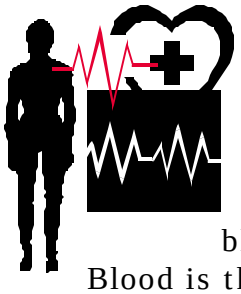
RECOGNIZING MEDICAL NEEDS



Cardiovascular System

The cardiovascular system includes the heart and the blood vessels, and the respiratory system contains those organs, which are responsible for carrying oxygen from the air to the blood stream and expelling the waste product of carbon dioxide. Blood is that sticky, red fluid that circulates throughout our bodies in veins and arteries. The heart pumps oxygen into the blood and collects carbon dioxide from it to be expelled through the lungs. We usually think of respiration as the process of the lungs after air is breathed in through the mouth or nose. The lungs do play a very important role, but every living cell in the body is involved in this process. Respiration is the act of burning energy from oxygen. Breathing is an obvious part of the respiratory passages, but these also involve yawning, sneezing, coughing, hiccups, the power of speech, and the sense of smell. The respiratory flow has been “kidnapped” by the larynx, or voice box, which uses it to create a multiple range of sounds so that humans can communicate vocally. These systems’ tasks include organs, which take up space in the face and neck and most of the chest. The cardiovascular and respiratory systems are basic to life and breathing, like the beat of one’s heart, is an automatic function which is controlled by the brain.

Skeletal System

The average human adult skeleton has 206 bones joined to ligaments and tendons to form a protective and supportive framework for the attached muscles and the soft tissues that underlie it. The skeleton has two main parts: the axial skeleton, and the appendicular skeleton. The axial skeleton consists of the skull, the spine, the ribs and the sternum (breastbone) and includes 80 bones. The appendicular skeleton includes two limb girdles (the shoulders and pelvis) and their attached limb bones. This part of the skeletal system contains 126 bones, 64 in the shoulders and upper limbs and 62 in the pelvis and lower limbs. There are only minor differences between the skeletons of the male and female: the men’s bones tend to be heavier and larger than corresponding women’s bones and the women’s pelvic cavity is wider to accommodate childbirth. The skeleton plays an important part in movement by providing a series of independently moveable levers, which the muscles can pull to move different parts of the body. It also supports and protects the internal body organs. The skeleton is not just a moveable frame;

however, it is an efficient factory which produces red blood cells from the bone marrow of certain bones and white cells from the marrow of other bones to destroy harmful bacteria. The bones are also a storehouse for minerals – calcium, for example – which can be supplied to other parts of the body. Babies are born with 270 soft bones – about 64 more than an adult; and many of these will fuse together by the age twenty or twenty-five into the 206 hard, permanent bones.

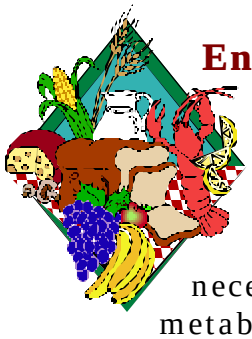
Nervous System

The nervous system is the body's information gatherer, storage center and control system. Its overall function is to collect information about the external conditions in relation to the body's external state, to analyze this information, and to initiate appropriate responses to satisfy certain needs. The most powerful of these needs is survival. The nerves do not form one single system, but several which are interrelated. Some of these are physically separate, others are different in function only. The brain and spinal cord make up the central nervous system. The peripheral nervous system is responsible for the body functions, which are not under conscious control – like the heartbeat or the digestive system. The smooth operation of the peripheral nervous system is achieved by dividing it into sympathetic and parasympathetic systems. These are opposing actions and check on each other to provide a balance. The nervous system uses electrical impulses, which travel along the length of the cells. The cell processes information form the sensory nerves and initiates an action within milliseconds. These impulses travel at up to 250 miles per hour, while other systems such as the endocrines may take many hours to respond with hormones.

Urinary System

The structure of the urinary tract includes: the kidneys, two ureters, (tubes leading from the kidneys to the bladder,) and the urethra, a tube leading from the bladder to the exterior of the body. The urinary tract is a little like a plumbing system, with special pipes that allow water and salts to flow through them. The kidneys make up a filter system for the blood, reabsorbing almost 99% of the fluid into the blood, and sending only two to four pints of waste (urine) into the bladder for storage until it can be disposed of. The kidneys allow the blood to keep glucose, salts and minerals after cleansing it of poisonous materials that will be passed out in the urinary tract. Urine is produced in the kidneys and trickles down twenty-four hours a day through tow ten to twelve inch long tubes called ureters, which connect the kidneys to the bladder. The ureters are about one-fourth inch in diameter and their muscular walls contract to make waves of movement to force the urine into the bladder. The bladder is expandable and stored the urine until it can be conveniently disposed of. It also closes openings into the ureters so that urine cannot flow back into the kidneys. The tube through which the urine flows out

of the body is called the urethra. Did you know that less than half of one single kidney can do all the work that two kidneys usually do?



