beautiful and David sent someone to find out about her. The man said, "Isn't this Bathsheba, the daughter or Eliam and the wife of Uriah the Hittite?" Then David sent messengers to get her. She came to him and he slept with her. Then she went back home. The woman conceived and sent word to David, saying, "I am pregnant." So David sent this word to Joab: "Send me Uriah the Hittite." And Joab sent him to David. When Uriah came to him, David asked him how Joab was, how the soldiers were and how the war was going. Then David said to Uriah, "Go down to your house and wash your feet." So Uriah left the palace and a gift from the king was sent after him. But Uriah slept at the entrance to the palace with all his master's servants and did not go down to his house. When David was told, "Uriah did not go home," he asked him, "Haven't you just come from a distance? Why didn't you go home?" Uriah said to David, "The ark and Israel and Judah are staying in tents, and my master Joab and my lord's men are camped in open fields. How could I go to my house to eat and drink and lie with my wife? As surely as you live, I will not do such a thing!"

In the morning, David wrote a letter to Joab and sent it with Uriah. In it he wrote, "Put Uriah in the front line where the fighting is fiercest. Then withdraw from him so he will be struck down and die." So while Joab had the city under siege, he put Uriah at the place where he knew the strongest defenders were. When the men of the city came out and fought against Joab, some of the men in David's army fell; moreover, Uriah the Hittite died. (2 Sam. 11:2-11; 14-17)

Both of these stories tell of the enormous power of sexual desire and sexual temptation.

Group Question: In both of these stories, do you think that the people involved had planned before the situation occurred to commit sexual immorality (sex before marriage) and adultery? (**Leader**: probably not)

Group Question: What went wrong in both stories? What could have been done to avoid sinning? Scripture talks about premarital sex: 1 Cor. 6:18 and 1 Thess. 4: 3-6 (have someone read these verses)

Group Question: What are the risks of premarital sex? (Leader: Answers should include the following--guilt, depression, sexually transmitted disease, loss of sexual purity, possible pregnancy, abortions, feeling 'used,' shame, infertility due to STDs.)

[35] O'Donovan, Wilbur, Biblical Christianity in Modern Africa, Published by Paternoster Publishing 2000, pg. 74-75

We will be learning about diseases that are spread through sexual contact, later on in the course. ****To those who have committed premarital sex, there is good news in the Gospel of Christ. 1 John 1:9*** (note: forgiveness and cleansing of unrighteousness may not take away the life consequences of the act of sin.)*

Strategies For Sexual Purity (pre-marriage, marriage, post marriage, includes those who are widowed and or divorced.)

Group Question: What practical things can people do to protect sexual purity of body and mind?
Leader: Answers should include the following:
1. Commitment to Christ and controlled by the Holy Spirit. (One of the fruit of the Spirit is self-control Gal. 5:23)
2. Be on guard. The devil is sly, cunning and deceitful. James 4:7, Eph. 5:3, 1 Peter 5:8-9, 2 Cor. 10:5, Romans 12:2

- Pray
- Discipline your eyes in what you allow them to see. Job 31:1 says, "I made a covenant with my eyes not to look lustfully at a girl."
- Physically leave the place of temptation.
- Avoid sexually explicit films, videos, music, pictures, books, internet sites, etc.
    - Pornography is rampant in today's society. It may be defined as anything that is used for the purpose of stimulating people sexually. Sexual sin is rapidly becoming one of the most deadly realities of modern Africa. It is considered one of the most powerful addictions known to man.

3. Determine ahead of time what situations you choose to avoid and a strategy or plan to effectively deal with temptation when it comes.

Group Question: What are some practical measures for both single and married people in avoiding temptation? (Consider those who are dating and those not dating as well).

4. Discuss cultural pressures with regards to 'delaying' marriage because of high bride price, cost of wedding, etc. There are no exceptions in the Bible for pre-marital sex.

Group Question/Scenario: In your family, it is very important for married women to bear children. If a wife is not bearing children, there is much pressure on the husband to take another woman to bear children to avoid shame and embarrassment. How as a church and a leader can you encourage this husband and wife, according to Scripture?

Helps For Protecting A Marriage:
1. Fulfill your part in satisfying your spouse, unless equally agreed upon abstinence. Respect one another, being kind and gentle, honoring one another at all times.

2. Communicate and understand the needs of each other.
3. Guard your eyes, thoughts and actions towards other women/men. Protect your spouse from any doubts or jealousies. Avoid, if at all possible, being alone in a very private area with the opposite sex. Keep yourself blameless and pure in body, mind and spirit.

Relationship Between Parent(s) and Child(ren)
Group 1: Exodus 20:12
Group 2: Ephesians 6:1-4, Colossians 3:20-21
Group 3: Proverbs 22:6
Ask each group to summarize these references with regards to relationship between parent and child.

Group Question: What is the difference between discipline and abuse?
Questions to ask yourself in regard to discipline:
1. Why?
2. What? What I am hoping to achieve by this discipline?
3. How? How can I best discipline this child for this time and reason? Each child is different and responds differently to situations.

Important aspects to remember when 'training up a child'
1. Set a godly example. Your actions will speak louder than your words.
2. Be consistent.
3. Be merciful. Children and youth are in the process of growing up and need direction and wisdom. Remember how patient God is with you!

We have briefly looked at Scriptural directives for building healthy relationships with family and others. Satan desires to sever relationships between you and God, as well as between others. We are going to spend some time looking at how to restore broken relationships with others and how to resolve conflict, as much as it depends on you.

Group Question: Generally, what are some of the causes of broken relationships? (**Leader**: Answers should include the following--selfishness, pride, envy, jealousies, unforgiving spirit, resentment, bitterness, un-confessed sin, irritability, criticism, gossip/slander, judgmental attitude, lack of understanding, misunderstandings, unfaithfulness and others.) Some Scriptural references for you to look up on your own time are: James 4:1-2, John 13:34, Matthew 5:9

In Rick Warren's book, *The Purpose Driven Life*, he states that "because you were formed to be part of God's family and the second purpose of your life on earth is to learn how to love and relate to others, peacemaking is one of the most important skills you can

develop." He goes on to say, peacemaking is not avoiding conflict, running from it, or pretending it doesn't exist, nor is it appeasement (always giving in).[36]

Warren lists **7 Biblical Steps to Restoring Fellowship**. They are as follows:

1. Talk to God before talking to the person

Remember James 4:1-2. Ask the Holy Spirit to search your heart. Ask yourself these questions: How do I honestly view the situation? What is my attitude? What are my expectations in this situation? Are they realistic or unrealistic?

2. Take the initiative in resolving conflict.

-Matthew 5:23

-If anger is involved, remember Eph. 4:24-27.

-We are called to a life of obedience to Christ in everything (are you serious about your walk with Christ?)

3. Sympathize with their feelings. 'Use your ears more than your mouth.'

Note: Feelings are feelings and they may not always reflect the truth of the matter. Everyone owns their own feelings, valid or not. So hear another person. Don't belittle the way they feel or deny them their feelings.

4. Confess your part of the conflict.

There may be a need to talk to a spiritually mature third party to help you evaluate your own actions before meeting with the person with whom you have a conflict with. This takes maturity and an open spirit to hear and to take responsibility for your own behaviors/attitudes. WARNING: There is never room for gossip or slander, so take great care. The purpose of speaking to another party is to gain a clearer understanding of your responsibility and downfalls in a conflict; it is not to gain support for your argument. The whole point in reconciliation is to restore broken relationship.

5. Deal with the problem; don't attack the person (with words or actions!)

There is often a tendency to be creatures of 'blame.' Yes, the problem needs to be solved and a good place to start is together seeking the Lord for His wisdom and direction. At times, one may have to agree to disagree and work it out.

Now, let's look at **some Biblical directives on good communication skills**.

Group 1: Prov. 15:1, Prov. 21:23

Group 2: James 1:19-20, Ephesians 4:29

Group 3: Colossians 4:6

Active listening--means to not only hear the words that are spoken, but also to strive to understand what they mean to the speaker. There are some techniques that can help you to gain understanding. A) Clarifying: "are you saying...?" B) Repeating: i.e. "I'm mad!"

[36] Warren, Rick, The Purpose Driven Life pg. 153

Repeat... ”You are mad?” Or “What are you mad about?” C) Rephrasing or restating in your own words what you think the person is saying.

6. Cooperate as much as possible: Romans 12:18 “If it is possible, as far as it depends on you, live at peace with everyone.” (Keep in mind Romans 12:1-2). As well, in situations where the other person is not walking in the ways of the Lord, your first allegiance is to God.

7. Emphasize reconciliation, not just resolution.

Rick Warren states it is unrealistic to expect everyone to agree about everything. Solutions to problems still need to be found, though in a spirit of peace, as much as it depends upon you.

(These Seven Points and Thoughts were taken from *The Purpose Driven Life*, chapter 20)

Social relationships take place in areas other than home, with family and friends. They take place in every aspect of our life. Work and educational institutes play a significant social role in our lives.

Let us look at some **Biblical directives that would help the Christian to live a godly life in their places of work and if applicable, educational settings.**

Group 1: Colossians 3:23, Exodus 20:15

Group 2: Ephesians 4:28, Prov. 11:1

Group 3: Mal. 3:5, Exodus 23:8

Leader: Have groups summarize these verses, applying them to practical aspects of the workplace and education. Note: ask students, “How do people steal from work?” (Products, time) Note: Funk and Wagnall’s standard College dictionary defines a bribe as: “any gift of fee used to gain or influence public or official action.”

Group Question: Is it fair to conclude, if we are not to accept a bribe, we should not offer one either? As a follower of Christ, integrity in the work place and educational institutions is pivotal to a positive Christian testimony. (Integrity: uprightness of character, honesty)

Our social well-being is reflected through relationships. How we treat others is rooted in their worth and value of how God views them. God desires relationship with man and paid a heavy price for our sin, making a way to restore the broken relationship because of sin. The result of broken relationships can bring isolation, loneliness, anger, stress, which can play a major role in physical illnesses as well. Loving others is part of loving God. We can make a big difference in our families, friends and community by living a life that is obedient to God. Lives are transformed when Christ is at the center. Social health and well-being thrives when Christ is at the center of relationships.

Leader: Divide the class into their groups and have them discuss the following scenarios. As a pastor or Christian lay leader, how can you respond to the situation?

Scenario #1 - One your church members has come to you and confessed that he has been having sexual relations with a young girl in the village. He is sorry for his behavior but has now found out that she is pregnant. His wife doesn't know about it and the young girl's family is demanding her to tell them who the father is. There are lots of tensions because one of the girl's uncles is a church board member. How will you counsel this man? How will you encourage Christ-like behavior following sin and the consequences of it?
Scenario #2 - Following a church service, you notice one of the members taking money from the offering box and putting it in a pocket. The next Sunday, you notice that person has a new phone and you become angry. How will you deal with this situation?
Scenario #3 - You notice that one of your neighbor's children always seems to have bruises on his legs and arms. At night time, you hear yelling and crying. When you ask the child if they are okay, he always drops his head and quietly says "Yes". You are not convinced. How can you become involved in a positive and culturally acceptable way and minister to both the family and the needs/protection of this child?

Personal and Community Holistic Health: Physical Well-Being

As we keep in mind the definition of health from the perspective of growth, (something that is always changing) let us remember that our physical well-being is interconnected with our spiritual, social, and mental/emotional well-being. For example, if a person is an alcoholic, it is likely that this will affect their social well-being: relationships with family, friends, workplace, etc; their mental/emotional well-being, and their spiritual well-being. It definitely has a direct affect on their physical well-being. God desires that we take care of the body that he gave us to the best of our ability and for His honor.

In this section, we will be examining healthy life choices and how to prevent common diseases. A very brief overview of anatomy and physiology will be presented. We will look at the definitions of infectious and non-infectious disease.

The number of diseases and infections that man can experience are too vast to mention. We will be looking at a few common diseases and infections that occur in sub-Saharan Africa. The purpose of this section is to stress life choices that promote health and prevent disease. You can make a significant difference in your home and community by being a role model of healthy life choices and taking the opportunity to teach others these very basic life style practices.

As Christians, our body is considered the temple of the living God. His Holy Spirit dwells within and we need to be good stewards of the body He has given us. It is important to understand how the body works, so let us look at Normal ANATOMY (structure of the body) and PHYSIOLOGY (how the body functions).

Leader: See next two pages which give an overview of body systems, components (parts) of that system, and the function of the system.[37](Tortora and Grabowski, *Principles of Anatomy and Physiology*, 9th Edition, pg. 5, copyright 2000 by Biological Sciences Textbooks, Inc and Sandra R. Grabowski)

Leader: Students will be writing words into their "overview of anatomy and physiology" chart found in their workbook. Please refer to the chart below and the words (in **bold** letters) that students need to write into their chart in their student workbook.

[37] Tortora and Grabowski, Principles of Anatomy and Physiology, 9th Edition, pg. 5 Copyright 2000 by Biological Sciences Textbooks, Inc. and Sandra R. Grabowski.

Integumentary System	**Skin, hair, nails, sweat and oil glands**	Protects body; helps regulate body temperature, eliminates some wastes; helps produce vitamin D; detects sensations, such as pain, touch, hot, and cold
Skeletal System	**Bones** and **joints** of the body and their associated **cartilages**	Supports and protects body; aids body movement; houses cells that give rise to blood cells; stores minerals and lipids (fats)
Muscular System	Muscles composed of **skeletal muscle tissue**, so named because it is usually attached to bones	Produces body movements; such as walking; stabilizes body position (posture), generates heat.
Nervous System	**Brain, spinal cord, nerves,** and special sense organs, such as **eye** and **ear**	Uses nerve impulses to regulate body activities; detects changes in body's internal and external environment, interprets the changes, and responds by causing muscular contractions or glandular secretions**.**
Endocrine System	Hormone-producing cells and glands, such as **pituitary gland, thyroid gland and pancreas**	Regulates body activities by releasing hormones, which are chemical messengers transported in blood from an endocrine gland to a target organ
Cardiovascular System	**Blood, heart, and blood vessels**	Heart pumps blood through blood vessels; blood carries oxygen and nutrients to cells and carbon dioxide and wastes away from cells and helps regulate acidity, temperature, and water content of body fluids; blood components help defend against disease and mend damaged blood vessels.
Lymphatic and Immune System	Lymphatic fluids and vessels; also includes structures or organs that contain large numbers of white blood cells called lymphocytes, such as spleen, thymus, lymph nodes, and tonsils	Returns proteins and fluid to blood; carries lipids (fats) from gastrointestinal tract to blood; are sites of maturation and proliferation of lymphocytes that protect against disease causing organisms (germs such as bacteria, viruses)
Respiratory System	**Lungs** and the airways leading into and out of them	Transfers oxygen from inhaled air to blood and carbon dioxide from blood to exhaled air; helps regulate acidity of body fluids; air flowing out of lungs through vocal cords produces sounds

Digestive System	Organs of gastrointestinal tract, a long tube that includes the **mouth, esophagus, stomach, intestines** (small and large) and **anus;** also includes accessory organs that assist in digestive processes, such as the salivary glands, liver, gallbladder, and pancreas	Achieves physical and chemical breakdown of food; absorbs nutrients; eliminates solid wastes.
Urinary System	**Kidneys, ureters, urinary bladder, and urethra**	Produces, stores, and eliminates wastes and regulates volume and chemical composition of blood; maintains body's mineral balance; helps regulate red blood cell production
Reproductive System	Gonads **(testes** or **ovaries)** and associated organs**; uterine tubes, uterus,** and **vagina** in females **and epididymis, ductus deferens,** and **penis in males.**	Gonads produce gametes (sperm or ova) that unite to form a new organism and release hormones that regulate reproduction and other body processes; associated organs transport and store gametes.

Known causes of infectious diseases:
Before we examine practices that promote health and well-being for our physical bodies, we need to understand the principles behind infectious and non-infectious diseases.

Group Question: What are some popular beliefs in your area about the cause of different diseases? (**Leader**: if the students need help for ideas, give some examples such as the following: "Apollo" (Ghanaian term used for "pink eye")--if you look at a full moon, you will get a red, sore eye, or if you look at someone who has red, sore eyes, you too will get it. If you touch the whiskers of a cat, you will get T.B. If you suddenly get sick, someone who hates you has had a curse placed on you.) **Leader**: discuss these and how ATR may or may not play a role in these. Note: Many diseases have very scientific and logical, natural explanations. This does not rule out the fact that some illnesses may result because of evil spirit oppression. Much care and wisdom needs to take place when dealing with those who have an illness.

Group Question: As a Christian (layperson or pastor leader), how can you minister to one who is afflicted with any sort of illness? (**Leader**: help direct the discussion, based on Biblical truth and compassion. At this point in the class, you are not looking for specific answers, i.e. treatments and cures, but you are looking at principles.)

Use this Story as an example to prompt discussion:

While visiting a small village church during a Sunday morning worship service, a young woman was seated all by herself. Her left lower leg was swollen and had a large open ulcer (sore). No one sat beside her. No one talked to her, yet she was a church member. The pastor and a couple of the members of the church had been trained in community health. After the service, the pastor was asked about this woman and if anything was being done to help her. His response was "No," people think she is possessed by an evil spirit.

Group Discussion: What do you see happening in this story? How do you think the church should respond/minister to this woman? What do you think were some needs of this woman?

Infectious and Non-infectious disease: **Definitions**

Infection: a sickness caused by bacteria or other germs. Infections may affect part of the body only (such as an infected finger) or all of it (such as measles).

Infectious disease: A disease that is easily spread or communicated (passed from one person to another), contagious.

An infection or infectious disease results when germs enter the body and affect one or more organs. Germs are present everywhere: in the air, in our homes, in our place of work, in our mouths and digestive tracks, on the ground, etc. Many germs either do not cause disease or are destroyed by the body's immune system upon entering the body. Infectious diseases may range from a very mild infection, such as a common cold, to one so severe that it can cause death, such as HIV infection, T.B., malaria, etc. The body's immune system is our weapon against fighting infection.

The skin is the body's first line of defense against germs. Germs can also enter the body through our nose or mouth. Sexually transmitted germs enter the body through the openings of the genitalia (penis/vagina) or rectum. Once the germ is in the body, the only natural defense is the body's immune system. Cells called leukocytes attack the germ. When a person's body is healthy and their immune system is strong, it can overcome and destroy most germs. A person may feel feverish and tired when our immune system is fighting an infection. A person may also experience muscle aching and weakness, pains in their joints, cough, vomiting or nausea, and headache. In the very young, elderly, ill or people with weak immune systems, a germ may multiply faster than the body can fight it; this can lead to a serious infection or death.

When Do Infectious Diseases Happen?

In order for an infectious disease to occur:

1. The germs must be present.

2. The germs must enter the body either through the skin (often broken skin), mouth, nose, genitalia, and rectum and/or through your own blood. Some germs are very specific

in how they infect and we will be looking at some common infectious diseases and their mode of infecting.
3. The person must have a weak natural immune defense. (Their body is too weak to fight the infection)
4. There needs to be enough germs present in the body to cause disease.

Some germs have very specific means of spreading to others. Here are four different ways
1. Direct contact. This means that the germ comes into direct contact with a person when a he or she touches body fluids that contain a germ from an infected person. Body fluids include blood, vomit, saliva and secretions from the eye, penis, vagina, urine, feces.
2. Indirect contact. When body fluids from an infected person are on objects and another person comes in contact with that object, and the germ enters their body, they can become infected. Some germs (e.g. HIV) can only live a short time outside of the human body. Some germs can live a long time. Examples of indirect objects: food, drink, water, instruments, handles, clothing, bedding, etc.
3. Germs spread by the air. An airborne germ is transmitted (spread) when someone breathes out germs and you breathe them in. Usually the germs are present in tiny droplets that an infected person coughs or sneezes out from up to three feet from your face.
4. Vector transmission: Some germs can be spread if an animal or insect is carrying the germ and they bite you or enter your skin.

Healthy Hygiene Practices: Personal, Community, and Environment

Group Assignment: Divide and Assign the following categories to groups. Each group is to identify healthy hygiene practices for personal, community, and environmental health.
Leader: The points below each category should be mentioned, so add them if the students fail to do so.
Groups: 1) Personal cleanliness, **2**) Home cleanliness, **3**) Food preparation area/cooking/eating cleanliness, **4)** Clean drinking water, **5**) Sanitation: private and community environment, **6**) Living area cleanliness.
Leader: Allow approximately 10 minutes, or less time if they complete the assignment. Have each group present their answers to the rest of the class. Add any points mentioned below, from their assignment number, if missed.

1. Personal cleanliness:

- Wash your hands with soap and water when you get up in the morning, after having a bowel movement and before eating and/or preparing food.
- Bathe regularly. This can help prevent skin infections, dandruff, itching, and rashes. Sick persons, including babies, should be bathed daily.

- Where footwear. It protects the feet. As well, in areas where hookworm is common, do not go barefoot or allow children to do so. Hookworm infection causes severe anemia. These worms enter the body through the soles of the feet.
- Brush your teeth at least two times a day. Avoid sticky sweets. Brush your teeth after eating sticky sweets/candies.

2. Home cleanliness:

- Animals are better left outside, especially livestock, and dogs/cats that are not well looked after.
- Do not let dogs lick children or climb up on beds. Dogs, too, can spread disease.
- If children or animals have a bowel movement near the house, clean it up at once. Teach children to use a latrine or at least go farther from the house. Teach everyone to use the latrine.
- Hang, or spread bedding and blankets in the sun often. If there are bedbugs, pour boiling water on the cots and wash the sheets and blankets—all on the same day.
- De-louse the whole family if lice are found. Lice and fleas carry many diseases. Dogs and other animals that carry fleas should not come into the house.
- Do not spit on the floor. Cover your mouth with the inside of your elbow during a sneeze or cough. Or use a handkerchief. Be sure to wash your hands before handling food and eating.
- Clean the house often, sweeping, dusting, and washing. Fill in cracks and holes in the floor or walls where roaches, bedbugs, and scorpions can hide.
- Kill mice or rats that may enter your house.
- Store any items that are poisonous in a safe and secure place away from small children. This includes kerosene, medications (if taken in larger amounts, can be toxic), cleaning liquids, rat/mouse poison, insect sprays. etc.

3. Food Preparation area/cooking/eating area:

- Do not let flies and other insects land or crawl on food. These insects carry germs and spread disease. Do not leave food scraps or dirty dishes lying around, as these attract flies and breed germs. Protect food by keeping it covered or in boxes or cabinet with wire screens.
- Before eating fruit that has fallen to the ground, wash it well. Do not let children pick up and eat food that has been dropped—wash it first.
- Only eat meat and fish that is well cooked. Be careful that roasted meat, especially pork and fish, do not have raw parts inside. Raw pork carries dangerous diseases.
- Chickens carry germs that can cause disease. Wash your hands after preparing chicken before you touch other foods. As well, wash the area where you were preparing the chicken before you prepare other food items on it.
- Drink only cow's or goat's milk that has been boiled or pasteurized. In areas where brucellosis (undulant fever, Malta fever) is a problem, it is safer not to eat cheese

made from un-boiled milk. (Brucellosis is a disease caused by bacteria that comes from drinking fresh milk from **infected** cows or goats. It may also enter the body through scrapes or wounds in the skin or persons who work with sick cattle, goats or pigs or by breathing it into the lungs).

