

	Description	Causes	Types	Risk Factors	Symptoms	Diagnosis	Treatment/Prevention
Heart Diseases: Coronary Heart Disease CHD, Coronary Artery Disease CAD, Ischemic Heart Disease IHD							
Angina Pectoris	<ul style="list-style-type: none"> dull, radiating pain in center of chest not as severe, doesn't destroy muscle like MI 	<ul style="list-style-type: none"> coronary artery narrowing b/c atherosclerosis 		<ul style="list-style-type: none"> family Hx smoking high CHO hypertension diabetes mellitus age obesity no exercise personality type? 	<ul style="list-style-type: none"> pressure, squeezing, burning in center of chest along neck, upper abs, down arm, little finger after exertion/stress, lasts 3-5 min, relieved by relaxing 	<ul style="list-style-type: none"> Case Hx EKG cardiac ateriography 	<ul style="list-style-type: none"> lifestyle meds (nitroglycerin) surgery to bypass obstruction angioplasty Prevent with nitrates, Ca antagonists, beta blockers
Myocardial Infarction	<ul style="list-style-type: none"> area of heart muscle damaged/dies (necrosis) b/c coronary artery blocked decreasing blood supply to heart ability of the heart to pump blood is diminished 	<ul style="list-style-type: none"> coronary artery blocking b/c thrombus atherosclerosis 		<ul style="list-style-type: none"> hypertension smoking BCP stress high fat diet no exercise 	<ul style="list-style-type: none"> crushing pain in center of chest behind breastbone, down arms, neck, back, teeth fatigue, sweating, dizziness, fever, hard to breathe pain like angina pectoris, <u>but</u> more intense, doesn't go away, nitroglycerin won't help 	<ul style="list-style-type: none"> EKG WBC count (b/c damage) enzymes in blood 	<ul style="list-style-type: none"> CPR antiarrhythmics diuretics antianginals sedatives beta blockers Ca channel blockers angiogram percutaneous transluminal coronary angioplasty lifestyle Prevention: bypass surgery
Heart Diseases: Congestive Heart Failure							
Congestive Heart Failure (enlarged heart, cardiomegaly)	<ul style="list-style-type: none"> heart can't work efficiently or pump enough blood to body blood returning can back up in veins, resulting in edema can back up in lungs → congested, dyspnea kidney can't remove enough water/salt/wastes → more work for heart so enlarges/thickens/beats faster ventricles get smaller 	<ul style="list-style-type: none"> coronary artery disease myocardial infarction HT, cardiac arrhythmias, heart valve disease, heart infections, cardiomyopathy, congenital heart defects gradual onset CHF is secondary to something 			<ul style="list-style-type: none"> EARLY: fast heartbeat, unusual fatigue, dyspnea (pul. edema), can't stand cold ADVANCED: dyspnea, severe cough with red/brown sputum, swelling of legs/ankles, fullness feeling in neck/abdomen 	<ul style="list-style-type: none"> Physical exam chest xray → enlargement? EKG → reveal damage 	<ul style="list-style-type: none"> rest and oxygen meds (digitalis, diuretics, vasodilators) low salt diet (kidneys) surgery to 1. bypass 2. replace/correct faulty heart valve 3. repair aneurysm control HT, anemia, salt, alcohol, stress etc. Prevent with well balanced diet, good weight, exercise, rest, no smoking, alcohol
Vascular Diseases							
Atherosclerosis	<ul style="list-style-type: none"> "hardening of the arteries" group of disorders—hardening/thickening of bv walls → loss of elasticity/contractility 	<ul style="list-style-type: none"> unknown 	<ol style="list-style-type: none"> <u>atherosclerosis</u>: inner wall thickening/lipid deposition <u>Monckeberg's medial calcific sclerosis</u>: calcification of 				

			media of muscular arteries 3. <u>arteriosclerosis</u> : hyaline thickening of small art/erirole walls				
