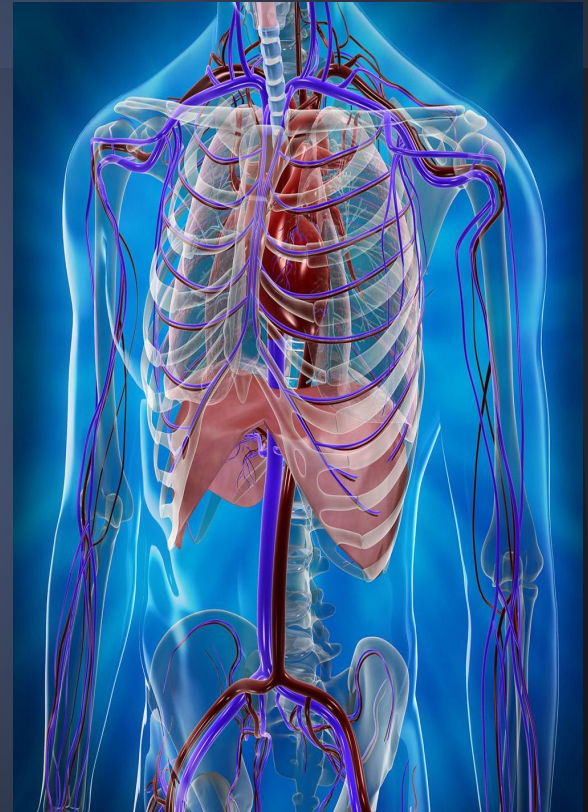


Cardiovascular Disease

Max, Dylan, Lucas, Ellie

Warm Up Question

What does cardiovascular disease mean to you, and what are/could you be doing now to prevent it later on in your life?

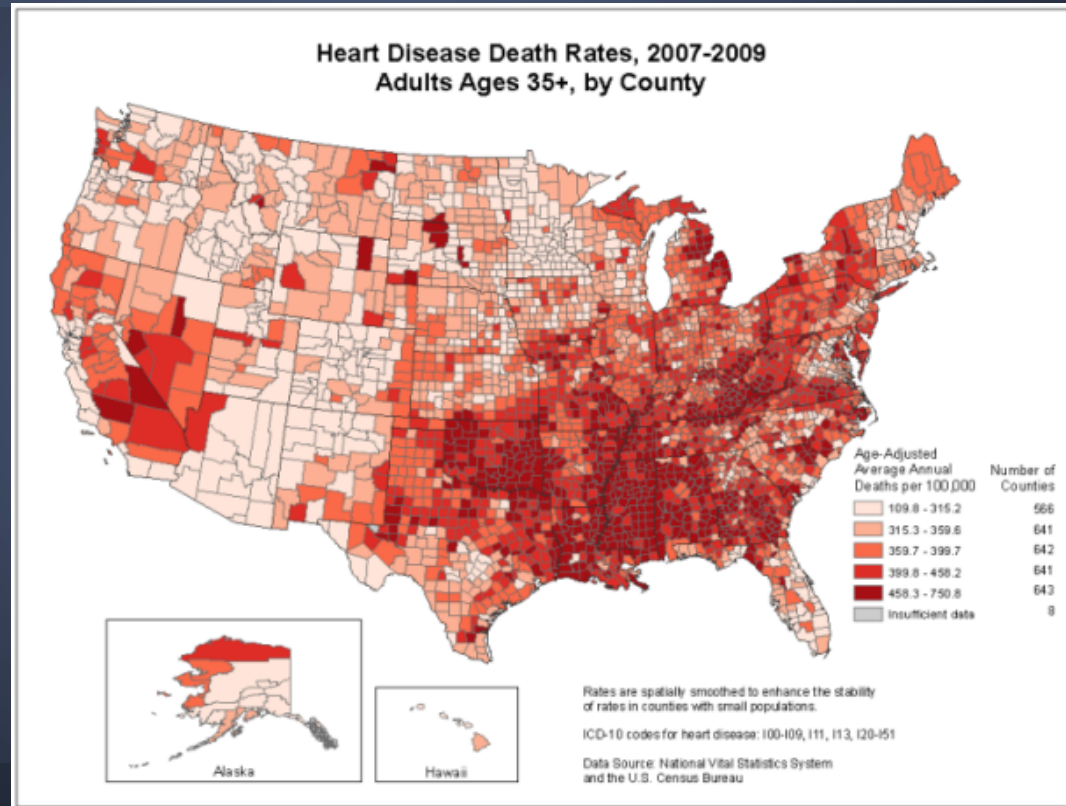


What is Cardiovascular disease?

