

# ***Disease Templates***

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### Anaphylaxis

- ◆ severe, potentially life-threatening response
- ◆ marked by: *swelling, hives, lowered blood pressure, and dilated blood vessels*
- ◆ in severe cases, person will go into shock
- ◆ if not treated immediately, can be fatal
- ◆ symptoms: *may begin with severe itching of the eyes or face; swelling, abdominal pain, cramps, vomiting, diarrhea, hives*  
triggers: *most commonly food-peanuts, tree nuts, shellfish, dairy products, sesame seeds; also, wasp or bee stings; exercise can trigger anaphylaxis if the activity occurs after eating allergy-provoking food*

### Hay fever

- ◆ allergic response to pollen, mold or other microscopic substances
- ◆ can be seasonal or year-round
- ◆ symptoms: *sudden sneezing, watery nasal discharge, puffy eyes, fatigue*
- ◆ usually begins before age 30
- ◆ affects 10-20% of the US population
- ◆ most common allergy in the country

### Food allergies (acute or chronic)

- ◆ symptoms may appear almost immediately, or up to two hours later; can be fatal
- ◆ symptoms include: *a tingling sensation of the mouth, swelling of the tongue and throat, hives, skin rashes, vomiting, abdominal cramps, difficulty breathing, diarrhea, drop in blood pressure, loss of consciousness*
- ◆ six foods cause 90% of food allergies: *milk, eggs, peanuts, wheat, soy, tree nuts*

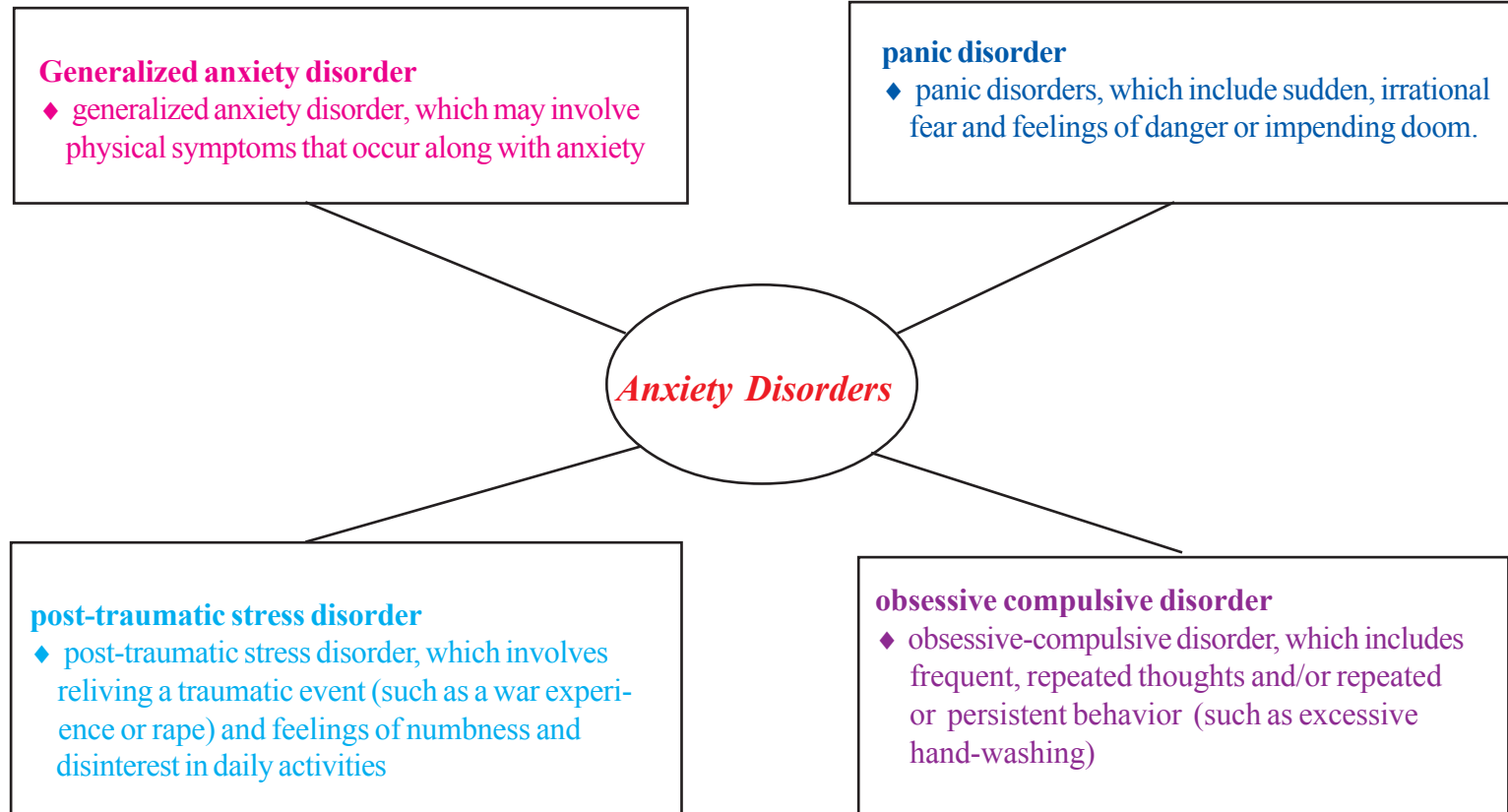
**Allergies**  
can be acute or chronic  
a defensive reaction by the body's immune system to a substance that is usually harmless

### Asthma

- ◆ tends to run in families
- ◆ 12 million adults and children in the US have asthma
- ◆ becoming more widespread
- ◆ exact cause is unknown
- ◆ common triggers: *infections, exercise, weather, tobacco smoke, allergens, dust, odors from chemical products, strong emotions, medicines*  
common symptoms: *frequent cough, especially at night; shortness of breath; wheezing-chest tightness, pain or pressure*
- ◆ warning signs of an asthma attack: *frequent cough, especially at night; losing your breath easily or shortness of breath; feeling tired or weak when exercising; decreases or changes in peak expiratory flow; signs of a cold, upper respiratory infection or allergies; difficulty sleeping*

### Sinusitis

- ◆ 37 million Americans suffer from at least one episode/yr
- ◆ a person has a higher risk if they have the following conditions: *nasal mucous membrane swelling as from a common cold; blockage of drainage ducts; structure differences that narrow drainage ducts; conditions that result in an increased risk of infection*
- ◆ smoking and infections are common contributing factors
- ◆ symptoms: *facial pain/pressure; nasal stuffiness; nasal discharge; loss of smell; cough/congestion; fever; bad breath; dental pain; fatigue; headaches; thick nasal discharge*



### **General Anxiety Disorder, GAD**

- ◆ characterized by excessive, exaggerated anxiety and worry
- ◆ can have both physical and emotional symptoms; mild or severe
- ◆ about 4 million adult Americans suffer from GAD/yr.
- ◆ most often begins in childhood or adolescence; can begin in adulthood
- ◆ more common in women than in men
- ◆ symptoms include: *excessive, ongoing worry and tension; an unrealistic view of problems; restlessness or a feeling of being “edgy”; irritability; muscle tension; headaches; sweating; difficulty concentrating; nausea; frequent urination; tiredness; trouble falling or staying asleep; trembling; being easily startled*

### **Obsessive Compulsive Disorder, OCD**

- ◆ obsessions: *persistant thoughts*; compulsions: *persistant behaviors*
- ◆ afflicts about 3.3 million adults and about 1 million children and adolescents in the U.S.
- ◆ usually first appears in childhood, adolescence or early adulthood
- ◆ occurs about equally in men and women, and affects people of all races and socioeconomic backgrounds
- ◆ cannot be prevented
- ◆ early diagnosis and treatment can help reduce the time a person spends suffering
- ◆ symptoms may vary
- ◆ common obsessions include fear of: *dirt or contamination by germs, causing harm to another; making a mistake, being embarrassed or behaving in a socially unacceptable manner; thinking evil or sinful thoughts; need for order, symmetry or exactness; excessive doubt and the need for constant reassurance*

### **Panic disorder**

- ◆ tends to be chronic
- ◆ exact cause is not completely understood
- ◆ may be due to a chemical imbalance in the brain
- ◆ tends to be a genetic predisposition
- ◆ stressors may trigger symptoms
- ◆ mental trauma in childhood and severe separation anxiety have been linked
- ◆ counseling and medication are used to treat panic attacks
- ◆ affects about 2.4 million adult Americans
- ◆ most often begins during late adolescence and early adulthood
- ◆ twice as common in women than in men

