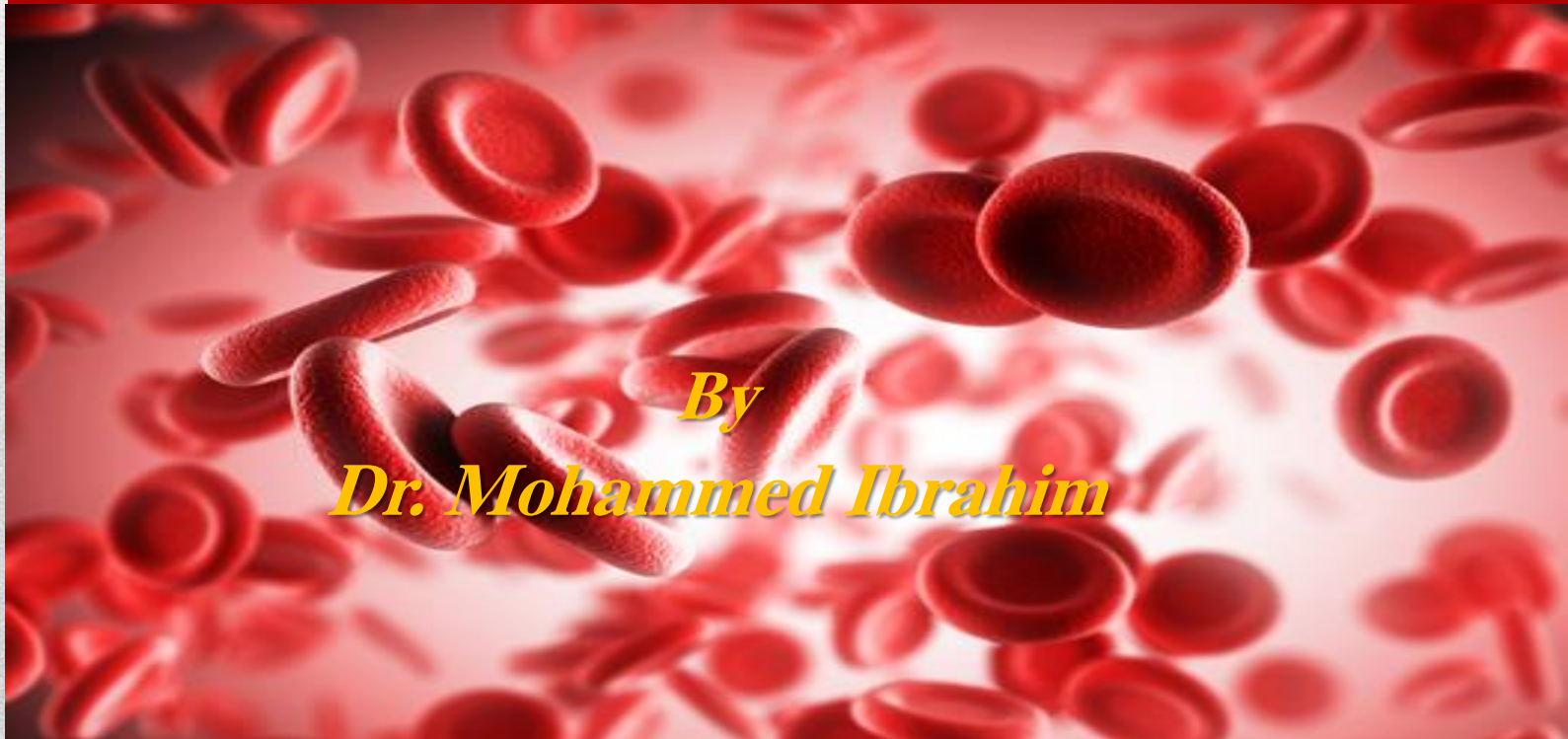


# Medical terminology

## Cardiovascular system



*By*

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- The heart

- *Cardiology* :

