



Chapter 26

CARING FOR PERSONS WITH COMMON HEALTH PROBLEMS

CANCER


- A new growth of abnormal cells is a tumor.
- Tumors are benign or malignant.
 - Benign tumors:
 - Do not spread to other body parts
 - Usually do not grow back when removed
 - Malignant tumors (cancer):
 - Invade and destroy nearby tissue
 - Can spread to other body parts
 - Sometimes grow back after removal
 - Metastasis is the spread of cancer to other body parts.
 - This occurs if cancer is not treated and controlled.


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- The National Cancer Institute describes these risk factors:
 - Growing older
 - Tobacco
 - Sunlight (includes sun, sunlamps, and tanning booths)
 - Ionizing radiation (x-rays, radon gas, radioactive fallout)
 - Certain chemicals and other substances
 - Some viruses and bacteria
 - Certain hormones
 - Family history of cancer
 - Alcohol
 - Poor diet, lack of physical activity, and being over-weight


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- Cancer is the second leading cause of death in the United States.
 - If detected early, cancer can be treated and controlled.
 - Surgery, radiation therapy, and chemotherapy are the most common treatments.
 - Surgery removes tumors.
 - Radiation therapy destroys cancer cells.
 - Cancer cells and normal cells are destroyed.
 - Chemotherapy involves giving drugs that kill cancer cells and normal cells.


MUSCULOSKELETAL DISORDERS


- Arthritis means joint inflammation.
 - Osteoarthritis (degenerative joint disease) occurs with aging, being over-weight, and joint injury.
 - Signs and symptoms include:
 - Joint stiffness with rest and lack of motion
 - Pain with weight-bearing and joint motion
 - Pain can be constant or occur with lack of motion.
 - Treatment involves pain relief, exercise, rest and joint care, weight control, and a healthy life style.
 - A healthy life-style is needed.
 - Falls are prevented.
 - Some people need joint replacement.

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- Rheumatoid arthritis (RA) is a chronic inflammatory disease.
 - It causes joint pain, swelling, stiffness, and loss of function.
 - It is more common in women than in men.
 - It generally develops between the ages of 20 and 50.
 - It occurs on both sides of the body.
 - Fatigue and fever are common.
 - Treatment goals are to relieve pain, reduce inflammation, and slow down or stop joint damage.
 - Arthroplasty is the surgical replacement of a joint.

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- With osteoporosis:
 - The bone becomes porous and brittle.
 - Bones are fragile and break easily.
 - Risk factors
 - Older persons of all ethnic groups
 - Women after menopause
 - Low levels of dietary calcium
 - Family history of the disease
 - Being thin or having a small frame
 - Eating disorders
 - Tobacco use
 - Alcoholism
 - Lack of exercise, bedrest, and immobility


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- Back pain, gradual loss of height, and stooped posture occur.
 - Fractures are a major threat.
 - Doctors often order:
 - Calcium and vitamin supplements
 - Estrogen for some women
 - Other preventive measures include:
 - Exercising weight-bearing joints
 - Strength-training (lifting weights)
 - No smoking
 - Limiting alcohol and caffeine
 - Using back supports and walking aids as needed
 - Using good body mechanics


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- A fracture is a broken bone.
 - A closed fracture (simple fracture) means the bone is broken but the skin is intact.
 - In an open fracture (compound fracture), the broken bone has come through the skin.
 - For healing, bone ends are brought into and held in normal position (reduction or fixation).
 - Closed reduction or external fixation (bone is not exposed)
 - Open reduction or internal fixation requires surgery.
 - After reduction, movement of the bone ends is prevented with a cast, traction, splints, walking boots, or external fixators.
 - Fractured hips are common in older persons.


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- **Loss of limb**
 - An amputation is the removal of all or part of an extremity.
 - Common causes include:
 - Severe injuries
 - Tumors
 - Severe infection
 - Gangrene (a condition in which there is death of tissue)
 - Vascular disorders
 - The person is fitted with and learns to use a prosthesis.
 - The person may have phantom limb pain.