- Do not eat food that is old or smells bad. It may be poisonous. Do not eat canned food if the can is swollen or squirts when opened. Be especially careful with canned fish. Also, be careful with chicken that has passed several hours since it was cooked. Before eating left-over, cooked foods, heat them again, very hot. If possible, give only foods that have been freshly prepared, especially to children, elderly people, and very sick people.
- People with tuberculosis, flu, colds, or other infectious diseases spread by secretions/ feces should eat separately from others, not eating out of the same bowl until they are better and no longer infectious. Plates and utensils used by sick people should be boiled before being used by others.
- Keep young children away from the fire.
- Store sharp knives away from young children.
- Keep the area free from garbage (keeps the flies away).
- Have water available for washing hands.
- Air dry dishes then put away when they are dry.

4. Drinking water:

- Ideally all water that does not come from a pure water system should be boiled, filtered, or purified before drinking. This is especially important for small children and at times when there is a lot of diarrhea or cases of typhoid, hepatitis, or cholera. Not everyone can afford to purchase bottled water on an ongoing basis, nor do they have the fuel (wood/coal/cooking gas) to constantly boil water. A good, low-cost way to purify water is to put it in a clear plastic bag or clear bottle and leave it in direct sunlight for a few hours. This will kill most germs in the water.
- Keep wells and public water holes clean. Do not let animals go near where people get drinking water. If necessary, put a fence around the place to keep animals out.
- Do not defecate (shit) or throw garbage near the water hole. Take special care to keep rivers and streams clean upstream from any place where drinking water is taken.
- Rainwater collection and protection. Sand filters, protected wells
- Flooding has a great potential of contaminating water, so much care must be taken.
- To help prevent disease it is important to have enough water to drink. (We will be discussing diarrhea and dehydration treatment in another section).

5. Private and public cleanliness (sanitation) plays a very important role in controlling diseases.

- Burn all garbage that can be burned. Garbage that cannot be burned should be buried in a special pit or placed far away from houses and the places where people get drinking water. Follow public sanitation health recommendations in your community.
- Build latrines (out-houses, toilets) so pigs and other animals cannot reach the human waste. A deep hole with a little house over it works well. The deeper the hole, the less problem there is with flies and smell. (See handout in Student workbook for pictures. WTND pg 137-139)
- Latrines should be built at least 20 meters from homes or source of water.
- If you do not have a latrine, go far away from where people bathe or get drinking water. Teach your children to do the same.
- Some people will defecate (shit) in a waterproof plastic bag and then toss it in a public area. This will attract flies, animals, and carry disease. This is not a good practice.

6. Living areas: Work to decrease the spread of malaria and other mosquito-spread diseases (Yellow Fever, Dengue Fever).

- Malaria occurs more often during hot, rainy seasons. If everyone cooperates, it can be controlled. All these control measures should be practiced at once.
- Avoid mosquitoes. Sleep where there are no mosquitoes or underneath a net or light sheet. Cover a baby's bed with a mosquito netting or thin cloth. Netting treated with insecticide works best.
- If there are malaria control workers in your village, cooperate with them. Tell them if anyone in the family has had fevers and let them take blood for testing.
- Destroy mosquitoes and their young. Mosquitoes breed in water that is not flowing. Cover pots or water holding containers with lids.

Nutrition: Healthy Eating for a Healthy Body

A healthy body relies on healthy eating. Good food is needed for a person to grow well, work hard and stay healthy. Many common sicknesses and diseases come from not eating proper foods. A person who is weak or sick because he does not eat enough, or does not eat the foods his body needs, is said to be poorly nourished---or malnourished. He suffers from malnutrition.

Leader: Read the following scenarios, one at a time, and then discuss the questions with the students.

Scenario #1 - Following a church service in a small village a child that looked around two years of age was observed. The child had a much distended stomach and his arms and legs

were thin. Concern was expressed about the appearance of this child and the pastor was asked if the family was poor. The pastor responded, no. He said that the child only ate cassava and refused to eat any other foods. The village was rich in cassava, fruits, chicken, goats, good water, dried fish, yams, etc.
Group Question: What appearances were abnormal in this child? What did this child lack?

Scenario #2 - Following a church service in a small village, you were taken to a compound of a farmer who lived less than a five minute walk from the church. As you entered the compound, there was a child around the age of 9 years who sat very still and was holding his arm. You examined the child and noticed he had a large open sore on his arm. The child was in a lot of pain. The father said he had fallen off his bike and broke his right arm two weeks ago. The child was thin. He was not eating, because it was his right arm and he could not use it and no one else feed him. The child was in a serious way.
Group Question: Besides needing medical treatment for his broken arm, what were the other needs of this child? How could a church that was close to this family help? What type of foods did this child need to heal?

Student workbook: Handout--**Main Foods and Helper Foods/ Eating Right to Stay Healthy**. (Taken from *Where There is No Doctor: A Village Health Care Handbook* by David Werner pg. **110-111**). **See back of leader's workbook** for this information to cover with students. (pages 110-111 of copied book page; copied with permission).

Sickness caused by not eating well (Werner 107).
Many common sicknesses come from not eating enough or not eating well. Poor nutrition can result in the following health problems:

In children:
- Failure of a child to grow or gain weight normally
- Slowness in walking, talking, or thinking
- Big bellies, thin arms and legs
- Common illnesses and infections that last longer, are more severe, and more often cause death
- Lack of energy, child is sad and does not play
- Swelling of feet, face, and hands
- Thinning, straightening, or loss of hair, or loss of its color and shine
- Poor vision at night, dryness of eyes, blindness

In anyone:
- Weakness and tiredness
- Loss of appetite
- Anemia

- Sores in the corners of the mouth
- Painful or sore tongue
- 'burning' or numbness of the feet

Poor nutrition during pregnancy causes weakness and anemia in the mother and increases the risk of her dying during or after childbirth. It also affects the health and development of the fetus in the mother's womb.

Eating right helps the body resist sickness (Werner 108)
Not eating well may be the direct cause of the health problems. But most important, poor nutrition weakens the body's ability to resist all kinds of diseases, especially infections.

- Poorly nourished children are much more likely to get severe diarrhea, and to die from it, than are children who are well nourished.
- Measles is especially dangerous where many children are malnourished.
- Tuberculosis is more common and gets worse more rapidly, in those who are malnourished.
- Cirrhosis of the liver, which comes in part from drinking too much alcohol, is more common and worse in persons who are poorly nourished.
- Even minor problems like the common cold are usually worse, last longer, or lead to pneumonia more often in persons who are poorly nourished.

Eating right helps the sick get well.
Not only does good food help prevent disease, it helps the sick body fight disease and become well again. So when a person is sick, eating enough nutritious food is especially important. Unfortunately, some mothers stop feeding a child or stop giving certain nutritious foods when he is sick or has diarrhea—so the child becomes weaker, cannot fight off the illness, and may die. *Sick children NEED food!* If a sick child will not eat, encourage him to do so. Feed him as much as he will eat and drink. And be patient. A sick child often does not want to eat much. So feed him something many times during the day. Also, try to make sure that he drinks a lot of liquid so that he pees (passes urine) several times a day. If the child will not take solid foods, mash them and give them as a mush or gruel.

Often the signs of poor nutrition first appear when a person has some other sickness. For example, a child who has had diarrhea for several days may develop swollen hands and feet, a swollen face, dark spots, or peeling sores on his legs. These are signs of severe malnutrition. The child needs more good food and more often. Feed him many times during the day.

Leader: It is important to stress the fact that proper, healthy nutrition is important for every age, including when a woman is pregnant. If this is stressed, you are truly promoting healthy lifestyles. Give the students opportunities to discuss how they can promote healthy nutrition in their own families, as well as in their church family, and community. Avoiding

unhealthy choices, such as alcohol, tobacco, and illegal drugs also contributes to proper health. As well, if people have little money and want to help their child or themselves grow strong, avoid spending money on minerals or sweets. Buy eggs or a handful of nuts or other nutritious foods instead.

Group Question: When people do not have extra money for expensive medications, how can proper nutrition help meet the needs of the body? (Note to leader: There are times when a person does need extra vitamins and minerals to help counteract the negative effects of some infections such as malaria, for example, but encourage students to recognize that there are chemists and herbalists that recommend medications and or herbs at high prices that can be purchased at lower costs, or better yet, met through proper nutrition.)

Evening Student Assignment: Read copied pages 116-118 and 120-122 (Werner) and answer the following questions, based on the information presented in these pages and from the lecture. Hand this in tomorrow morning.

1. Record what you normally eat during a one week time period. What does your diet lack? Why?

2. You observe in your community very young children who just eat bread and cassava. They are small for their age and seem to be sickly. How can you or your church minister to these children and their families? (Think about educational programs and possibly compassionate ministry outreach)

Leader: See back of leader's book for pages 116-118, 120-122. You do not have to teach this material. It is part of the student's homework, but you will have to refer to it as you correct their assignment.

HIV/ AIDS

Group Discussion: In your communities, how do people respond to those who are known to be HIV positive?

I. WHAT IS HIV INFECTION? (Write on chalkboard: HIV)

Human Immunodeficiency Virus

Human: The virus only lives in humans and not in animals, insects, water, or the air.

Immunodeficiency: The virus causes the immune or defense system of the body to be less effective in protecting from diseases.

Virus: The HIV virus is extremely small and cannot be seen by the naked eye. Once the HIV gets into your blood, you cannot remove it.

Immune System: Blood is made up different parts: RBC, (red blood cells), plasma and WBC (white blood cells). It is in the WBC and lymphatic system that we find cells that were

made to fight against agents that are not normally a part of our bodies (For example: many types of bacteria, viruses, fungus and parasites). Within the WBC are different types of cells, with different and very specific jobs. One of these cells is called the T-cell. The T-cell is also divided into 3 different types of T-cells, and it is the 'helper-T-cell' that the HIV attacks. Normally, when a person is infected by something, a healthy body will respond by attacking it and destroying it. It is like the wall of a house that protects the people inside from various kinds of enemies.

After the immune system is attacked by HIV, the wall of protection begins breaking down. At first, the infected person:

- shows no signs of being sick
- is generally healthy
- is a carrier (HIV positive, which I will explain after)
- can give HIV to others
- can stay healthy for 2-10 years.

Effects on the Body:

When the Immune system is destroyed, the body can be attacked by different kinds of diseases, such as tuberculosis, pneumonia, and cancer. This is what happens:

1. The virus multiplies
2. The immune system is weakened, and destroyed
3. The person develops serious illnesses
4. The person becomes an AIDS patient
5. The person dies.

How is HIV spread? HIV is spread from one infected person to another person through these following ways:

1. Through penetrating sex with an infected partner. (Virus is found in semen, vaginal fluids).

2. From an infected pregnant mother to the unborn or newly born baby (can be passed to the baby in the womb, during the baby's birth, or by breast milk)

3. Through infected blood: Infected blood is passed from one person to another in several ways:

a) Blood transfusions: If you need a blood transfusion, it is IMPORTANT that the blood to be received has been tested.

b) Injections: intravenous drug users sharing needles, dirty, used needles in facilities that may not follow healthy practices.

c) Skin cutting and piercing instruments. (Needles, razors that are infected)

How HIV is NOT spread

- It is not spread through mosquito bites
- It is not spread through shaking hands

- ❖ It is not spread through social contact (i.e. playing sports, etc.)
- ❖ It is not spread through sharing plates or cups
- ❖ It is not spread through sharing toilets or bathrooms.

**** *HIV is a virus. It is not a sin*. How one gets the virus may or may not be the result of a sin. (In this story, adultery is the sin.) **Consider this story**: A young virgin woman who is HIV negative marries. Her husband is also negative. He gets a job traveling, and has sex with another woman who is HIV positive. He becomes infected. He then has sex with his wife. She becomes infected. Two years later, she gives birth to a baby who becomes infected. Has the wife or the baby sinned? No.

Testing, Treatment, and Cure?

1. **Testing**: HIV is tested through a blood sample, at a facility that is knowledgeable, has the proper equipment for testing, and the skill to interpret the results. There is what is called a 'WINDOW OF TIME,' time it can take for a test to show "positive." A positive test result means that you have HIV. From the time of infection up to 3 months, a person may show "negative" in a blood test.
2. If you are showing symptoms (I will discuss these shortly) and fall into a category which may put you at risk, it would be wise to have a test done for your sake and the sake of others.
3. **Treatment**: There are drugs available which are called Anti-retroviral drugs. The effect of the drugs is to help the body build up its immunity, so that it can fight against diseases. It is a combination of a few drugs that have to be taken consistently at regular times of the day/night.
4. **Cure?** No. There are no vaccines, or known cures at this time for destroying HIV. Once you have it, you have it—unless God cures you!

II. What is AIDS? (Write it on the board)

- ➢ **Acquired**: means that which is received from someone else.
- ➢ **Immune**: means protected or defended
- ➢ **Deficiency**: means that which is less than it should be
- ➢ **Syndrome:** means a group of signs and symptoms

Remember: HIV destroys the body's defense system and this opens the door for many diseases to occur, that would normally be fought against.

SIGNS AND SYMPTOMS that a person who is HIV infected can show.
REMEMBER: It is possible that a person may remain symptom free for 2-10 years (depending on their state of health when they FIRST became infected.) As well, know that there are many diseases that have similar signs and symptoms, and it is important to identify and properly treat these.

MAJOR SIGNS: (things that you will see in an infected person)

1. Fever (for more than 1 month)
2. Weight loss (more than 10% of body weight)
3. Diarrhea
4. TB- tuberculosis (TB is one of the 'opportunistic- diseases' found in people who are HIV positive)
5. Infection of mouth and throat
6. Skin rashes
7. Cough
8. Blisters on mouth or private parts or on one side of the body
9. Lumps in neck, armpits, and groin (swollen lymph glands)
10. Certain types of cancers
11. Lung and brain damage

Signs and symptoms can be treated, but as the body continues to weaken, as more and more of the defense system of the body is destroyed by the virus, eventually the person will die.

Poverty, lack of knowledge on prevention, lack of empowerment of women and girls, the vulnerability of youth with 60% of the population under 24 years of age, strong stigma and discrimination against people living with and affected by HIV and AIDS all play a major part in the spread of HIV.

III. Prevention of HIV

1. Abstinence--remaining sexually pure until your wedding night.
2. Faithfulness in your marriage. No sex outside of marriage. Protect your spouse from HIV if you are positive.
3. Accept a blood transfusion only when the blood has been tested (screened) and declared safe from HIV.
4. Do NOT share needles or syringes.
5. Do NOT share razor blades or any other skin cutting or piercing instruments.
6. Go to a center for HIV testing and counseling if you are worried about AIDS or planning to marry.
7. Avoid illegal drugs and alcohol as they lead to risky behavior (beer, palm wine, spirits, heroin, cocaine, opium, tablets to help you go to sleep, relax or stay awake, marijuana, Indian hemp, weed etc.).
8. Try NOT to become pregnant if you have HIV. If you do become pregnant, you should seek medical help. Some hospitals have anti-viral drugs to help decrease the chance of the baby (while in the womb, etc.) getting HIV.
9. First Aid: when someone is cut and bleeding use something as a barrier to apply direct pressure. Wash your hands well, after.

In Africa, HIV is spread primarily through heterosexual relationships involving an infected person. HIV is also spread through homosexual relationships involving an infected person.

Group Discussion: What stops people from discussing HIV/AIDS? What role can churches take with adults and youth and informing them about HIV/AIDS? What are possible reasons for why some people do not want to minister to those who are HIV positive? What practical role can the church take in ministering to those who are HIV positive and to those who have AIDS? (**Leader**: hopefully, answers will include visiting, accepting others, teaching, fellowshipping, supporting, etc. There are also children who have lost one or both parents and need help.) **Leader**: Mention about the *Choose Life* curriculum available in both French and English. This course provides guidance for peer educators and youth leaders. It focuses on youth ages 15 and older.

Ten Great Reasons Why a Person Should Say No to Sex before Marriage

1. SAY "NO" because God says NO to sex before and outside of marriage.
2. SAY "NO" because you will save yourself from the guilt, shame and sadness that sex outside of marriage brings.
3. SAY "NO" because you will spare yourself the pain and grief of finding out that you were being used rather than being loved and accepted.
4. SAY "NO" because every time you have sex, you run the risk of making a baby.
5. SAY "NO" because (girls), if you become pregnant, that makes you a mother responsible to care for the baby.
6. SAY "NO" because you will be able to choose to marry the special person God has planned for you.
7. SAY "NO" because of the danger of getting a SEXUALLY TRANSMITTED DISEASE" (STDs).
8. SAY "NO" because you will destroy your plans for the future.
9. SAY "NO" because you want to fully enjoy sex in a relationship of genuine love.
10. SAY "NO" because there are those who love you and expect you to say No.

How can you wait?

Well, first of all, realize that is IS difficult. I want you to know that God can help you to be strong. Decide on the following:

1. DECIDE: before any relationship gets serious, that sex begins on the wedding night and not before.
2. DECIDE: to keep all the reasons that were just mentioned clearly in your mind.
3. DECIDE: to keep your mind clean by not watching sex on TV and videos/DVD's, or listening to sexual words in music. Avoid pornographic pictures, in magazines or through the internet.
4. DECIDE: to avoid alcohol and drugs.

5. DECIDE: to avoid situations which increase the risk of you giving in to sex before marriage.
6. DECIDE (GIRLS) not to believe the following common lies:
    a) "Sex will bring us closer" (It won't)
    b) "Sex will make our relationship better" (No, sex will become the center of our relationship and push everything else out)
    c) "If you really loved me, you would do it" (If you really loved me, you would not ask! Do you not respect me?)
    d) "Just this once" (no one wants sex "just once"!)
    e) "I want to give you something to remember" (Yes, maybe AIDS, or a baby)
    f) "If you do not have sex with me, I'll find someone who will"
    g) "Everyone is doing it" (That is not true.)
    h) Don't worry, I will use a condom. It will be safe. I have got protection" (I have protection too. It is saying NO, and it is 100% safe!)

Leader: Mention about RAPE, which is sexual abuse, if there is time.
Leader: Encourage students to take time to teach and council youth in these areas mentioned above.

Other Sexually transmitted diseases (STDs) include the following:
Gonorrhoea, Chlamydia, syphilis, genital herpes, genital warts, chancroid, and Hepatitis B
We don't have time to discuss these diseases in detail. Some are treatable. Some are not. All are preventable.

Some of these STDs may not show any symptoms for a long time. STDs can affect a person's ability to conceive (sterility in male and females can occur). They may also have problems with urinating.

If a person has an abnormal discharge from their genitals, or any sores, bumps, or lumps in the genital area, they should see a medical doctor for examination.

Most Common Infectious Diseases Found Throughout Africa
Below are eight common infectious diseases found in Africa. Also listed is Diarrhea, though it is not a disease but a symptom of many types of diseases, many of which are infectious. It is important to understand each disease: its causes, means of spreading and entering the body, its description, prevention and treatment. (Leader: Students will be filling in information in their workbooks.)

Measles
Organism that causes disease: VIRUS Morbillivirus. This virus is especially dangerous in children who are poorly nourished or have tuberculosis.

How it is spread or enters the body: The virus is spread through the air when an infected person coughs or sneezes or by direct contact with secretions from an infected person.
Description of the disease: 7-18 days following infection, the person will experience fever, severe upper respiratory tract infection and conjunctivitis (pink eye). This can last for about 1 week. Then, white spots that look like grains of salt that are called Koplik spots appear in the mouth. If you see Koplik spots, the disease is not usually an upper respiratory disease, but measles. After about 4 days, the measles' rash comes. There are many slightly dark and raised patches of various sizes on the skin. These start on the face and shoulders and then spread to the rest of the body. The other symptoms improve as the rash appears. Depending on how bad the infection is, some people also develop bacterial infections in their throats and lungs which can develop into pneumonia.
Prevention: Immunization at 9 months of age. Keep other children far away from other children who are sick with measles.
Treatment and Care: Bed rest. Drink lots of liquids and give nutritious food. If possible, give vitamin A to prevent eye damage. For fever and discomfort give acetaminophen. If earache develops, an antibiotic may be needed. If signs of pneumonia, meningitis, or severe pain in the ear or stomach develop, get medical help. If the child has diarrhea, give rehydration drink.

Typhoid Fever
Organism that causes disease: Bacteria. Salmonella typhi
How it is spread or enters the body: The bacteria are spread from feces (shit) and urine to mouth through contaminated food or the water supply. This may occur if a person who is infected defecates (shits) and doesn't wash his hands thoroughly and then handles food that other people will eat, if a person who is infected does not use a toilet and their feces or urine enters water that is used for drinking, or if flies carry the bacteria from feces to food. The bacteria multiply in the intestines (bowel) and then spread through the whole body. The feces of a person who is and has been infected may remain infectious to others for weeks or months and some people may become a carrier of the bacteria for life.
Description of the disease: Signs of typhoid: First week--it begins like a cold or flu, with symptoms of headache, sore throat, and often a dry cough. Fever goes up and down but rises a little more each day until it reaches 40 degrees Celsius or more. The pulse is often relatively slow for the amount of fever present and the pulse and temperature should be taken every half hour. If the pulse gets slower when the fever goes up, the person probably has typhoid. Sometimes there is vomiting, diarrhea, or constipation. Second week—there is high fever and the pulse is relatively slow. A few dark spots may appear on the body. Often there is trembling and the person may not think clearly or make sense. Other symptoms are weakness, weight loss and dehydration. Third week—if there are not complications, the fever and other symptoms slowly go away.

Prevention of the disease: Care must be taken to avoid contamination of water and food by human feces. Be sure drinking water is clean. If there are cases of typhoid in your area, all drinking water should be boiled. Look for the cause of the contaminated food or water. To avoid the spread of typhoid, a person who has the disease should stay in a separate room. No one should eat or drink from dishes he/she uses. People who care for this person should wash their hands after. After recovering from typhoid, some persons still carry the disease and spread it to others, so anyone who has had typhoid should be extra careful with personal cleanliness and should not work in restaurants. Specific antibiotics are given to treat this disease. If treated properly, this would cure the person as well as prevent a chronic carrier state.
Treatment and Care: Eat nutritious meals and drink plenty of fluids (clean water). Take an antibiotic that is specific for treating typhoid. Use proper body hygiene and washing of hands after toileting and always before handling food.