The study of the heart

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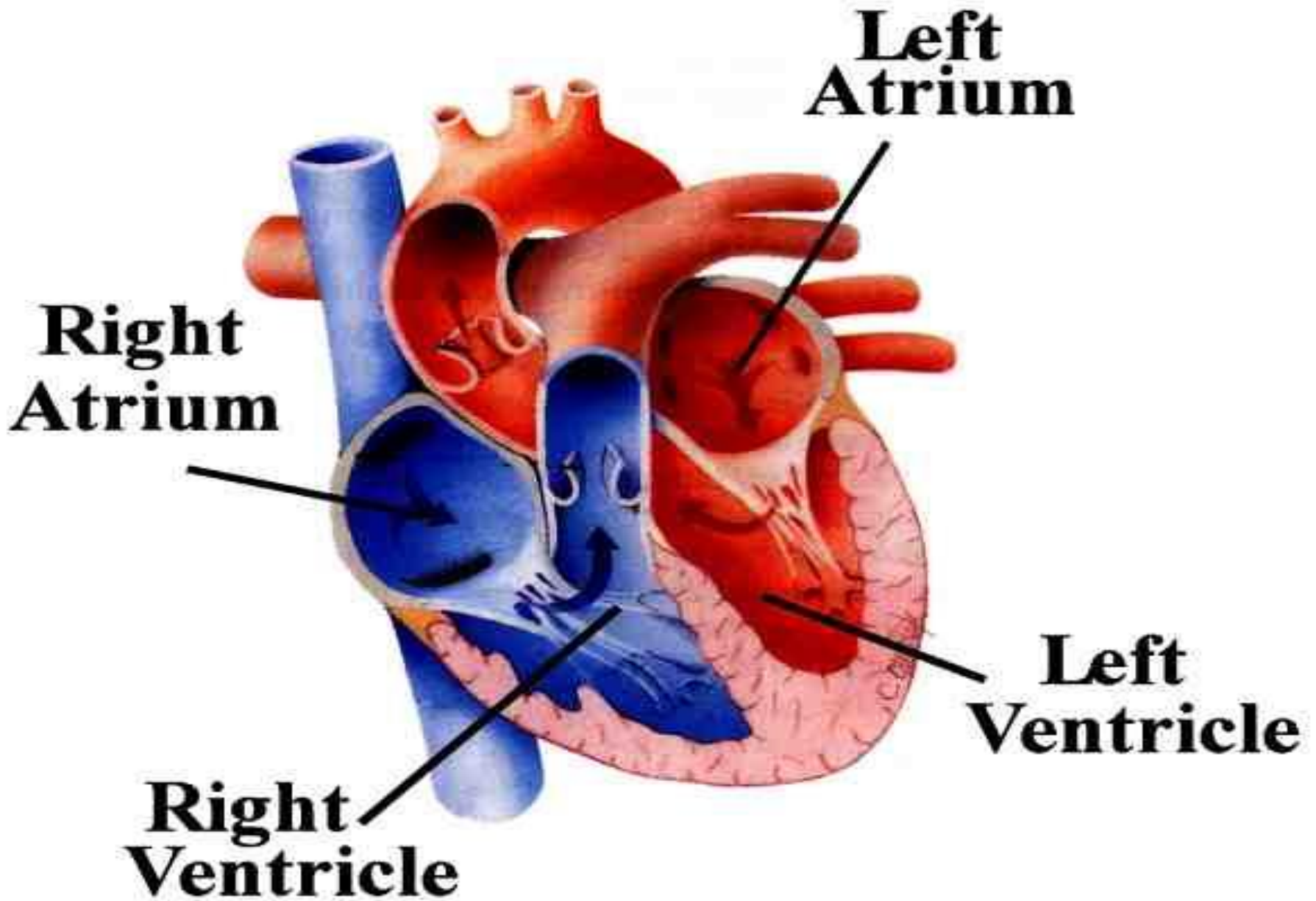
The heart, which is part of the cardiovascular system, pumps blood to every cell in the body. That job is critical, because without the oxygen and nutrients that the blood delivers, body cells quickly die.

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- **The structure of the heart**
  - The heart is enclosed in three linings ;
  - the **epicardium**,
  - the **pericardium sac** and
  - the **pericardium**.
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- There are four chambers in the heart, called the **right atrium(RA)**, the **right ventricle(RV)**, the **left atrium(LA)**, and the **left ventricle(LV)**.
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- The membrane forming the outer lining of the heart is called the *epicardium*, immediately beneath the epicardium is the *myocardium*, comprising the muscles, blood vessels, and nerve tissue that make up the bulk of the heart. The heart's inner surface is called the *endocardium*.

