

## The Circulatory System

How Drugs Move through the Body

## The Heart

- Is a Muscle
- Has four chambers
- Blood Enters the Right Atrium
- When contraction occurs blood is moved to the Right Ventricle
- Next contraction blood goes to the lungs by the Pulmonary Artery.

## Lungs

- Is the exchanger of Oxygen, Carbon Dioxide and other waste products
- In the Lungs, blood waste products (Carbon Dioxide are removed and Oxygen is absorbed.
- Blood enters through the Pulmonary Artery, is dispersed to arterioles, to alveoli where oxygen is absorbed and waste products are removed.
- Blood then moves from alveoli to venules, to veins and leaves the lungs to the heart by the pulmonary vein

## Heart Again

- Blood enters the left atrium of the heart
- When a contraction occurs, blood is transferred to the left ventricle
- Blood leaves the heart to the body via the aorta
- Blood travels to the body via arteries
- Enters arterials (small arteries)
- Enters capillaries structures
- Oxygen, nutrients, and other products are delivered to the body
- Blood goes to venules, to veins, and back to the heart

## Heart Structures

- Arteries also supply blood to the heart.
- When arteries become closed off, heart tissue dies (heart attack)
- Arteries also dilate and constrict due to compounds
- As arteries constrict, blood pressure increases
- As arteries dilate, blood pressure decreases
  - If arteries are close to the skin, heat is also lost to the environment (bad in the cold)

## Heart Electrical System

- Contractions are controlled by two body neuronal structures that fire at a regular rate.
- Structures can be disturbed by various things.
  - Electricity
  - Drugs
  - Other
- Can cause the heart to vibrate and not contract fully
  - Result- Blood does not leave the heart – Death Ensures

## Conclusion

- Is a major structure
- Can be impacted by many things
- When the system does not work well
- Death can ensue