### **Symptoms of a panic attack:**

- ◆ last about ten minutes
- ◆ difficulty breathing
- ◆ pounding heart or chest pain
- ◆ intense feeling of terror
- ◆ sensation of choking or smothering
- ◆ dizziness or feeling faint
- ◆ trembling or shaking
- ◆ sweating
- ◆ nausea or stomachache
- ◆ tingling or numbness in the fingers and toes
- ◆ chills or hot flashes
- ◆ a fear that you are losing control or are about to die

## ***Panic Disorder***

### **Risk factors**

- ◆ family history-family members of people who have panic disorder are 8 times more likely to develop panic disorder themselves
- ◆ those who drink alcohol, use illegal drugs, chain-smoke cigarettes, drink large amounts of coffee, or take other medications known to trigger panic attacks
- ◆ have a particular heart condition where one of the valves in the heart does not close as it should (e.g., mitral valve prolapse)
- ◆ previous panic attacks
- ◆ have experienced an episode of major depression

### Colorectal

- ◆ cigarette smoking
- ◆ high fat and calorie diets with low fiber
- ◆ history of other cancers
- ◆ family history
- ◆ age - more common over the age of 50
- ◆ ulcerative colitis
- ◆ familial adenomatous polyposis

### Lung

- ◆ cigar smoking and using a pipe
- ◆ cigarette smoking - cause of 90% of cases
- ◆ second hand smoke
- ◆ occupational exposures such as asbestos
- ◆ men are more at risk than women
- ◆ black men are more at risk

### Skin

- ◆ overexposure to the sun
- ◆ severe blistering caused by sun
- ◆ UV rays from tanning beds or sunlamps
- ◆ light skin, hair and eyes
- ◆ people who freckle easily
- ◆ people who live near the equator

### Bladder

- ◆ cigarette smoking
- ◆ age - over 40 years of age
- ◆ carcinogens in the workplace (aromatic amines)
- ◆ parasites common in tropical areas - schistosomiasis
- ◆ treatment with cyclophosphamide or arsenic
- ◆ caucasian
- ◆ family history
- ◆ men are more at risk than women
- ◆ saccharin
- ◆ bladder stone and recurrent infection

### Endometrial/Uterine

- ◆ Caucasian
- ◆ long-term exposure to estrogen
- ◆ over 50 years of age; no children
- ◆ obesity
- ◆ family history
- ◆ endometrial hyperplasia
- ◆ taking the drug tamoxifen
- ◆ history of or hereditary nonpolyposis colon cancer
- ◆ early menstruation; late menopause
- ◆ polycystic ovary
- ◆ hereditary nonpolyposis colon cancer

### Breast

- ◆ early menstruation; late menopause
- ◆ use of estrogen
- ◆ late childbearing - 1st child over age 30
- ◆ family history
- ◆ obesity
- ◆ exposure to radiation therapy
- ◆ black women have higher mortality rate

### Prostate

- ◆ diets high in fat and red meats
- ◆ men over 50
- ◆ family history
- ◆ black men are more at risk
- ◆ exposure to cadmium

### Liver

- ◆ hepatitis B and C
- ◆ cirrhosis - alcohol abuse, hemochromatosis
- ◆ aflatoxin (molded peanuts, anabolic steroids, arsenics)

### Ovarian

- ◆ family history of ovarian, breast, or colorectal cancer
- ◆ age - past 50 (50% of cases over 65)
- ◆ never having children
- ◆ fertility drugs; HRT
- ◆ extended use of talc