- *Blood flow through the heart*
  - When the blood comes back to the heart after having delivered oxygen and other nutrients to the body cells, it re-enters the heart at the *right atrium(RA)*.
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- From there it moves into the **right ventricle(RV)**, from which it is pumped into the lungs.
  - After being recharged with oxygen, the blood moves back into the heart through the **left atrium(LA)** and into the **left ventricle(LV)**, from which it is pumped out to the body.
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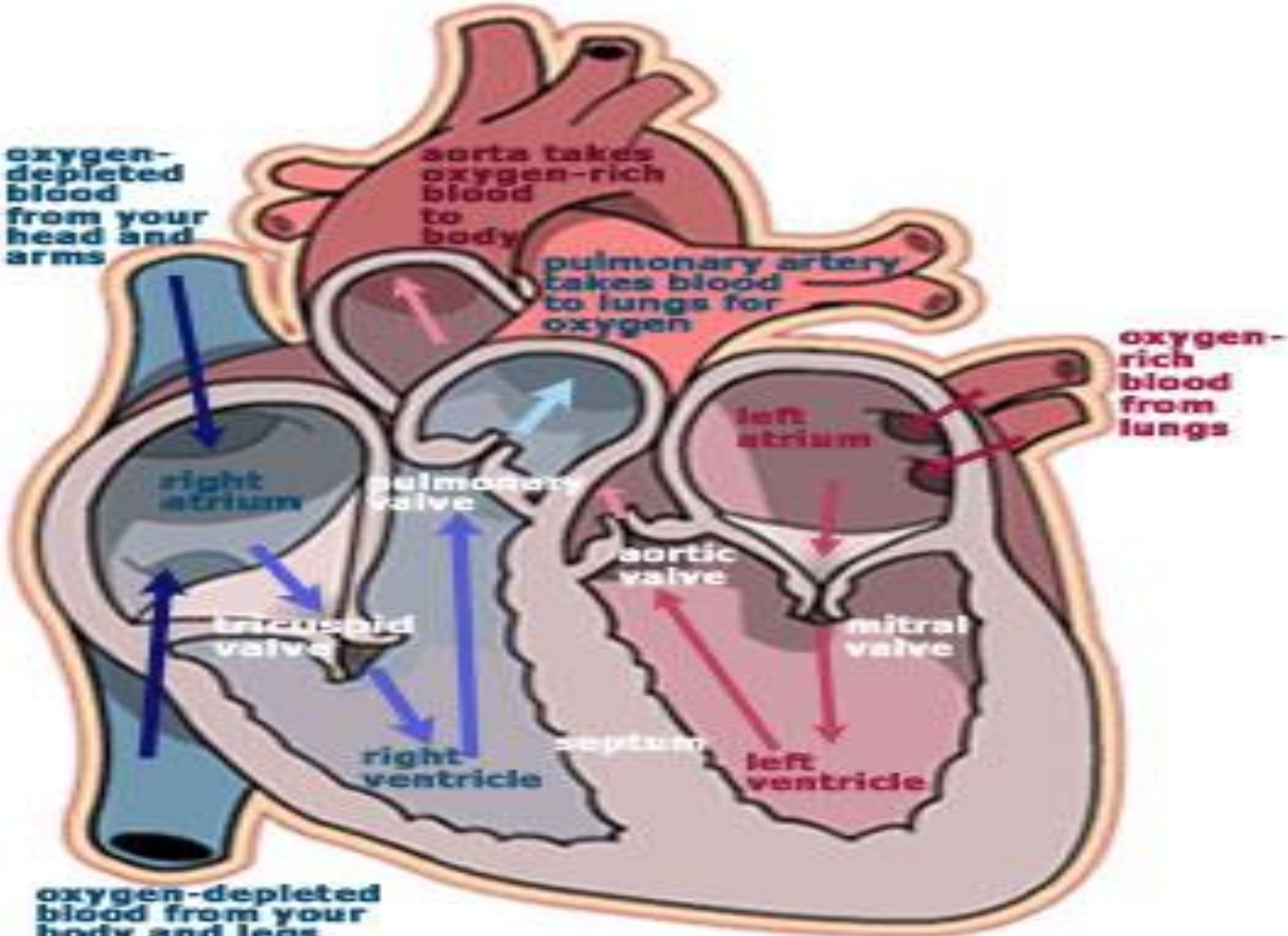
oxygen-depleted blood from your head and arms

oxygen-depleted blood from your body and legs

aorta takes oxygen-rich blood to body

pulmonary artery takes blood to lungs for oxygen

oxygen-rich blood from lungs





# Heart disorders and procedures

- Electrical impulses emitted within the heart stimulate the heart to pump. When the electrical system malfunctions, the heart will beat too fast, too slow, at an irregular pace, or not at all, depending on the nature of the malfunction.
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**Arrhythmia** is most often defined as an irregular heart beat at any speed.


When the heart pumps too fast, the condition is called **tachycardia**.

Also when the heart is pumping too slow the condition is called **bradycardia**.