NERVOUS SYSTEM DISORDERS


- Stroke is a disease that affects the arteries that supply blood to the brain.
 - Stroke, brain attack, or cerebrovascular accident (CVA) is the third leading cause of death in the United States.
 - It is a leading cause of disability in adults.
 - The two major types of strokes are:
 - A blood vessel in the brain bursts.
 - A blood clot blocks blood flow to the brain.
 - Stroke can occur suddenly.
 - The person may have warning signs.


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- Sometimes warning signs last a few minutes.
 - This is called a transient ischemic attack (TIA).
 - The effects of stroke include:
 - Loss of face, hand, arm, leg, or body control
 - Hemiplegia
 - Changing emotions
 - Difficulty swallowing (dysphagia)
 - Aphasia or slowed or slurred speech
 - Changes in sight, touch, movement, and thought
 - Impaired memory
 - Urinary frequency, urgency, or incontinence
 - Loss of bowel control or constipation
 - Depression and frustration

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- Aphasia is the total or partial loss of the ability to use or understand language.
 - Expressive aphasia (motor aphasia, Broca's aphasia) relates to difficulty expressing or sending out thoughts.
 - Receptive aphasia (Wernicke's aphasia) relates to difficulty understanding language.
 - Some people have both types.
 - Expressive-receptive aphasia (global aphasia, mixed aphasia)

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- Parkinson's disease is a slow, progressive disorder with no cure.
 - The area of the brain that controls muscle movement is affected.
 - Persons over the age of 50 are at risk.
 - The following signs and symptoms become worse over time:
 - Tremors
 - Rigid, stiff muscles in the arms, legs, neck, and trunk
 - Slow movements
 - Stooped posture and impaired balance
 - Mask-like expression
 - Other signs and symptoms develop over time.

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- Multiple sclerosis (MS) is a chronic disease.
 - The myelin (which covers nerve fibers) in the brain and spinal cord is destroyed.
 - Nerve impulses are not sent to and from the brain in a normal manner.
 - There is no cure.
 - Symptoms usually start between the ages of 20 and 40.
 - A person's risk increases if a family member has MS.
 - Signs and symptoms depend on the damaged area.
 - The progression of MS varies among persons.
 - Persons with MS are kept active as long as possible and as independent as possible.


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- Amyotrophic lateral sclerosis (ALS) attacks the nerve cells that control voluntary muscles.
 - Commonly called Lou Gehrig’s disease, it is rapidly progressive and fatal.
 - ALS usually strikes between 40 and 60 years of age.
 - Motor nerve cells in the brain, brainstem, and spinal cord are affected.
 - The disease usually does not affect the mind, intelligence, or memory.
 - Sight, smell, taste, hearing, and touch are not affected.
 - Usually bowel and bladder functions remain intact.
 - ALS has no cure.
 - Some drugs can slow disease progression.

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- Traumatic brain injury (TBI) occurs when a sudden trauma damages the brain.
 - Brain tissue is bruised or torn.
 - Spinal cord injuries are likely.
 - Common causes are:
 - Motor vehicle crashes
 - Falls
 - Firearms
 - Assaults
 - Sports and recreation injuries
 - If the person survives TBI, some permanent damage is likely.
 - Disabilities depend on the severity and location of the injury.




– Disabilities include:


- Cognitive problems
- Sensory problems
- Communication problems
- Behavior or mental health problems
- Stupor (An unresponsive state; the person can be briefly aroused.)
- Coma (The person is unconscious, does not respond, is unaware, and cannot be aroused.)
- Vegetative state (The person is unconscious and unaware of surroundings)
- Persistent vegetative state (PVS) (The person is in a vegetative state for more than one month.)

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- Spinal cord injuries can permanently damage the nervous system.
 - Common causes are stab or gunshot wounds, motor vehicle crashes, falls, and sports injuries.
 - Problems depend on the amount of damage to the spinal cord and the level of injury.
 - With lumbar injuries, sensory and muscle function in the legs is lost (paraplegia).
 - With thoracic injuries, sensory and muscle function below the chest is lost (paraplegia).
 - With cervical injuries, sensory and muscle function of the arms, legs, and trunk is lost (quadriplegia or tetraplegia).
 - If the person survives, rehabilitation is necessary.

