

	What is it?	Causes/timing	Symptoms	Diagnostic tests	Treatment/prognosis
Myocarditis	Inflammation/ infection in the myocardium	<u>Infectious:</u> viral infection or post viral immune rxn.  <u>Non infectious:</u> medications, drugs, chemotherapy, toxic substances	Chest pain, signs of heart failure, dyspnea, arrhythmias, pericardial friction rub, tachycardia, presentation may mimic MI	<u>EKG:</u> sinus tach + possible ST elevation, PVCs  <u>CXR:</u> cardiomegaly + signs of CHF  <u>ECHO-</u> cardiomegaly, contractile dysfunction  Endomyocardial biopsy is confirmatory	ACEi, beta blockers, NSAIDs, antimicrobial therapy if a specific agent is identified.  Avoid digoxin
Acute inflammatory pericarditis	Fluid filled pouch around the heart is inflamed	N/A	Chest pain that is <b>worse when lying down- gets better when they lean forward</b> , dyspnea, fever, pericardial friction rub, effusion	<u>EKG-</u> <b>diffuse ST segment elevation w/ PR depression</b>	Decreased activity, NSAIDs, <b>colchicine</b> , systemic steroids in severe cases
Pericardial effusion	Excess fluid in pericardial space		Pleuritic chest pain, dyspnea & cough, pericardial friction rub	<u>CXR-</u> enlarged cardiac silhouette w/ globular appearance  <u>EKG-</u> nonspecific ST-T changes	Small effusions monitored. If tamponade present- urgent pericardiocentesis

Cardiac tamponade	Compression of the heart caused by fluid collecting in the sac around the heart. Elevated intrapericardial pressure- restricts venous return & ventricular filling		Tachycardia w/ JVD, hypotension or paradoxical pulse	<u>EKG</u> : electrical alternans	Pericardiocentesis. Can be fatal.
Constrictive pericarditis	Pericardium becomes thicker and stiffer than normal. Interferes w/ heart's pumping ability	<b>Diastolic problem</b> - restricts diastolic filling and causes elevated venous pressure	Dyspnea, fatigue, weakness, edema, hepatic congestion, ascites. <b>Kussmaul's sign</b> - inc. JVD w/ inspiration	<u>Echo</u> : thickened pericardium <b>Cardiac cath</b> is confirmatory	NSAIDs, diuretics, pericardiectomy may be needed if diuresis doesn't control symptoms.
Dilated cardiomyopathy	Heart chambers (ventricles) stretch and thin, growing larger. Causes a dilated and weak heart.	<b>Systolic problem</b> : reduced EF below 40%  Causes: idiopathy, viral, alcoholics, <b>doxorubicin</b>	Gradual onset of heart failure. Rales, elevated JVP, cardiomegaly, s3 gallop rhythm, ascites, edema.	<u>EKG</u> : sinus tach, LBBB, atrial/ventricular arrhythmias. <u>CXR</u> : cardiomegaly, pleural effusions, evidence of HF	ACEi, ARBs, beta blockers, spironolactone, diuretics Digoxin is 2nd line CPAP may improve LV function AICD/pacemaker 50% mortality in 5 years

Takotsubo cardiomyopathy "broken heart syndrome"	Left ventricular ballooning	Occurs after an event that causes stress-catecholamine surge	Typical angina & dyspnea	<u>Echo</u> : ballooning of left ventricle <u>EKG</u> : ST elevations Troponin may be +	Usually will resolve on its own. ASA, beta blockers, ACEi
Restrictive cardiomyopathy	Ventricular rigidity impairs ventricular filling but preserved contractile functioning	<b>Diastolic problem</b>  <b>Amyloidosis</b>	Right sided HF symptoms Angina, syncope, stroke, peripheral neuropathy.	Echo: ventricular hypertrophy	Treat amyloidosis w/ chemo/stem cell transplantation. <b>AVOID DIGOXIN</b> Diuretics may be helpful. Beta blockers slow HR & improve filling.
Hypertrophic cardiomyopathy	Heart muscle becomes thickened, specifically septum. Septum balloons out which prevents blood flow to aorta	<b>Diastolic problem</b>  Common in athletes & autosomal dominant problem	dyspnea , chest pain, syncope post exertion, sudden death  <b>Crescendo-decrescendo murmur</b>  When the pt does squats: increase preload- murmur gets softer When pt does valsalva- decrease preload- murmur gets louder	<u>EKG</u> : LVH nearly universal in symptomatic patients  <u>Echo</u> : shows LVH involving septum	Avoid dehydration & exertion  Beta blockers are first line- slows down HR and improves diastolic filling CCBS, diuretics  Excision of septum may be needed Alcohol septal ablation ACIDs