Endocrine System

A wide variety of physiological processes are carried out unconsciously by the endocrine system through chemical messengers called “hormones.” The endocrine system is a collection of glands that produces these hormones, which are necessary for normal bodily functions. The hormones regulate metabolism, growth and sexual development. These glands release the hormones directly into the bloodstream, where they are transported to organs and tissues throughout the entire body.

Muscular System

Muscle is attached to bone by tendons and other tissue and exerts force by converting chemical energy into tension and contraction. Muscles move and make us capable of a variety of actions, but muscle only really contracts and becomes shorter: they pull but they cannot push. Muscle is made up of millions of tiny protein filaments which work together to produce motions in the body. Each of more than 600 muscles are served by nerves which link the muscle to the brain and spinal cord. Our bodily needs demand that muscles accomplish different chores, so we are equipped by three different types muscle: cardiac muscles, found only in the heart, which power the pumping action throughout life, and “smooth” muscles, which surround or are part of the internal organs. Both of these muscle types are involuntary and are not under any conscious control. The third type is muscle we use when we will action; they are what aches after a ten-mile hike, and are called “skeletal” muscles. These carry out voluntary movements ad make up about 23% of the women’s body weight and about 40% of a man’s and are the body’s most abundant tissue.

Lymphatic System

The lymphatic system and the cardiovascular system are closely related structures that are joined by a capillary system. The is important to the body’s defense mechanisms. It filters out organisms that cause disease, produces certain white blood cells, and generates antibodies. This is also important for the distribution of fluids and nutrients in the body, because it drains excess fluids and protein so that tissues do not swell up. “Lymph” is a milky body fluid that contains a type of white blood cells, called “lymphocytes,” along with proteins and fats. Lymph seeps outside the blood vessels in spaces of body tissues and is stored in the “Lymphatic” system to flow back into the bloodstream. Trough the flow of blood in and out of arteries, and into the veins, and through the lymph nodes and into the lymph, the body is able to eliminate the products of cellular breakdown and

bacteria invasion. Two very large areas are of significance in this system – the right lymphatic duct which drains lymph fluid form the upper right quarter of the body above the diaphragm and down the midline, and the thoracic duct, a structure roughly sixteen inches long located in the mediastinum of the pleural cavity which drains the rest of the body. It is through the actions of this system including the spleen, the thymus, lymph nodes and lymph ducts that our body is able to fight infection and to ward off invasion from foreign invaders. Lymph plays an important role in the immune system and in absorbing fats from the intestines. The lymphatic vessels are present wherever there are blood vessels and transport excess fluid to the end vessels without the assistance of any "pumping" action. There are more than 100 tiny, oval structures (called lymph nodes).These are mainly in the neck, groin and armpits, but are scattered all along the lymph vessels. They act as barriers to infection by filtering out and destroying toxins and germs. The largest body of lymphoid tissue in the human body is the spleen.

Digestive System

The primary objective of the (GI) digestive system is to absorb fluid and nutrients and prepare food for absorption and use in the cells of the body. The volume of fluids absorbed by the GI system is high, making fluid balance a key function of elimination. The GI system also receives many secretions from organs such as gallbladder and pancreas. A disorder that seriously impairs normal absorption or secretion of GI fluids causes fluid imbalance. The organs included in the GI system are mouth, esophagus, liver, pancreas, small intestine, ascending colon, appendix, rectum, stomach, spleen, transverse colon, descending colon, and sigmoid colon.

What could the symptoms mean?
(to include but not limited to)

1. **Abdominal Pain:**

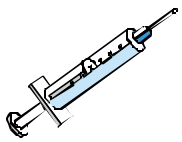
   Constipation, Diarrhea, Emotional Upset, Food Allergies, Nausea, Hepatitis, Intestinal Obstruction, Pneumonia, Urinary Tract Infection

2. **Anal Itching:**

   Parasites, Pinworms, Rectal Fissure, Yeast Infection

3. **Increased Appetite:**

   Overexertion, Diabetes, Thyroid Disease



4. Loss Of Appetite:

Constipation, Mumps, Influenza, Appendicitis
Cancer, Tuberculosis

5. Bedwetting:

Common Cold, Emotional Upset, Food Allergies, Small Bladder Capacity, Diabetes, Urinary Tract Infection

6. Painful Bowel Movements:

Constipation, Colitis, Rectal Fissure/Tear

7. Difficulty Breathing:

Allergies, Anaphylactic Shock, Asthma, Bronchitis, Collapsed Lung, Inhaled Foreign Body, Rheumatic Fever, Seizure, Shock, Tetanus, Whooping Cough