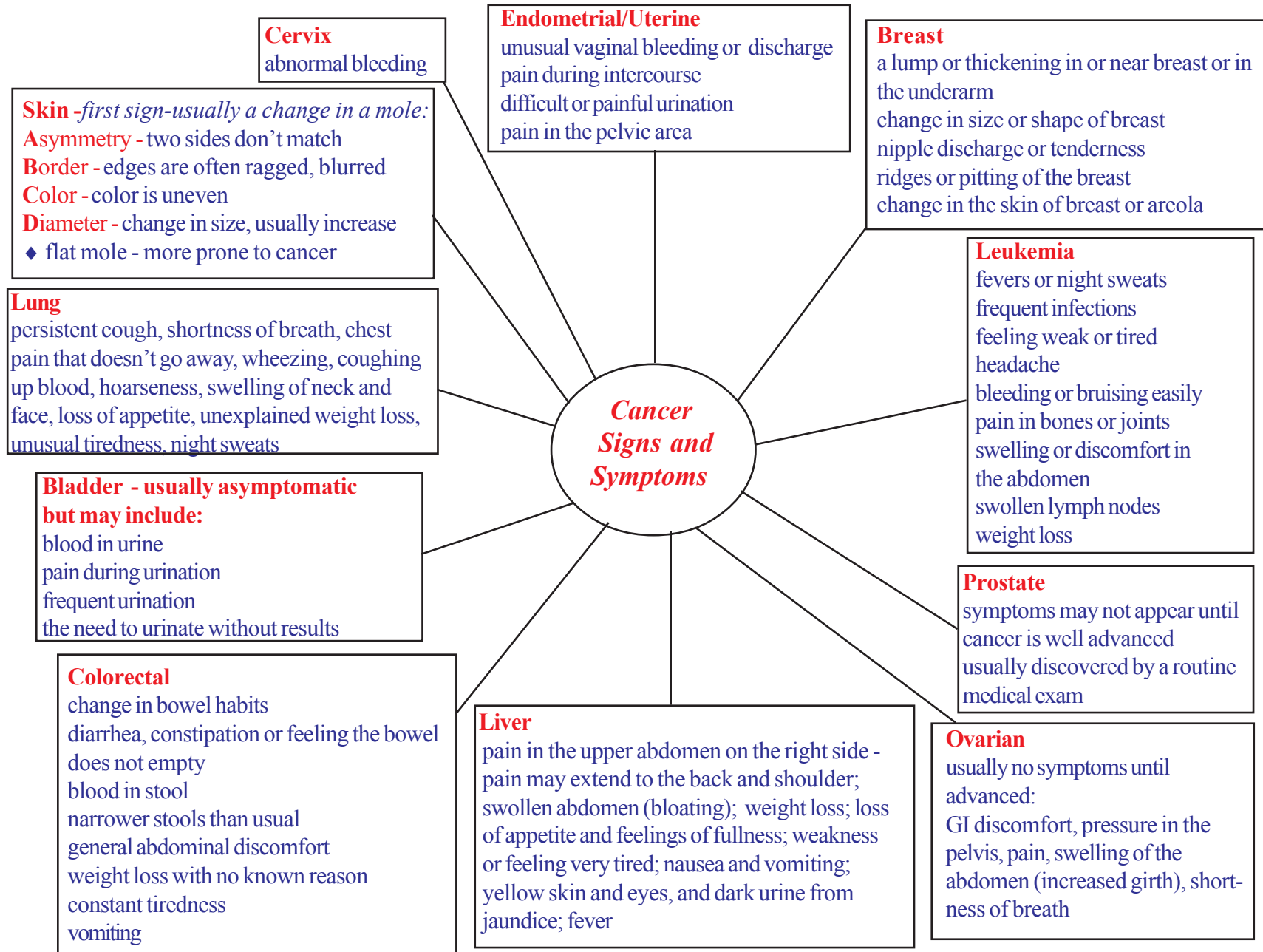
### Cervix

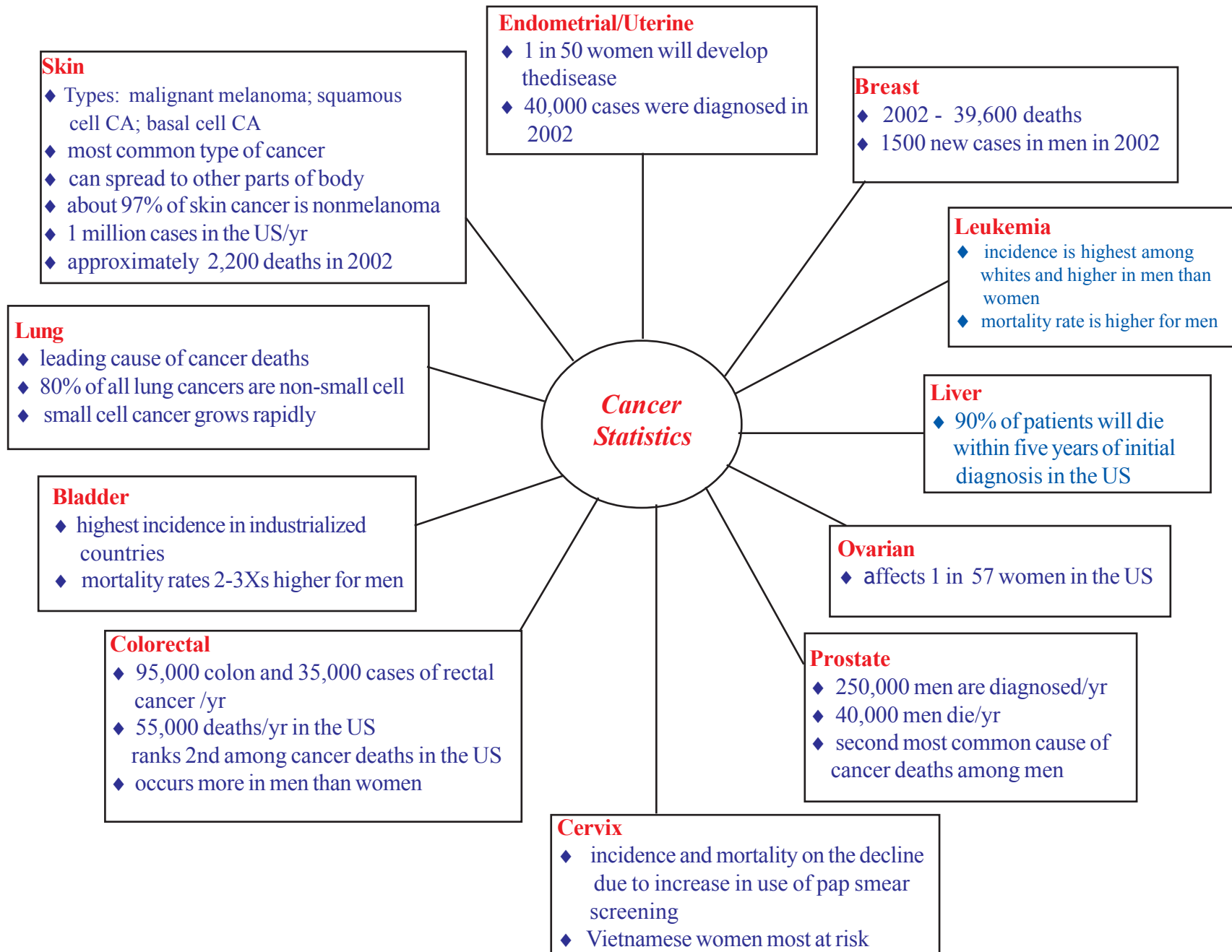
- ◆ cigarette smoking
- ◆ early age at initiation of sexual activity
- ◆ multiple sexual partners
- ◆ infection with human papilloma virus 6
- ◆ DES
- ◆ black women
- ◆ those of low economic status

### Leukemia

- ◆ radiation
- ◆ cancer treating drugs
- ◆ use of the medication benzene
- ◆ smoking
- ◆ Down's syndrome
- ◆ myelodysplastic syndrome
- ◆ long-term exposure to pesticides, herbicide

## Cancer





## Cholesterol

- ◆ more than 100 million adults in the US have blood cholesterol levels that are borderline high (over 200) - ideal is below 150
- ◆ 40 million have cholesterol levels over 240
- ◆ high cholesterol is linked to an increased risk for heart disease, but many people with cholesterol 160-200 develop heart disease
- ◆ being overweight, smoking, not exercising, and eating a diet high in saturated fat, refined carbohydrates, and cholesterol can cause high LDL, low HDL, and increased triglycerides.
- ◆ uncontrollable risk factors include: *a genetic condition called hyperlipidemia, which can cause very high cholesterol levels in your blood; age and gender*
- ◆ after age 20, cholesterol levels naturally begin to rise
- ◆ men have higher cholesterol levels than women until women reach age 50 or so, when their cholesterol levels rise
- ◆ after puberty, women have higher levels of HDL (“good”) cholesterol than men
- ◆ high cholesterol is a “silent” condition that rarely causes its own symptoms
- ◆ dietary therapy, combined with regular exercise and weight loss, if needed, is the cornerstone of treatment
- ◆ smoking decreases “good” HDL cholesterol and changes LDL cholesterol so that it promotes the buildup of deposits on the walls of

### Triglycerides/very low-density lipoprotein cholesterol (VLDL) - a type of fat that is carried in the blood by very low-density lipoproteins

- ◆ only a small amount of triglycerides is normally found in the blood; most are stored in fat tissue
- ◆ VLDL is similar to LDL cholesterol in that it contains mostly fat and not much protein
- ◆ a high triglyceride level along with a high LDL cholesterol also can increase the risk of heart attack
- ◆ triglyceride level of 150 to 199 mg/dL is considered borderline high

### HDL - high-density lipoprotein cholesterol - “good cholesterol”

- ◆ HDL level of 60 mg/dL (1.56 mmol/L) or higher is desirable
- ◆ HDL level over 60 mg/dL reduces the risk of heart disease, even if LDL or total cholesterol is high
- ◆ HDL level of 40 to 60 mg/dL (1.04 to 1.56 mmol/L) is considered acceptable
- ◆ HDL level below 40 mg/dL (below 1.04 mmol/L) is considered low

### LDL - low-density lipoprotein cholesterol - “bad cholesterol”

- ◆ lowering low-density is beneficial
- ◆ LDL level of less than 100 mg/dL (less than 2.6 mmol/L) is considered optimal
- ◆ LDL level of 100 to 129 mg/dL (2.6 to 3.35 mmol/L) is considered near optimal or above optimal
- ◆ LDL level of 130 to 159 mg/dL (3.35 mmol/L to 4.10 mmol/L) is considered borderline high
- ◆ LDL level of 160 to 189 mg/dL (4.12 to 4.88 mmol/L) is considered high.

## *Crohn's Disease*

- ◆ an inflammation disorder of the G-I tract which most often affects the region where the small intestine changes into the large intestine (ileum)
- ◆ ulcerative colitis and crohn's disease are the two main types of inflammatory bowel disease (IBD) and have similar symptoms

### **Symptoms** - some people may have only mild symptoms;

*others may have severe symptoms that may be life-threatening*

- ◆ abdominal pain anywhere in the abdomen, often described as cramping.
- ◆ the abdomen may be sore when touched
- ◆ diarrhea - often 10 to 20 times a day
- ◆ bloody diarrhea
- ◆ may have rectal pain and an urgent need to empty their bowels
- ◆ constipation; less common than diarrhea
- ◆ loss of appetite
- ◆ fever.
- ◆ weight loss
- ◆ anemia
- ◆ ulcers in the mouth
- ◆ nutritional deficiencies, such as:
  - lowered levels of vitamin B<sub>12</sub>, folic acid, iron, and fat-soluble vitamins*
- ◆ bowel obstruction
- ◆ joint pain, eye problems, skin rash, or liver disease
- ◆ signs of disease in or around the anus, such as:
  - abnormal tunnels or openings called fistulas to bladder, vaginal skin*
  - pockets of infection (abscesses)*
  - small tears (fissures) in the anus*
  - skin tags that may resemble hemorrhoids*

### **Risk factors**

- ◆ runs in families
- ◆ about 10% of people will have psoriasis
- ◆ smoking doubles the risk; if already diagnosed, smoking increase the risk of flare-ups
- ◆ 2 - 4 times more likely in the Jewish ethnic group
- ◆ use of oral contraceptives for more than 5 years increases the risk
- ◆ being breast fed as an infant lowers the risk
- ◆ a diarrheal illness during infancy raises the risk
- ◆ crohn's disease tends to be a more complex condition than ulcerative colitis.
- ◆ inflammatory bowel disease, present for 10 years or longer, increases the risk of cancer of the colon and rectum
- ◆ the risk of cancer is higher with ulcerative colitis than with crohn's disease

## Depression

- ◆ 4th major cause of disability worldwide; estimated by 2020 will be 2nd
- ◆ total cost of depression is estimated at \$44 billion
- ◆ 66% of sufferers do not seek treatment
- ◆ an estimated 1/2 of those who see PCP are correctly diagnosed
- ◆ depression influences the morbidity and mortality of a number of somatic illnesses such as myocardial infarction

