Summary of Chapter 12 Cardiovascular Disease (CVD) and Cancer
- The six major risk factors that can be changed in order to prevent cardiovascular disease are smoking, uncontrolled hypertension, unhealthy cholesterol levels, inactivity, obesity, and uncontrolled diabetes.
- Hypertension occurs when blood pressure exceeds normal limits (120/80) most of the time. It weakens the heart, scars and hardens arteries.
- Atherosclerosis is a progressive hardening and narrowing of arteries that can lead to restricted blood flow and even complete blockage in arteries.
- Heart attacks are usually the result of a long-term disease process that causes blockage in the arteries that nourish the heart (Coronary arteries).
- A stroke occurs when the blood supply to the brain is cut off by a blood clot or hemorrhage.
- Congestive heart failure occurs when the heart's pumping action becomes less efficient and fluid collects in the lungs or in other parts of the body.
- Cardio Vascular Disease (CVD) risk can be reduced by improving diet, engaging in regular exercise, not smoking cigarettes and avoiding environmental tobacco smoke, knowing and managing your blood pressure and cholesterol levels, developing effective ways of handling stress.
- A cancer (malignant tumor) can invade surrounding structures and spread to distant sites via the blood and lymphatic system.
- Lung cancer kills more people than any other type of cancer. Tobacco smoke is the primary cause of lung cancer.
- Colon and rectal cancer is linked to age, heredity, obesity, and low in fruits and vegetables. Most colon cancers arise from preexisting polyps.
- Breast cancer affects one in seven women in the United States. Although there is a genetic component to breast cancer, diet and hormones are also risk factors.
- Prostate cancer is chiefly a disease of aging; diet and lifestyle probably are factors in its occurrence.
- The PAP test is an effective screening test for cervical cancer.
- Skin cancers occur as basal cell carcinoma (most common), squamous cell carcinoma, and melanoma (most dangerous).
- Oral cancer is caused primarily by smoking, excess alcohol consumption, and use of spit tobacco.
- Testicular cancer can be detected early through self-examination, if diagnosed early, it can be cured.
- Cancer-promoting dietary factors include meat, certain types of fats, and alcohol. Diets high in fruits and vegetables are linked to a lower risk of cancer.
- Other possible causes of cancer include inactivity and obesity, certain types of infections (Chronic Hepatitis B and C, HPV, HIV, H. Pylori) and chemicals, and radiation.
- Self-helping strategies for cancer include avoiding tobacco; eating a varied, moderate diet and controlling weight; exercising regularly; protecting skin from the sun; avoiding exposure to environmental and occupational carcinogens; and getting recommended cancer screening tests.

Summary of Chapter 13 Immunity and Infection
- The immune response is carried out by white blood cells that are continuously produced in the bone marrow. The immune response has four stages: recognition of the invading pathogen, rapid replication of killer-T cells and B cells, attack by killer-T cells and macrophages, and suppression of the immune response by suppressor-T cells.
- Pathogens include: Bacteria, Viruses, Fungi, Parasites, and Prions.
- Bacteria are single-celled organisms; some cause disease in humans. They can generally be killed by antibiotics.
- Viruses need to invade host cells in order to reproduce themselves. We only have a few antiviruses to help kill viruses.
- HIV is a virus that destroys the immune system of the host, making it impossible to fight off the simplest infections and cancers.
- HPV is a virus that causes genital and cervical cancer.
- Allergic reactions occur when the immune system responds to harmless substances as if they were dangerous.
- Autoimmune disease occurs when the body mistakes its own cells as foreign and attacks it.

Summary of Chapter 14 The Challenge of Aging
- People who take charge of their health during their youth have greater control over the physical, emotional, and mental aspects of aging.
- Age-proofing strategies include challenging your mind, exercising, eating wisely, maintaining a healthy weight, maintaining good muscle strength, balance, and flexibility, controlling drinking and medication overdose, avoiding tobacco use, recognizing and reducing stress, developing good communication skills, getting good sleep, maintaining healthy relationships, and obtaining regular screening tests and immunizations.
- Resolving grief and mourning, and dealing with depression are important tasks for older adults.
- Family and community resources can help older adults stay active and independent. Government aid to the elderly includes food stamps, housing subsidies, Social Security, Medicare, and Medicaid.
- A will is a legal instrument that governs the distribution of a person's estate after death.
- Advance directives, such as living wills and health care proxies, are used to express a person's wishes about the use of life sustaining treatment.
- End-of-life care may involve a combination of home care, hospital stays, and hospice or palliative care.
- In offering support to a dying person, the gift of listening can be especially important.
- Mourning, the process by which a person integrates a loss into his or her life, is determined partly by social and cultural norms for expressing grief.