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Atherosclerosis	<ul style="list-style-type: none"> slow, progressive disease of arteries fatty deposits in or beneath intimal surfaces of bv → partially or totally block blood flow leading cause of heart attacks 	<ul style="list-style-type: none"> uncertain 		<ul style="list-style-type: none"> hyperlipidemia hypertension smoking 	<ul style="list-style-type: none"> none specific to arterial blockage 	<ul style="list-style-type: none"> medical history, physical exam, blood analysis esp. chol. EKG isotopes/ateriography 	<ul style="list-style-type: none"> lifestyle/eating habits surgery meds: anticoagulants, nitrates, Ca channel blockers, anti-HT meds endarterectomies bypass surgery
Hypertension	<ul style="list-style-type: none"> persistent high blood pressure (normal 120/80) 28% of adults, more among African Americans, then Caucasians and Mexican Americans more common in men than women <60, >60: women more common (African American/Mexican American), >70: women more common (Caucasian) 	<ul style="list-style-type: none"> renal system dysfunction: too much fluid retained → elevated arterial pressure → kidneys secrete sodium, pressure diuresis → decrease arterial pressure → kidneys secrete renin → angiotensin I formation → angiotensin II through ACE → All increase BP * <u>Essential</u> HT when mean arterial pressure resets at a higher level in order for feedback mech. to function <u>Secondary</u>: kidney disorders, adrenal tumors, hormones, drug side effects 	<ol style="list-style-type: none"> <u>Essential</u> or primary (90-95%) <u>Secondary</u> (5-10%) 	<ul style="list-style-type: none"> family history renal disease diabetes hypercholesterolemia obesity BCP sedentary diet high in sat fat/Na stress alcohol smoking 	<ul style="list-style-type: none"> asymptomatic <u>ocular manifestations</u>: hypertensive retinopathy... narrowing ret. Arterioles papilledema infarction of ON→AION sudden ophthalmoparesis of nerve that lost blood supply <u>assoc. systemic complications</u>: cardiac arrhythmia, cerebral hemorrhage/thrombosis, CHF, MI 	<ul style="list-style-type: none"> systolic and/or diastolic BP higher than normal, measured at least twice on separate days 	<ul style="list-style-type: none"> lifestyle meds: diuretics, beta blockers, Ca antagonists, ACE inhibitors
Emboli and Thrombus	<ul style="list-style-type: none"> part of circ. system is either partially or completely blocked by obstructing mass 	<ul style="list-style-type: none"> arterial emboli from blood clots from within heart/bv; also plaques fat emboli: injury to bones, damage to fat cells in tissue air emboli: intravenous infusion, surgery 	<ol style="list-style-type: none"> <u>solid emboli</u>: tissue clumps, tumor cells, thrombus (blood clots) <u>liquid</u>: globules of fat or amniotic fluid <u>gaseous</u>: air <p>Classification:</p> <ol style="list-style-type: none"> <u>arterial emboli</u>: from heart or artery <u>pulmonary</u>: in lungs <u>coronary artery</u>: block coronary art. <u>cerebral emboli</u>: block brain bv, originate in heart/ carotid artery in neck 		<ul style="list-style-type: none"> vary acc. To site brain: stroke symptoms leg: beyond blockage is white/painful eye: hollenhorst plaque 	Differential Dx or retinal emboli: CHOLESTEROL EMBOLI → caused by atherosclerosis CALCIFIC EMBOLI →secondary to aortic or mitral valve disease or calcific aortic stenosis	<ul style="list-style-type: none"> anticoagulants (heparin/warfarin) surgery