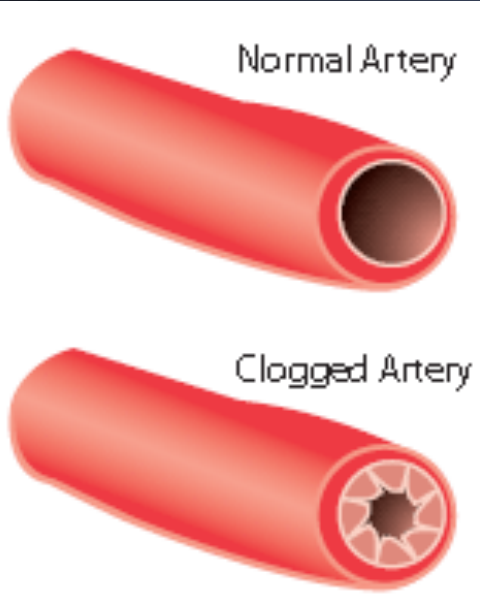
largest killer of human species.

Medical problems within Cardiovascular System.

Many diseases classify as Cardiovascular



Molecular Causes For CVD



Normal Artery

Clogged Artery

- LDL receptors control cholesterol absorption

- Too much LDL causes plaque to build up in vessels

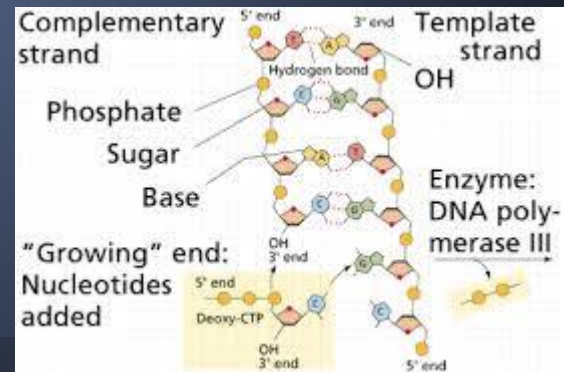
Molecular Biology and Cardiovascular Disease

Molecular Biology in DNA:

-Held together by hydrogen bonds

-Mutations in DNA from genetics and Diseases

-Flaws in DNA



Vascular disease in Cellular level

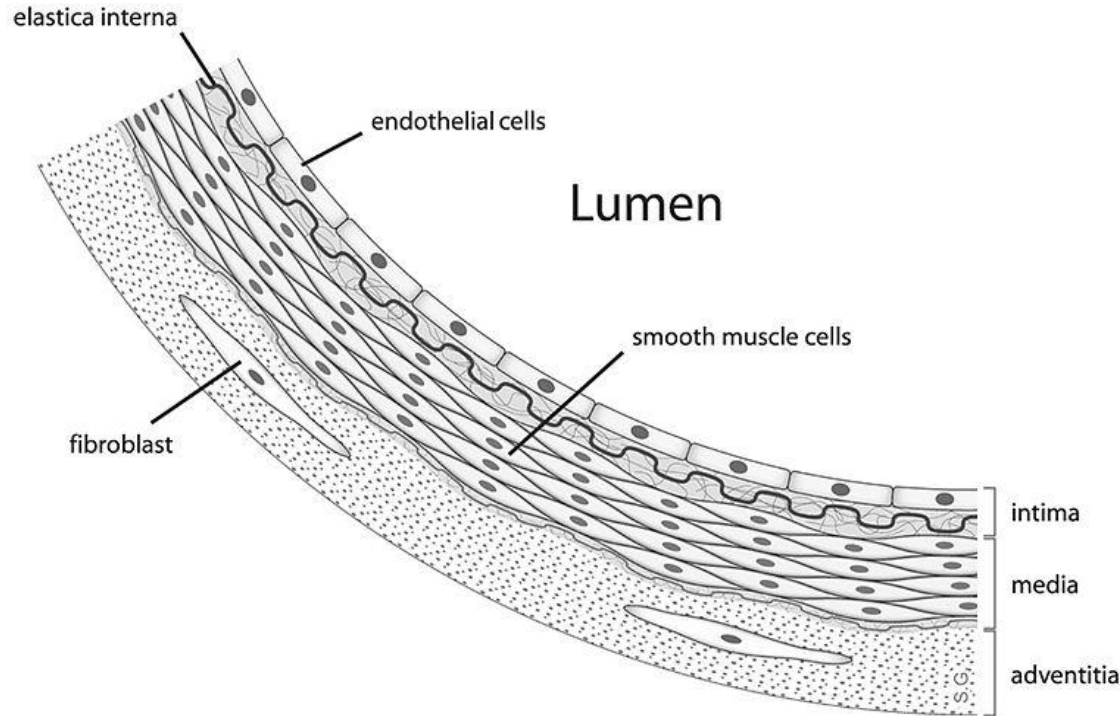
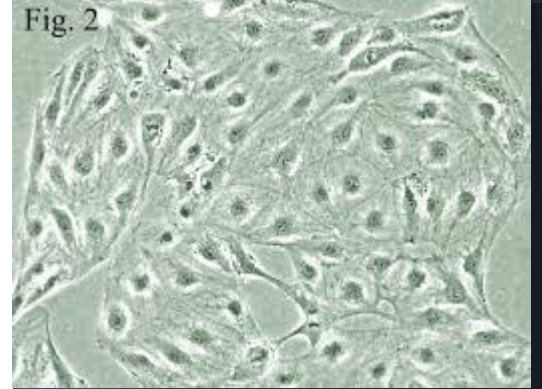


Fig. 2



Endothelial cells line the Inner walls of the blood vessel.

When damaged, LDL and other material in the blood jam into the walls of the Lumen,

White blood cells jam into the wall to attack the LDL

Tissue

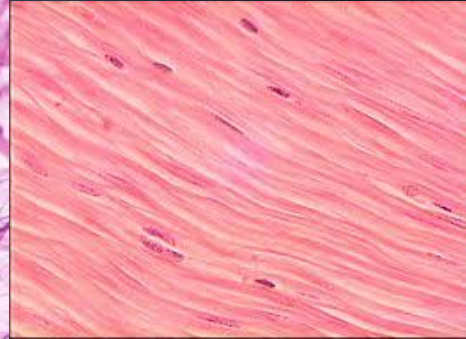
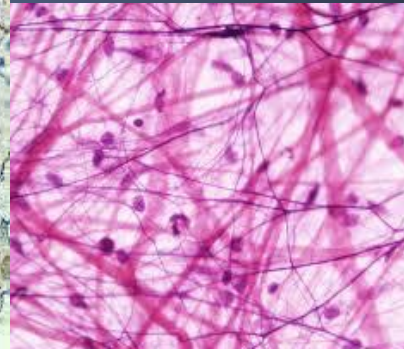
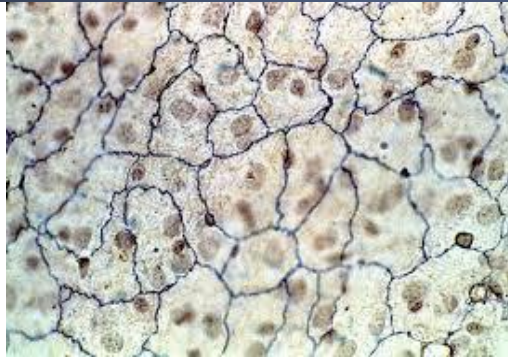
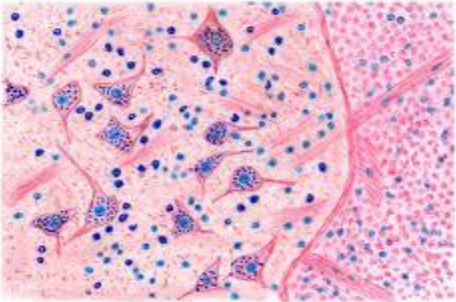
Four Primary Tissues:

Nervous Tissue

Epithelial Tissue

Connective tissue

Muscle Tissue

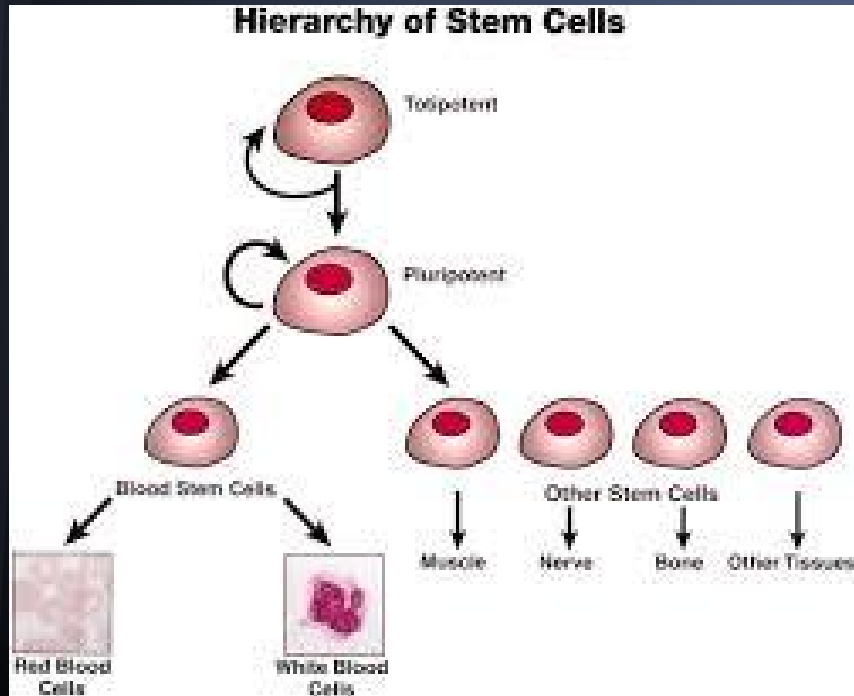


Take Away - Major Points

- #1 Cause of death in the USA
- What is CVD?
- Multiple causes
- Research & Cures

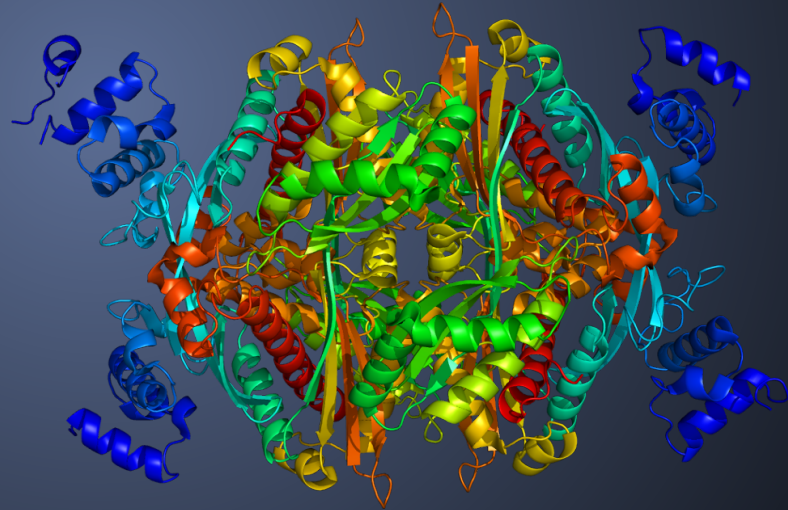
Current Research

- Stem Cell Research through Mitosis
- Stem Cells divide and create new cells to replace the old dead ones



Current Therapies for CVD

- Statin Drugs inhibit the HMG-CoA enzyme
- Surgical Options



Suggestions For Disease Prevention

Dash eating diet

Therapeutic lifestyle changes

