



Faculty of Applied Science
Medical Technical Radiology
Radiographic and Medical
Terminology II
(MTR110)

Lecture 2

CARDIOVASCULAR SYSTEM TERMINOLOGY

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Outline

- Introduction to the cardiovascular system
- Basic terms (heart, vessels, blood)
- Prefixes & suffixes + Word building
- Heart-related terminology
- Common clinical terms
- Diagnostic & procedure terms
- Clinical abbreviations
- Class activity
- References



Learning outcomes

By the end of the lecture, students should be able to:

Define key cardiovascular terms

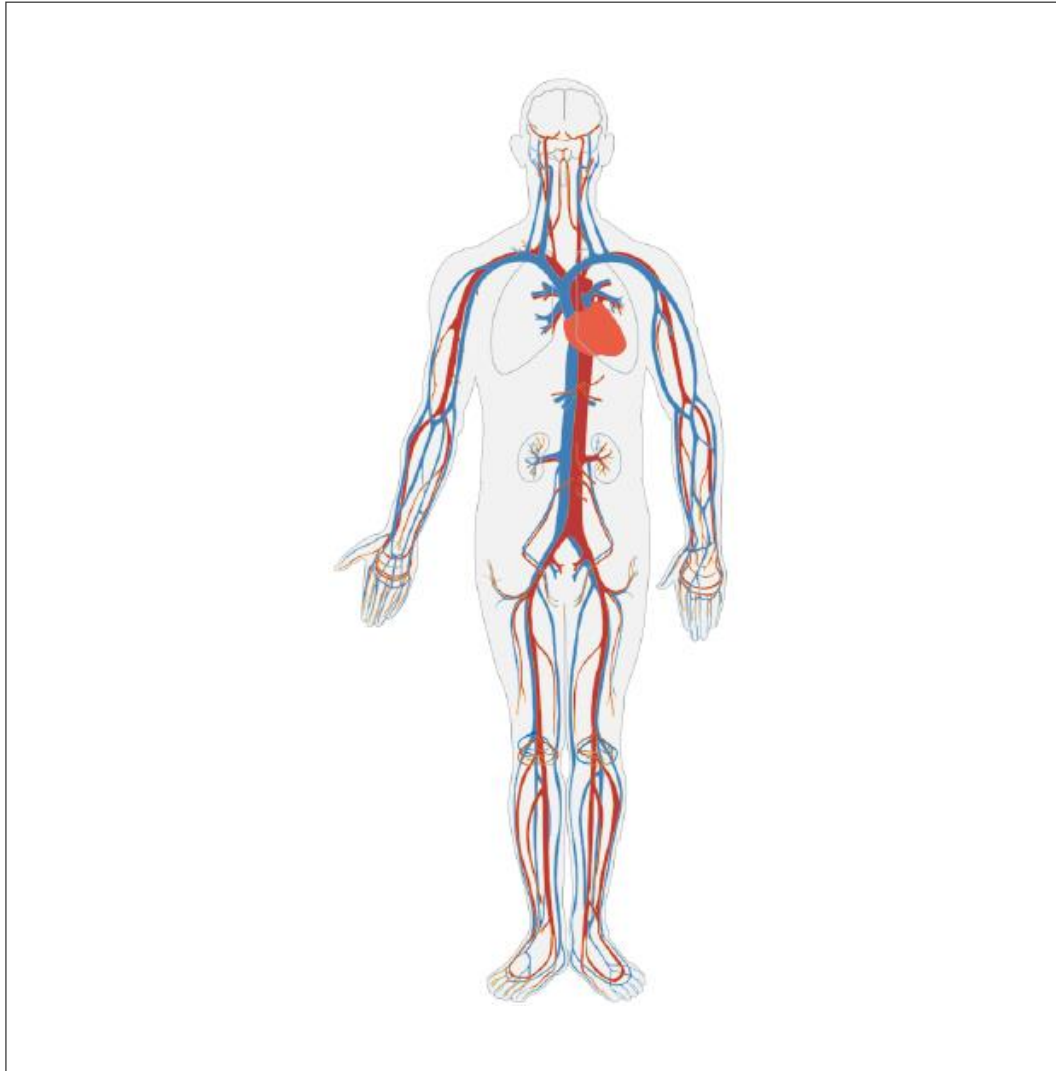