Aneurysm	<ul style="list-style-type: none"> bulge in bv due to weakness in wall in elastic, muscular 	<ul style="list-style-type: none"> atherosclerosis commonly inherited bv infections weaken wall 	<ol style="list-style-type: none"> <u>true</u>: all 3 layers <u>false</u>: clot in 1-2 of layers, causes 		<ul style="list-style-type: none"> sudden, severe pain in area of aneurysm pain under breastbone, 	<ul style="list-style-type: none"> xray/ultrasound angiogram CAT scan 	<ul style="list-style-type: none"> ICU hospitalization drugs to lower BP

	middle layer of wall ▪ danger: rupture	▪ penetrating wounds ▪ syphilis	bulge 3. <u>dissecting</u> : blood separates layers → channel to divert blood flow; aorta		back of neck, hard to swallow, dyspnea, heavy cough ▪ in neck artery: swishing ▪ tender pulsating mass ▪ dissecting: sudden severe central or low abdominal pain radiating to legs, shock, death		▪ surgery to replace damaged part of bv
	Description	Causes	Types	Risk Factors	Symptoms	Diagnosis	Treatment/Prevention
Stroke	▪ cerebrovascular supply blocked → permanent neurologic damage ▪ abrupt onset ▪ results in malfunction or loss of functions in those parts of body ▪ problems contralateral ▪ common age 60-80 ▪ can lead to temp/perm memory loss, difficulty speaking, walking, controlling emotions	▪ <u>cerebrovascular embolism</u> : blood clot formed elsewhere lodges brain artery ▪ <u>cerebral hemorrhage</u> : diseased artery bursts → forms clot to compress brain ▪ <u>aneurysm</u> : interrupts blood flow to area of brain, floods it with blood		▪ HT, atherosclerosis ▪ heredity ▪ smoking ▪ diabetes ▪ hypercholesterolemia ▪ transient ischemic attacks	▪ sudden weakness/numbness in face, arm, leg on one side ▪ slurring ▪ dimness or loss of vision, esp. 1 eye ▪ unsteadiness ▪ falling to one side ▪ sudden, severe headache	▪ history/physical ▪ arteriography (show damage/clots) ▪ CTs (hemorrhage or blockage? Tumor?) ▪ MRIs	▪ hospitalization ▪ anticoagulants ▪ rehabilitation Prevention by doing arteriography to find obstruction/ulcerated areas, esp. after TIA. Surgery, control lifestyle
Other Cardiovascular Diseases							
Arrhythmia	▪ heart beat is slower or faster than normal						
Dysrhythmia	▪ disturbance in normal beating pattern (irregular)	▪ normal esp. with stress ▪ caffeine, smoking, overeating, alcohol, meds, drugs esp. cocaine ▪ structural heart defects	▪ <u>palpitations</u> : rapid, pauses ▪ <u>premature ventricular contractions (PVCs)</u> : 2 ventricles contract prematurely ▪ <u>sick sinus syndrome</u> : abnormal rhythms → dizziness/fainting ▪ <u>premature atrial contractions (PACs)</u> ▪ <u>ventricular fibrillation</u> : electrical impulses disrupted → quivering				
Rheumatic Fever	▪ variety of abnormal cardiac conditions inc. heart valve scarring/endocarditis ▪ Inflammation/scarring of leaflets → valve leakage or valve narrowing	▪ immune reaction to streptococcal bacteria					▪ antibiotics
Mitral Valve Disorders	▪ problems in mitral valve	▪ congenital conditions ▪ deterioration ▪ heart attack ▪ infection ▪ rheumatic fever	▪ <u>mitral stenosis</u> : valve thickens, inhibits blood flow (ca) ▪ <u>mitral insufficiency</u> : unable to close				

			properly → back flow ▪ <u>mitral valve prolapse</u> : extra tissue → leaks slightly				
	Description	Causes	Types	Risk Factors	Symptoms	Diagnosis	Treatment/Prevention
Heart Murmur	▪ unusual sound or group of sounds	▪ normal ▪ anemia ▪ congenital heart defects ▪ endocarditis ▪ congestive heart failure ▪ heart valve disease ▪ HT ▪ rheumatic heart disease					
Endocarditis	▪ inflammation of endocardial layer of heart ▪ persons with congenital or acquired defects in walls/valves	▪ infection esp. staphylococcus/streptococcus					
Marfan's Syndrome	▪ inherited disorder of connective tissue ▪ affect heart, bv, lungs, eyes (subluxated lens), bones, ligaments ▪ heart: weakened or defective aorta bulges and ruptures → leaks into chest/abdomen				▪ tall, wingspan longer than tall; long fingers		