### Types of depression:

- Endogenous-source is internal due to hormonal/chemical imbalance
- Exogenous-source is external due to acute or chronic stressor
- Masked-typical symptoms do not present; somatic symptoms are reported instead
- Psychotic-psychosis appears during incident of depression; when depression is treated, psychosis alleviated

### Diagnosis

- ◆ depressed mood is only one component of depression
- ◆ somatic complaints often have no physiological basis but are signs of depression; in one study of 1146 patients, physical symptoms were the chief or exclusive complaint for 69% of patients with depression
- ◆ up to 46% of patients presenting with one physical symptom have a psychiatric disorder
- ◆ the risk of psychiatric comorbidity increases with the numbers of physical symptoms
- ◆ depression is a recurrent illness

### Symptoms of depression

Emotional Symptoms	Physical Symptoms
sadness and tearfulness	tiredness/fatigue
loss of interest	sleep disturbances
anxiety/irritability	headaches
hopelessness	psychomotor activity changes
concentration difficulties	GI disturbances
guilt	appetite changes
suicidal ideation	body aches and pains

### Pain and depression

- ◆ depressed patients seem to have a lower tolerance for pain
- ◆ common neurochemical pathology may be implicated in both pain perception and depression; i.e., *serotonin and norepinephrine*
- ◆ presenting symptoms need to be treated differently for effective results; e.g., *more severe depression and patients with diabetic neuropathy and chronic pain would require different combinations for effective treatment of depression*
- ◆ comorbid pain and depression may be more difficult to treat than depression alone
- ◆ ongoing, untreated pain leads to structural changes in the central nervous system which augments the risk of persistent pain
- ◆ psychotherapy and behavioral modification, alone or combined with medication, is an effective treatment of comorbid pain and depression

## Diabetes

- ◆ a disease in which the body does not produce or poorly uses insulin
- ◆ cause is unknown and diagnosis is determined by a blood test
- ◆ 5th leading cause of death in the US
- ◆ affects 17 million Americans
- ◆ main cause of: kidney failure, limb amputations and new onset blindness
- ◆ major cause of: nerve damage, heart disease and stroke
- ◆ annual direct and indirect costs in the US - nearly \$132 billion/yr.

## Syndrome X

- ◆ increased triglyceride; decreased HDL; obesity; increased blood pressure, and normal to slightly elevated blood sugar
- ◆ 16 million Americans have prediabetes and will develop type 2 diabetes within 10 years
- ◆ exercising 30 min./day and reducing weight by 10-15 lbs can reduce risk by 60%

## Types of Diabetes

### Type I

- ◆ an autoimmune disorder; or severe viral infection destroys the pancrease
- ◆ autoimmune cause is unknown; it is not curable, but is treatable
- ◆ 5-10% of diabetics are type I

### Bronze Diabetes

- ◆ possibly caused by hereditary hemochromatosis which affects the white population
- ◆ symptoms of HH usually appear after middle age: *fatigue, weakness, weight loss, abdominal pain, decreased sexual drive, joint pain*

### Gestational Diabetes

- ◆ about 4% of women get diabetes just during pregnancy
- ◆ most often there are no symptoms
- ◆ may have sugar in urine
- ◆ diagnosis is by blood test at 24-28 wks gestation
- ◆ more likely to get if: *older, overweight, family history, or: African American, Hispanic, or Native American*

### Type II

- ◆ accounts for 90-95% of all cases of diabetes
  - ◆ results from insulin resistance combined with insulin deficiency
  - ◆ onset is usually over 40, but is appearing at earlier ages
  - ◆ low-fat diet and exercise can delay, reverse or prevent onset
  - ◆ stress can aggravate diabetes
  - ◆ if not treated, high glucose levels may hurt eyes, kidneys, nerves or heart
- Symptoms:
- ◆ in early stages, there are few; then, *frequent urination, excessive thirst, sudden changes in your vision, tingling or numbness in extremities, sores that are slow to heal*

### Risk factors for type II diabetes

- ◆ obesity & sedentary life style,
- ◆ depression
- ◆ psychosis - antipsychotic drugs
- ◆ older than 45
- ◆ close family member who has had diabetes
- ◆ member of any of the following groups: *African American, Hispanic/Latino, Asian American or Pacific Islander, or Native American*
- ◆ a BMI of 25 or higher
- ◆ weight gained in the central or upper body creates a higher risk for diabetes
- ◆ hypertension
- ◆ atherosclerosis

## PMS

- ◆ cause is unknown; seems to be related to fluctuating levels of hormones
- ◆ symptoms: *bloating; breast tenderness; weight gain; aggression; trouble concentrating; headaches/backaches; skin problems/acne; fatigue; tearfulness; irritability; anxiety; mood swings and/or depression*
- ◆ a healthy diet--including abstaining from caffeine, and sugar and reducing intake of salt; exercise; and in some cases, nutritional supplements such as Vitamin B6,

## Endometriosis

- ◆ aberrant implantation of endometrium outside the uterus
- ◆ cause is unknown
- ◆ most often occurs between ages of 25 - 40
- ◆ symptoms: *abdominal cramps or back pain during menstruation; painful bowel movements; painful urination, especially during menstruation; abnormal or heavy bleeding during periods; pain during sex; infertility*

## Fibroids

- ◆ cause is unknown (hormone related)
- ◆ 2-3 times more frequent in black women
- ◆ most often occurs in reproductive years and usually reverses after menopause
- ◆ some studies suggest obesity is a contributing factor
- ◆ symptoms: *excessive or painful bleeding during menstruation; bleeding between periods; a feeling of fullness in the lower abdomen-heaviness or pressure on the pelvis); frequent urination; pain*

## Female Disorders

## Pelvic Inflammatory Disease

- ◆ an infection of the female reproductive organs
- ◆ one of the most serious complications of a sexually transmitted disease --*can cause irreversible damage to the uterus, ovaries, fallopian tubes, or other parts of the reproductive system*
- ◆ the primary preventable cause of infertility in women
- ◆ more than 1 million women in the US experience an episode of PID
- ◆ 15% of women will suffer from PID at some point in their lives
- ◆ more than 100,000 women become infertile each year as a result of PID
- ◆ a large proportion of tubal pregnancies occur each year are linked to PID
- ◆ the rate of infection is highest among teenagers
- ◆ symptoms: *dull pain or tenderness in the stomach or lower abdominal area, or in the right upper abdomen; abnormal vaginal discharge that is yellow or green in color and has an unusual odor; irregular and/or painful periods; painful urination; spotting or cramping throughout the month; chills or high fever; nausea and vomiting; pain during sex*

## Ovarian Cysts

- ◆ most common ovarian growths in women during childbearing years
- ◆ symptoms are not usually present; sometimes detected during a routine exam
- ◆ most do not require treatment
- ◆ cysts that persist through 2 - 3 cycles or cause symptoms, may require treatment
- ◆ approximately 14% of women who take clomiphene citrate develop cysts
- ◆ rare in menopause and in girls who have not started to menstruate
- ◆ cysts do not cause cancer
- ◆ women who use birth control pills have a decreased incidence of cysts
- ◆ may cause pain if ruptures
- ◆ polycystic ovary disease

## ***Fibromyalgia***

- ◆ The exact cause is unknown
- ◆ The condition tends to be chronic
- ◆ It affects 1-2% of the population
- ◆ Affects 3-6 million Americans, primarily women of childbearing age
- ◆ It may cost the US economy at least \$10 billion/year in medical costs
- ◆ Although chronic, with proper treatment symptoms can be greatly reduced

