

Circulatory System

Circulatory system terms

Cardi/o	= heart	Endocarditis, myocarditis, pericarditis (inflammation of the lining, the muscle layer, the outer layer of the heart)
Brady/tachy	= slow/fast	Bradycardia (rate<60) tachycardia (rate>100)
Angi/o	= vessel	Angiography, angiogram (X-ray of artery)
Veno/phlebo	= vein	Venogram (X-ray of veins), phlebitis (inflammation of veins)
-stasis	= to stop	Hemostasis (to stop bleeding), hemostat (a clamp-like instrument)
-cyte	= cell	Erythrocytes, leucocytes (red, white blood cells)
Hem/o, - emia	= blood	Hypoxemia (low oxygen), hematosalpinx (blood in the uterine tubes)

Circulatory System Diseases

Atherosclerosis— Literally, “hardening of the fatty stuff.” High fat diets can lead to formation of fatty plaques lining blood vessels. These fatty areas can become calcified and hard leading to arteriosclerosis, hardening of the arteries. When blood vessels become less stretchable, blood pressure rises and can result in heart and kidney damage and strokes. Double cheese bacon burger, anybody?



Myocardial infarction (MI)– You know we are

talking about heart muscle, right, myocardial? An infarction is blockage of blood flow resulting in death of muscle tissue. **Layman’s language for this is a “heart attack.”** The blockage occurs in one of the arteries of the heart muscle itself, a coronary artery. Depending upon how much tissue dies, a victim of an MI may survive and undergo cardiac rehabilitation, strengthening the remaining heart muscle, or may die if too much muscle tissue is destroyed. Did you exercise at the gym this week?

Mitral prolapse, stenosis, regurgitation– Blood flows through four chambers in the heart separated by one-way valves. A major valve is the one separating the upper and lower chambers on the left side of the heart. The left side is especially important because freshly oxygenated blood returning from the lungs is circulated out of the heart to the rest of the body. The left valve, called atrioventricular, for the chambers it separates, is also called the mitral valve, **because it is shaped like an upside down Bishop’s hat, a miter. If the flaps of this valve tear away due to disease, the process is called prolapse, “a falling forward.”** This results in leakage and backward flow called “regurgitation” (get the picture?). Sometimes a valve is abnormally narrow causing partial obstruction constricting flow. **Stenosis means “a narrowing.”**

Angina pectoris– **Literally, “pain in the chest.”** But, this is a special kind of pain associated with the heart and is distinctive as “crushing, vise-like”, and often accompanied by shortness of breath, fatigue and nausea. Anginal pain indicates not enough blood is getting to the heart muscle, and the heart is protesting and begging for more. People with a history of angina often take nitroglycerine tablets to relieve the pain by increasing blood flow to the heart muscle.



Arrhythmia/dysrhythmia– Abnormal heart rates and rhythms all have special names like ventricular tachycardia, fibrillation, but generically are termed **arrhythmias or dysrhythmia, meaning “no rhythm” and “abnormal rhythm.”** There are fine distinctions between the two, but they are often used interchangeably.

Ischemia– Sometimes the heart muscle is not getting enough blood flow, more importantly, the oxygen the blood carries is insufficient to sustain muscle which has a very high metabolic rate, and oxygen demand. The term loosely means **“not quite enough blood.”** Typically, the patient suffers **angina pain (see above)** and they may think they are having a heart attack. And, they may be!

Circulatory System Procedures

Cardiologist – a physician specializing in the diagnosis and treatment of diseases of the circulatory system, especially, the heart. However, after diagnosis, he/she may refer to a cardiovascular surgeon. A cardiologist does not do surgery.

Hematologist – a physician specializing in diseases of the blood.



Electrocardiogram (ECG/EKG) – a printout recording of the electrical activity of the heart. A frequently used instrument in the hands of a cardiologist.

Echocardiography – using ultra high frequency sound waves (beyond human hearing), similar to “sonar,” to form an image of the inside of the heart. This procedure can demonstrate valve damage, congenital (before birth) defects and other abnormalities.

Cardiac catheterization – a long hollow tube, a catheter, can be threaded into an artery up into the heart. Then material opaque to X-rays can be released into the blood flow through the heart imaging the details of coronary arteries. Typically used to identify a blockage and location in the coronary circulation.

Phlebotomist/venipuncturist – the specially trained nurse or technician draws blood for lab tests and may also start IV’s (intravenous fluids). The Greek and Latin versions of “cutting into a vein.”