HEARING LOSS


- Hearing loss is not being able to hear the normal range of sounds associated with normal hearing.
- Deafness is hearing loss in which it is impossible for the person to understand speech through hearing alone.
- Hearing is required for:
 - Clear speech
 - Responding to others
 - Safety
 - Awareness of surroundings


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- A person may not notice gradual hearing loss.
 - Persons with hearing loss:
 - May wear hearing aids or lip-read (speech-read)
 - Watch facial expressions, gestures, and body language
 - May learn American Sign Language (ASL)
 - Some people have hearing assistance dogs (hearing dogs).


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- Hearing aids are electronic devices that fit inside or behind the ear.
 - They make sounds louder.
 - They do not correct, restore, or cure hearing problems.
 - If a hearing aid does not work properly, try these measures:
 - Check if the hearing aid is on.
 - Check the battery position.
 - Insert a new battery if needed.
 - Clean the hearing aid.
 - Handle and care for hearing aids properly.
 - Report lost or damaged hearing aids to the nurse at once.

EYE DISORDERS

- Vision loss occurs at all ages from mild vision loss to complete blindness.
- Blind is the absence of sight.
- Vision loss is sudden or gradual in onset.
- One or both eyes are affected.

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- Glaucoma results when fluid builds up in the eye and causes pressure on the optic nerve.
 - The optic nerve is damaged.
 - Vision loss with eventual blindness occurs.
 - Glaucoma can develop in one or both eyes.
 - Peripheral vision (side vision) is lost.
 - Drugs and surgery can control glaucoma and prevent further damage to the optic nerve.
 - Cataract is a clouding of the lens in the eye.
 - Trying to see is like looking through a waterfall.
 - Surgery is the only treatment.

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- Age-related macular degeneration (AMD) is a disease that blurs central vision.
 - It causes a blind spot in the center of vision.
 - Some people benefit from laser surgery.
 - With diabetic retinopathy, the tiny blood vessels in the retina are damaged.
 - It is a leading cause of blindness.
 - Usually both eyes are affected.
 - Vision blurs.
 - The person may see spots “floating”.
 - Treatment involves controlling the person’s diabetes, blood pressure, and blood cholesterol.
 - Laser surgery may help.

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- Impaired vision and blindness
 - The many causes include:
 - Birth defects
 - Accidents
 - Eye diseases
 - Complications of some diseases
 - The legally blind person sees at 20 feet what a person with normal vision sees at 200 feet.
 - Rehabilitation programs help the person adjust.
 - Blind persons learn to use visual and adaptive devices braille, long canes, and dog guides.





- Corrective lenses


- Eyeglasses and contact lenses can correct many vision problems.
- Clean eyeglass lenses daily and as needed.
- Contact lenses fit on the eye.
 - They are cleaned, removed, and stored according to the manufacturer's instructions.


CARDIOVASCULAR DISORDERS


- Cardiovascular disorders are leading causes of death in the United States.
 - Problems occur in the heart or blood vessels.


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- With hypertension, the resting blood pressure is too high.
 - The systolic pressure is 140 mm Hg (millimeters of mercury) or higher.
 - Or the diastolic pressure is 90 mm Hg or higher.
 - Such measurements must occur several times.
 - Pre-hypertension is when:
 - The systolic pressure is between 120 and 139 mm Hg.
 - Or the diastolic pressure is between 80 and 89 mm Hg.


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- Causes include:
 - Narrowed blood vessels
 - Kidney disorders
 - Head injuries
 - Some pregnancy problems
 - Adrenal gland tumors
 - Signs and symptoms develop over time.
 - Hypertension can lead to stroke, hardening of the arteries, heart attack, heart failure, kidney failure, and blindness.
 - Life-style changes and certain drugs can lower blood pressure.


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- With coronary artery disease (CAD), the coronary arteries become hardened and narrow.
 - The most common cause is atherosclerosis.
 - The major complications of CAD are angina, myocardial infarction, irregular heartbeats, and sudden death.
 - The goals of treatment are to:
 - Relieve symptoms
 - Slow or stop atherosclerosis
 - Lower the risk of blood clots forming
 - Widen or bypass clogged arteries
 - Reduce cardiac events

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- Angina (pain) is chest pain.
 - It is from reduced blood flow to part of the heart muscle (myocardium).
 - It occurs when the heart needs more oxygen.
 - Chest pain is described as a tightness, pressure, squeezing, or burning in the chest.
 - Pain can occur in the shoulders, arms, neck, jaw, or back.
 - Pain in the jaw, neck, and down one or both arms is common.