### **Possible causes of fibromyalgia:**

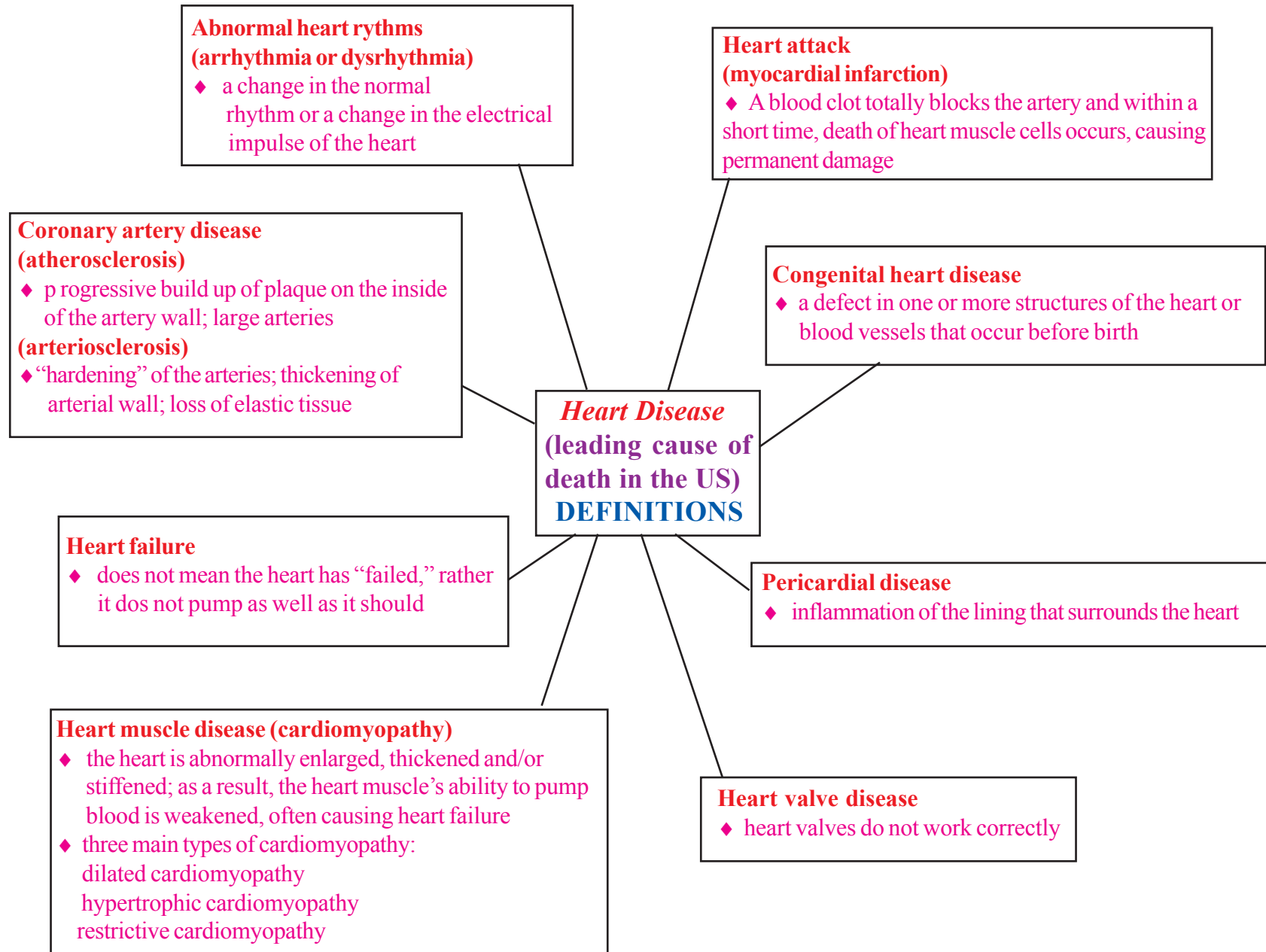
- ◆ physical and emotional factors may contribute to the onset; e.g., an infection, stress related to finances, marriage, or work
- ◆ a possible malfunction in the autonomic nervous system and the HPA axis which regulates production of cortisol.
- ◆ low level growth hormones
- ◆ Fibromyalgia may originate in mechanisms similar to those active in painful diabetic neuropathy and postherpetic neuralgia
- ◆ the presence of an abnormal stress response

