Notes: Circulatory System

In order for blood to get to all the places it needs to in the body it needs to be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* This pumping is done by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

The heart is located in the thoracic cavity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* In adults it is about the size of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



The heart is a hollow muscle with four cavities

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is connected to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_through a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + the tricuspid valve

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is connected to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + The bicuspid (or mitral) valve

The tricuspid and bicuspid valves are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_valves (because they connect the atria to the ventricles) and are designed so that blood can only move in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + From the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

There is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ blood movement between the left and right side of the heart

## Movement into and out of the Heart

Blood **enters the heart** through 2 sets of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** veins
	+ Blood coming from the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to the heart
* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ Blood coming from the rest of the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**to the heart

Blood **exits** the heart through 2 main sets of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* + The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** arteries
		- Blood going to the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
		- Blood going to the rest of the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Remember:** the heart is responsible for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ throughout the body

* For this to happen blood must be allowed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the heart before it can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Blood entering the heart**

* For blood to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the heart (through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_), the muscles must be at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (relaxed, not contracting)
	+ This is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ phase

**Blood exiting the heart**

* For blood to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the chambers, the muscles must \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Both \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_at the same time, pumping blood into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ A few tenths of a second later, both \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in order to push the blood into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- This is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_phase


# Types of Circulation

**Pulmonary**: the path followed by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_away from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and then back to the heart as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_diffuses out of the blood and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ diffuses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (gas \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
* Begins at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ends with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Systemic:** the circulation of blood to all parts of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_, except to the lungs.

* Transports \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_away from the heart to the rest of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and returns \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (CO2 rich) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ O2 out of blood, CO2 into blood
* Begins in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ends with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_