Summary of Chapter 15 Conventional and Complementary Medicine
- Informed self-care requires knowing how to evaluate symptoms. It's necessary to see a physician if symptoms are severe, unusual, persistent, or recurrent.
- Self-treatment doesn't necessarily require medication but over-the-counter drugs can be a helpful part of self-care.
- Conventional medicine (allopathic medicine) is characterized by a focus on the physical causes of disease; the identification of a set of symptoms for different diseases, the development of public health measures to prevent the spread of diseases and surgery to treat disease; the use of rational, scientific thinking to understand the world; and a well-established research methodology.
- Conventional practitioners include medical doctors, doctors of osteopathy, nurse practitioners, physician assistants, registered nurses, podiatrists, optometrists, dentists, physical therapists, occupational therapists, and psychologists.
- The diagnostic process of the allopathic clinician involves a medical history, a physical exam, medical tests, an assessment, and a plan of action.
- Complementary and Alternative Medicine is characterized by a balance of integration and production of body, mind, and spirit. The interventions used include meditation, yoga, prayer, as well as herbal remedies, dietary supplements, and body-based methods including massage and other physical healing techniques.
- In the USA, Health care can generally only be accessed with Health Insurance. Health insurance plans are usually HMOs, PPOs, or government programs including Medicaid and Medicare.

Summary of Chapter 16 Personal Safety
- Key factors in motor vehicle injuries include aggressive driving (ex: tailgating), speeding, a failure to wear safety belts, alcohol and drug intoxication, fatigue, and distracted driving.
- Motorcycle and bicycle injuries can be prevented by developing appropriate skills, driving or riding defensively, and wearing proper safety equipment.
- Careless smoking and problems with cooking or heating equipment are common causes of home fires. Being prepared for fire emergencies means planning escape routes and installing smoke detectors.
- Learning to perform CPR can help prevent someone from dying from choking.
- Learning to perform CPR can help save a person whose heart has stopped.
- Factors contributing to violence include the absence of strong social ties, discrimination (sexism, racism, any bias that diminishes a person's humanity), lack of communication skills, norms that tolerate or even encourage violence, alcohol and drug abuse, and the availability of firearms.
- Battering and child abuse occur at every socioeconomic level.

Summary of Chapter 17 Environmental Health
- Environmental health encompasses all the interactions of humans with their environment and the health consequences of those interactions.
- Concerns with water quality focus on pathogenic organisms and hazardous chemicals as well as on water shortages.
- Sewage treatment prevents pathogens from contaminating drinking water; it often must also deal with heavy metals and hazardous chemicals.
- The proper disposal of garbage is growing all the time; paper is the biggest component. Recycling can help solid waste disposal problems.
- The world’s population is increasing rapidly, contributing to environmental problems.
- Increased amounts of air pollutants are especially dangerous for children, older adults, and people with chronic health problems.
- Carbon dioxide and other natural gases act as a “greenhouse” around the earth, increasing the temperature of the atmosphere. Levels of these gases are rising through human activity; as a result, the world’s climate is changing.
- The ozone layer that shields the earth’s surface from the sun’s UV rays has thinned and developed holes in certain regions.
- Acid precipitation occurs when certain atmospheric pollutants combine with moisture in the air.
- Environmental damage from energy use can be limited through energy conservation and the development of nonpolluting, renewable sources of energy.
- Potentially hazardous chemical pollutants include asbestos, lead, pesticides, mercury, and many household products. Proper handling and disposal is critical.
- Radiation can cause radiation sickness, chromosome damage, and cancer.
- Loud or persistent noise can lead to hearing loss and stress.
- The impact of personal changes made by every concerned individual could be tremendous.