Malaria
Organism that causes disease: The parasite is carried by specific female mosquitoes. In West Africa, Plasmodium Falciparum is common and dangerous.
How it is spread or enters the body: Malaria is an infection of the blood that causes chills and high fever. The mosquito sucks up the malaria parasites in the blood of an infected person and injects them into the next person it bites. The parasite has to be at a certain stage when the mosquito sucks up the blood from this person. If it is, and then the mosquito sucks from another person, that new person can become infected by the parasite.
Description of the disease: The typical disease has 3 stages: 1) It begins with chills and often a headache. The person shivers or shakes for 15 minutes to an hour. 2) Chills are followed by a fever, often 40º C or more. The person is weak and, at times, not in his right mind. The fever lasts several hours or days. 3) Finally, the person begins to sweat and his temperature goes down. After an attack, the person feels weak but may feel more or less okay. The fever pattern may not be regular or typical. For this reason, anyone who suffers unexplained fevers should have his blood tested for malaria. Chronic malaria often causes a large spleen and anemia (low red blood cells). In children with malaria affecting the brain, (cerebral malaria) fits may be followed by periods of unconsciousness.
Prevention: Avoid mosquitoes biting you. Sleep where there are no mosquitoes or underneath a net. Make sure windows have adequate screening. Destroy mosquitoes and their young. Mosquitoes breed in water that is not flowing. Clear ponds, pits, old cans, or containers that collect water, or keep water containers covered well.
Treatment and Care: If you suspect malaria or have repeated fevers, if possible, go to a health center for a blood test. Seek current recommended drug treatment. Eat nutritious foods. If you are anemic, you may be given iron and folic acid as well. Treat fever.

Tuberculosis (TB, consumption)
Organism that causes disease: Mycobacteria

How it is spread or enters the body: TB is a bacterial infection most commonly affecting the lungs. It is contagious (spreads easily). It often strikes those who have AIDS, who are weak, poorly nourished or live with someone who has TB. It is spread by exposure to the mycobacteria in airborne droplets from someone infected with TB in the lungs through coughing or sneezing.

Description of the disease: The most frequent signs of TB are: a cough that lasts longer than 3 weeks, often worse just after waking up, pain in the chest or upper back, chronic loss of weight and increasing weakness. In serious or advanced cases, symptoms may include coughing up blood, skin becoming lighter (especially the face) and the voice growing hoarse (very serious). In young children, the cough may come late. Instead, look for steady weight loss, frequent fever, lighter skin color, swelling in the neck (lymph nodes) or the belly.

Prevention : If someone in the house has TB, if possible, see that the whole family is tested for TB. Have children vaccinated against TB with B.C.G. vaccine. Everyone, especially children, should eat plenty of nutritious food. The person with TB should eat and sleep separately from the children, if possible, as long as he/she has any cough at all. Also, ask him/her to cover his/her mouth with coughing and not to spit on the floor. Watch for weight loss and other signs of TB in other family members. If anyone in the family shows signs of TB, have tests done and begin treatment. *Early and full treatment is a key part of prevention.*

Treatment and Care: At the first sign of TB, go to a health center where the workers can examine you and test the stuff you cough up (phlegm or sputum) to see if you have TB or not. Treatment for TB includes a combination of different drugs and it is very important to take the medicines as directed. *Do not stop taking the medicine just because you feel better.* This can lead to the illness coming back, infecting other people, and a resistance to the drugs. *To cure TB completely can take from 6 months to more than a year.* Eat as well as possible, plenty of energy foods and also foods rich in proteins and vitamins. Try to get enough rest and sleep.

Scabies

Organism that causes disease: parasite mite

How it is spread or enters the body: Scabies is a parasitic disease of the skin caused by a mite who enters just below the skin, burrows and lays eggs. It is spread by touching the affected skin or by clothes and bedding that have the mites on them.

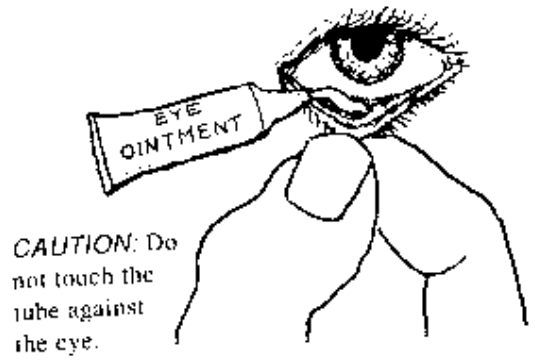
Description of the disease: It causes very itchy little bumps that can appear all over the body but are most common between the fingers, on the wrists, around the waist, on the genitals and between the toes. Small itchy sores on the penis and scrotum of young boys are almost always scabies. Scratching can cause infection, producing sores with pus and sometimes swollen lymph nodes or fever.

Prevention: Prevention of spread is best done by teaching others how scabies is spread and by prompt treatment.

Treatment and Care: If one person has scabies, everyone in his family should be treated. Personal cleanliness is of first importance. Bathe and change clothes daily. Cut fingernails very short to reduce spreading and infection. Wash all clothes and bedding, or better still, boil them and hang them in the sun.

Infantile Paralysis (polio, poliomyelitis)
Organism that causes disease: poliovirus
How it is spread or enters the body: The virus is spread primarily from person to person, mostly through feces to mouth. The virus typically lasts in the throat for approximately 1 week and in the feces for 3-6 weeks or longer.
Description of the disease: Polio is most common in children under 2 years of age. It is caused by a virus infection similar to a cold, often with fever, vomiting, diarrhea, and sore muscles. Usually the child gets completely well in a few days. But sometimes a part of the body becomes weak or paralyzed. Most often this happens to one or both legs. In time, the weak limb becomes thin and does not grow as fast as the other one.
Prevention: Vaccination against polio is the best protection. Do not give injections of any medicine to a child with signs of a cold, fever, or other signs that might be caused by the polio virus. The irritation caused by an injection could turn a mild case of polio without paralysis into a severe case with paralysis.
Treatment and Care: A child who has been paralyzed by polio should eat nutritious food and do exercises to strengthen remaining muscles. Help the child learn to walk as well as possible.

Pink Eye (conjunctivitis, known as 'Apollo' in some West African countries)
Organism that causes the disease: bacteria
How it is spread or enters the body: It is spread through contact with the secretions from the eye or upper respiratory tracts of infected people, from contaminated fingers, clothing, and other articles. It spreads very easily.
Description of the disease: Conjunctivitis begins with watery eye(s), irritation in the eye, and then redness in one or both eyes. Also, it often includes swelling of the eyelids and pus discharge. It may last from 2 days to 2-3 weeks.
Prevention: Personal hygiene and hygienic care and treatment of affected eyes help prevent the spread of this infection to others. The infection is easily spread, so do not let a child with pink eye play or sleep with others, or use the same towel. Wash hands after touching eyes.
Treatment and Care: Specific treatment: Clean pus from eye with a clean cloth. Never wipe uninfected eye with the same cloth that was used to wipe the infected eye. Put a small amount of antibiotic eye ointment inside the lower lid as demonstrated in the picture below.



Picture taken from *Where There Is No Doctor*

Tetanus

Organism that causes disease: tetanus bacillus (bacterial infection from the clostridium tetani bacteria)

How it is spread or enters the body: Tetanus results when the tetani bacteria that live in the feces of animals or people enter the body through a wound. Deep or dirty wounds are especially dangerous—wounds caused by animal bites, gunshots or dirty knives, holes made with dirty needles, injuries caused by barbed wire, puncture wounds from thorns, splinters or nails.

Causes of tetanus in the newborn child: The tetanus bacteria enter through the umbilical cord of a newborn baby because of lack of cleanliness or failure to take other simple precautions such as cutting the cord with an instrument that has not been boiled and kept clean or when the cord has not been cut close to the body, or when the newly cut cord is tightly covered or is not kept dry and clean.

Description of the disease: Signs of tetanus: an infected wound (sometimes no wound can be found), discomfort and difficulty in swallowing, a stiffening of the jaw, then the muscles of the neck and other parts of the body. The person has difficulty walking normally. Painful convulsions (sudden tightening) of the jaw and finally of the whole body occur. In the newborn, the first sign of tetanus generally appears 3-10 days after birth. The infant begins to cry continuously and is unable to suck. Often the umbilical area is dirty or infected. After several hours or days, lockjaw and the other signs of tetanus begin.

Prevention: It is easier to prevent tetanus than to treat it. Immunization/vaccination: this is the surest protection against tetanus. Both children and adults should be vaccinated. When you have a wound, especially a dirty or deep wound, clean it very well with clean water making sure that all the dirt is out. If the wound is very big, deep, or very dirty, seek medical help. An antibiotic may be needed. As well, if 5 years has gone by since your last booster tetanus shot, it may be recommended that you receive another injection of the vaccine following a deep, dirty wound. Normally, every 10 years, after the regular series has been received, the tetanus vaccine is repeated.

Treatment and Care: Anyone with tetanus will need medical care. Death rates are highest in infants and the elderly or very weak/sick people who get infected with tetanus.

Diarrhea: *as a SYMPTOM of an infection* (Diarrhea is a symptom, so it may also be present for non-infectious reasons.)
Organism that can cause diarrhea: Bacteria, virus, and parasitic agents can cause diarrhea.
How it is spread or enters the body: There are numerous ways in which these organisms can be spread. If it is because of bacterial infection, it could be due to contaminated food, water, direct contact with the feces of someone who is infected (for example, if you shook hands with someone who didn't wash their hands after defecating and then you put your hands to your mouth. This is called fecal-oral transmission.) Cholera, typhoid and e-coli are just a few examples of bacterial infections.
Viruses: Diarrhea could also be a symptom of a viral infection such as measles. Parasites: Parasites may also be the cause of diarrhea—mosquitoes (causing Malaria), amoebas or giardiasis (found in contaminated food/water).
Description of diarrhea: frequent, loose or watery feces. The person may also have vomiting and fever.
Prevention: Cleanliness--wash your hands after toileting. Cover your mouth when you sneeze or cough. Drink safe, clean water. Prepare food in a safe manner. (Refer back to "Healthy Hygiene Practices: Personal, Community and Environment"). Be aware of other people's practices when they cook. Be careful when you buy cooked food that has been exposed to flies. Be careful from whom you buy cooked food. If you have a weak or sick person in your home, be sure to prepare fresh, properly cooked, nutritious foods.
Leader: See below the reading material with regards to dehydration due to diarrhea. Too many infants, young children, sick, and elderly die from dehydration, which can be treated. Discuss oral rehydration solutions with the students. As well, encourage students to read over this resource material that is in their student workbooks. (from *Where There Is No Doctor*, pages 151-159).

Group Question: What are different beliefs that surround common diseases, either infectious or non-infectious? How do these beliefs (whether false or based on facts) affect treatment and behavior?

Leader: You can use the following stories as examples, or if you have other stories that will help the students understand what you are asking, use them. Also, seek responses/ examples from the students.
Story #1. On seeing a cat, a pastor promptly said, "Oh, if you touch the whiskers of a cat, you will get T.B.!"
Story #2. A person once explained to another person that you get "Apollo," or "pink eye" by looking directly at a full moon. The other person said that you could get pink eye if you

looked straight in the eyes of a person with pink eye. (Fact: You may get pink eye because the infected person may have rubbed their infected eye with their hand, then shook your hand. You then may have touched your eye. That is called direct contact spread)
Story #3. A person eats grass cutter (bush rat) that has been cooked and sold on the side of the road, open to the air and flies. A couple of hours after eating, the person gets a terrible stomach ache and diarrhea. They say that a curse was on the food. (Fact: the food may not have been properly cooked, or the seller may have had dirty hands, or flies that can carry diseases were on the food).

Leader: The following information, taken directly from *Where There is No Doctor,* is important to cover with the students because many people die because of dehydration, especially the very young, elderly, and weak/sick individuals. Treatment is very important. The students have this information in their workbooks. If time does not permit you to cover all the information**, focus on prevention and treatment.** Encourage students to read the following material on their own time if you don't cover all in class.

CHAPTER 13

SOME VERY COMMON SICKNESSES

DEHYDRATION

Most children who die from diarrhea die because they do not have enough water left in their bodies. This lack of water is called dehydration.

Dehydration results when the body loses more liquid than it takes in. This can happen with severe diarrhea, especially when there is vomiting too. It can also happen in very serious illness, when a person is too sick to take much food or liquid.

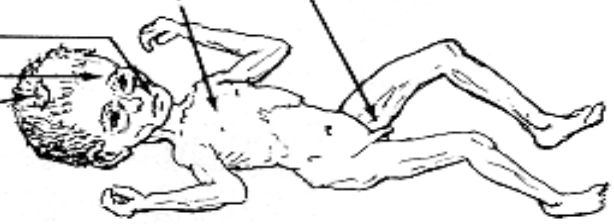
People of any age can become dehydrated, but **dehydration develops more quickly and is most dangerous in small children.**

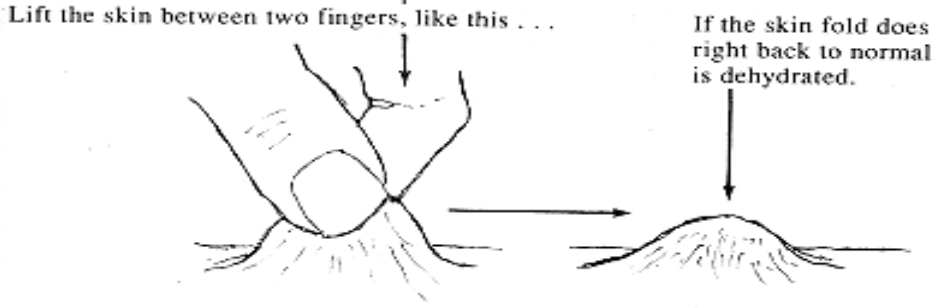
Any child with watery diarrhea is in danger of dehydration.

It is important that everyone—especially mothers—know the signs of dehydration and how to prevent and treat it.

Signs of dehydration:

- thirst is often a first, early sign of dehydration
- little or no urine; the urine is dark yellow
- sudden weight loss
- dry mouth
- sunken, tearless eyes
- sagging in of the 'soft spot' in infants
- loss of elasticity or stretchiness of the skin





Very severe dehydration may cause rapid, weak pulse (see Shock, p. 77), fast, deep breathing, fever, or fits (convulsions, p. 178).

When a person has watery diarrhea, or diarrhea and vomiting, do not wait for signs of dehydration. **Act quickly**—see the next page.

To prevent or treat dehydration: When a person has watery diarrhea, **act quickly:**

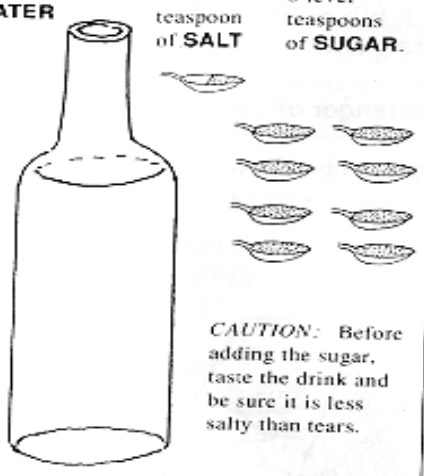
- **Give lots of liquids to drink:** Rehydration Drink is best. Or give a thin cereal porridge or gruel, teas, soups, or even plain water.
- **Keep giving food.** As soon as the sick child (or adult) will accept food, give frequent feedings of foods he likes and accepts.
- To babies, **keep giving breast milk** often—and before other drinks.

A special **Rehydration Drink** helps to prevent or treat dehydration, especially in cases of severe watery diarrhea:

2 WAYS TO MAKE 'HOME MIX' REHYDRATION DRINK

1. **WITH SUGAR AND SALT** (Raw sugar or molasses can be used instead of sugar.)

In 1 liter of clean **WATER** put half of a level teaspoon of **SALT** and 8 level teaspoons of **SUGAR**.

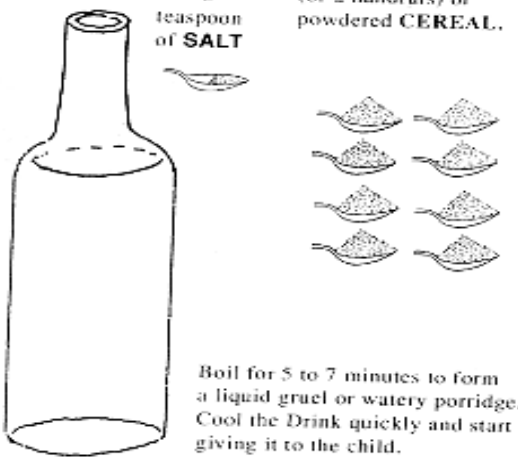


CAUTION: Before adding the sugar, taste the drink and be sure it is less salty than tears.

To either Drink add half a cup of fruit juice, coconut water, or mashed ripe banana, if available. This provides potassium which may help the child accept more food and drink.

2. **WITH POWDERED CEREAL AND SALT**
(Powdered rice is best. Or use finely ground maize, wheat flour, sorghum, or cooked and mashed potatoes.)

In 1 liter of **WATER** put half a teaspoon of **SALT** and 8 heaping teaspoons (or 2 handfuls) of powdered **CEREAL**.



Boil for 5 to 7 minutes to form a liquid gruel or watery porridge. Cool the Drink quickly and start giving it to the child.

CAUTION: Taste the Drink each time before you give it to be sure it is not spoiled. Cereal drinks can spoil in a few hours in hot weather.

IMPORTANT: Adapt the Drink to your area. If liter containers or teaspoons are not in most homes, adjust quantities to local forms of measurement. Where people traditionally give cereal gruels to young children, add enough water to make it liquid, and use that. Look for an easy and simple way.

Give the dehydrated person sips of this Drink every 5 minutes, day and night, until he begins to urinate normally. A large person needs 3 or more liters a day. A small child usually needs at least 1 liter a day, or 1 glass for each watery stool. Keep giving the Drink **often** in small sips, **even if the person vomits.** Not all of the Drink will be vomited.

WARNING: **If dehydration gets worse or other danger signs appear, go for medical help** (see p. 159). It may be necessary to give liquid in a vein (intravenous solution).

Note: In some countries packets of Oral Rehydration Salts (ORS) are available for mixing with water. These contain a simple sugar, salt, soda, and potassium (see p. 382). However, homemade drinks—especially cereal drinks—when correctly prepared are often cheaper, safer, and more effective than ORS packets.

DIARRHEA AND DYSENTERY

When a person has loose or watery stools, he has *diarrhea*. If mucus and blood can be seen in the stools, he has *dysentery*.

Diarrhea can be mild or serious. It can be *acute* (sudden and severe) or *chronic* (lasting many days).

Diarrhea is more common and more dangerous in young children, especially those who are poorly nourished.

This child is well nourished. He is less likely to get diarrhea. If he gets it he usually will get well again quickly.

This child is poorly nourished. He is more likely to get diarrhea —and there is a much greater chance he will die from it.

Diarrhea has many causes. **Usually no medicines are needed,** and the child gets well in a few days if you give him lots of Rehydration Drink and food. (If he does not eat much, give him a little food many times a day.) Occasionally, special treatment is needed. However, **most diarrhea can be treated successfully in the home,** even if you are not sure of the exact cause or causes.

THE MAIN CAUSES OF DIARRHEA:

poor nutrition (p. 154) This weakens the child and makes diarrhea from other causes more frequent and worse.

shortage of water and unclean conditions (no latrines) spread the germs that cause diarrhea

virus infection or 'intestinal flu'

an infection of the gut caused by bacteria (p. 131), amebas (p. 144), or giardia (p. 145)

worm infections (p. 140 to 144) (most worm infections do not cause diarrhea)

infections outside the gut (ear infections, p. 309; tonsillitis, p. 309; measles, p. 311; urinary infections, p. 234)

malaria (*falciparum* type—in parts of Africa, Asia, and the Pacific, p. 186)

food poisoning (spoiled food, p. 135)

AIDS (long-lasting diarrhea may be an early sign, p. 399)

inability to digest milk (mainly in severely malnourished children and certain adults)

difficulty babies have digesting foods that are new to them (p. 154)

allergies to certain foods (seafood, crayfish, etc., p. 166); occasionally babies are allergic to cow's milk or other milk

side effects produced by certain medicines, such as ampicillin or tetracycline (p. 58)

laxatives, purges, irritating or poisonous plants, certain poisons

eating too much unripe fruit or heavy, greasy foods

Preventing diarrhea:

Although diarrhea has many different causes, the most common are **infection** and **poor nutrition. With good hygiene and good food, most diarrhea could be prevented.** And if treated correctly by giving **lots of drink and food,** fewer children who get diarrhea would die.

Children who are poorly nourished get diarrhea and die from it far more often than those who are well nourished. Yet diarrhea itself can be part of the cause of malnutrition. And if malnutrition already exists, diarrhea rapidly makes it worse.

Malnutrition causes diarrhea.
Diarrhea causes malnutrition.

This results in a vicious circle, in which each makes the other worse. For this reason, **good nutrition is important in both the prevention and treatment of diarrhea.**

THE 'VICIOUS CIRCLE' OF MALNUTRITION AND DIARRHEA TAKES MANY CHILDREN'S LIVES.

Prevent diarrhea by preventing malnutrition.
Prevent malnutrition by preventing diarrhea.

To learn about the kinds of foods that help the body resist or fight off different illnesses, including diarrhea, read Chapter 11.

The prevention of diarrhea depends both on **good nutrition** and **cleanliness.** Many suggestions for personal and public cleanliness are given in Chapter 12. These include the use of **latrines,** the importance of **clean water,** and the **protection of foods** from dirt and flies.

Here are some other important suggestions for preventing diarrhea in babies:

- **Breast feed rather than bottle feed babies.** Give only breast milk for the first 4 to 6 months. Breast milk helps babies resist the infections that cause diarrhea. If it is not possible to breast feed a baby, feed her with a cup and spoon. **Do not use a baby bottle** because it is harder to keep clean and more likely to cause an infection.
- When you begin to give the baby new or solid food, start by giving her just a little, mashing it well, and mixing it with a little breast milk. The baby has to learn how to digest new foods. If she starts with too much at one time, she may get diarrhea. **Do not stop giving breast milk suddenly. Start with other foods while the baby is still breast feeding.**
- Keep the baby clean—and in a clean place. Try to keep her from putting dirty things in her mouth.
- Do not give babies unnecessary medicines.

BREAST FEEDING HELPS PREVENT DIARRHEA.

Treatment of diarrhea:

For most cases of diarrhea no medicine is needed. If the diarrhea is severe, the biggest danger is **dehydration.** If the diarrhea lasts a long time, the biggest danger is **malnutrition.** So the most important part of treatment has to do with giving **enough liquids** and **enough food.** No matter what the cause of diarrhea, always take care with the following:

1. PREVENT OR CONTROL DEHYDRATION. A person with diarrhea must drink a lot of liquids. If diarrhea is severe or there are signs of dehydration, give him Rehydration Drink (p. 152). Even if he does not want to drink, gently insist that he do so. Have him take several swallows every few minutes.

2. MEET NUTRITIONAL NEEDS. **A person with diarrhea needs food as soon as he will eat.** This is especially important in small children or persons who are already poorly nourished. Also, when a person has diarrhea, food passes through the gut very quickly and is not all used. **So give the person food many times a day**—especially if he only takes a little at a time.