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- Tachycardia is also called *tachyarrhythmia*, and bradycardia is called *bradyarrhythmia*.
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• Disorders of the heart are diagnosed and treated by *cardiologists*, who work in the field of *cardiology*.

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term	analysis	meaning
atria	atrium	2 of the 4 heart chambers, composed of the right and the left atrium
Endocardium	Endo-(inside); cardium(heart)	The inner surface of the heart
Epicardium	Epi-(outside); cardium(heart)	The outer lining of the heart

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term	analysis	meaning
Pericardium	Peri-(around); cardium(heart)	Serous Membrane lining the pericardial cavity
Atrioventricular valve Right Atrioventricular valve(tricuspid valve) left Atrioventricular valve(mitral valve)	Atri/o(atrium); ventricul(ventricle ); -ar(adjectival suffix);valve	Connects the atrium to the ventricle



term	analysis	meaning
Myocardium	My/o(muscle); cardium(heart)	The heart muscle
Intraventricular septum (IVS)	Intra- (inside,between); ventricul(ventricl e); -ar(adjectival suffix); septum(barrier)	A separation (barrier) between 2 venricles of the heart

## *Common disorders*

term	analysis	meaning
arrhythmia	The prefix a- (against); rhythm; -ia(condition)	Abnormal rhythm; irregular heart beat
Atriomegaly	Atrio (atrium); -megaly(enlargement)	Enlargement of the atrium
Cardiac arrest	Card/i(heart); arrst(stopped)	Cessation of the heart
Cardiomyopathy	Card/i/o(heart); my/o(muscle); pathy(disease)	Disease of the heart muscle (myocardium)



term	analysis	meaning
Myocardial infarction (MI)	my/o(muscle); Card/i/o(heart)	Heart attack
Pericarditis	Peri-(around); Card/i (heart); - itis(inflammation)	Inflammation of the pericardium
Valvulitis	Valvul/o(valve); - itis(inflammation)	Inflammation of the valve

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## *Diagnostic and treatment*

term	analysis	meaning
Electrocardiograph or electrocardiogram(ECG)	Electro-(electric); cardio(heart);-gram,-graph(writing)	A graphic trace of heart functions
Ventriculoscopy	Ventriculo(ventricle);-scopy(viewing)	Looking at the heart ventricle with an endoscope



# *Surgical procedures*

term	analysis	meaning
Atrioseptoplasty	Atri/o(atrrium); sept/o(barrier); plasty(surgical repair)	surgical repair of - an atrial septum
Cardiorrhaphy	Cardio(heart); rrhaphy (suturing)	- Suturing of the heart
Pericardiotomy	Peri-(around); cardio(heart); tomy(cutting)	- Incision into the pericardium

The **troponin** (a protein that is released into the bloodstream when a heart attack occurs) when it is higher than normal level is an indicator of **MI**.

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# *Common Abbreviations*

Abbreviation	Meaning
ACV	Acute cardiovascular disease
CA	Cardiac arrest
CAD	coronary artery disease
CCU	Cardiovascular care unit

Abbreviation	Meaning
CHD	Cardiovascular Heart disease
CSU	Cardiovascular surgery unit
CVICU	Cardiovascular intensive care unit



# ***The blood and blood vessels***

<b>Term</b>	<b>Meaning</b>
Hemoglobin	The protein that gives the blood its red color
Erythrocytes	Red blood cells
Leukocytes	White blood cells
Platelets	A formed element found in the blood, which is important in the coagulation process
Immunoglobulin	The blood plasma proteins that are also known as antibodies

Term	Meaning
Artery	Carry blood away from the heart
Veins	Carry blood back to the heart
Capillary	The smallest but most numerous of the blood vessels, responsible for transferring nutrients directly to the cell



<b>Term</b>	<b>Meaning</b>
Arteriole	The smallest of the arteries, connecting with the capillaries
Superior vena cava (SVC)	A large venous vessel that drains blood from the upper body to be transported to the heart
Aorta	the largest blood vessel in the body, It starts and arches out at the left ventricle.

Term	Meaning
Angiostenosis	The narrowing of the blood vessel
Vasculopathy	Any disease of the blood vessels
Aneurysm	A bulge in any artery or a heart chamber
Angiography	Radiography of a blood vessel

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Term	Meaning
High density lipoprotein (HDL)	"good cholesterol"; picks up dead cholesterol from the cells
low density lipoprotein (LDL)	"bad cholesterol"; delivers cholesterol to the cells
Arteriosclerosis	Hardening of the arteries
Hemorrhage	Discharge of blood
Hemophilia	Congenital disorder, causing excessive bleeding

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**Thank you for  
your attention**