8. Rapid Breathing:

Asthma, Bronchitis, Pneumonia, Shock

9. Cold Sweat:

Shock

10. Cough:

Emotional Upset, Common Cold, Allergies, Asthma, Bronchitis, Viral or Bacterial Infection, Tuberculosis

11. Diarrhea:

Viral or Bacterial Infection, Celiac Disease, Food Poisoning

12. Earache:

Allergies, Common Cold, Rapid Air Pressure Changes, Ear Infection, Sinusitis

13. Difficulty Eating:

Canker Sores, Cold Sores, Food Allergies, Goiter, Mononucleosis, Mumps, Sore Throat from Strep or Viral Infection, Tetanus

14. Eye Inflammation:

Allergies, Common Cold, Stye, Conjunctivitis, Foreign Body In The Eye

15. Fatigue, Weakness:

Poor Nutrition, Bacterial or Viral Infection, Anemia, Cancer, Diabetes, Depression, Hypothyroidism, Bacterial or Viral Infection

16. Fever:

Overexertion, Allergic Reaction, Bacterial or Viral Infection

17. Head Itching:

Eczema, Seborrhea, Psoriasis, Lice

18. Headache:

Allergies, Common Cold, Emotional Upset, Influenza, Motion Sickness, Asthma, Stress, Tension, Visual Problems, Cancer. Concussion, Meningitis, Mononucleosis, Poliomyelitis, Sinusitis, Tuberculosis

19. Irritability, Restlessness:

Allergies, Emotional Upset, Hyperactivity, Asthma, Diabetes, Meningitis, immunization, Reaction, Viral or Bacterial Infection

20. Aching Joints:

Influenza, German Measles, Hepatitis, Arthritis, Rheumatic Fever

21. Swollen Lymph Nodes:

Dermatitis, Herpes Virus, Lice, Viral or Bacterial Infection, Cancer

22. Mouth Sores:

Canker Sores, Food Allergies, Onset of Measles, Herpes Virus

23. Runny/Stuffy Nose:

Allergies, Common Cold, Bronchitis, Sinusitis

24. Skin Lesions/Rashes/Bumps:

Acne, Allergies, Athlete's Foot, Boils, Cradle Cap, Eczema, Herpes Virus, Poison Ivy, Prickly Heat, Sunburn, Warts, Hepatitis, Immunization Reaction, Impetigo, Mononucleosis, Rheumatic Fever, Ringworm, Scabies, Scarlet Fever

25. Excess Thirst:

Dehydration, Diabetes

26. Frequent Urination:

Excessive Caffeine or Fluid Intake, Diabetes, Urinary Tract Infection, Vaginitis

27. Painful Urination:

Herpes Virus, Urinary Tract Infection

28. Dark Urine:

Dehydration, Hepatitis, Urinary Tract Infection

29. Vaginal Itching:

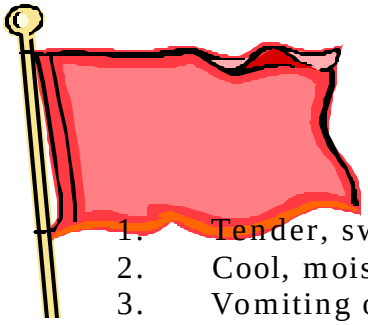
Allergic Reaction, Vaginitis, Yeast Infection

30. Vomiting:

Any Viral Infection, Emotional Upset, Influenza, Motion Sickness, Overeating, Appendicitis, Celiac Disease, Food Allergies/Poisoning, Meningitis, Shock

31. Weight Loss:

Cancer, Celiac Disease, Diabetes, Eating Disorder, Depression, Tuberculosis



Red Flag Symptoms
(These can be observed easily by staff)

1. Tender, swollen bruised, hard areas of the body
2. Cool, moist, pale, bluish skin (lips or nail beds)
3. Vomiting or coughing up blood
4. Excessive thirst
5. Becoming confused, faint, drowsy, unconscious, restless or unusually irritable
6. Can't use affected areas
7. Visible bone fragments, feeling a snap, pop, bones grating
8. Significant bruising, swelling or other deformities
9. Rapid pulse
10. Breathing difficulty (gasping, gurgling, wheezing, increase or decrease in rate)
11. Chest pain or pressure
12. Severe headache
13. Slurred speech
14. Numbness/paralysis (inability to move)
15. Sudden abdominal pain
16. Bloody stool
17. Burns involving blistering or underlying structures (fat, muscles, bones and nerves)
18. High fever or fever not effected by prescribed mediation
19. Bleeding that can not be controlled
20. Cuts requiring stitches
21. A cut that doesn't heal (red, swollen, hot or draining)
22. Heat or Cold elements (Heat exhaustion or stroke) (Cold frostbite or hypothermia)
23. Poisoning (ingestion, inhalation, absorption or injection)
24. Unusual seizure activity
25. A change in what is "normal" "norm" for that person