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- Rest often relieves symptoms in 3 to 15 minutes.
 - Besides rest, a nitroglycerin tablet is placed under the tongue when angina occurs.
 - Things that cause angina are avoided.
 - Doctor-supervised exercise programs are helpful.
 - Chest pain lasting longer than a few minutes and not relieved by rest and nitroglycerin may signal a heart attack.
 - The person needs emergency care.


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- With myocardial infarction (MI), blood flow to the heart muscle is suddenly blocked.
 - Part of the heart muscle dies.
 - Sudden cardiac death (sudden cardiac arrest) can occur.
 - MI also is called heart attack, acute myocardial infarction (AMI), and acute coronary syndrome (ACS).
 - MI is an emergency.
 - If the person survives, medical or surgical procedures to open or bypass the diseased artery may be needed.
 - Cardiac rehabilitation is needed.


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- Heart failure (congestive heart failure [CHF]) occurs when the heart is weakened and cannot pump normally.
 - Blood backs up and tissue congestion occurs.
 - When the left side of the heart cannot pump blood normally, blood backs up into the lungs.
 - Respiratory congestion occurs.
 - When the right side of the heart cannot pump blood normally, blood backs up into the venous system.
 - Feet and ankles swell. Neck veins bulge.
 - A very severe form of heart failure is pulmonary edema.


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- Treatment involves:
 - Drugs to strengthen the heart and reduce the amount of fluid in the body
 - A sodium-controlled diet
 - Oxygen
 - Semi-Fowler’s position to promote breathing
 - I&O, daily weight, elastic stockings, and range-of-motion exercises are part of the care plan.


RESPIRATORY DISORDERS


- The respiratory system brings oxygen (O₂) into the lungs and removes carbon dioxide (CO₂) from the body.
 - Respiratory disorders interfere with this function and threaten life.
- Chronic obstructive pulmonary disease (COPD)
 - Two disorders are grouped under COPD.
 - Chronic bronchitis and emphysema
 - Cigarette smoking is the most important risk factor.
 - Not smoking is the best way to prevent COPD.
 - COPD has no cure.


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- Chronic bronchitis occurs after repeated episodes of bronchitis.
 - Bronchitis means inflammation of the bronchi.
 - Smoking is the major cause.
 - Smoker's cough in the morning is often the first symptom.
 - Treatment involves:
 - The person must stop smoking.
 - Oxygen therapy and breathing exercises are often ordered.
 - Respiratory tract infections are prevented.
 - If one occurs, the person needs prompt treatment.

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- In emphysema, the alveoli enlarge and become less elastic.
 - They do not expand and shrink normally.
 - Some air is trapped in the alveoli when exhaling.
 - The person develops a barrel chest.
 - Smoking is the most common cause.
 - The person has shortness of breath and a cough. Sputum may contain pus.
 - Breathing is easier in the orthopneic position.
 - Treatment includes:
 - The person must stop smoking.
 - Respiratory therapy, breathing exercises, oxygen, and drug therapy are ordered.

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- With asthma, the airway becomes inflamed and narrow.
 - Extra mucus is produced.
 - These symptoms are mild to severe:
 - Dyspnea
 - Wheezing and coughing
 - Pain and tightening in the chest
 - Asthma usually is triggered by allergies.
 - Sudden attacks (asthma attacks) can occur.
 - Asthma is treated with drugs.
 - Severe attacks may require emergency care.