- A baby with diarrhea should **go on breast feeding.**
- An underweight child should get plenty of energy foods and some body-building foods (proteins) all the time he has diarrhea—and extra when he gets well. If he stops eating because he feels too sick or is vomiting, he should eat again as soon as he can. **Giving Rehydration Drink will help the child be able to eat.** Although giving food may cause more frequent stools at first, it can save his life.
- If a child who is underweight has diarrhea that lasts for many days or keeps coming back, give him more food more often—at least 5 or 6 meals each day. Often no other treatment is needed.

FOODS FOR A PERSON WITH DIARRHEA

When the person is vomiting or feels too sick to eat, he should drink:

- watery mush or broth of rice, maize powder, or potato
- rice water (with some mashed rice)
- chicken, meat, egg, or bean broth
- Kool-Aid or similar sweetened drinks
- REHYDRATION DRINK
- Breast milk

As soon as the person is able to eat, in addition to giving the drinks listed at the left, he should eat a balanced selection of the following foods or similar ones:

energy foods

- ripe or cooked bananas
- crackers
- rice, oatmeal, or other well-cooked grain
- fresh maize (well cooked and mashed)
- potatoes
- applesauce (cooked)
- papaya

(It helps to add a little sugar or vegetable oil to the cereal foods.)

body-building foods

- chicken (boiled or roasted)
- eggs (boiled)
- meat (well cooked, without much fat or grease)
- beans, lentils, or peas (well cooked and mashed)
- fish (well cooked)
- milk (sometimes this causes problems, see the next page)

DO NOT EAT OR DRINK

- fatty or greasy foods
- most raw fruits
- any kind of laxative or purge
- highly seasoned food
- alcoholic drinks

Diarrhea and milk:

Breast milk is the best food for babies. It helps prevent and combat diarrhea. **Keep giving breast milk when the baby has diarrhea.**

Cow's milk, powdered milk, or canned milk can be good sources of energy and protein. Keep on giving them to a child with diarrhea. In a very few children these milks may cause more diarrhea. If this happens, try giving less milk and mixing it with other foods. But remember: **a poorly nourished child with diarrhea must have enough energy foods and protein.** If less milk is given, well-cooked and mashed foods such as chicken, egg yolk, meat, fish, or beans should be added. Beans are easier to digest if their skins have been taken off and they are boiled and mashed.

As the child gets better, he will usually be able to drink more milk without getting diarrhea.

Medicines for diarrhea:

For most cases of diarrhea no medicines are needed. But in certain cases, using the right medicine can be important. However, many of the medicines commonly used for diarrhea do little or no good. Some are actually harmful:

GENERALLY IT IS BETTER **NOT** TO USE THE FOLLOWING MEDICINES IN THE TREATMENT OF DIARRHEA:

'Anti-diarrhea' medicines with kaolin and pectin (such as *Kaopectate*, p. 384) make diarrhea thicker and less frequent. But they do not correct dehydration or control infection. Some anti-diarrhea medicines, like loperamide *(Imodium)* or diphenoxylate *(Lomotil)* may even cause harm or make infections last longer.

'ANTI-DIARRHEA MEDICINES' ACT LIKE PLUGS. THEY KEEP IN THE INFECTED MATERIAL THAT NEEDS TO COME OUT.

'Anti-diarrhea' mixtures containing neomycin or streptomycin should not be used. They irritate the gut and often do more harm than good.

Antibiotics like ampicillin and tetracycline are useful only in **some** cases of diarrhea (see p. 158). But they themselves sometimes cause diarrhea, especially in small children. If, after taking these antibiotics for more than 2 or 3 days, diarrhea gets worse rather than better, stop taking them—the antibiotics may be the cause.

Chloramphenicol has certain dangers in its use (see p. 357) and should never be used for mild diarrhea or given to babies less than 1 month old.

Laxatives and purges should never be given to persons with diarrhea. They will make it worse and increase the danger of dehydration.

Special treatment in different cases of diarrhea:

While most cases of diarrhea are best treated by giving plenty of **liquids** and **food,** and **no medicine,** sometimes special treatment is needed.

In considering treatment, keep in mind that some cases of diarrhea, especially in small children, are caused by **infections outside the gut.** Always check for **infections of the ears,** the **throat,** and the **urinary system.** If found, these infections should be treated. Also look for signs of **measles.**

If the child has mild diarrhea together with signs of a cold, the diarrhea is probably caused by a virus, or 'intestinal flu', and no special treatment is called for. Give lots of liquids and all the food the child will accept.

In certain difficult cases of diarrhea, analysis of the stools or other tests may be needed to know how to treat it correctly. But usually you can learn enough from asking specific questions, seeing the stools, and looking for certain signs Here are some guidelines for treatment according to signs.

1. **Sudden, mild diarrhea. No fever.** (Upset stomach? 'Intestinal flu'?)

- Drink lots of liquids. Usually no special treatment is needed. It is usually best not to use 'diarrhea plug' medicines such as kaolin with pectin (*Kaopectate,* p. 384) or diphenoxylate *(Lomotil).* They are never necessary and do not help either to correct dehydration or get rid of infection—so why waste money buying them? Never give them to persons who are very ill, or to small children.

2. **Diarrhea with vomiting.** (Many causes)

- If a person with diarrhea is also vomiting, the danger of dehydration is greater, especially in small children. It is very important to give the Rehydration Drink (p. 152), tea, soup, or whatever liquids he will take. **Keep giving the Drink, even if the person vomits it out again.** Some will stay inside. Give sips every 5 to 10 minutes. If vomiting does not stop soon, you can use medicines like promethazine (p. 386) or phenobarbital (p. 389).
- If you cannot control the vomiting or if the dehydration gets worse, seek medical help fast.

3. **Diarrhea with mucus and blood. Often chronic. No fever. There may be diarrhea some days and constipation other days.** (Possibly amebic dysentery. For more details, see page 144.)

- Use metronidazole (p. 369) or diloxanide furoate (p. 369). Take the medicine according to the recommended dose. If the diarrhea continues after treatment, seek medical advice.

4. **Severe diarrhea with blood, with fever.** (Bacterial dysentery—caused by Shigella?)

- Give co-trimoxazole (p. 358) or ampicillin (p. 353). Shigella is now often resistant to ampicillin, and sometimes to co-trimoxazole. If the first medicine you try does not bring improvement within 2 days, try another or seek medical help.

5. **Severe diarrhea with fever, usually no blood.**

- Fever may be partly caused by dehydration. Give lots of Rehydration Drink (p. 152). If the person is very ill and does not improve within 6 hours after beginning Rehydration Drink, seek medical help.
- Check for signs of typhoid fever. If present, treat for typhoid (see p. 188).
- In areas where *falciparum* malaria is common, it is a good idea to treat persons with diarrhea and fever for malaria (see p. 187), especially if they have a large spleen.

6. **Yellow, bad-smelling diarrhea with bubbles or froth, without blood or mucus.** Often a lot of gas in the belly, and burps that taste bad, like sulfur. (Giardia? See p. 145.)

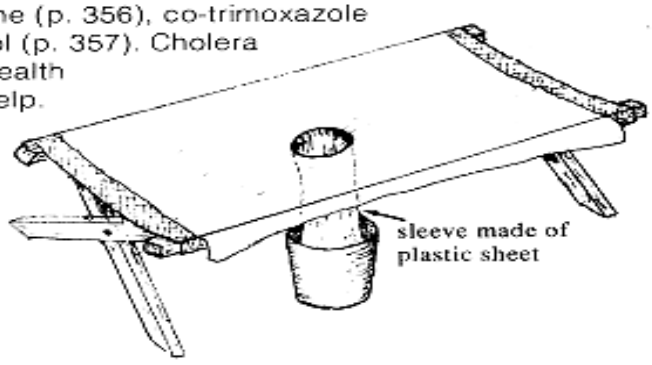
- This may be caused by microscopic parasites called giardia or perhaps by malnutrition. In either case, plenty of liquid, nutritious food, and rest are often the only treatment needed. Severe giardia infections can be treated with metronidazole (p. 369). Quinacrine *(Atabrine)* is cheaper, but has worse side effects (p. 370).

7. **Chronic diarrhea (diarrhea that lasts a long time or keeps coming back).**

- This can be in part caused by malnutrition, or by a chronic infection such as that caused by amebas or giardia. See that the child eats more nutritious food more times a day (p. 110). If the diarrhea still continues, seek medical help.

8. **Diarrhea like rice water.** (Cholera?)

- 'Rice water' stools in very large quantities may be a sign of cholera. In countries where this dangerous disease occurs, cholera often comes in *epidemics* (striking many people at once) and is usually worse in older children and adults. Severe dehydration can develop quickly, especially if there is vomiting also. Treat the dehydration continuously (see p. 152), and give tetracycline (p. 356), co-trimoxazole (p. 358), or chloramphenicol (p. 357). Cholera should be reported to the health authorities. Seek medical help.



A 'cholera bed' like this can be made for persons with very severe diarrhea. Watch how much liquid the person is losing and be sure he drinks larger amounts of Rehydration Drink. Give him the Drink almost continuously, and have him drink as much as he can.

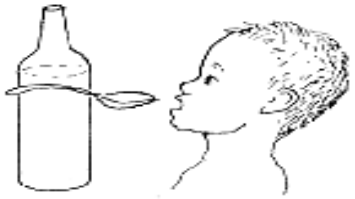
Care of Babies with Diarrhea

Diarrhea is especially dangerous in babies and small children. Often no medicine is needed, but special care must be taken because a baby can die very quickly of dehydration.

GIVE HIM BREAST MILK

- **Continue breast feeding** and also give sips of **Rehydration Drink.**
- If vomiting is a problem, give breast milk often, but only a little at a time. Also give Rehydration Drink in small sips every 5 to 10 minutes (see Vomiting, p. 161).
- If there is no breast milk, try giving frequent small feedings of some other milk or milk substitute (like milk made from soybeans) **mixed to half normal strength with boiled water.** If milk seems to make the diarrhea worse, give some other protein (mashed chicken, eggs, lean meat, or skinned mashed beans, mixed with sugar or well-cooked rice or another carbohydrate, and boiled water).

AND ALSO
REHYDRATION DRINK



- If the child is younger than 1 month, try to find a health worker before giving any medicine. If there is no health worker and the child is very sick, give him an 'infant syrup' that contains ampicillin: half a teaspoon 4 times daily (see p. 353). It is better not to use other antibiotics.

When to Seek Medical Help in Cases of Diarrhea

Diarrhea and dysentery can be very dangerous—especially in small children. **In the following situations you should get medical help:**

- if diarrhea lasts more than 4 days and is not getting better—or more than 1 day in a small child with severe diarrhea
- if the person shows signs of dehydration and is getting worse
- if the child vomits everything he drinks, or drinks nothing, or if frequent vomiting continues for more than 3 hours after beginning Rehydration Drink
- if the child begins to have fits, or if the feet and face swell
- if the person was very sick, weak, or malnourished before the diarrhea began (especially a little child or a very old person)
- if there is much blood in the stools. This can be dangerous even if there is only very little diarrhea (see gut obstruction, p. 94).

Common Non-Infectious Diseases

There are diseases commonly found that are not infectious, but preventable and often treatable through change in diet and sometimes with a combination of specific medications. As it was with infectious diseases, it is better to prevent a disease than to treat it.

Group Question: List some common diseases that are not spread from one person to another (infectious) that people suffer from in your communities. (**Leader**, at this time, do not give any answers, but only listen to the answers that the students give. If an infectious disease is stated, clarify it.)

Here are 2 common **non-infectious** diseases:

1. Cardio (heart) vascular (vessels) diseases

High blood pressure: Blood pressure is the force or pressure of the blood upon the walls of the blood vessels (arteries and veins); it varies with the age and health of the person. When the pressure exceeds what is considered within a normal medically acceptable range, it is considered high blood pressure. High blood pressure is sometimes called the "silent killer" because people who have it are often without any symptoms.[38]

Arteries are the blood vessels that carry oxygen and nutrients to the cells throughout the body. Two common diseases of the arteries that contribute to high blood pressure are "hardening of the arteries," known as arteriosclerosis and partial and complete blockages in the arteries due to a build- up of fats, calcium, or parts of blood, for example. In both cases, these directly affect blood pressure. Additionally, the following factors may also contribute to high blood pressure:

- Overweight (obesity)
- Age
- History of high blood pressure in the family
- Diabetes
- Someone who smokes, drinks too much tea, coffee or alcohol
- Stress

(**Leader**: If needed, give a brief review of circulation: vessels. High blood pressure (hypertension) can lead to many other problems, such as heart disease, kidney disease, and stroke if not properly treated.

Signs of dangerously high blood pressure:

- Frequent headaches
- Pounding of the heart and shortness of breath with mild exercise
- Weakness and dizziness
- Occasional pain in the left shoulder and chest

[38] Smeltzer, Suzanne C. And Bare, Brenda G, Brunner and Suddarth's Textbook of Medical-Surgical Nursing, 9th edition , Copyright 2000 by Lippincott Williams and Wilkins. Pg 717

(All these problems may also be caused by other diseases. Therefore, if a person suspects he has high blood pressure, he should see a health worker and have his blood pressure measured.)

What to do to prevent or care for high blood pressure:

- If overweight, lose weight. To be very fat is not healthy. Too much fat helps cause high blood pressure, heart disease, stroke, gallstones, diabetes, arthritis in legs and feet, and other problems. People who are overweight should lose weight by:
    - Eating less greasy, fatty, deep-fried or oily foods
    - Eating less sugar or sugar sweetened foods
    - Get more exercise
    - Not eating *so much* of anything, especially starchy foods like corn, bread, potatoes, rice, pasta, cassava, yam, etc. PREVENTION: When you begin to get overweight, start following the above guidelines. To lose weight, eat only half of what you now eat! (Reduce the amount of starchy foods and eat more fruits and vegetables.)
- Avoid fatty foods. Reduce the amount of fat you eat, including high amounts of oil.
- Prepare and eat food with very little or no salt (especially if you are treating high blood pressure). If you are used to using a lot of salt when cooking, reduce this amount. It takes about 2-3 months for your taste buds to adjust to less salt in your diet.[39]
- Do not smoke. Avoid alcohol. Do not drink much coffee or tea.
- When the blood pressure is very high, the health worker may give medicines to lower it. Many people can lower their blood pressure by losing weight, eating a healthier diet, and by learning to relax. Some people need medication to bring the blood pressure down. It is important to take the medication as prescribed. Some people want to stop taking their blood pressure pills because they say that their blood pressure is now good and they are feeling well. This may be a direct result of taking the medication and if they stop taking the medication; their blood pressure may rise again, leading to risks of heart attack and stroke.

2. **DIABETES**: Persons with diabetes have too much sugar in their blood. This can start when a person is young (juvenile diabetes) or older (adult diabetes). It is usually more serious in young people, and they need special medicine (insulin) to control it. But it is most common in people over age 40 that eat too much and get fat.

[39] Ibid. Pg. 721

Early signs of diabetes:
- Always thirsty
- Urinates often and a lot
- Always tired
- Always hungry
- Weight loss

Later, more serious signs:
- itchy skin
- periods of blurry eyesight
- some loss of feeling in hands or feet
- frequent vaginal infections
- sores on feet that do not heal
- loss of consciousness (extreme case)

All these signs may be caused by other diseases. In order to find out whether a person has diabetes, they need to have their urine tested for sugar. When a person gets diabetes after he is 40 years old, it can often be best controlled without medications, by eating correctly and exercising regularly. Fat people with diabetes should lose weight until their weight is normal. Health care workers can advise on healthy eating for diabetics. A diabetic must also take care of their skin and prevent infection. The result of diabetes effects small blood vessels and the circulation. For poor circulation in the feet (dark color, numbness), rest often with the feet up. Wear footwear that protects and prevents foot injuries.

Group Discussion: In your village, it is regarded as both beautiful and a sign of prestige to be overweight. As a man, you are showing to others that you are wealthy and that your wife is also well cared for. Based on this cultural belief, how can you encourage healthy eating and healthy life choices to prevent diseases caused by obesity?

IMPORTANT NOTE TO LEADER: The following information is based on basic first aid response. Unless you are trained in first aid, it would be very wise for you to consider inviting a guest speaker, who is capable of teaching the following information in a safe and accurate manner. If you are unsure about how to demonstrate proper first aid, find someone who can teach you. Majority of the following information is self-explanatory. *Areas that you may have difficulty teaching, especially if you have not learned, are the following: Assisting someone who is choking, rescue breathing, splinting broken bones.* **DO NOT TEACH OR DEMONSTRATE THIS INFORMATION UNLESS YOU CAN DO SO WITH SKILL.**

First Aid

Group Question: When you hear the words: "First Aid", what does this mean to you? **Leader**: **What is First Aid**? It is the act of providing proper/safe care to those who have been injured or are in a crisis which can possibly threaten their life.

Group Question: What might hinder/stop a person from giving first aid to someone in need? **(Leader**: Answers may include the following responses—the presence of other people, uncertainty about the problem or nature of the injury or illness, fear of disease transmission, fear of doing something wrong, fear of being blamed for the accident, fear of having to pay someone's medical bill, the time it takes, interruption of what you are doing.)

Luke 10:25-37 tells the story of the Good Samaritan. This Good Samaritan recognized a person in need, and responded. He gave this wounded man first aid and ministered to his immediate needs.

During this session, we will examine and practice how to be a Good Samaritan when we see someone in need and how to give basic first aid. This session will not be focusing on long-term treatment of illness or disease. **Prevention** is an important factor. It is always better to prevent than treat, and this goes along with preventing accidents from happening. There are times when prevention is not possible or within the control of an individual. (For example, if you are a passenger in a public vehicle you may have no control over how the driver responds to another vehicle's dangerous driving.)

Group Question: How would you respond to this comment: "Well, if I am in an accident, it must have been God's will and timing for my death"? (**Leader**: In many cultures, there is a fatalistic (meaning: fate "A force viewed as unalterably determining in advance the way things happen; destiny) approach/attitude towards life and death. It is important for the students to consider this thought from a Biblical perspective. How one believes has a direct affect on their actions. If time permits, discuss this with the students.)

First Aid

There are important steps to take in first aid. Let us look at the following four questions to be asked before giving first aid in any situation.

1. Is it **safe** to give first aid? Look around and ask: What happened? What is happening? Whether or not you witnessed an accident, injury, or perceived emergency, you need to *assess the situation*. This can be done within seconds by observation and asking questions, if there are people present to ask or the person needing help is able to provide answers.

2. Is the person **unresponsive**? Are they conscious? (Awake or able to be made alert?) If the person is unresponsive and or unconscious, they will require immediate medical attention as soon as possible.

3. Is air getting into their mouth or nose? Is the person breathing? Is the person's heart working? Is there bleeding? Is the person in shock? *Check the **A**irway, **B**reathing, **C**irculation*, and care for any life-threatening problems immediately. (Not breathing and major bleeding are *life threatening*). As well, some non-threatening problems can develop into life threatening situations if not properly treated.

4. Check vital signs (breathing, pulse, and blood pressure, if you have the equipment. Perform a head-to-toe survey. Look over the person from their head all the way to their toes to make sure you did not miss anything. You will learn how to do these steps as we practice and learn some basic first aid. Remember, this is *Basic First Aid*; therefore, if you have not been trained to do certain procedures, you could cause more harm than good. It would be better for you to call someone who has some knowledge and skill in first aid. If there is no one available, your help is better than no help, if done safely.

1. Airway emergencies

a) **Brief overview of the anatomy and physiology of the airway**. Air enters a body either through the nose or mouth of a person. It then travels through the respiratory tubes called the trachea, bronchia, bronchioles, right down to the alveoli where the oxygen in the air is transported into the blood stream and then carried throughout the body to every cell.

b) **Causes of Airway obstruction**

- Tongue or swollen tissue of the mouth and throat block the airway. This may occur after an injury or because of a severe allergic reaction. The most common cause in an unconscious person is the tongue, which has dropped to the back of the throat and blocked the airway. A person cannot "swallow" the tongue.
- The airway can also be blocked by a foreign object, such as a piece of food, a small toy, or fluids like vomit, blood, mucus, or salvia. This is called **CHOKING**. The foreign object can be lodged in the airway at any point from the throat to the lungs.
- **Common causes of choking** include the following:
  - Trying to swallow large pieces of food without chewing them adequately.
  - Eating while talking excitedly or laughing, or eating too quickly.
  - Walking, playing, or running with food or objects in the mouth.

Group Question: How can choking be prevented? (**Leader**: allow students to give answers before giving information. Provide answers that they missed.)

c) **Prevention of Choking**:

- Chew your food well.
- Keep small items away from little children (this includes candies that are sucked as well as gum).
- Keep waterproof bags/plastic, popped balloons away from small children.
- Don't run when you are eating.
- Take care when you are eating, laughing, and talking.

d) **Signs and Symptoms** (what you can see and what the person tells you) of choking, partial and complete blockage.

i. Partial blockage--a person with a partial airway obstruction can often get enough air into the lungs to try to dislodge the object by coughing. The person may also be able to speak. The following are signs and symptoms (what you would observe of someone choking) of a partial obstruction.
   - High-pitched or wheezing sounds when they are trying to breathe in.
   - Coughing
   - Clutching at the throat with one or both hands (universal distress signal for choking)

ii. Complete airway blockage-
   - May be conscious or unconscious
   - Unable to breathe
   - Unable to speak
   - Unable to cough
   - Face may appear darker

e) **First Aid Response**:

CHOKING of a **CONSCIOUS ADULT and a child over the age of one**

- For someone with a **partial airway obstruction**, do not interfere with their attempts to cough up the object. Make sure you stay with them until they clear it out. Partial obstructions can become complete obstructions. Do not slap the person on the back, as this can potentially make the obstruction go deeper.
- For someone with a **complete airway obstruction**, do the following:
  - Ask, "Are you choking?" If they respond yes, call for someone to help you.
  - Attempt **Abdominal thrusts** (demonstrate). Abdominal thrusts force air trapped in the lungs to push the object out of the airway. *** *pressure is much less for a child!* *** **Never give abdominal thrusts to an infant under one year of age**.
  - Attempt **Chest thrusts** if you cannot reach far enough around the person or for women in late stages of pregnancy. (demonstrate) ****pressure is much less for a child****

- INFANT: ***_Never use abdominal trusts!_ 5 back blows between the infant's shoulder blades and then 5 chest thrusts with your middle and index finger on the breastbone between the infant's nipples. (demonstrate)

2. Breathing

a) **Brief overview of the anatomy and physiology of breathing**: Breathing requires the respiratory, circulatory, nervous, and musculoskeletal systems to work together. Injuries or illnesses that affect any of these systems may impair breathing. For example, if the heart stops beating, the person will stop breathing. Injury or disease in certain areas of the brain may impair or stop breathing. Damage to muscles or bones of the chest and back can make breathing difficult or painful. All of these situations can be breathing emergencies.