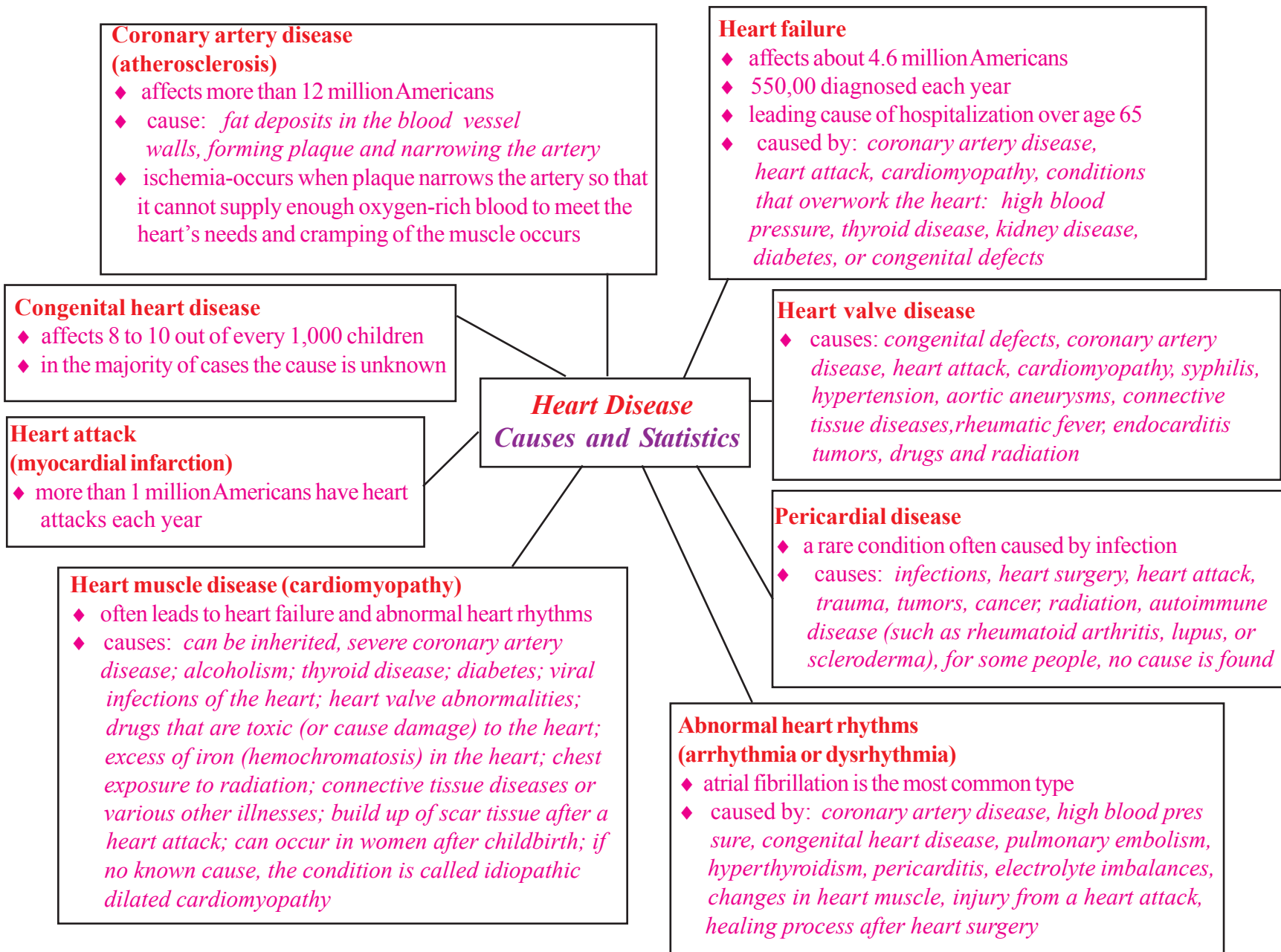
### **Symptoms include:**

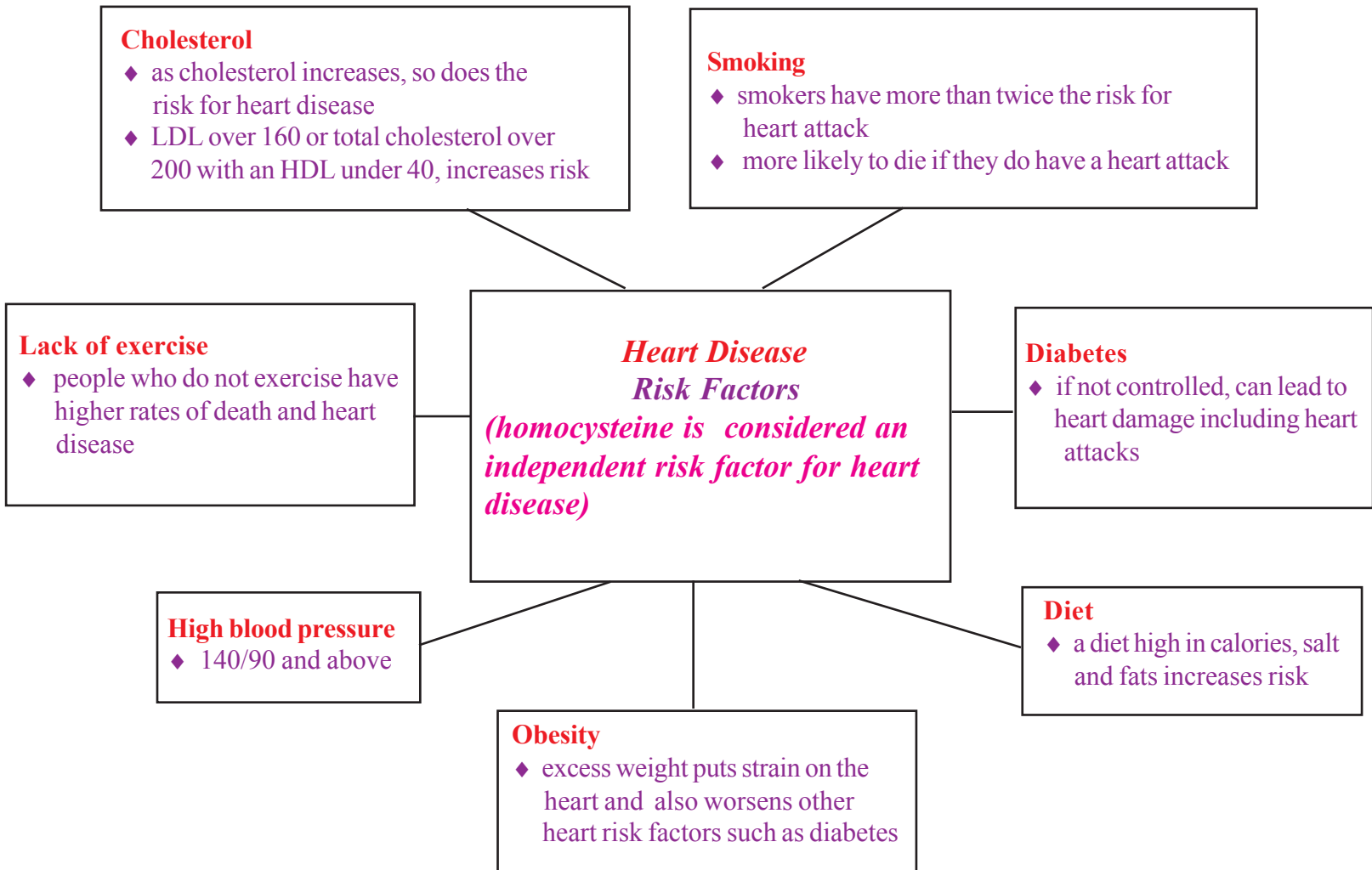
- ◆ extreme fatigue
- ◆ widespread musculoskeletal pain
- ◆ multiple tender body points
- ◆ sleep disturbances
- ◆ depression
- ◆ headaches
- ◆ alternating diarrhea and constipation
- ◆ numbness and tingling in the hands and feet
- ◆ memory difficulties
- ◆ dizziness.

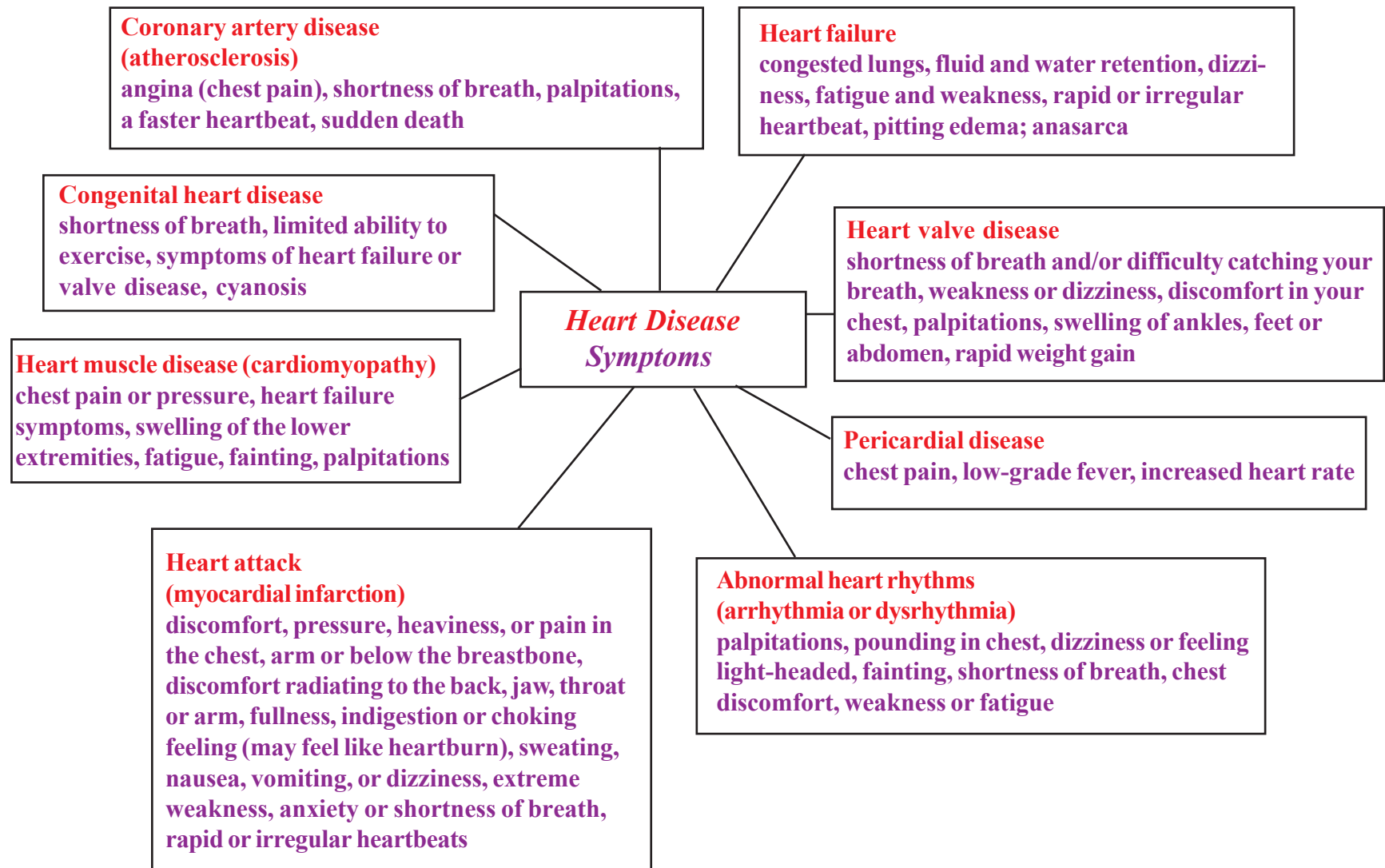
### **Suggested Treatment**

- ◆ the best approach is a biopsychosocial-spiritual model
- ◆ regular aerobic exercise and strength training
- ◆ medications that decrease pain and improve sleep
- ◆ stress reduction, including relaxation techniques
- ◆ antidepressants
- ◆ physical therapy
- ◆ avoid caffeine and alcohol
- ◆ eating a low fat, plant-based diet
- ◆ maintaining a normal weight
- ◆ counseling to address spiritual, mental health, and lifestyle needs









## Hypertension - or high blood pressure

- ◆ 5-10% caused by: *coarctation of aorta; kidney disease, hardening of the kidney arteries, overactive adrenal glands, or adrenal gland tumors*
- ◆ in 90% of cases cause is unknown
- ◆ contributing factors: *salt, arterial plaque, obesity, estrogen, and alcohol*
- ◆ 1 in 3 Americans are 140/90 or better
- ◆ 1/3 are unaware of their condition
- ◆ 1/2 are not being treated
- ◆ 2/3rds are not able to control it
- ◆ 2 to 3 adults over 60 have high blood pressure; an increase of nearly 8%
- ◆ treatment:  
*weight loss has the greatest impact on lowering blood pressure; follow the DASH diet; exercise; limit alcohol; quit smoking; work with physician re: medication; stress mgmt.*
- ◆ untreated leads to: *heart disease, stroke, blindness, and kidney failure*
- ◆ people whose blood pressure spikes in the morning are 3 Xs more likely to develop high blood pressure
- ◆ acetaminophen and anti-inflammatory drugs may increase blood pressure