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- Pneumonia is an inflammation and infection of lung tissue.
 - Affected tissues fill with fluid.
 - Bacteria, viruses, and other microbes are causes.
 - The person is very ill.
 - Treatment involves:
 - Drugs for infection and pain
 - Increased fluid intake
 - Intravenous therapy and oxygen as needed
 - Semi-Fowler's position to ease breathing
 - Rest
 - Standard Precautions
 - Isolation precautions, depending on the cause

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- Tuberculosis (TB) is a bacterial infection in the lungs.
 - TB is spread by airborne droplets with coughing, sneezing, speaking, singing, or laughing.
 - Risk factors are:
 - Close, frequent contact with an infected person
 - Being in close, crowded areas
 - Age
 - Poor nutrition
 - HIV (human immunodeficiency virus) infection

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- Chest x-rays and TB testing can detect the disease.
 - Treatment includes:
 - Drugs for TB
 - Standard Precautions and isolation precautions
 - The person must cover the mouth and nose with tissues when sneezing, coughing, or producing sputum.
 - Tissues are flushed down the toilet, placed in a BIOHAZARD bag, or placed in a paper bag and burned.
 - Hand washing after contact with sputum is essential.


DIGESTIVE DISORDERS


- Vomiting means expelling stomach contents through the mouth.
 - It signals illness or injury.
 - Vomitus (emesis) is the food and fluids expelled from the stomach through the mouth.
 - Aspirated vomitus can obstruct the airway.
 - Vomiting large amounts of blood can lead to shock.





- Diverticular disease

- Many people have small pouches in their colons.
 - Each pouch is called a diverticulum.
 - The condition of having these pouches is called diverticulosis.
 - The pouches can become infected or inflamed (diverticulitis).
- Risk factors are being older than 60 years, a low-fiber diet, and constipation.
- Treatment involves:
 - The doctor orders needed dietary changes.
 - Sometimes antibiotics are ordered.
 - Surgery is needed for severe disease, obstruction, and ruptured pouches.

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- Hepatitis is inflammation of the liver.
 - It can be mild or cause death.
 - Some people do not have symptoms.
 - Treatment involves rest, a healthy diet, fluids, and no alcohol.
 - Protect yourself and others.
 - Follow Standard Precautions and the Bloodborne Pathogen Standard.
 - Isolation precautions are ordered as necessary.
 - Assist the person with hygiene and hand washing as needed.


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- Hepatitis A is spread by the fecal-oral route.
 - Hepatitis B is caused by the hepatitis B virus (HBV).
 - It is present in the blood and body fluids of infected persons.
 - It is spread by:
 - IV drug use and sharing needles
 - Accidental needle sticks
 - Sex without a condom, especially anal sex
 - Contaminated tools used for tattoos or body piercings
 - Sharing a toothbrush, razor, or nail clippers with an infected person


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- Hepatitis C is spread by blood contaminated with the hepatitis C virus.
 - A person may have the virus but no symptoms.
 - The person can still transmit the disease.
 - The virus is spread by:
 - Blood contaminated with the virus
 - IV drug use and sharing needles
 - Inhaling cocaine through contaminated straws
 - Contaminated tools used for tattoos or body piercings
 - High-risk sexual activity
 - Sharing a toothbrush, razor, or nail clippers with an infected person


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- Hepatitis D occurs only in people infected with hepatitis B.
 - It is spread the same way as HBV.
 - Hepatitis E is spread through food or water contaminated by feces from an infected person.
 - It is spread by the fecal-oral route.
 - This disease is not common in the United States.


URINARY SYSTEM DISORDERS


- The kidneys, ureters, bladder, and urethra are the major urinary system structures.
- Urinary tract infections (UTIs) are common.
 - Common causes are:
 - Catheters
 - Poor perineal hygiene
 - Immobility
 - Poor fluid intake
 - UTI is a common healthcare-associated infection.

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- Cystitis is a bladder infection.
 - Signs and symptoms include:
 - Urinary frequency and urgency
 - Pain or burning on urination
 - Foul-smelling urine
 - Blood or pus in the urine
 - Fever
 - Treatment involves antibiotics and encouraging fluids.
 - If untreated, cystitis can lead to pyelonephritis.

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- Pyelonephritis is inflammation of the kidney pelvis.
 - Signs and symptoms include:
 - Cloudy urine that may contain pus, mucus, and blood
 - Chills, fever, and back pain
 - Nausea and vomiting
 - The signs and symptoms of cystitis
 - Treatment involves antibiotics and fluids.

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- Renal calculi are kidney stones.
 - Risk factors include bedrest, immobility, and poor fluid intake.
 - Stones vary in size.
 - Treatment involves:
 - Drugs for pain relief
 - Increasing the person's fluid intake
 - Straining all urine
 - Surgical removal of the stone if necessary
 - Some dietary changes can prevent stones.