The body requires a constant supply of oxygen for survival. When you breathe air into your lungs, the oxygen in the air is transferred into the blood. The blood then takes the oxygen to the brain, organs, muscles, and all parts of the body. The body needs oxygen to perform its many functions such as breathing, walking, talking, digesting food, and maintaining body temperature.

When a person stops breathing, the body receives no oxygen to continue its functions. After a few minutes without oxygen, body systems begin to fail. A person loses consciousness within a very short time and eventually the heart muscle stops. Other body systems then start to fail. Without oxygen, cells begin to die in 4-6 minutes. Some tissues, such as the brain, are very sensitive to lack of oxygen. Unless the brain receives oxygen within minutes, brain damage or death will result.

b) **Causes of Breathing Emergencies**: illness, pneumonia, asthma, severe allergic reaction (to food, or an insect sting/bite) electrocution, shock, drowning, heart attack or heart disease, poisoning, injury to the head, chest, or lungs, drugs, alcohol poisoning.

c) **Prevention of breathing emergencies**:

- People with asthma should always have their medication with them or nearby in case of an attack
- People who know they have severe allergies should be careful to avoid the substances or foods that cause the allergic reaction.
- Chest injuries and other injuries that lead to respiratory arrest can often be prevented by good safety practices in all areas of life. (Example of driving and riding in motor vehicles.)
- Parents of infants and small children should take precautions to avoid anything that could cause suffocation.
- Store plastic bags and wrappings in garbage or away from small children.
- Remove doors from old refrigerators (not working) and similar container where a child could be trapped if they were hiding.
- Prevent drowning by closely supervising children or those who don't know how to swim (or playing by sewers, large containers of water, etc.)

- Prevent strangulation by removing items that a young child could wrap around their neck.
- Snake bites: Be aware of the possibility of snakes and take care.
- Properly handle electrical equipment and wires.

Since breathing emergencies also result from some illnesses, one should always seek treatment before an illness becomes an emergency.

d) **Signs and Symptoms of Respiratory distress/problems**.

- The person may seem unable to catch his or her breath or may be gasping for air.
- Breathing may be faster or slower than normal.
- Breathing may be unusually deep or shallow.
- The person may make unusual noises, such as wheezing, gurgling, or high-pitched sounds like crowing.
- The person may feel dizzy or light-headed.
- The person may feel pain in the chest or tingling in the hands and feet.
- The person may appear apprehensive (nervous), fearful, or very anxious.

Emergency response: if person is having difficulty breathing, transport to a medical facility as soon as possible. They may need special medicine and oxygen.

e) **First Aid Response: for a person who has stopped breathing**:

- Check for breathing: **Look, Listen, Feel** (demonstrate).
- If no breathing, open airway. Check for breathing (demonstrate).
- If no breathing, begin rescue breathing. Rescue breathing is a way of breathing air into someone to give the person the oxygen needed to survive. (Air has about 21% oxygen but your body uses only about 16% oxygen. The air you exhale contains enough oxygen to keep someone alive.)
- Steps for rescue breathing: (demonstrate) *Give 2 full breaths immediately to get air into the person's lungs. To* give breaths, keep the airway open with the head-tilt/chin-lift. Gently pinch the person's nose shut with the thumb and index finger of the hand that is on the person's forehead. *Next, take a deep breath and make a tight seal around the person's mouth with your mouth. Breathe slowly into the person's mouth until you see the person's chest rise.* Each breath should last a full 2 seconds. Pause between breaths to allow you to take a breath and to let the air flow back out. Watch the person's chest rise each time you breathe in to ensure that your breaths are actually going in. If you do not see the person's chest rise and fall as you give breaths, you may not have the head tilted back correctly. *When you have successfully delivered two breaths, check for circulation.* If the person has signs of circulation but is not breathing, continue rescue breathing by giving 1 breath every 5 seconds for an adult.

- Rescue breathing for a child: Head-tilt/chin-lift but move the head gently. Breaths: 1 every 3 seconds.
- Rescue breathing for an infant: not as much tilt. Seal your mouth over both the infant's nose and mouth. Give 'puffs' every 3 seconds.
- Continue rescue breathing until person starts breathing, or medical care comes, or you are able to move the person to a medical center, while still giving them rescue breathing.
- (vomiting/mouth-to-nose breathing/broken teeth) scenarios.
- Suspected head, neck or back injuries: those who have experienced a violent force, such as a motor vehicle crash, fall, or diving or sports injury. In such cases, minimize movement of the head and neck when opening the airway. Use the jaw thrust method instead of the head-tilt/chin lift. (demonstrate)

3. Circulation

a) **Brief description of the anatomy and physiology of the heart and blood vessels.**

- Heart: Has 4 chambers—left and right atrium and left and right ventricle. The right atrium receives un-oxygenated blood from the body through veins. From this chamber, the blood is pumped into the right ventricle where the heart muscle then pumps the blood to the blood vessels in the lungs, where oxygen is transferred into the blood. It then travels back to the heart and enters into the left atrium where it is pumped into the left ventricle, which then pumps all this blood, with oxygen in it, throughout the body, through arteries.
- The heart itself has blood vessels, arteries and veins that feed the heart muscle with oxygen.
- Arteries carry oxygen and nutrients to the body, and are under pressure from the pumping of the heart.
- Veins carry blood without oxygen and carbon dioxide back to the heart.

b) **Causes for Circulation Problems**: injuries that cause bleeding, (either externally or internally) heart diseases, (called Cardiovascular disease— heart attack, stroke), diabetes.

c) **Prevention of Cardiovascular emergencies**:

- Safety when using sharp tools
- Proper supervision of sharp tools
- Putting sharp tools/instruments out of children's reach (i.e. razor blades)
- Healthy diets, low in fat (decrease amount of refined oils); a diet high in fats and cholesterol, deep frying in oils are not healthy eating habits. Reduce the amount of oil and fat used in preparing food. Cooking food in water or small amounts of oil is better than deep frying.
- Proper exercise

- Health weight: avoid obesity
- Keeping a healthy blood pressure (high blood pressure can damage blood vessels in the heart and other organs. You can often control high blood pressure by losing weight, changing your diet, and taking medications when prescribed.

d) **Signs and Symptoms of a cardiovascular emergency**

Heart attack:

- **Signs and symptoms**: chest pain, difficulty breathing, pulse too fast, too slow, or irregular. Pale skin, sweating, nausea and vomiting, sometimes pain in the neck and down into the left shoulder/arm.
- **Anatomy and Physiology of a cardiac arrest/heart attack**—Occurs when the heart stops beating or beats too irregularly or too weakly to circulate blood effectively. Breathing soon stops. A heart attack is a life-threatening emergency because vital organs can live only a few minutes without oxygen-rich blood.

Causes: cardiovascular disease is the most common cause of cardiac arrest.

- Drowning, suffocation, and certain drugs can cause breathing to stop which then causes the heart to stop. Severe chest injuries or severe blood loss can also cause the heart to beat ineffectively. Electrocution disrupts the heart's own electrical activity and causes the heart to stop.
- Signs and Symptoms: unresponsive (unconsciousness), no movement by the person, absence of effective breathing, absence of a carotid pulse.

Stroke - a stroke, also called a cerebrovascular accident (CVA) is a disruption of blood flow to a part of the brain that is serious enough to damage brain tissue.

- **Causes of Stroke**: Blood clot that lodges in the arteries in the brain. Other causes include an artery in the brain that ruptures, a head injury, or tumour.
- **Signs and Symptoms of Stoke**: sudden weakness and/or numbness of the face, arm, or leg, usually only on one side of the body. Difficulty talking or understanding speech. Sudden, severe headache. Dizziness or confusion. Unconsciousness. Loss of bladder control.
- **First Aid**: Depending on the severity of the stroke and the cause, the person will need medical attention. Sometimes the blood pressure is very high and it needs to be reduced in a safe, monitored medical manner. Transport to a medical facility as soon as you can and make sure that someone stays with the person. Make sure that their airway and breathing are clear.

Bleeding - Is the escape of blood from arteries, veins, or capillaries. Internal bleeding stays inside the body and is often difficult to recognize. External bleeding outside the body is usually visible. Any uncontrolled bleeding is a life-threatening emergency.

Anatomy and Physiology of Blood and Vessels:
The blood has 3 major functions:
1. Transporting oxygen, nutrients and wastes
2. Protecting against disease by producing antibodies and defending against infection.
3. Maintaining constant body temperature.

Blood is channeled through blood vessels. Arteries carry oxygen-rich blood away from the heart. Arteries become smaller the farther they go from the heart. Capillaries are microscopic blood vessels linking arteries and veins. They transfer oxygen and nutrients from the blood to the cells. Capillaries carry waste products such as carbon dioxide from the cells to the veins. The veins carry waste products to the heart and lungs and from there to the kidneys and intestines for elimination.

The blood in the arteries travels faster and under greater pressure than blood in the capillaries or veins. Blood flow in the arteries pulses with the heartbeat; blood in the veins flows more slowly and evenly.

Bleeding causes several body reactions. The brain, heart, and kidneys immediately try to compensate for blood loss to maintain the flow of oxygen-rich blood to the vital organs. The blood at the wound site tries to clot to stop the flow. Clotting is the process of the blood thickening to seal an opening and stop bleeding.

Bleeding severe enough to reduce the blood volume to a critical level is life threatening, because not enough oxygen reaches the vital organs. (Brain, heart, lungs, kidneys, liver)

External Bleeding
Causes: tear in the skin, scraps, injuries.
Signs and symptoms: Arterial bleeding is often rapid and profuse and potentially life threatening. (Bright red) The blood often comes out spurting because it is under pressure and it is harder to stop the bleeding.
Venous bleeding (bleeding from veins) is more common because veins are closer to the skin's surface. Because it is oxygen poor, venous blood is dark red. Venous blood flows steadily from a wound without spurting. Only damage to veins deep in the body causes profuse bleeding that can be hard to control.
Capillary bleeding, the most common type, is usually slow because vessels are small and the blood is under low pressure. Clotting occurs easily.

first aid for external bleeding: Demonstrate. (Safety factors: protection between you and the other person's blood. Use a glove, clean cloth/bandage, clean plastic bag, until someone can bring you a bandage/roll. If the injured person is able to, have them apply direct pressure. If they are not, then be sure to protect yourself. Communicable diseases, such as HIV and Hepatitis B, C are spread by direct contact with infected blood and an opening in your skin)

- Follow the first steps mentioned at the beginning of this session. Check for ***a***irway, ***b***reathing and ***c***irculation. It is always wise to call others to give you help. If the person is unconscious, make sure their airway is open. If they are not breathing, start artificial respiration. While you are doing that, another person can be giving first aid to stop bleeding.
- **Minor bleeding**: For **small, minor cuts, with slow bleeding** make sure the wound is clean by pouring clean water over the cut, removing any dirt. Clean with soap and water. To stop any bleeding: apply direct pressure; elevate the injured area to slow the flow of blood to assist clotting. Apply a bandage/ dressing, if needed. It is important to keep the wound clean, as it heals, to prevent any infection. Gentian violet and or antibiotic ointment can help prevent infection.
- **Major bleeding**: For wounds that are **bleeding profusely**, apply direct pressure on the wound with a dressing or any clean cloth, such as a washcloth, towel, or handkerchief. Place a hand over the cloth and apply firm pressure. If you do not have a pad or cloth available, have the injured person apply pressure with his or her hand, if possible.
- Elevate injured area above the level of the heart if you do not suspect a broken bone.
- Apply a pressure bandage to hold the gauze pads or cloth in place.
- If blood soaks through the bandage, add more pads to help absorb the blood. Do not remove any blood-soaked pads.
- Continue to check the person's airway and breathing.
- Wash your hands as soon as possible.
- Keep pressure on the wound.
- Have the person rest.
- DO NOT APPLY A TOURNIQUET, (something that is used to tie around the area that is bleeding in hopes of stopping the bleeding.) unless there is an amputation and the person's life is in danger. (also save the limb)

R.E.D. = Rest; **E**levate the injured area above the heart**, D**irect pressure on the bleeding site. Transport to a clinic.

When are **Stitches/suturing** required? When a person has a deep gash/cut that won't stop bleeding, at a joint where movement continues to open up the wound and cause bleeding.

Nose bleeds: direct pressure, sitting, head slightly forward. Don't blow nose after it has stopped bleeding. Don't pick clot out.

- **INTERNAL BLEEDING**- bleeding that happens inside the body

Group Question: When might you suspect internal bleeding? (**Leader**: answers should include the following: Suspect the possibility of bleeding inside the body after a serious injury, such as a motor vehicle accident or falling from a height.)

It is difficult to detect internal bleeding, so in any serious injury, suspect internal bleeding. Internal bleeding can also occur from a fractured bone that ruptures an organ or blood vessels.

Signs and symptoms of internal bleeding:

- Discoloration of the skin (bruising) in the injured area
- Soft tissue, such as those in the abdomen, that are tender, swollen, or hard
- Anxiety or restlessness
- Rapid, weak pulse
- Rapid breathing
- Skin that feels cool or moist or looks pale or darkish
- Nausea and vomiting
- Excessive thirst
- Declining level of consciousness

First Aid: controlling internal bleeding depends on the severity and site of the bleeding. Minor closed wounds do not require special medical care. Direct pressure on the area decreases bleeding. Elevating the injured part helps reduce swelling. Cold can help control both pain and swelling. If ice block is available, always place a towel between the ice and skin.

If you suspect internal bleeding caused by serious injury, transport the person to a medical clinic immediately. They will require proper medical monitoring of their vital signs (pulse, blood pressure, etc.)

Shock: is usually caused by extensive internal or external bleeding, as the loss of blood leads to low blood volume and decreased oxygen supply to vital organs. Extensive burns and other large fluid losses, such as diarrhea and vomiting in children, can also cause shock.

- **Signs and Symptoms of Shock**:
  - Pale, cold, moist skin
  - Weakness
  - Anxiety
  - Confusion
  - Unconsciousness
  - Weak, rapid pulse.

First Aid for Shock - Help the person rest in the most comfortable position, and give reassurance. Encourage person to lie down and help maintain normal blood temperature by placing a cover over them if they are cool to touch.

Fainting is a form of shock in which the person has a partial or complete loss of consciousness. It is caused by a temporary reduction of blood flow to the brain. Fainting can be triggered by an emotional shock. It may be caused by pain, medical conditions such as heart disease, standing for long periods of time, or overexertion. Some people, such as pregnant women or the elderly, may faint because of a sudden change in position, such as moving from a sitting or lying down position to one of standing up.
Fainting may occur without any warning at all, or the person may first feel lightheaded, dizzy, nauseated, or sweaty.

First Aid for Fainting:

- Do not assume the person merely fainted, since he or she may have become unconscious because of a life-threatening problem such as severe shock or cardiac arrest. Always check airway, breathing and circulation to ensure that no life-threatening problem exists. If there is any doubt about the cause of the fainting, take the person to a doctor for a check up.
- Usually fainting resolves by itself and the person regains consciousness within a minute or two.

4. Nervous System -Head/Brain, Spine, Nerves

a) **Brief overview of the anatomy and physiology of the brain/spine and nerves**: The brain is the control center of the body that sends messages and receives messages through a complex system of nerves. Injuries to the head can affect the brain. Bleeding from a ruptured vessel in the brain can build up pressure within the skull and damage brain tissue. Bleeding within the skull can occur rapidly or slowly. The bleeding will result in changes in consciousness. An altered level of consciousness is often the first and most important sign of a serious head injury.

The spine is a strong, flexible column that supports the head and trunk of the body. It contains and protects the spinal cord, the bundle of nerves from the brain to the lower back. The spine consists of small bones called vertebrae. The vertebrae are separated from each other by pads of cartilage called discs. Together the vertebrae and discs are called the spinal column. Injuries to the spinal column include fractures and dislocations of the vertebrae, sprained ligaments, and compression or movement of the discs between the vertebrae. With severe injuries, the vertebrae may move and squeeze or cut the spinal cord, which runs through them. This situation may cause temporary or permanent paralysis, even death. The amount of paralysis depends on which area is damaged.

b) **Causes of Head/Spine/nerve injuries**: Motor vehicle crashes, falls, sports injuries, and violent acts can all cause head and spine injuries. Those who survive head and spine injuries can have physical and mental difficulties, including paralysis, speech, memory problems, and behavioral disorders. Some may be permanently disabled. First aid, correctly given, can prevent some head and spine injuries from leading to death or disability. Head injuries may include concussion and injuries to the scalp, eye, or ear.

c) **Prevention of head/spine/nerve injuries**:

- If there is a seat belt in a vehicle, ***put it on***
- Have young children SIT in the backseat of a vehicle, and stay seated.
- Wear helmets when riding a motor bike or bicycle
- Wear protective eyewear with any work involving flying particles or chemicals.
- Prevent falls around the home, workplace, or outdoors by moving cords and things on the floor where one walks.
- Use safety harnesses/ropes when climbing heights.
- Wear hard helmets in construction areas, if available.
- Use proper, secure ladders or climbing devices.
- Always know the depth of water if one plans on diving in.
- Do not shake infants or young children aggressively.

d). **Signs and Symptoms** of Head and Spine injuries: (especially following an injury)

- Changes in level of consciousness (alert, confused, unconscious)
- Severe pain or pressure in the head, neck, or back
- Tingling or loss of feeling in the fingers and toes.
- Loss of movement of any body part
- Unusual lumps on the head or spine
- Blood in the ears or nose
- Heavy bleeding of the head, neck, or back
- Convulsions/seizures
- Impaired breathing or vision
- Nausea or vomiting
- Persistent headache
- Loss of balance
- Bruising of the head, especially around the eyes and behind the ears.

e) **First Aid Response:** to a suspected head/neck/spine injury

- Check for airway, breathing, circulation
- Help the person rest in the most comfortable position and give reassurance.
  - Head and spine injures can become life threatening.
- Keep the head and spine as still as possible
- Maintain an open airway
- Monitor consciousness and breathing

- Control any external bleeding.
- Maintain normal body temperature.

If a person has been in a car accident, and has hit their head, suspect head and neck injury. Steady the injured. Immobilize the head and neck in the position found and support them in that position. If the casualty is wearing a helmet, leave it on, until you can transport them to a medical facility. (Demonstrate how to immobilize)

For a suspected neck or back injury, you need a hard, flat board to move the person, making sure that the head, neck, and spine are kept in line and little movement is made.

Concussion—A concussion is usually a temporary injury (a fall or a hard hit on the head). In most cases, the person loses consciousness for only a few minutes and may say that he or she 'blacked out' or 'saw stars'. Unconsciousness sometimes lasts longer, or the person may be confused or have a memory loss. Anyone suspected of having a concussion should be seen by a doctor.

Scalp Injury—Scalp bleeding is usually controlled with direct pressure. Apply dressings and hold them in place with your hand. Be gentle, because in a hard fall or hit, the skull may be fractured. If you feel a depression, a soft area, or pieces of bone, do not put direct pressure on the wound, unless bleeding is severe.

Eye Injury—Eye injuries can involve the bone and soft tissue surrounding the eye or the eyeball itself. A blunt object may injure the eye area, or an object may penetrate the eyeball. Never put direct pressure on the eyeball. If an object is impaled in the eye, DO NOT attempt to remove it. Place a bandage around the object and stop it from moving as best as you can. *Take the injured person to a doctor immediately.*

For foreign body in the eye, such as dirt, sand, or slivers of wood or metal, the person may feel severe pain and may have difficulty opening the eye. Give the following **first aid** for a foreign object or chemical in the eye:

- Try to remove the foreign object by having the person blink several times. The eye will produce tears that may wash out the object.
- Gently hold open the eyelids and have the person blink into a handful of clean water, or in a container with clean water.
- If chemicals were splashed into the eye, pour clean water over the eye.

Ear Injury - If the outer part of the ear is injured and is bleeding, control the bleeding with direct pressure. Depending on the severity, assess whether stitches/sutures are needed. If the person has had a serious head or spine injury and blood or other fluid is in the ear canal or draining from inside the ear: DO NOT attempt to stop this drainage with direct pressure. Cover the ear lightly with a clean (sterile, if possible) bandage. Take to a doctor immediately.

For a foreign object, such as dirt, an insect, or cotton lodged in the ear canal, give the following first aid: if you can see and grasp the object, remove it. Do not try to remove any object by using a pin, toothpick, or a similar sharp item. You could force the

object farther back or puncture the eardrum. Try to remove the object by pulling down on the earlobe, tilting the head to the side, and shake or gently strike the head on the affected side. You can also try to pour clean, warm water into the affected ear, and then lie on that side to help drain the item out.

Mouth And Jaw Injuries - Your primary concern for any injury to the mouth or jaw is to ensure an open airway. For injuries that penetrate the lip, place a rolled bandage/dressing between the lip and the gum. You can place another dressing on the outer surface of the lip. If the tongue is bleeding, apply a dressing and direct pressure. Applying cold to the lips or tongue can help reduce swelling and ease pain. If the bleeding cannot be controlled, see a medical person.

5. Muscle and Bone (Musculoskeletal) Injuries— Bone, muscle and joint injuries are common. They range from a simple bruise to a severe fracture (break) or dislocation. First aid helps lessen pain and prevent further damage. Although bone, muscle, and joint injuries are almost always painful, they are not often life threatening. However, without first aid, they can lead to serious problems and even permanent disabilities.

a) **Brief overview of the anatomy and physiology of Bone, Muscle, and Joint injuries**: The musculoskeletal system is made up of bones that form the skeleton along with muscles, tendons, ligaments, and joints. Together this system gives the body shape, form, and stability. Bones and muscles work together to make the body parts move.

The skeleton is formed by over 200 bones of various sizes and shapes. It protects vital organs and other soft tissues. The skull protects the brain. The ribs protect the heart and lungs. The spinal column protects the spinal cord.

Muscles are soft tissues. The body has over 600 muscles. Most are skeletal muscles which attach to the bones. Through the nerves, the brain directs muscles to move. Skeletal muscles also protect the bones, nerves, and blood vessels. Most skeletal muscles are attached to bone at each end by tendons. Muscles and their tendons stretch across joints. Injuries to the brain, the spinal cord, or the nerves can affect muscle control.

Joints— A joint is formed where two or more bones come together. Most joints allow motion, but some are fused together, such as the bones of the skull, to form solid structures. Joints are held together by ligaments. All joints have a normal range of movement. When a joint is forced beyond its normal range, ligaments stretch and can tear. Stretched and torn ligaments make the joint unstable and can produce disability.

b) **Causes and Types of Bone, Muscle, and Joint Injuries** - falls, an awkward or sudden movement, or an automobile accident. There are 4 basic types of injuries:

- Fracture (break) of bone
- Dislocation
- Sprain
- Strain

Fracture—A fracture is a break, chip, or crack in a bone. With very young children, a bend (greenstick fracture) can also occur.