160/100 -stage 2

140/90 - high  
blood pressure

120/80 - pre-  
hypertensive

115/70 - healthy  
adult

90/50 - young  
children

- ◆ affects 45 million Americans
- ◆ lifestyle changes can reduce blood pressure: *healthy BMI, exercise, diet, limiting alcohol, quitting smoking, reducing salt intake*
- ◆ males born at low birth weight may be more likely to develop high blood pressure

◆ **For every 20/10 mmHg rise in BP above this level, the risk of death from heart problems doubles**

## ***Irritable Bowel Syndrome (IBS)***

- ◆ a functional disorder of the large and small intestines
- ◆ the movement of the digestive tract is impaired no change in physical structure can be found
- ◆ IBS is believed to be caused by extreme sensitivity of the bowel
- ◆ causes abdominal pain or discomfort
- ◆ psychological stress and eating often bring on the symptoms: pain occurs along with constipation or diarrhea, bloating, passing mucus in the stools, a sense of not completely emptying bowels
- ◆ constipation and diarrhea can alternate, but one problem is often more common
- ◆ managing stress and changing the diet are the main treatments for the condition
- ◆ typically a long-term, chronic condition
- ◆ up to 20% of people have IBS
- ◆ more common in women than men
- ◆ common in India, Japan, and China
- ◆ less likely to develop after age 60
- ◆ only about 5% have severe symptoms

### **Following a diet to reduce diarrhea**

Many people find that their diarrhea is reduced if they limit or eliminate the following foods and beverages:

- ◆ alcohol
- ◆ caffeine (coffee, tea, cola drinks, and chocolate)
- ◆ nicotine
- ◆ gas-producing foods (such as beans, broccoli, cabbage, and apples)
- ◆ dairy products that contain lactose (milk sugar)
- ◆ spicy foods
- ◆ foods high in acid, such as citrus fruit
- ◆ foods high in fat, including bacon, sausage, butter, oils, and anything deep-fried
- ◆ sorbitol, an artificial sweetener found in some sugarless candies and chewing gum

**In IBS, your pattern of bowel movements varies at least 25% of the time. Two or more of the following may happen:**

- ◆ bowel movements may occur either more often (diarrhea or less often (constipation) than usual, such as having more than 3 bowel movements a day or less than 3 per week.
- ◆ bowel movements may differ in size or consistency (may be hard and pelletlike, pencil-thin, or loose and watery).
- ◆ the way stools pass changes. You may strain, feel an urgent need to have a bowel movement, or feel that you haven't completely passed a stool.
- ◆ you may have bloating or a feeling of gas in the intestines

### **Following a diet to reduce constipation**

Taking the following steps may reduce your constipation:

- ◆ add fiber to your diet. Fiber will absorb water and add bulk to the large intestine, making bowel movements easier and more frequent than you usually experience. Eat high-fiber foods such as fresh fruits (raspberries, pears, apples); fresh vegetables (peas, brussels sprouts); wheat bran; whole grain breads and cereals; and beans such as kidney, pinto, and garbanzo. Increase the amount of fiber in your diet slowly to avoid excess gas. (one tsp. of flax seed - increase to one Tbl. in 2 wks.)
- ◆ drink plenty of water; 6 to 8 glasses of water daily because fiber absorbs water; water will keep stools soft
- ◆ get regular exercise -- helps maintain bowel regularity

## *Migraines*

- ◆ a vascular headache associated with changes in the size of the arteries within and outside of the brain
- ◆ two types: migraine with aura-known as classic migraine; migraine without aura-known as common migraine
- ◆ classic migraines occur in 20-30% of sufferers; an aura can occur one hour before the attack of pain and last from 15-60 minutes and include: *bright flashing dots or lights, blind spots, distorted vision, temporary vision loss, wavy or jagged line*
- ◆ 28 million Americans suffer from migraines
- ◆ more women get migraines than men
- ◆ 1/4 of all women with migraines suffer 4 or more attacks/month
- ◆ each migraine can last from four hours to three days; occasionally longer
- ◆ by identifying migraine triggers migraines can be lessened or eliminated

- ◆ **cause:** *exact cause is unknown; believed there is an inherited abnormality in certain areas of the brain; tendency to run in families; possible source is food allergies*
- ◆ **migraine triggers:** *emotional stress, sensitivity to specific chemicals and preservatives in food such as aged cheese, alcohol and food additives such as nitrates, caffeine, changing weather conditions, menstrual periods, tension, excessive fatigue, skipping meals, changes in normal sleep pattern*
- ◆ **symptoms:** *pounding or throbbing pain that may be mild, moderate or severe; pain can shift from one side of the head to the other, or it can affect the front of the head or feel like it's affecting the whole head; sensitivity to light, noise and odors; nausea and vomiting, stomach upset, abdominal pain; sensations of being very warm or cold; paleness; fatigue; dizziness; blurred vision; diarrhea; fever (rare)*

## ***Osteoarthritis - or, degenerative joint disease***

- ◆ affects almost 16 million in the US and is the most common type of arthritis
- ◆ chance of developing osteoarthritis increases with age; after age 60, most people have osteoarthritis to some degree
- ◆ associated with a breakdown of cartilage in joints; most commonly occurs in the hips, knees, and spine
- ◆ often affects the finger joints, joint at the base of the thumb, and the joint at the base of the big toe
- ◆ exercise is important to improve joint movement and to strengthen the muscles that surround the joint
- ◆ exercises such as swimming or walking on flat surfaces are recommended
- ◆ activities such as high impact aerobics that increase joint pain are discouraged
- ◆ hydrotherapy is beneficial

### **Symptoms of osteoarthritis**

- ◆ joint aching and soreness, especially with movement
- ◆ pain after overuse or after long periods of inactivity
- ◆ bony enlargements in the middle and end joints of the fingers (*may be painful*)

### **Risk factors**

- ◆ heredity
- ◆ obesity
- ◆ injury-knee, broken bone extending into the joint, and back related
- ◆ overuse
- ◆ being double-jointed increases the risk
- ◆ people born with scoliosis or curvature of the spine are at increase risk
- ◆ obesity increases the risk for osteoarthritis of the knee
- ◆ poor circulation due to atherosclerosis

***Osteoporosis - a skeletal disorder characterized by compromised bone strength predisposing a person to an increased risk of fracture***

- ◆ exact cause is not known
  - linked to the natural process of aging and decreased production of estrogen in women and testosterone men
  - inadequate amounts of calcium, phosphorus, and vitamin D
  - first signs appear in middle or older adult years: *loss of height; developing a curved upper back; back pain; broken bones*
- ◆ normally develops in women after menopause between 45 and 55 and affects men after age 65
- ◆ osteoporosis is present if a bone mineral density (BMD) value is more than 2.5 standard deviations below that of the average young adult
- ◆ 44 million women and men ages 50 or older in the US have low bone mass
  - 8 million women in the US over age 50 have osteoporosis
  - 1/2 of all Caucasian women have osteoporosis or osteopenia by the end of the first post menopausal decade
  - the lifetime risk of fractures in a 50-year-old Caucasian woman is 40%
- ◆ primary osteoporosis: *postmenopausal or age related*
- ◆ secondary osteoporosis: *related to chronic diseases, drug therapy, or lifestyle*
- ◆ over 1.5 million osteoporotic fractures occur annually in the US; 300,000 are hip fractures
- ◆ up to 90% of all fractures in the elderly can be attributed to osteoporosis
  - 33-40% of people regain the ability to perform basic activities of daily living
  - 20% are nonambulatory
  - 10-60% are unable to return home; elderly women and men are 2 to 3 times more likely to die after a hip fracture
- ◆ 2001 estimated direct costs for hospitalization and nursing-home care: \$47 million/day

**Risk factors:**

- ◆ family history including maternal history of hip fracture
- ◆ history of hyperthyroidism
- ◆ poor depth perception
- ◆ poor contrast sensitivity
- ◆ inability to rise from a chair without using one's arms
- ◆ a history of previous fractures after the age of 50
- ◆ smoking/alcohol use
- ◆ little or no weight-bearing exercise
- ◆ thin body build
- ◆ diet low in calcium, phosphorus and vitamin D
- ◆ certain medical conditions such as hyperthyroidism
- ◆ European and Asian ancestry
- ◆ overusing antacids that contain aluminum
- ◆ excessive dieting or eating disorder
- ◆ being a female athlete
- ◆ women who have completed menopause
- ◆ high protein diet and high salt intake