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- Renal failure
 - The kidneys do not function or are severely impaired.
 - Waste products are not removed from the blood.
 - The body retains fluid.
 - Heart failure and hypertension easily result.
 - Renal failure may be acute or chronic.
 - The person is very ill.


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- Prostate enlargement
 - The prostate is a gland in men.
 - It surrounds the urethra.
 - As the man grows older, the prostate enlarges.
 - This is called benign prostatic hyperplasia (BPH).
 - The enlarged prostate presses against the urethra.
 - This obstructs urine flow through the urethra.
 - Treatment includes:
 - Drugs to shrink the prostate or stop its growth
 - Microwave and laser treatments to destroy the excess prostate tissue
 - Surgery to remove tissue

REPRODUCTIVE DISORDERS

- Reproductive structures and functions can be affected by aging and many injuries, diseases, and surgeries.
- Sexually transmitted diseases (STDs) are spread by oral, vaginal, or anal sex.
 - STDs occur in the genital and rectal areas, ears, mouth, nipples, throat, tongue, eyes, and nose.
 - Using condoms helps prevent the spread of STDs.
 - Some STDs are also spread through:
 - Skin breaks
 - Contact with infected body fluids (blood, semen, saliva)
 - Contaminated blood or needles

ENDOCRINE DISORDERS

- The endocrine glands secrete hormones that affect other organs and glands.
- Diabetes is the most common endocrine disorder.
 - The body cannot produce or use insulin properly.
 - Without enough insulin, sugar builds up in the blood.
 - The three types of diabetes are:
 - Type 1 occurs most often in children, teenagers, and young adults.
 - Type 2 can occur at any age.
 - Risk factors are being over 45 years of age, being over-weight, lack of exercise, and hypertension.
 - Gestational diabetes develops during pregnancy.

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- Diabetes must be controlled to prevent these complications:
 - Blindness
 - Renal failure
 - Nerve damage
 - Damage to the gums and teeth
 - Heart and blood vessel diseases
 - Risk factors include:
 - A family history of the disease increases risk.
 - For type 1, whites are at greater risk than non-whites.
 - Type 2 is more common in older and over-weight persons. African-Americans, Native Americans, and Hispanics are at risk.





– Treatment

- Type 1 is treated with daily insulin therapy, healthy eating, and exercise.
- Type 2 is treated with healthy eating and exercise.
 - Many persons with type 2 take oral drugs.
 - Some need insulin.
 - Over-weight persons need to lose weight.
- Types 1 and 2 involve controlling blood pressure, cholesterol, and the risk factors for CAD.
- Good foot care is needed.
- Blood glucose is monitored for:
 - Hypoglycemia (low sugar in the blood)
 - Hyperglycemia (high sugar in the blood)

IMMUNE SYSTEM DISORDERS

- The immune system:
 - Protects the body from microbes, cancer cells, and other harmful substances
 - Defends against threats inside and outside the body
- Immune system disorders occur when there is a problem with the immune response.
- Autoimmune disorders can occur.
 - The immune system causes disease by attacking the body's own normal cells, tissues, or organs.

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- Acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV).
 - It attacks the immune system.
 - The virus is spread through body fluids.
 - The virus is transmitted mainly by:
 - Unprotected anal, vaginal, or oral sex with an infected person
 - Needle and syringe sharing among IV drug users
 - HIV-infected mothers before or during childbirth
 - HIV-infected mothers through breast-feeding
 - Some persons infected with HIV do not have symptoms for many years.
 - They carry the virus and can spread it to others.

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- Persons with AIDS are at risk for pneumonia, TB, Kaposi's sarcoma (a cancer), and nervous system damage.
 - AIDS has no vaccine and no cure at present.
 - You may care for persons with AIDS or those who are HIV carriers.
 - Follow Standard Precautions and the Bloodborne Pathogen Standard.
 - Persons 45 years old and older also get AIDS.
 - They get and spread HIV through sexual contact and IV drug use.
 - Aging and some diseases can mask the signs and symptoms of AIDS.
 - Older persons are less likely to be tested for HIV/AIDS.