Fractures are usually caused by direct or indirect forces. Strong twisting forces and muscle contractions can also cause a fracture. An open fracture is one with an open wound. Open fractures often occur when the limb is badly bent, causing bone ends to tear the skin or when an object pierces the skin and breaks the bone. Closed fractures, which leave the skin unbroken, are more common. Open fractures are more serious because of the risks of infection and blood loss. Fractures are not always obvious.

Dislocation—is a separation of a bone from its normal position at a joint.

Dislocations are usually caused by strong forces. Some joints, such as the shoulder or fingers, dislocate relatively easily because their bones and ligaments provide less protection. When bone ends are forced far enough beyond their normal position, ligaments stretch and tear. The strong force causing a dislocation can also cause a fracture and can damage nearby nerves and blood vessels. Dislocations are generally obvious injuries because the joint appears deformed.

Sprain—is the tearing of ligaments at a joint when the bones are forced beyond their normal range of motion. The sudden forcing of a joint can completely rupture ligaments and dislocate the bones. The bones may also fracture. Mild Sprains which only stretch ligaments generally heal quickly. The person may feel pain for a short time and return to activity with little or no soreness. For this reason people often neglect sprains and the joint is often reinjured. Severe Sprains usually cause pain when the joint is moved or used. The joints of the ankle, knee, fingers, and wrist are most commonly sprained.

Strain - is a stretching and tearing of a muscle or tendon. It is sometimes called a "muscle pull' or "tear." Strains often result from lifting something too heavy, working a muscle to hard, or moving suddenly or awkwardly. Strains are common in the neck or back, the front or back of the thigh, or the back of the lower leg. Neck and lower back strains can be very painful.

Muscle Cramps - Are not an injury, but a type of pain that may occur after or during exercising or if the arm or leg is in the same position for a long time. Stretching and massaging the area, resting, and changing one's position are usually enough for the pain to stop. Heat cramps may feel like muscle cramps but occur when the muscles lose fluids after exercise.

Specific Bone, Muscle And Joint Injuries:

--shoulder, upper arm, forearm, wrist, hand injuries, pelvis, thigh and lower leg, knee injuries, ankle and foot injuries.

c) **Prevention-** safety. Avoid jumping from heights. Safety around the home/workplace to prevent falls. Get regular exercise to strengthen the body.

d) **Signs And Symptoms-**

- Pain
- Tenderness

- Swelling
- Inability to use the injured part normally

The following may occur with more severe injuries:

- Discoloration of the skin
- Deformity
- External bleeding
- A feeling of bones grating or a feeling or sound of a snapping at the time of injury.

Pain, swelling, and tenderness often occur with any significant injury.

e) **First Aid Response**- General Care: the care for all bone, muscle, and joint injuries is similar. Avoid causing any more pain. Keep the person as comfortable as possible.

Rest- Avoid any movements that cause pain. Help the person find the most comfortable position. If you suspect head, neck, or back injuries, leave the person lying flat.

Immobilization - If you suspect a serious injury, you must immobilize the injured part before giving additional care. The purposes of immobilizing an injury are to: lessen pain; prevent further damage; reduce the risk of further bleeding; reduce the possibility of loss of circulation to the injured part; prevent closed fractures from becoming open fractures.

You can immobilize an injured part with a splint, sling, or bandages to keep it from moving. A **splint** is a device that keeps an injured part in place. An effective splint must extend above and below the injury. To immobilize a bone, splint the joints above and below the fracture. To immobilize a joint, splint the bones above and below the injured joint. (Demonstrate)

When using a splint, follow these four basic rules:

- Splint only if you can do it without causing more pain.
- Splint an injury in the position you find it.
- Splint the injured area and the joints above and below the injury site.
- Check for proper circulation before and after splinting by asking the person if the fingers or toes feel numb and by checking whether the fingers or toes feel warm and have color in the nail-beds.

Types of Splints: There are 3 types of splints: soft, rigid, and anatomic. Soft splints include folded blankets, towels, pillows, and slings or bandages. A sling is a triangular bandage tied to support an arm, wrist, or hand. A wad of cloth or bandages can serve as effective splints for small body parts such as the hand or fingers. Rigid splints include boards, metal strips, and folded magazines or newspapers. Anatomic splints use the body itself as a splint. For example, an arm can be splinted to the chest.

Follow these general rules:

1. Support the injured part. If possible, have the person or someone else help you keep movement of the injured part to an absolute minimum.
2. Cover any open wounds with a dressing and bandage to help control bleeding and prevent infection.
3. If using a rigid splint, pad the splint so that it is shaped to the injured part.
4. Hold the splint in place with bandages.
5. Every 15 minutes, check to make sure that the splint is not too tight. Loosen the splint if the person complains of numbness. 1

Demonstrate How To Splint An Injured Arm and Leg.

Cold- With all injuries except open fractures, if possible, apply ice with a towel between the ice and skin. Cold helps ease the pain and reduce swelling by constricting the blood vessels. A general rule for cold application is 15 minutes every hour for the first 24-48 hours after the injury. If ice is not available, cool water compress may help.

(For sprains or strains, once the swelling has gone down—usually takes 2-3 days after the injury—heat may be applied to increase the blood flow and speed healing.)

Elevation- elevating the injured area helps slow the flow of blood, reducing swelling. If possible, raise the injured area above the level of the heart. Do not try to evaluate a part you suspect is fractured until it is splinted or if raising the area causes additional pain or discomfort.

6. Soft Tissue Injuries

a) **Brief overview** of anatomy and physiology of soft tissues--the soft tissues include the layers of skin, fat, and muscles that protect the underlying body structures. The skin is the body's largest single organ. It protects the body, helps control body temperature, and senses the environment through nerve endings. The skin has two layers. The outer layer, the epidermis, blocks germs that can cause infection. The deeper layer, the dermis, contains nerves, sweat and oil glands, and many blood vessels. Most soft tissue injuries are painful and are likely to bleed. Under the skin is a layer of fat. This layer helps maintain body temperature. The muscles are under the fat layers. Most soft tissue injuries involve the outer layers.

b) **Causes and Types of Soft Tissue Injuries -** called a wound. A wound is a closed wound when the soft tissue damage occurs under the skin. A wound is an open wound if there is a break in the skin's outer layer.

Closed Wounds: Bruises, also called a contusion. Bruises result when some force impacts the body, such as when you bump your leg on a table. This impact can damage soft tissue layers and blood vessels beneath the skin, causing internal

bleeding. When blood and other fluids seep into nearby tissues, the area discolors and swells.

Open Wounds: are injuries that break the skin. They can be as minor as a scrape or as severe as a deep penetrating wound. Any break in the skin can let in microbes (germs/bacteria/viruses)

There are four main types of open wounds:

- **Abrasions-** the skin is rubbed or scraped away. This often occurs when a child falls and scrapes his or her hands or knees. The scraping exposes nerve endings and usually causes pain. Bleeding is light and easily controlled. Dirt and other matter can get into the skin, so it is very important to clean the wound and to remove all visible dirt.
- **Laceration**- is a cut with jagged or smooth edges. This type is commonly caused by sharp-edged objects, such as knives, broken glass, etc. Deep lacerations can damage layer of fat and muscle. Lacerations usually bleed freely.
- **Avulsion**- is a piece of skin and sometimes other soft tissue that is torn away. A partly avulsed piece of skin may remain attached like a flap. Bleeding is usually heavy if deeper soft tissue layers are involved.
- **Puncture-** occurs when the skin is pierced with a pointed object such as a nail, piece of glass, splinter, etc. Because the skin usually closes, external bleeding is not heavy, but internal bleeding can be very serious, depending on the penetration depth and width.

Objects going into the soft tissue carry germs (i.e. Tetanus). Tetanus produces a powerful poison that affects the nervous system and muscles.

c) **Prevention of Soft Tissue Injuries** - Safe use of sharp tools, safe storage of sharp tools away from young children, proper footwear, disposing garbage in proper places (razors, nails), safety around fire. Supervise young children.

Preventing Infection - Wash the injured area with clean water. For wounds not bleeding heavily, wash the area with soap and clean water. Most soaps remove harmful bacteria. Gentian violet applied to minor wounds. Keep the injured area clean while it heals. Keep flies and dirt off. An antibiotic ointment may need to be applied to the wound.

Immunization for Tetanus

d) **Signs and Symptoms of SERIOUS soft tissue injures include**:

- Heavy bleeding
- Damage to deep layers of body tissue
- Severe swelling or discoloration
- Severe pain or the inability to move a body part

Signs of infection:

- The area around the wound becomes swollen, darker, and warm.
- The area may throb with pain
- Some wounds have a pus discharge. (yellowish discharge)
- Serious infections may cause a person to develop a fever and feel ill.

e) **First Aid Response -**

- **Most minor closed wounds** do not require special medical care. Direct pressure on the area decreases bleeding. For soft tissue, closed wounds that were caused by a hard fall/hit, watch out for signs of internal injuries.
- **Major Open Wounds**- **R**est, **E**levation, **D**irect Pressure.
  If a body part has been completely cut off, try to find the body part. Apply direct pressure to stop bleeding. Wrap the body part in any clean material and place in a water-proof bag. If possible, keep the part cool by placing ice on it. Transport person and body part to the hospital as soon as possible.
    - **Impaled object** (depending on the size, and depth of penetration) in a wound that is **bleeding**: do not remove the object. Use bulky dressings to stabilize it. Control bleeding by bandaging the dressings in place around the object. Transport as soon as possible to medical facility.

Burns- most burns can be prevented. Take special care with children! Do not let small children or babies go near a fire. Keep lamps and matches out of reach of small children. Turn handles of pans so children cannot reach them.

Anatomy and Physiology of Burns: burns are a soft tissue injury usually caused by heat but also by chemicals, electricity, or radiation such as with sunburn. Burns first destroy the top layer of skin, the epidermis. If the burn progresses, the dermis layer is also injured.

Causes and Types of Burns: Burns are classified by their causes and their deepness: First degree (superficial), second degree (partial thickness) and third degree (full thickness). The deeper the burn, the more severe it is.

First degree burns: minor burns—do not form blisters. Only the top layer of skin is damaged. The skin is darker and dry, and the burn is usually painful. The area may swell.

Second degree burns: damage both layers of the skin—the epidermis and the dermis. Heat or very severe sunburn or chemical burns can cause second degree burns. The skin is darker, and has blisters that may open and leak clear fluid, making the skin appear wet. These burns are usually painful, and the area often swells. Scarring may occur.

Third degree burns (deep burns): destroys both layers of skin as well as any or all of the underlying structures—nerves, blood vessels, fat, muscles, and bones. Severe heat or fire and electrical burns or lightning can cause third degree burns. These burns can look either charred (very black) or waxy dark. Third degree burns can be life threatening if extensive burn has covered much of the body because of fluid loss that leads to shock. Infection also is likely. Scarring occurs and may be severe.

First Aid Response for Burns –

Group Question: How have you seen burns treated?

These are the recommended ways to treat burns.
First degree burns: Wash it with soap and water and keep it clean. Keep the area cool with water.
Second degree burns: do not break blisters. If the blisters are broken, wash gently with soap and clean water. Cool the burned area with clean water. You can put sterile Vaseline on the burn if you don't have any antibiotic ointment. Put sterile gauze on the burn. *Never smear on grease or butter.* It is very important to keep the burn as clean as possible. Protect it from dirt, dust, and flies.
Third degree burns: cool the burned area with clean water. Very special care is needed and it is recommended that a person with 3rd degree burns be seen by a medical doctor. They will most likely need antibiotics.
Chemical burns: Wash it off as soon as possible, under running water.
Electrical burns: *** *make sure it is safe to approach someone who has an electrical burn that the power is properly turned off*** (if they are still near a live wire)

7) Other Conditions that may require First Aid.
Heat Emergencies: The body generally regulates its temperature very well. However, when the body cannot manage extreme heat, problems result. Extreme heat can occur both indoors and outdoors.
Prevention of heat emergencies: avoid being outdoors in the hottest part of the day. If you have to be outside, be in the shade. Slow down your activities as it gets hotter, and work or exercise in brief periods. Dress appropriately. DRINK PLENTY OF fluids!
Signs and Symptoms of Heat Emergencies:

Heat Exhaustion:

- Normal or slightly elevated body temperature
- Cool, moist skin
- Headache
- Nausea
- Dizziness and weakness
- Exhaustion.

Heat Stroke:

- High body temperature
- Hot, dry skin, especially in the elderly
- Irritable, bizarre, or combative behavior
- Progressive loss of consciousness
- Rapid, weak pulse becoming irregular
- Rapid, shallow breathing.

First Aid: *Cool the Body*. Give fluids to drink if the person is conscious. Loosen any tight clothing and remove clothing soaked with perspiration. Put cool water on the skin and fan the person. Rest in a cool place, or get into the shade. Place a cool, wet cloth on the face and around the neck.

Poisoning- results when an external substance enters the body. The substance may be a drug or any chemical substance, taken intentionally or unintentionally, or a poison or microbe that enters the body through a bite, sting, or puncture wound. (You may not think of drugs, medications, and other substances people take on purpose as poisons, but they can have a toxic effect on the body if misused or abused.)

Causes of Poisonings: Four ways in which poison can enter the body:

1. **Ingestion**– swallowed or come in contact with the mouth and lips. (many substances which are not poisonous in small amounts are poisonous in larger amounts.) Any prescription or medication can be toxic if not used according to directions. Even herbs can be toxic if not used properly.
2. **Inhaled**— breathed into the lungs. These include gases and fumes such as carbon monoxide from a car exhaust.
3. **Absorbed**—enter the body through the skin. They include poisonous plants/leaves. chemicals.
4. **Injected**-- enter the body through bites or stings of bees, wasps, insects, spiders, ticks, animals, and snakes, or as drugs injected with a needle.

Some common poisons to watch out for: rat poison, DDT, insecticides or plant poisons, medicine (any kind when much is swallowed), gentian violet, bleach, cigarettes, alcohol, poisonous leaves, seeds, berries or mushrooms; matches, kerosene, paint thinner, gasoline, petrol, lighter fluid, lye or caustic soda, salt (if too much is given to babies and small children), spoiled food.

Prevention: Keep known poisons and medications out of reach of children. Teach children about plants, berries, seeds not to eat.

First Aid for ingested-
If you suspect poisoning, do the following immediately, for a **conscious (awake) person only.** Make the person vomit by putting your finger inside his throat (back of tongue, up top). Or give them a tablespoon of syrup of ipecac followed by 1 glass of water. Or make him drink water with salt in it (*6 teaspoons* to *1 cup of water*). Of course, this will depend on the age of the person. If you have it, give the person a cup of activated charcoal or a tablespoon of powdered charcoal mixed into a glass of water. For an adult, give 2 glasses of this mixture.

Caution: Do NOT make a person vomit *if he has swallowed kerosene, gasoline* (petrol), or strong acids or corrosive substances (lye), or if he is unconscious.

As well, it is **not safe** to give **a young child palm *oil*** *to drink in hopes that the child will vomit.* If the child aspirates (breathes in and chokes on his vomit, with the red oil, this CAN CAUSE serious damage to the lungs and possible death to the child!

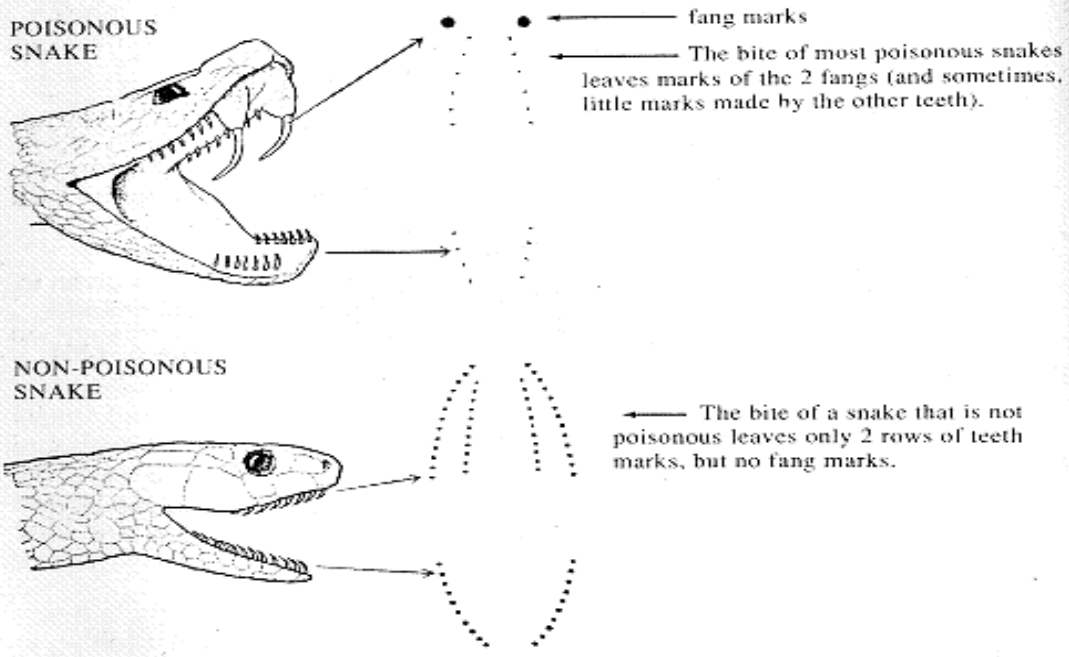
First Aid for inhaled (breathed in) poisons: Remove person from the fumes or gas if it is safe for you to do so. Get them to fresh air. For severe inhalation, take to a medical clinic as soon as possible. If person has stopped breathing, begin rescue breathing, making sure that it is safe to do so (no poison on their mouth)

First Aid for absorbed poisons: Wash the affected area thoroughly with soap and water. Remove any contaminated clothing and avoid contact with it until it has been properly laundered. If a rash or weeping lesion develops, apply a paste of bicarbonate soda and water to the area several times a day for comfort.

First Aid for injected poisons: (see below pgs. 104-105 of Where There is No Doctor)

Snake bites:

When someone has been bitten by a snake, try to find out if the snake was poisonous or harmless. Their bite marks are different:

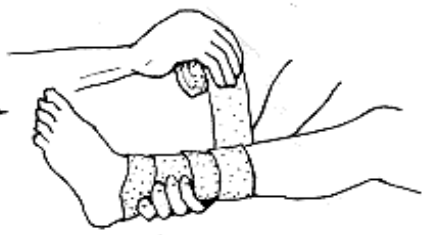


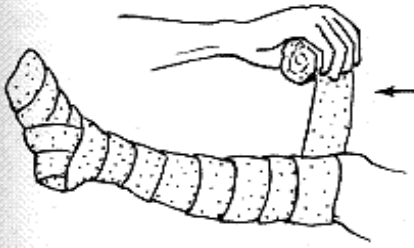
People often believe that certain harmless snakes are poisonous. Try to find out which of the snakes in your area are truly poisonous and which are not. Contrary to popular opinion, boa constrictors and pythons are not poisonous. Please do not kill non-poisonous snakes, because they do no harm. On the contrary, they kill mice and other pests that do lots of damage. Some even kill poisonous snakes.

Treatment for poisonous snakebite:

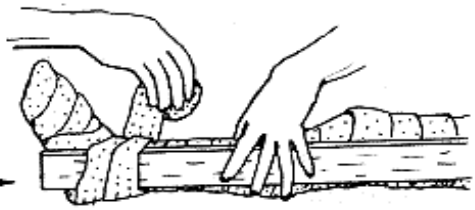
1. **Stay quiet; do not move the bitten part.** The more it is moved, the faster the poison will spread through the body. If the bite is on the foot, the person should not walk at all. **Send for medical help.**

2. Wrap the bitten area with a wide elastic bandage or clean cloth to slow the spread of poison. Keeping the arm or leg very still, wrap it tightly, but not so tight it stops the pulse at the wrist or on top of the foot. If you cannot feel the pulse, loosen the bandage a little.





3. Wind the bandage over the hand or foot, and up the whole arm or leg. Make sure you can still feel the pulse.



4. Then, put on a splint to prevent the limb from moving (see p. 14).

5. Carry the person, on a stretcher if possible, to the nearest health center. If you can, also take the snake, because different snakes may require different antivenoms (antitoxins, see p. 388). If an antivenom is needed, leave the bandage on until the injection is ready, and take all precautions for ALLERGIC SHOCK (see p. 70). If there is no antivenom, remove the bandage.

6. Give acetaminophen, not aspirin, for pain. If possible, give tetanus vaccine. If the bite becomes infected, give penicillin.

7. Also, **ice** helps to reduce pain and slow the poison. Wrap the arm or leg with a plastic sheet and a thick cloth. Then pack crushed ice around it. (*Caution:* Too much cold can damage skin and flesh. When it is getting too cold it begins to ache. So let the person decide when to remove the ice for a few minutes.)

Have antivenoms for snakes in your area ready and know how to use them—before someone is bitten!

Poisonous snakebite is dangerous. Send for medical help—but always do the things explained above **at once.**

Most folk remedies for snakebite do little if any good (see p. 3).

Never drink alcohol after a snakebite. It makes things worse!

Convulsions: Sometimes when the brain is affected by injury, disease, fever, infection, or unknown reasons, its electrical activity becomes irregular. This condition can cause a loss of body control known as a convulsion.
Causes of Convulsions: Fever and certain illnesses and injuries may cause convulsions. A common cause is epilepsy. Convulsions in infants and young children may be caused by high fever. These are called **Febrile Convulsions.**
Prevention: Treat fevers and the cause of the fever as soon as possible.
If the person is a known epileptic, make sure that they take the proper medication. The doctor may need to be notified to adjust the dosage of medication.
Signs and Symptoms of Convulsions: Before a convulsion occurs the person may hallucinate and see, hear, taste, or smell something not there. If the person recognizes this feeling, he or she may have time to tell someone and sit down before the convulsion takes place.
First Aid: Do not try to stop the convulsion or restrain the person. The goal of first aid for convulsions is to protect the person from injury and make sure they have a clear airway. Move away nearby objects that might cause injury. Keep the person away from dangerous situations such as fire, heights, or water. Protect the person's head by placing a cushion or folded cloth beneath it. If there is salvia, blood, or vomit in the person's mouth, move him or her into the recovery position (side lying) so that it drains from the mouth. Do not try to place anything between the person's teeth; biting the tongue or cheek hard enough to cause much bleeding is rare.
After the convulsion the person will be drowsy and confused. Be reassuring and comforting. If the convulsion occurs in public, the person may be embarrassed.
Be sure to take to doctor if convulsion is of unknown reason. As well, seek medical care if:

- The convulsion last more than a few minutes
- The person has repeated convulsions
- The person appears to be injured
- You are uncertain about the cause of the convulsion
- The person is pregnant
- The person is a known diabetic
- The person is an infant or child
- The person fails to regain consciousness after the convulsion.

Diabetic Emergencies - A diabetic emergency can happen only to someone who has diabetes. You may or may not know this information about the person who needs first aid.
Anatomy and Physiology of Diabetic Emergencies: To function, the body uses sugar as a source of energy. To use sugar, the body needs insulin, which the body normally makes itself. If the body does not make enough insulin or does not use it properly, the person has diabetes. The person is called a diabetic.