**Treatment:**

- ◆ eliminating or reducing caffeine and alcohol
- ◆ quitting smoking
- ◆ physical activity-weight bearing exercises
- ◆ testosterone for men and estrogen for women

**Consequences of osteoporosis:**

- ◆ broken bones;
- ◆ breathing difficulties
- ◆ long-term bone pain
- ◆ reduced mobility

## ***Rheumatoid arthritis***

- ◆ an autoimmune disease that affects the joints:  
*membranes or tissues lining the joints become inflamed*
- ◆ it is chronic and can be treated
- ◆ what triggers rheumatoid arthritis is not known
- ◆ genetics may increase the risk
- ◆ over time, the inflammation may destroy the joint tissues which leads to disability
- ◆ affects women twice as often as men
- ◆ frequently begins between the ages of 50 and 70
- ◆ there are no medications or lifestyle modifications that can prevent rheumatoid arthritis
- ◆ fasting and plant-based diet is helpful

### **Symptoms**

- ◆ often develop slowly over weeks or months
- ◆ fatigue and stiffness are usually early symptoms
- ◆ weight loss and low-grade fever can occur
- ◆ pain, stiffness, and swelling in the joints of:  
*hands, wrists, elbows, feet, ankles, knees or neck,*
- ◆ morning stiffness
- ◆ bumps-ranging in size from a pea to a moth ball develop in 1/3 of cases
- ◆ usually affects both sides of the body at the same time
- ◆ may affect the eyes, lungs, heart, nerves, or blood vessels
- ◆ in severe cases, may cause damage to:  
*heart, lungs, skin, blood vessels, nerves, and eyes*
- ◆ avoidance of night-shade vegetables - eggplant, tomatoes - may be helpful

## *Sleep disorders*

- ◆ sleep disorders are divided into several types:
  - insomnia - difficulty falling asleep and/or staying asleep
  - hypersomnia-excessive daytime sleepiness
  - circadian rhythm disorder-abnormal timing of sleep-wake cycles
  - parasomnia-abnormal stages of sleep

### **Symptoms of insomnia**

- ◆ difficulty falling asleep
- ◆ awakening during sleep and having trouble getting back to sleep
- ◆ awakening too early in the morning
- ◆ feeling unrefreshed upon awakening
- ◆ daytime irritability, drowsiness, anxiety, and/or nonproductiveness

### **Temporary insomnia**

- ◆ lasts 1 night to 3 weeks- *usually disappears in less than a month*
- ◆ causes: *a single stressful event; a period of emotional stress illness; temporary pain; disturbances in the sleeping environment (noise, light, strange bed); upsets in the normal sleep pattern (such as jet lag)*

### **Chronic insomnia**

- ◆ a lack of good quality sleep for long periods- *months to years at a time*
- ◆ causes: *psychiatric conditions-e.g., depression or anxiety; underlying medical condition; stimulants; acute or chronic stress; chronic pain; some medication; poor sleep habits*

### **Hypersomnia**

- ◆ only a small percentage have an underlying psychiatric problem
- ◆ nearly 85% have one of three conditions: *sleep apnea, narcolepsy, or myoclonus* (abnormal twitching of the calf muscles during sleep accounts for about 10% of hypersomnia cases)

### **Circadian rhythm disorders**

include: *“jet lag” syndrome, sleeping too late or awakening too early because of irregular shift work — a common cause of on-the-job accidents*

### **Parasomnias**

- ◆ sleepwalking may occur during a stage of deep sleep called delta sleep.
- ◆ agitated or violent behavior may be exhibited by people with abnormal REM (rapid eye movement) sleep, a stage normally associated with dreaming

## *Sleep disorders*

- ◆ affects 12-25% of seniors
- ◆ thyroid testing and hormonal testing for menopause can identify possible causes
- ◆ more than 2/3rds of older adults suffer from sleep problems
- ◆ health problems such as diabetes and arthritis are likely to be responsible for poor sleep among the older adult
- ◆ only about one in eight sleep disorder are addressed by a physician
- ◆ there are more than 85 sleep disorders
- ◆ sleep disorders affect more than 70 million Americans

### **Sleep related breathing disorders**

- ◆ chronic snoring-associated w/ increased incidence of heart and brain-related disease-present in 40% of men and 30% of women
- ◆ sleep apnea: (two types: obstructive and central) affects 2-4% of the population; is a primary risk factor for hypertension-usually caused by partial blockage in the back of the throat.; common in overweight, middle-aged men with high blood pressure, its hallmark is very loud snoring
- ◆ patients with moderate to severe sleep apnea perform as poorly as drunk drivers and have up to a 15-fold increased risk of motor vehicle accidents

### **Medical conditions and sleep problems in the older adult**

Individuals with a diagnosed medical condition are more likely to suffer w/ a sleep disorder:

- 82% w/ depression
- 81% who suffered a stroke
- 76% being treated w/ heart disease
- 75% w/ lung disease
- 72% w/ diabetes or arthritis
- 71% w/ hypertension

### **Narcolepsy**

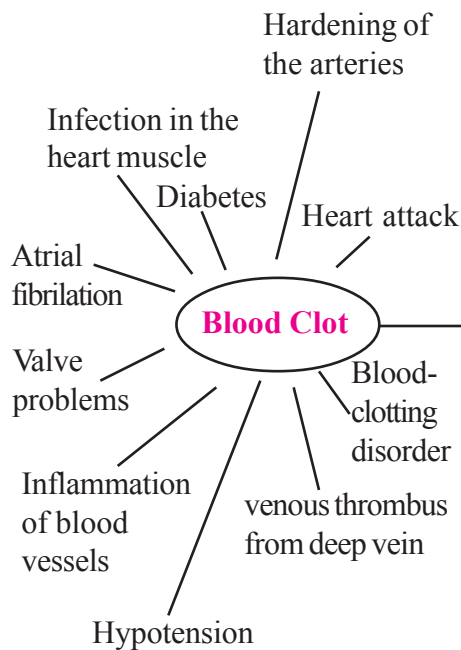
- ◆ characterized by: *chronic, excessive attacks of drowsiness during the day, sudden extreme muscle weakness (cataplexy), hallucinations, paralysis while sleeping, and disrupted sleep during the night*
- ◆ attacks of drowsiness may persist only a few minutes or last for hours, and may vary in frequency from a few incidents to several during a single day
- ◆ suspected that genetic factors play a role in the development of the disorder

### **Consequences of sleep deprivation**

- ◆ reduction of daytime alertness by as much as 32%
- ◆ impairment of memory and cognitive ability
- ◆ disruption of bed partner's sleep; may lead to relationship problems
- ◆ poorer quality of life
- ◆ two-fold higher risk of sustaining an occupational injury
- ◆ responsible for at least 100,000 automobile crashes, 71,000 injuries and 1,550 fatalities/year

# STROKE

**3rd leading cause of death in the US**  
**A stroke occurs every minute**  
**Someone dies of a stroke every 3.1 minutes**  
**4 million Americans have permanent disability from stroke**  
**Stroke is the leading cause of hospitalization and institutionalization**  
**Treatment varies depending on the type of stroke - early diagnosis is vital**



## Ischemic stroke- 90% of all strokes

*a blood vessel that supplies blood to the brain is blocked*

### Signs:

- Slurred speech
- Legs clumsy or numb
- One side of body affected
- Weakness
- Headache-severe
- Eyes; loss of sight
- Arms clumsy or numb
- Dizziness

## Hemorrhagic stroke- often fatal

*a cerebral hemorrhage caused sudden bleeding from a blood vessel inside the brain, or a subarachnoid hemorrhage caused by sudden bleeding from a blood vessel in the space surrounding the brain*

**Signs:** coma, severe headache, vomiting, current warfarin therapy, systolic blood pressure > 220 and/or glucose > 170 mg/dL in a patient without diabetes

High blood pressure

"Berry" Aneurysm

### Stroke Prevention

- diet containing fruits, vegetables, fish and low fat
- screening for and treating hypertension
- smoking cessation
- limiting alcohol
- exercise
- maintaining low cholesterol
- avoidance of stress

### Risk factors for strokes

- high cholesterol
- smoking
- poor nutrition in utero
- depression
- age > in older adults
- race > in black and hispanic
- over-the-counter medication containing ephedrine, pseudoephedrine, or phenylpropanolamine (PPA)
- obesity
- physical inactivity
- medications
- heavy use of alcohol
- street drugs
- stress