Understand common prefixes and suffixes

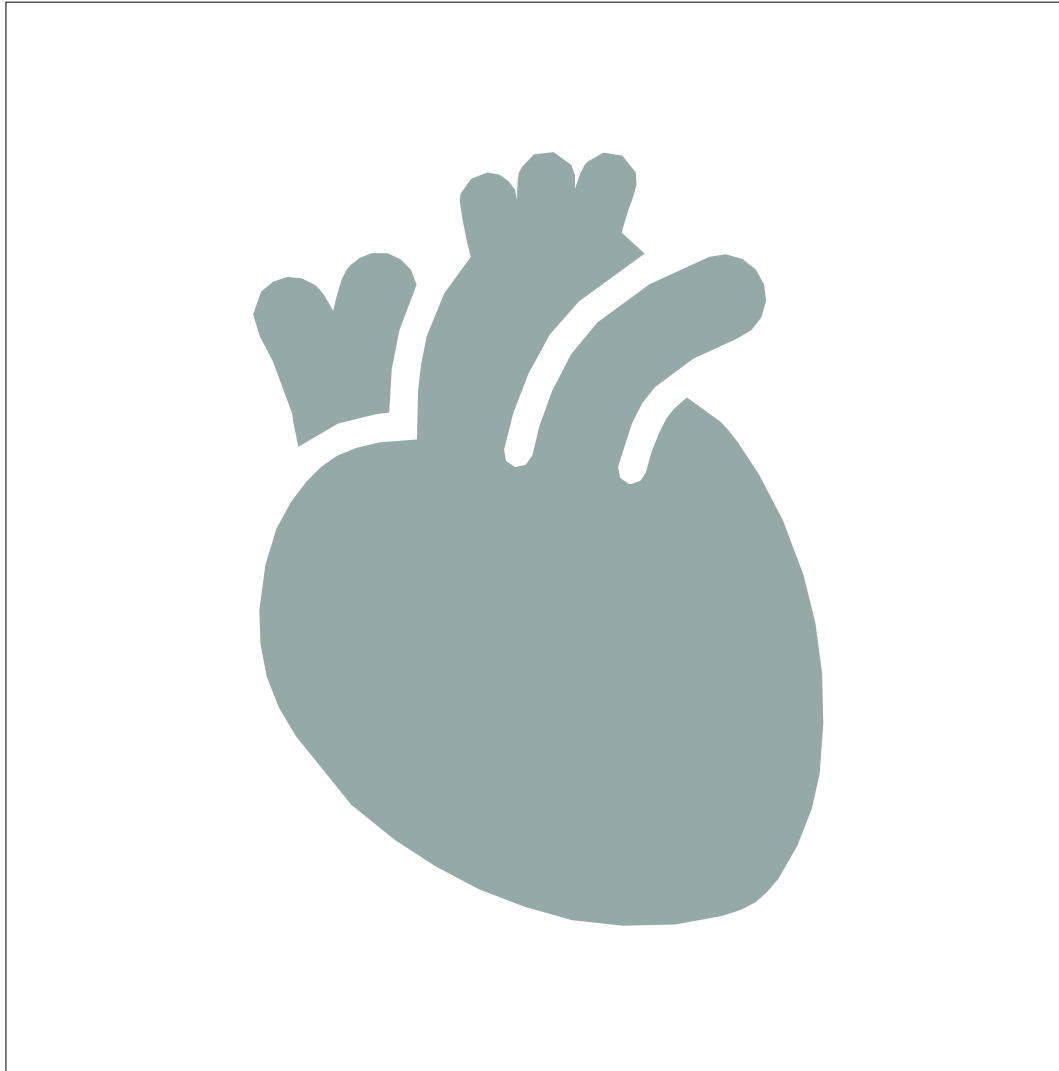
Identify basic heart and blood vessel terminology

Apply terms in simple clinical contexts

Introduction to the Cardiovascular System

The cardiovascular system, also known as the circulatory system, is the body's primary transportation network. It is responsible for delivering life-sustaining oxygen and nutrients to every cell while simultaneously pull away metabolic waste products like carbon dioxide.

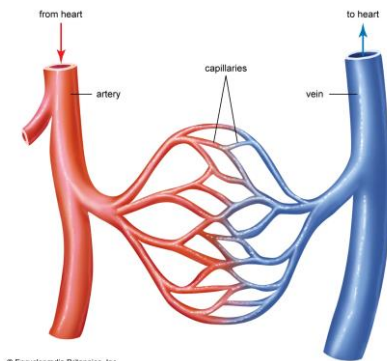
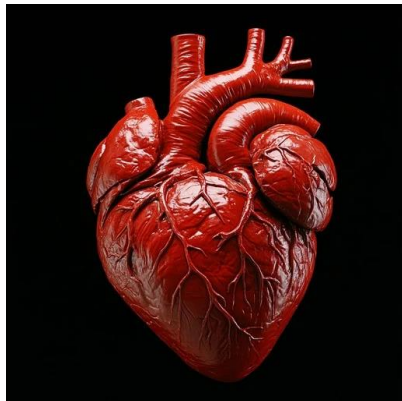
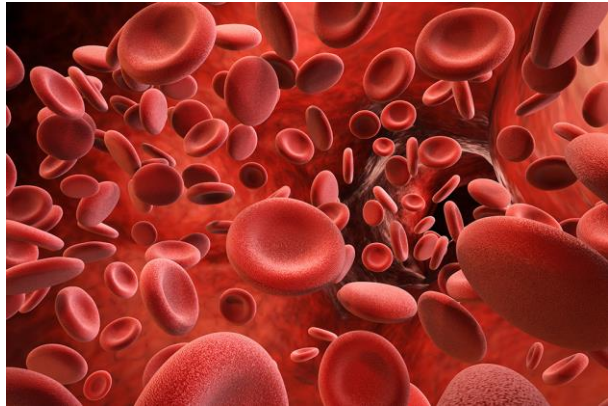