In one type of diabetes, the body produces little or no insulin. This type often begins in childhood and is called juvenile diabetes. Most insulin-dependent diabetics have to inject insulin into their bodies every day.
In the other type of diabetes, non-insulin-dependent, the body makes some insulin but not enough for the body's needs. This condition usually begins later in life.
Causes of Diabetic Emergencies: Too much or too little sugar in the body can cause illness. When the insulin level in the body is too low, the sugar level in the blood will become too high. This is called hyperglycemia. The body tries to get energy from stored food and energy sources such as fats, but this makes the blood more acid and causes the person to become extremely ill. Hyperglycemia can then lead to diabetic coma.
On the other hand, if the insulin is too high the person will develop a low sugar level. This condition is called hypoglycaemia. It is caused by: taking too much insulin; failing to eat enough; over exercising and burning off sugar faster than normal. In hypoglycaemia, the small amount of sugar is used up rapidly, and there is not enough for the brain to work. This will cause the person to become unconscious.
Signs and Symptoms: The signs and symptoms of hyperglycemia and hypoglycaemia differ somewhat, but the major signs and symptoms are similar:

- Changes in the level of consciousness, including dizziness, drowsiness, and confusion, sometimes leading to coma.
- Rapid breathing
- Rapid pulse
- Feeling and looking ill

First Aid - If the person is conscious and aware that they have diabetes, they probably will tell you. If the person can take food or fluids, give him or her something with sugar in it. Most candy, fruit juices, and minerals have sugar in them. If the person's problem is low sugar, the sugar you give will help quickly. If the person already has too much sugar, the extra sugar will not cause further harm over a short period of time. They will need insulin.

The following pages on **Acute Abdomen** are for your reference information only and have been provided in the student handbook also. Please encourage students to read this information on their own time. The information is taken directly from Where There is No Doctor A village health care handbook by David Werner, new revised edition, which is authorized for reproduction.

EMERGENCY PROBLEMS OF THE GUT (ACUTE ABDOMEN)

Acute abdomen is a name given to a number of sudden, severe conditions of the gut for which prompt surgery is often needed to prevent death. Appendicitis, peritonitis, and gut obstruction are examples (see following pages). In women, pelvic inflammatory disease, or an out-of-place pregnancy can also cause an acute abdomen. Often the exact cause of acute abdomen will be uncertain until a surgeon cuts open the belly and looks inside.

If a person has continuous severe gut pain with vomiting, but does not have diarrhea, suspect an acute abdomen.

ACUTE ABDOMEN:

Take to a hospital—surgery may be needed

- continuous severe pain that keeps getting worse
- constipation and vomiting
- belly swollen, hard, person protects it
- severely ill

LESS SERIOUS ILLNESS:

Probably can be treated in the home or health center

- pain that comes and goes (cramps)
- moderate or severe diarrhea
- sometimes signs of an infection, perhaps a cold or sore throat
- he has had pains like this before
- only moderately ill

If a person shows signs of acute abdomen, get him to a hospital as fast as you can.

Obstructed Gut

An acute abdomen may be caused by something that blocks or 'obstructs' a part of the gut, so that food and stools cannot pass. More common causes are:

- a ball or knot of roundworms (Ascaris, p. 140)
- a loop of gut that is pinched in a hernia (p. 177)
- a part of the gut that slips inside the part below it (intussusception)

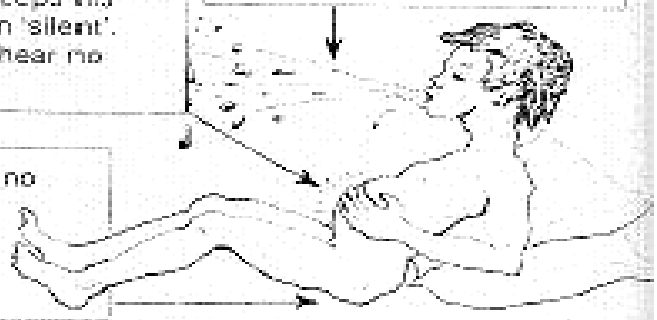
Almost any kind of acute abdomen may show some signs of obstruction. Because it hurts the damaged gut to move, it stops moving.

Signs of an obstructed gut:

Steady, severe pain in the belly.

This child's belly is swollen, hard, and very tender. It hurts more when you touch it. He tries to protect his belly and keeps his legs doubled up. His belly is often 'silent'. (When you put your ear to it, you hear no sound of normal gurgles.)

Sudden vomiting with great force! The vomit may shoot out a meter or more. It may have green bile in it or smell and look like feces.



He is usually constipated (little or no bowel movements). If there is diarrhea, it is only a little bit. Sometimes all that comes out is some bloody mucus.

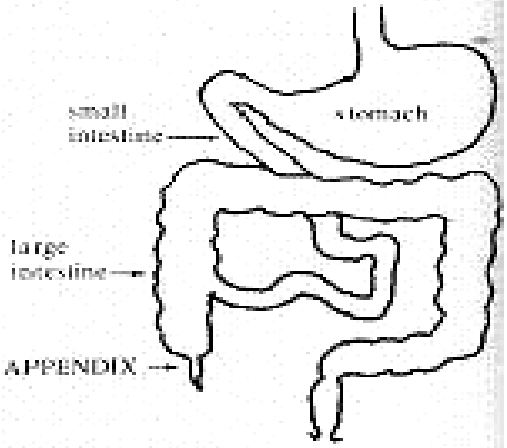
Get this person to a hospital **as fast as possible.** His life is in danger and surgery may be needed.

Appendicitis, Peritonitis

These dangerous conditions often require surgery. Seek medical help fast.

Appendicitis is an infection of the *appendix*, a finger-shaped sac attached to the large intestine in the lower right-hand part of the belly. An infected appendix sometimes bursts open, causing *peritonitis*.

Peritonitis is an acute, serious infection of the lining of the cavity or bag that holds the gut. It results when the appendix or another part of the gut bursts or is torn.

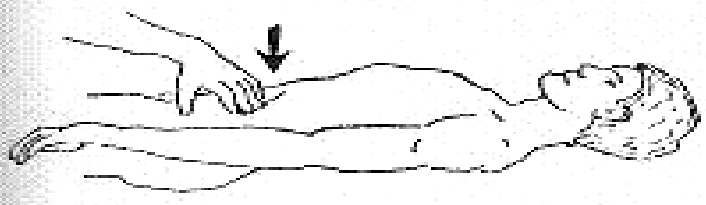


Signs of appendicitis:

- The main sign is a steady pain in the belly that gets worse and worse.
- The pain often begins around the navel ("bellybutton"),

  but it soon moves to the lower right side.
- There may be loss of appetite, vomiting, constipation, or a mild fever.

TESTS FOR APPENDICITIS OR PERITONITIS:



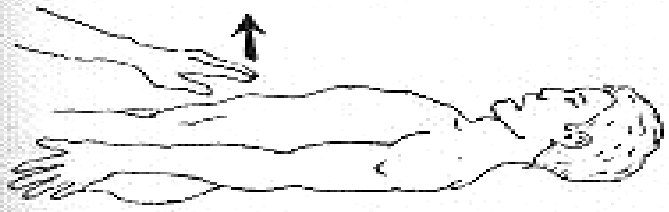
Have the person cough and see if this causes sharp pain in the belly.

Or, slowly but forcefully, press on the abdomen a little above the left groin until it hurts a little.

Then quickly remove the hand.

If a very sharp pain *(rebound pain)* occurs when the hand is removed, appendicitis or peritonitis is likely.

If no rebound pain occurs above the left groin, try the same test above the right groin.



IF IT SEEMS THAT A PERSON HAS APPENDICITIS OR PERITONITIS:

- **Seek medical help immediately.** If possible, take the person where he can have surgery.
- **Do not give anything by mouth** and do not give an enema. Only if the person begins to show signs of dehydration, give sips of water or Rehydration Drink (p. 152) made with sugar and salt—but nothing more.
- The person should rest very quietly in a half-sitting position.

Note: When peritonitis is advanced, the belly becomes hard like a board, and the person feels great pain when his belly is touched even lightly. His life is in danger. Take him to a medical center immediately and on the way give him the medicines indicated at the top of page 93.

Consult with qualified medical personnel for proper administration of any medications.

Leader: To test your students' understanding of first aid, present the following scenarios to **groups of two people** and **have them demonstrate (show) and tell what they would do in the scenarios that they are given.** While each group presents their answers, the others will be evaluating their peer's answers and making any corrections or additional appropriate answers, once the group has given their complete answer and possibly demonstration. Each group must present how these situations can be prevented. Allow them appropriate amount of time to prepare and practice before they present their responses/answers. You may find it helpful to print these scenarios out on individual pieces of paper and hand them out to the groups. Depending on the size of the class, divide the 10 scenarios up equally. (With a larger class, you will have more people in the group)

Scenario #1 - Your friend accidently runs into a wall just shortly after the power goes out and has blood pouring out of his nose. What will you do?

Scenario #2 - Walking home from the market, you step in a hole and twist your ankle. By the time you get home, your ankle is swollen and painful. What will you do?

Scenario #3 - While preparing a meal, your wife accidently pours boiling water on her arm and hand. It is very painful, dark, and is forming small raised blisters. What will you do?

Scenario #4 - As you were walking home, a teenager riding a bicycle fell and landed hard on his arm. He says he felt it 'break'. Cars were driving by very fast. What will you do?

Scenario #5 - During church, the man sitting beside you grabs his chest and starts to moan in pain and starts sweating and feels dizzy. What might be happening? What will you do?

Scenario #6 - After arriving home from the market, you find your neighbor lying on the ground beside a coconut tree. He is unconscious. What will you do?

Scenario #7 - During a wedding ceremony, while eating rice and meat, your friend is laughing and talking fast while eating. He suddenly stands up, grasping at his throat. What will you do?

Scenario #8 - While clearing the bush with a machete with a friend, you suddenly hear a yell. Your friend is grasping at his leg and there is blood gushing from it. What will you do?

Scenario #9 - A five year old was running around in the compound and stepped on a rusty nail which went into his foot. What will you do?

Scenario #10 - Your great aunt, who is very obese, is visiting you. She complains of a severe headache. A little later, you find her not able to speak and half her mouth is drooping. What do you suspect? What will you do?

MAIN FOODS AND **HELPER FOODS**

In much of the world, most people eat **one main low-cost food** with almost every meal. Depending on the region, this may be rice, maize, millet, wheat, cassava, potato, breadfruit, or banana. **This main food usually provides most of the body's daily food needs.**

However, the **main food** alone is not enough to keep a person healthy. Certain **helper foods** are needed. This is especially true for growing children, women who are pregnant or breast feeding, and older people.

Even if a child regularly gets enough of the main food to fill her, she may become thin and weak. This is because the main food often has so much water and fiber in it, that the child's belly fills up before she gets enough energy to help her grow.

We can do 2 things to help meet such children's energy needs:

1. **Feed children more often**—at least 5 times a day when a child is very young, too thin, or not growing well. Also give her snacks between meals.

CHILDREN, LIKE CHICKENS,
SHOULD ALWAYS BE PECKING.

2. **Also add high energy 'helper foods'** such as oils and sugar or honey to the main food. It is best to add vegetable oil or foods containing oils—nuts groundnuts (peanuts), or seeds, especially pumpkin or sesame seeds.

To meet her energy needs, a child would need to eat this much boiled rice.

If the child's belly fills up before her energy needs are met, the child will become thin and weak.

But she needs only this much rice when some vegetable oil is mixed in.

EATING RIGHT TO STAY HEALTHY

The 'main food' your family eats usually provides **most—but not all**—of the body's energy and other nutritional needs. By adding **helper foods** to the **main food** you can make low-cost nutritious meals. You do not have to eat all the foods listed here to be healthy. **Eat the main foods you are accustomed to, and add whatever 'helper foods' are available in your area.** Try to include 'helper foods' from each group, as often as possible.

GO FOODS

(energy helpers)

Examples:

Fats (vegetable oils, butter, *ghee*, lard)
Foods rich in fats (coconut, olives, fatty meat)
Nuts* (groundnuts, almonds, walnuts, cashews)
Oil seeds (pumpkin, melon, sesame, sunflower)
Sugars (sugar, honey, molasses, sugar cane, jaggery)

* *Note:* Nuts and oil seeds are also valuable as body-building helpers.

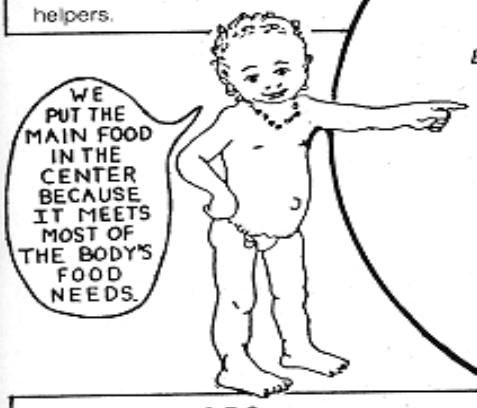
REMEMBER: Feeding children **enough** and feeding them **often** (3 to 5 times a day) is usually more important than the types of food you feed them.

MAIN FOODS

Examples:

Cereals and grains (wheat, maize, rice, millet, sorghum)
Starchy roots (cassava, potatoes, taro)
Starchy fruits (banana, plantain, breadfruit)

Note: Main foods are cheap sources of energy. The cereals also provide some protein, iron, and vitamins—at low cost.



GROW FOODS

(proteins or body-building helpers)

Examples:

Legumes (beans, peas, and lentils)
Nuts (groundnuts, walnuts, cashews, and almonds)
Oil seeds (sesame and sunflower)
Animal products (milk, eggs, cheese, yogurt, fish, chicken, meat, small animals such as mice, and insects)

GLOW FOODS

(vitamins and minerals or protective helpers)

Examples:

Vegetables (dark green leafy plants, tomatoes, carrots, pumpkin, sweet potato, and peppers)
Fruits (mangoes, oranges, papayas, etc.)

Note to nutrition workers: This plan for meeting food needs resembles teaching about 'food groups', but places more importance on giving enough of the traditional 'main food' and **above all, giving frequent feedings with plenty of energy-rich helpers.** This approach is more adaptable to the resources and limitations of poor families.

Better Foods at Low Cost:

Many of the world's people eat a lot of bulky, starchy foods, without adding enough helper foods to provide the extra energy, body-building, and protection they need. This is partly because many helper foods are expensive—especially those that come from animals, like milk and meat.

Most people cannot afford much food from animals. Animals require more land for the amount of food they provide. A poor family can usually be better nourished if they **grow or buy plant foods like beans, peas, lentils, and groundnuts together with a main food such as maize or rice, rather than buy costly animal foods like meat and fish.**

People can be strong and healthy when most of their proteins and other helper foods come from plants.

However, where family finances and local customs permit, it is wise to eat, when possible, some food that comes from animals. This is because even plants high in protein (body-building helpers) often do not have all of the different proteins the body needs.

Try to **eat a variety of plant foods.** Different plants supply the body with different proteins, vitamins, and minerals. For example, beans and maize together meet the body's needs much better than either beans or maize alone. And if other vegetables and fruits are added, this is even better.

Here are some suggestions for getting more vitamins, minerals, and proteins at low cost.

1. **Breast milk.** This is the cheapest, healthiest, and most complete food for a baby. The mother can eat plenty of plant foods and turn them into the perfect baby food—breast milk. Breast feeding is not only best for the baby, it saves money and prevents diseases!

2. **Eggs and chicken.** In many places eggs are one of the cheapest and best forms of animal protein. They can be cooked and mixed with foods given to babies who cannot get breast milk. Or they can be given along with breast milk as the baby grows older.

Eggshells that are boiled, finely ground, and mixed with food can provide needed calcium for pregnant women who develop sore, loose teeth or muscle cramps.

Chicken is a good, often fairly cheap form of animal protein—especially if the family raises its own chickens.

3. **Liver, heart, kidney, and blood.** These are especially high in protein, vitamins, and iron (for anemia) and are often cheaper than other meat. Also **fish** is often cheaper than other meat, and is just as nutritious.

4. **Beans, peas, lentils, and other legumes** are a good cheap source of protein. If allowed to sprout before cooking and eating, they are higher in vitamins. Baby food can be made from beans by cooking them well, and then straining them through a sieve, or by peeling off their skins, and mashing them.

Beans, peas, and other legumes are not only a low-cost form of protein. Growing these crops makes the soil richer so that other crops will grow better afterwards. For this reason, crop rotation and mixed crops are a good idea (see p. w13).

5. **Dark green leafy vegetables** have some iron, a lot of vitamin A, and some protein. The leaves of sweet potatoes, beans and peas, pumpkins and squash, and baobab are especially nutritious. They can be dried, powdered, and mixed with babies' gruel.

Note: Light green vegetables like cabbage and lettuce have less nutritional value. It is better to grow ones with dark-colored leaves.

6. **Cassava (manioc) leaves** contain 7 times as much protein and more vitamins than the root. If eaten together with the root, they add food value—at no additional cost. The young leaves are best.

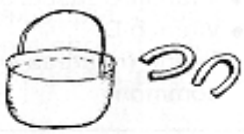
7. **Lime-soaked maize (corn).** When soaked in lime before cooking, as is the custom in much of Latin America, maize is richer in calcium. Soaking in lime also allows more of the vitamins (niacin) and protein to be used by the body.

8. **Rice, wheat, and other grains** are more nutritious if their outer skins are not removed during milling. Moderately milled rice and whole wheat contain more proteins, vitamins, and minerals than the white, over-milled product.

NOTE: The protein in wheat, rice, maize, and other grains can be better used by the body when they are eaten with beans or lentils.

9. **Cook vegetables, rice, and other foods in little water.** And do not overcook. This way fewer vitamins and proteins are lost. Be sure to drink the leftover water, or use it for soups or in other foods.

10. Many **wild fruits and berries** are rich in vitamin C as well as natural sugars. They provide extra vitamins and energy. (Be careful not to eat berries or fruit that are poisonous.)



11. **Cooking in iron pots** or putting a piece of old iron or horseshoe in the pan when cooking beans and other foods adds iron to food and helps prevent anemia. More iron will be available if you also add tomatoes.

For another source of iron, put some iron nails in a little lemon juice for a few hours. Then make lemonade with the juice and drink it.

12. In some countries, **low-cost baby food preparations** are available, made from different combinations of soybean, cotton seed, skim milk, or dried fish. Some taste better than others, but most are well-balanced foods. When mixed with gruel, cooked cereal, or other baby food, they add to its nutrition content—at low cost.

WHERE TO GET VITAMINS: IN PILLS, INJECTIONS, SYRUPS—OR IN FOODS?

Anyone who eats a good mixture of foods, including vegetables and fruits, gets all the vitamins he needs. It is always better to eat well than to buy vitamin pills, injections, syrups, or tonics.

If you want vitamins, buy eggs or other nutritious foods instead of pills or injections.

YES **NO**

Sometimes nutritious foods are scarce. If a person is already poorly nourished, he should eat as well as he can and perhaps take vitamins besides.

Vitamins taken by mouth work as well as injections, cost less, and are not as dangerous. **Do not inject vitamins! It is better to swallow them—preferably in the form of nutritious foods.**

If you buy vitamin preparations, be sure they have all these vitamins and minerals:

- Niacin (niacinamide)
- Vitamin B_1 (thiamine)
- Vitamin B_2 (riboflavin)
- Iron (ferrous sulfate, etc.)—especially for pregnant women. (For people with anemia, multi-vitamin pills do not have enough iron to help much. Iron pills are more helpful.)

In addition, certain people need extra:

- Folic Acid (folicin), for pregnant women
- Vitamin A, Vitamin C (ascorbic acid), Vitamin D — for small children
- Iodine (in areas where goiter is common)
- Vitamin B_6 (pyridoxine), for small children and persons taking medicine for tuberculosis
- Calcium, for children and breast feeding mothers who do not get enough calcium in foods such as milk, cheese, or foods prepared with lime

THE BEST DIET FOR SMALL CHILDREN

THE FIRST 6 MONTHS OF LIFE

For the first 6 months give the baby breast milk and nothing else. It is better than any baby food or milks you can buy. Breast milk helps protect the baby against diarrhea and many infections. It is best not to give extra water or teas, even in hot weather.

Some mothers stop breast feeding early because they think that their milk is not good enough for their baby, or that their breasts are not making enough milk. **However, a mother's milk is always very nutritious for her baby, even if the mother herself is thin and weak.**

If a woman has HIV/AIDS, sometimes she can pass this disease to a baby in her breast milk. But if she does not have access to clean water, her baby is more likely to die from diarrhea, dehydration, and malnutrition than AIDS. Only you can evaluate the conditions in your home and community and decide what to do.

Nearly all mothers can produce all the breast milk their babies need:

- The best way for a mother to keep making enough breast milk is to **breast feed the baby often, eat well, and drink lots of liquids.**
- Do not give the baby other foods before he is 4 to 6 months old, and **always breast feed before giving the other foods.**
- If a mother's breasts produce little or no milk, she should continue to eat well, drink lots of liquids and **let the baby suck her breasts often.** After each breast feeding, give the baby, by cup (not bottle), some other type of milk—like boiled cow's or goat's milk, canned milk, or powdered milk. (Do not use condensed milk.) Add a little sugar or vegetable oil to any of these milks.

Note: Whatever type of milk is used, some cooled, boiled water should be added. Here are two examples of correct formulas:

#1

2 parts boiled, cooled cow's milk
1 part boiled, cooled water
1 large spoonful sugar or oil for each large glass

#2

2 parts canned evaporated milk
3 parts boiled, cooled water
1 large spoonful sugar or oil for each large glass

If non-fat milk is used, add another spoonful of oil.

- If possible, boil the milk and water. **It is safer to feed the baby with a cup (or cup and spoon) than to use a baby bottle.** Baby bottles and nipples are hard to keep clean and can cause infections and diarrhea (see p. 154). If a bottle is used, boil it and the nipple each time before the baby is fed.
- If you cannot buy milk for the child, make a porridge from rice, cornmeal, or other cereal. Always add to this some skinned beans, eggs, meat, chicken, or other protein. Mash these well and give them as a liquid. If possible add sugar and oil.

WARNING: **Cornmeal or rice water alone is not enough for a baby. The child will not grow well. He will get sick easily and may die. The baby needs a main food with added helper foods.**

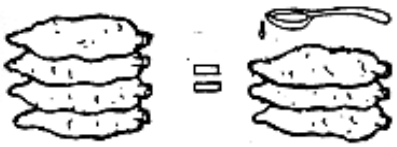
FROM 4 MONTHS TO 1 YEAR OF AGE:

1. **Keep giving breast milk,** if possible until the baby is 2 or 3 years old.

