Three types of muscle:
- **Skeletal**
  - Attaches to bone
  - Longest fibers
  - Has striations
  - Voluntary
  - Rapid contractions, but tire easily
- **Cardiac**
  - Only in the heart
  - Striated
  - Involuntary
  - Contracts at a steady rate over a long period of time
- **Smooth**
  - Makes up walls of hollow organs
    - Stomach, intestines, arteries, urinary bladder, respiratory passages, uterus
  - Contraction force stuff through these passages (peristalsis)
  - No striations
  - Involuntary
  - Slow, sustained contractions

Functions of Muscle:
- Producing body movements
- Maintains posture
- Storing and moving substances within the body (urine, blood, food, babies, etc.)
- Generate body heat

Properties of Muscular Tissue:
- Electrical excitability: Ability to respond to certain stimuli by producing electrical signals called action potentials.
  - Ex: the heart's pacemaker generates autorhythmic electrical signals. The stimulus can also be chemical, such as neurotransmitters, or hormonal.
- Contractility: Ability to shorten when stimulated
- Extensibility: Ability to be stretched
- Elasticity: Ability to return to its original shape and length
- Each muscle is a separate organ made of many tissues (blood vessels, nerve fibers, connective tissue).
- Individual muscles are separated by fascia, which also forms tendons.
- They are made up of thousands of cells called muscle fibers. (muscle fiber = muscle cell).

Anatomy of Skeletal Muscle:
- Connective Tissue Wrappings - they join together at the end of the muscle to make the tendons
  - **Epimysium** - covering around the outside of the muscle (dense irregular connective tissue).
  - **Perimysium** - surrounds groups of ten to one hundred fibers. These bundles are called fascicles. (Dense irregular connective tissue).
  - **Endomysium** - covers each individual muscle fiber (areolar tissue).

Muscle Fiber:
- **Sarcolemma**: Plasma membrane around muscle cell
- **Sarcoplasma**: Cytoplasm of muscle cell