Function of the cardiovascular system

- **Transportation:** Moving oxygen, nutrients, hormones, and waste.
- **Protection:** Fighting infections via white blood cells and preventing blood loss through clotting.
- **Regulation:** Helping maintain a stable body temperature and internal pH balance (homeostasis).

Basic Terms



- **Heart:** A muscular organ that pumps blood throughout the body.
- **Blood Vessels:** Tubes that carry blood (arteries, veins, capillaries).
- **Blood:** Fluid that transports oxygen, nutrients, hormones, and waste products.

Prefixes and suffixes related to cardiovascular system

○ **Suffixes:**

- -cardia → heart condition
- -emia → blood condition
- -itis → inflammation
- -megaly → enlargement

Prefixes:

- Brady → slow
- Tachy → fast
- Hyper → high
- Hypo → low



Heart-Related Terminology

- **Cardiology:** Study of the heart
- **Cardiologist:** Doctor specializing in heart diseases
- **Cardiomegaly:** Enlarged heart
- **Myocardium:** Heart muscle
- **Endocardium:** Inner lining of the heart
- **Pericardium:** Membrane surrounding the heart



Common Clinical Terms

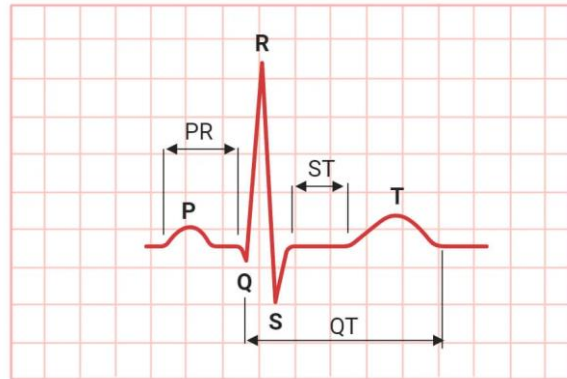
- **Hypertension:** High blood pressure
- **Hypotension:** Low blood pressure
- **Atherosclerosis:** Hardening/narrowing of arteries
- **Thrombosis:** Formation of a blood clot
- **Embolism:** Blockage caused by a traveling clot
- **Arrhythmia:** Irregular heartbeat
- **Ischemia:** Reduced blood supply
- **Infarction:** Tissue death due to lack of blood (e.g., heart attack)



Breakdown the medical term

Word root/ Prefix	Suffix	Medical Term	Definition
cardi/o	-megaly	cardiomegaly	enlarged heart
cardi/o	-itis	carditis	heart inflammation
thromb/o	-osis	thrombosis	clot formation
brady-	-cardia	bradycardia	slow heart rate
tachy-	-cardia	tachycardia	fast heart rate
hyper-	-emia	hyperemia	excess blood in a area
hypo-	-tension	hypotension	low blood pressure

Diagnostic & Procedure Terms



Electrocardiogram
(ECG)

- **Electrocardiogram (ECG/EKG):** Test recording heart electrical activity
- **Echocardiogram:** Ultrasound imaging of the heart
- **Angiography:** Imaging of blood vessels
- **Cardiac Catheterization:** Procedure to examine heart function





Clinical Abbreviations

Abbreviation	Meaning
CVD	Cardiovascular disease
MI	Myocardial infarction (heart attack)
CHF	Congestive heart failure
DVT	Deep vein thrombosis
PCI	Percutaneous coronary intervention

Class activity

- 10 min for preparation
- Breakdown 5 medical term related to cardiovascular system 5 min

- Marks: 5



References

- Chabner, D. E. (2020). *The language of medicine* (12th ed.).
- Tortora, G. J., & Derrickson, B. H. (2021). *Principles of anatomy and physiology* (16th ed.).
- Gylys, B. A., & Wedding, M. E. (2017). *Medical terminology systems* (8th ed.).



Next lecture

- Digestive System Terminology