2. When the baby is between 4 and 6 months old, **start giving her other foods in addition to breast milk.** Always give the breast first, and then the other foods. It is good to start with a gruel or porridge made from the main food (p. 111) such as maize meal or rice cooked in water or milk. Then start adding a little **cooking oil** for extra energy. After a few days, start adding **other helper foods** (see p. 110). But **start with just a little of the new food,** and **add only 1 at a time** or the baby may have trouble digesting them. These **new foods need to be well cooked and mashed.** At first they can be mixed with a little breast milk to make them easier for the baby to swallow.

3. Prepare inexpensive, nutritious feedings for the baby by adding helper foods to the main food (see p. 110). Most important is to add foods that give extra energy (such as oil) and—whenever possible—extra iron (such as dark green leafy vegetables).

Remember, a young child's stomach is small and cannot hold much food at one time. So **feed her often,** and **add high-energy helpers** to the main food:



A spoonful of cooking oil added to a child's food means he has to eat only 3/4 as much of the local main food in order to meet his energy needs. The added oil helps make sure he gets enough energy (calories) by the time his belly is full.

CAUTION: The time when a child is most likely to become malnourished is from 6 months to 2 years old. This is because breast milk by itself does not provide enough energy for a baby after 6 months of age. Other foods are needed, but often the foods given do not contain enough energy either. If the mother also stops breast feeding, the child is even more likely to become malnourished.

For a child of this age to be healthy we should:

- Keep feeding her breast milk—as much as before.
- Feed her other nutritious foods also, always starting with just a little.
- Feed her at least 5 times a day and also give her snacks between meals.
- Make sure the food is clean and freshly prepared.
- Filter, boil, or purify the water she drinks.
- Keep the child and her surroundings clean.
- When she gets sick, feed her extra well and more often, and give her plenty of liquids to drink.

For mothers infected with the HIV/AIDS virus: After 6 months, your baby will be bigger and stronger, and will have less danger of dying from diarrhea. If you have been breast feeding her, now you should switch to other milks and feed the baby other foods. This way the baby will have less risk of getting HIV/AIDS.

ONE YEAR AND OLDER:

After a child is 1 year old, he can eat **the same foods as adults,** but should **continue to breast feed** (or drink milk whenever possible).

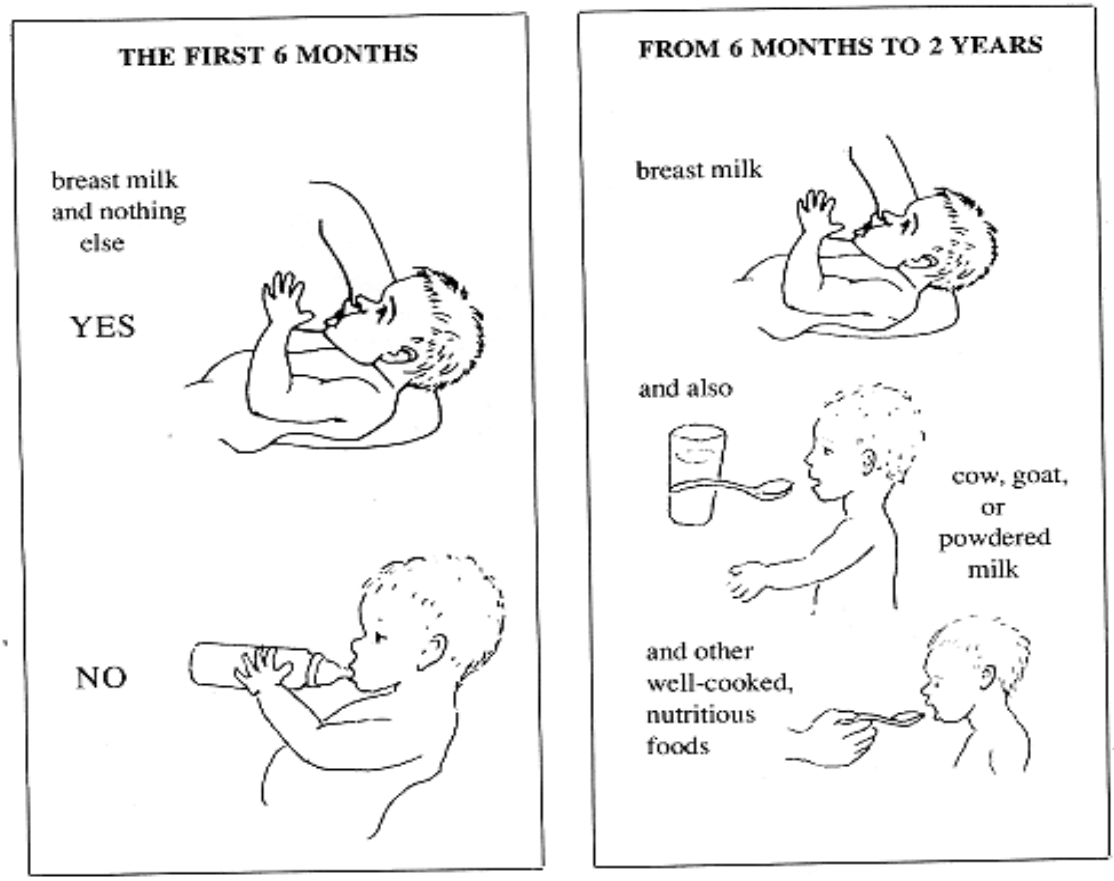
Every day, try to give the child plenty of the main food that people eat, together with 'helper' foods that give added high energy, proteins, vitamins, iron, and minerals (as shown on p. 111) so that he will grow up strong and healthy.

To make sure that the child gets enough to eat, **serve him in his own dish,** and let him take as long as he needs to eat his meal.

Children and candy: Do not accustom small children to eating a lot of candy and sweets or drinking soft drinks (colas). When they have too many sweets, they no longer want enough of the other foods they need. Also, sweets are bad for their teeth.

However, when food supply is limited or when the main foods have a lot of water or fiber in them, adding a little sugar and vegetable oil to the main food provides extra energy and allows children to make fuller use of the protein in the food they get.

THE BEST DIET FOR SMALL CHILDREN



First Aid for a Conscious Choking Adult with Complete Airway Obstruction

In order to determine if the person is choking, ask "Are you choking?" If the person is choking, summon someone who can help you. Then attempt abdominal thrusts for a conscious choking child or adult with complete airway obstruction. Stand behind the person and wrap your arms around the waist. Make a fist with one hand and place the thumb side of the fist on the middle of the abdomen slightly above the navel and well below the tip of the breastbone. Grasp your fist with the other hand and give quick, upward thrusts into the abdomen to dislodge the object. Repeat them until the casualty stops choking or becomes unconscious.

Chest Thrusts for a Conscious Choking Adult with Complete Airway Obstruction

In some cases, you should give chest thrusts instead of abdominal thrusts to choking adults. Use chest thrusts when you cannot reach far enough around the casualty or for women in late stages of pregnancy.

To give chest thrusts to a conscious casualty, stand behind the casualty; place your arms under the casualty's armpits and around the chest. As with abdominal thrusts, make a fist with one hand; place the thumb side against the centre of the casualty's breastbone. Be sure that your fist is centred on the breastbone, not on the ribs. Also

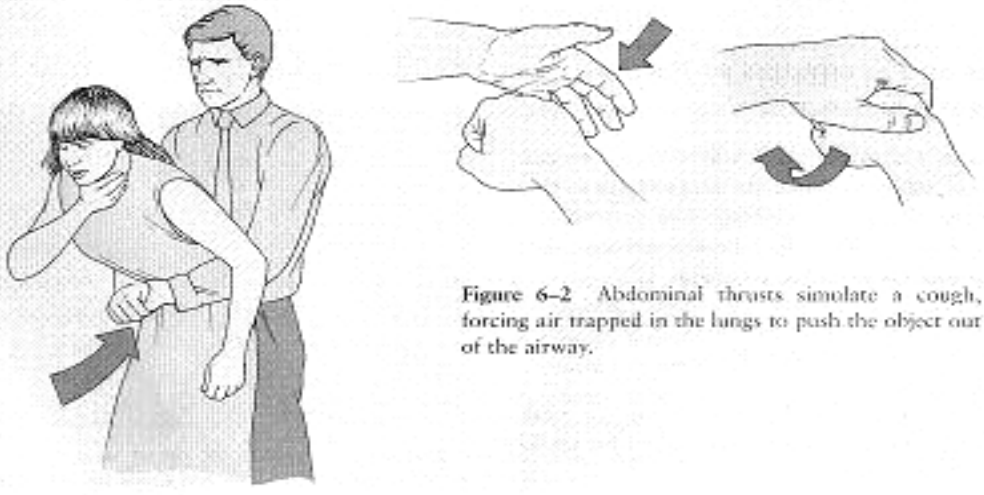


Figure 6–2 Abdominal thrusts simulate a cough, forcing air trapped in the lungs to push the object out of the airway.

Figure 6–3 Give chest thrusts if you cannot reach around the casualty to give abdominal thrusts or if the casualty is noticeably pregnant.

make sure that your fist is not near the lower tip of the breastbone. Grab your fist with your other hand and thrust inward (Figure 6–3). Repeat these thrusts until the object is dislodged or the casualty becomes unconscious.

First aid for yourself choking

If you are alone and choking, you can give yourself abdominal thrusts in one of two ways. (1) Make a fist with one hand and place the thumb side on the middle of your abdomen slightly above your navel and well below the tip of your breastbone. Grasp your fist with your other hand and give a quick upward thrust. Or (2) you can lean forward and press your abdomen over any firm object such as the back of a chair, a railing, or a sink (Figure 6–4). Be careful not to lean over anything with a sharp edge or a corner that might injure you.

When to Stop Abdominal Thrusts, Chest Thrusts, and Back Blows

Stop giving thrusts immediately if the object is dislodged or if the person begins to breathe or cough. Make sure the object is cleared from the airway. Watch that the person is breathing freely again, since the person may still have breathing problems. Since abdominal thrusts and chest thrusts may cause internal injuries, the person should be taken to the nearest hospital emergency department for follow-up care, even if he or she seems to be breathing without difficulty.

First Aid for Conscious Choking Children with Complete Airway Obstruction

First determine if the infant is choking by observing if the infant can breathe, cough, or cry, or is coughing weakly or making high-pitched sounds. If the infant is choking, summon someone who can help and proceed to provide first aid.

First aid for a child over age 1 who is choking is similar to that for an adult. The only significant differences involve considering the child's size when you provide care. Obviously, you cannot use the same force when giving abdominal thrusts to expel the object. Otherwise, use the same methods as for an adult.

First Aid for Conscious Choking Infants with Complete Airway Obstruction

First aid for an infant under age 1 who is choking includes a combination of chest thrusts given

Figure 6–4 To give yourself abdominal thrusts, you can press your abdomen onto a firm object such as the back of a chair.

with two fingers and back blows. Do not use abdominal thrusts as with children or adults. Turn the infant face down on your forearm with the head lower than the body, and with the heel of your hand give five forceful back blows between the infant's shoulder blades. Then turn the infant onto its back in your lap with head supported lower than the body. Give five chest thrusts with your middle and index fingers on the breastbone between the infant's nipples. Put the person in a comfortable position. Ensure that they are recovering properly and breathing easily.

First Aid for Respiratory Arrest

Rescue breathing for adults

Rescue breathing is a way of breathing air into someone to give the person the oxygen needed to survive. Rescue breathing is given to casualties who are not breathing but still have signs of circulation.

Rescue breathing works because the air you breathe into the casualty has enough oxygen to keep the person alive. The air has 21% oxygen, but your body uses only a small part of it. The air you breathe out has about 16% oxygen, which is more than enough to keep someone alive.

In the primary survey, after you have opened the airway if you cannot see, hear, or feel any signs of effective breathing, give 2 full breaths immediately to get air into the casualty's lungs.

To give breaths, keep the airway open with the head-tilt/chin-lift (see Chapter 6). Gently pinch the casualty's nose shut with the thumb and

index finger of the hand that is on the casualty's forehead. Next, take a deep breath and make a tight seal around the casualty's mouth with your mouth. Breathe slowly into the casualty until you see the casualty's chest rise (Figure 7–7). Each breath should last a full 2 seconds. Pause between breaths to allow you to take a breath and to let the air flow back out. Watch the casualty's chest rise each time you breathe in to ensure that your breaths are actually going in.

If you do not see the casualty's chest rise and fall as you give breaths, you may not have the head tilted back correctly. Retilt the casualty's head and try again to give breaths. If your breaths still do not go in, the casualty's airway is obstructed and you must clear it first (see Chapter 6).

When you have successfully delivered two breaths, check for signs of circulation. If the casualty has signs of circulation but is not breathing, continue rescue breathing by giving 1 breath every 5 seconds for an adult. A good way to time the breaths is to count, "one one-thousand, two one-thousand, three one-thousand. . ." Then take a breath yourself, and breathe *slowly* into the casualty. Each breath should last a full 2 seconds. After 1 minute of rescue breathing (about 12 breaths), recheck for signs of circulation to make sure the heart is still beating. If the casualty still has circulation but is not breathing, continue rescue breathing. Check for signs of circulation every few minutes. Do not stop rescue breathing unless one of the following occurs:

- Your personal safety is threatened.
- The casualty begins to breathe on his or her own.
- The casualty has no signs of circulation. Begin CPR (see Chapter 8).
- Another trained rescuer arrives on the scene and takes over.
- You are too exhausted to continue.

Figure 7–7 To breathe for a nonbreathing casualty, pinch the nose shut, seal your mouth around the casualty's mouth, and breathe slowly into the casualty.

Figure 7–8 Rescue breathing for adults, children, and infants is basically the same.

Rescue breathing for children and infants

Rescue breathing for children and infants follows the same general procedure as that for adults. The differences are based on the child's or infant's different physique and faster heartbeat and breathing rate (Figure 7–8). The following is a summary of the differences:

- Use the head-tilt/chin-lift position for an adult. Use a similar position for a child but move the head very gently. For an infant use the neutral or "sniffing" position, and seal your mouth over both the infant's nose and mouth.
- For an adult give full breaths in rescue breathing. For a child use smaller breaths; for an infant use puffs of air. Breathe in only enough air to make the chest rise.
- Give rescue breathing to adults at the rate of one breath every 5 seconds (12 per minute), to children at the rate of one breath every 3 seconds (20 per minute), and to infants one puff every 3 seconds (20 per minute). Each breath or puff should last a full 2 seconds for adults and 1 to 1½ seconds for children and infants.

Above information on First Aid for someone who is choking and for rescue breathing was taken directly from *First Aid: The Vital Link,* Second Edition. Canadian Red Cross pages 53-55, 68-71, To be used in teaching manual only. (this is common first aid information that is found in many other documents.)

NTI CG 201 - Holistic Health Final Examination

Name_____ Date_____Exam Score /100

1. Explain what Personal and Community holistic health means using the model presented in class.

/4

2. a) How does culture or traditional religion influence a person when they experience difficult times (for example: sickness, death in the family, inability to have children).

/2

b) How can the local church support and encourage others who are receiving pressure from family and or community to participate in traditional practices that are contrary to the Word of God?

/2

3. What does the term 'Spiritual formation' mean?

/2

4. List 6 disciplines that help in our Spiritual formation

1._____ 4._____

2._____ 5. _____

3._____ 6. _____

/6

5. God is pleased when our worship: (circle the correct answer)

a) is based on feelings

b) is sincere, thoughtful and practical

c) combines traditional religion with Christianity

/1

Circle either T (true) or F (false) beside the following statements: 1 point per correct answer

6. T or F God allows people to use good 'magic' when it helps others

7. T or F Church of the Nazarene believes in divine healing

8. T or F According to Romans 12:1-2, our spiritual act of worship is

offering our bodies as living sacrifices, holy and pleasing to God.

9. T or F The Word of God judges our thoughts and intentions.

/4

10. State 3 reasons for gathering together with other believers

a)

b)

c)

/ 3

11. Social health is all about _____God and man.

a) getting what we can from OR b) healthy relationships with

/1

Circle either T (true) or F (false) beside the following statements regarding Biblical ways of restoring a broken relationship 1 point per correct answer:

12. T or F Talk to God first to search you own heart for errors

13. T or F Forgive ONLY when the other person has asked for forgiveness.

14. T or F Use your ears more than your mouth

15. T or F Tell your friends the wrongs that another person did to you

16. T or F Confess your part of the conflict

17. T or F Cooperate, as much as it depends on you and be obedient to God always

/6

18. What is the **difference** between **disciplining** a child and **abusing** a child?

/1

19. Describe 4 strategies for sexual purity (for a single, married, widowed, or divorced person)

1.

2.

3.

4.

/4

20. List 3 RISKS of having sex outside of being married.

1.

2.

3.

/3

Circle either T (true) or F (false) beside the following statements: 1 point per correct answer

21. T or F The body's first line of defense against infection is unbroken skin and a healthy immune system.

22. T or F All germs are spread the same way.

23. T or F HIV is spread by shaking hands and hugging.

24. T or F Flies potentially carry germs that can be passed onto the food you eat, if they land on it.

25. T or F Clear water is always safe to drink

26. T or F If at all possible, a person with Typhoid should not prepare food for others while they have the disease .

/6

27. What is a VERY IMPORTANT to do after using the toilet and before handling food?

/1

28. List 3 foods under each of the following categories:

GO FOODS: a) b) c)

(provides energy)

GROW FOODS: a) b) c)

(provides proteins)

GLOW FOODS: a) b) c)

(provides protection)

MAIN FOODS: a) b) c)

/12

29. List 4 **health problems** that can occur **because of poor nutrition**

1. 3.

2. 4.

/4

30. Identify the germ that causes the infection. Identify 1 way to help PREVENT the following diseases. (Getting and or spreading)

MALARIA: Organism:

Prevention:

MEASLES: Organism:

Prevention:

TYPHOID: Organism:

Prevention:

TUBERCULOSIS: Organism:

Prevention:

SCABIES: Organism:

Prevention:

INFANTILE PARALYSIS: Organism:

Prevention:

PINK EYE: Organism:

Prevention:

TETANUS: Organism:

Prevention:

/16

31. List **4 HEALTHY life choices** that can help **PREVENT** high blood pressure, stroke or heart attacks

a)

b)

c)

d)

/4

Circle either T (true) or F (false) for the following statements about First Aid. 1 point per correct answer

32. T or F Airway, breathing, circulation are the critical for survival

33. T or F Slap an adult on the back if they are choking

34. T or F Stop a nose bleed by tilting their head backwards.

35. T or F Rest, elevate, and apply direct pressure to open bleeding wounds.

36. T or F Slurred speech, numbness or weakness on one side of the

body and loss of bladder control may be signs of a stroke.

/5

What would you do to **PREVENT** spread of disease or possible emergency situation from happening in the following scenarios:

37. A mother's tailoring business is beside a busy street. Her 1 ½ year old boy is in the shop with her and likes to crawl out of the shop. There are buttons on the floor and used razors for cutting threads. As well, there is a bowl of food with flies on it that the boy goes to and eats from.

/4

38. A mother is busy drying cassava over an open hot fire. Her 3 year old daughter is running around barefoot and wants to help. The goats and chickens are walking around the cooking area hoping to get pieces of food.

/4

39. At a compound, there is no latrine and there are feces on the ground near the house. There are also pieces of garbage, rusty broken tins, and old nails. Children are playing football in the area in bare feet.

/4

40. How can you live your life before others and influence them to make healthy choices? How can the church influence the community?

/1

CG 201 - Holistic Health

Answers to Final Exam

1. Answer must include the following information:

-interconnectedness between physical, social, spiritual, mental health-well being with Christ at the center of a believer's life, based on Biblical truth.

- A persons holistic health is lived within a community and environment

2. Answers must reflect a clear understanding of how culture and traditional ways influence others. Pressures, expectations to perform certain rites, making a stand to live for Christ may cause tensions in families and communities. Individuals experiencing temptations need the Biblical support from mature Christians, through prayer, providing alternative practices that are in agreement with Scripture. (for example: instead of offering food to ancestors, offer thanks to God for the life of your relatives and in memory of them, give food to the needy)

3. Spiritual formation means to have the character of Christ developed in the believer, as shown by the evidence of the fruit of the Spirit. (Romans 12: 1-2)

4. In any order: worship, prayer, giving, fasting, hospitality, Bible reading

5. b

6. F

7. T

8. T

9. T

10. 3 answers can include a combination of the any of the following:

Accountability, encouragement, fellowship, remember who and whose we are, present a united front, a witness to Christ

11. b

12. T

13. F

14. T

15. F

16. T

17. T

18. The end result of discipline is to change negative behavior to positive behavior. The reason for discipline is made clear to the child. Abuse has no corrective purpose other than emotional and or physical harm to a child.

19. Answers should include any 4 of the following : commitment to Christ and controlled by the Holy Spirit. Be on guard to the devil's ways, (pray, discipline your eyes, ears and mind) , physically leave the place of temptation if need be, avoid sexually explicit films, videos, music, pictures, internet sites, determine ahead of time what situations you choose to avoid and a strategy or plan to deal with temptation when it comes.

20. Answers should include any 3 of the following: guilt, sexually transmitted diseases, loss of sexual purity, possible pregnancy, abortions, 'feeling used', shame, infertility (due to STDs)

21. T

22. F

23. F

24. F

25. F

26. T

27. F

28. Go foods: oils, ground nuts, vegetable oils, ghee, lard, sugar, honey, molasses, sugar cane, jaggery

Grow foods: beans, peas, lentils, ground nuts, sesame and sunflower oil seeds, milk, eggs, cheese, yogurt, fish, chicken, meat, small animals and some insects.

Glow foods: vegetables: dark green leafy plants, tomatoes, carrots, pumpkin, sweet potato, peppers, fruits

Main foods: bread, maize, rice, cassava, millet, sorghum, potatoes, banana, plantain

29. Answers should include 4 of any of the following: see page in leader's book for the numerous options.

30. Answers can be found in the leader's book under infectious diseases.

31. Answers should include 4 of any of the following: Lose weight if fat. Avoid eating excess amounts of oil and deep fried foods. Get regular exercise. Do not smoke. Avoid alcohol. Eat healthy foods. Take high blood pressure pills as prescribed. Decrease amount of salt used if you have high blood pressure.

32. T

33. F

34. F

35. T

36. T

37. Answers should reflect an understanding of prevention and also of how diseases are spread. All buttons and small items should be kept out of the child's reach to prevent choking and cuts. Food should be kept covered. Close supervision of child to prevent injury from traffic.

38. Small children should be well supervised and kept away from fires. Child should wear slippers or shoes to avoid worms. Animals should be kept away from areas where food is being prepared. Feces from animals should be swept away.

39. Space between boards should be enough to toilet, but not so far that a child could fall through. All garbage should be disposed of properly. Old nails and tins need to be buried to avoid dirty wounds. If possible, a proper latrine should be built to keep the flies to a minimum.

40. **Being a role model**--practicing healthy, Biblical principles. The local church can provide teaching sessions to the community; work projects to build proper latrines; compassionate ministry to those who are poor and without proper food or clothing. Prayer and encouragement to others.