

Lecture 3

Thursday, July 8, 2021 10:10

Structure and Function of the Skeletal Muscle System

- Loads of muscles in the body (>430; probably >640)
- Each person will have different # of muscles
- Size of muscle(s) play crucial role(s) in function
- Epimysium - outer layer, surrounding whole muscle
- Perimysium - surrounding each fascicle
- Endomysium - surrounding individual fibers
- Sarcomere - approximately 2.2 to 3.3 micrometers in length
- Can change amount of sarcomeres in muscle(s)
 - o Body has wonderful ability to change (adapt)
- Titin - largest known protein and third most abundant protein in your muscle fibers
 - o Obnoxiously, it's chemical name has 189,819 letters -.-
- Type 1 fibers - not so strong
- Type 2 fibers - Jensen strong
- Sliding filament theory/cross-bridge cycle - the mechanism of muscle contraction based on muscle proteins that slide past each other to generate movement