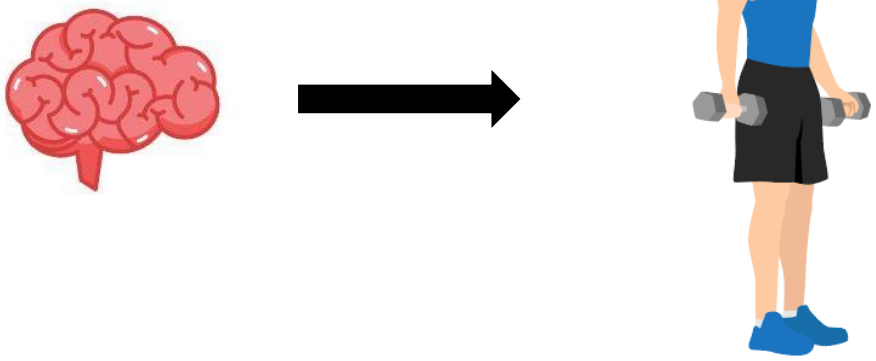
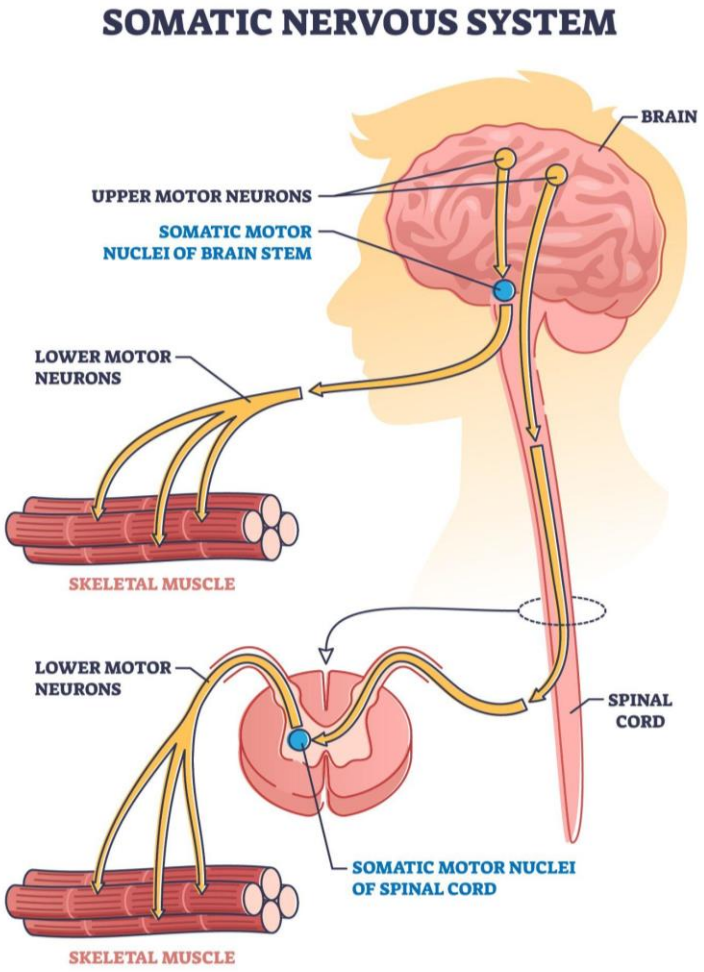
WEIGHT LIFTING SEQUENCE CARDS

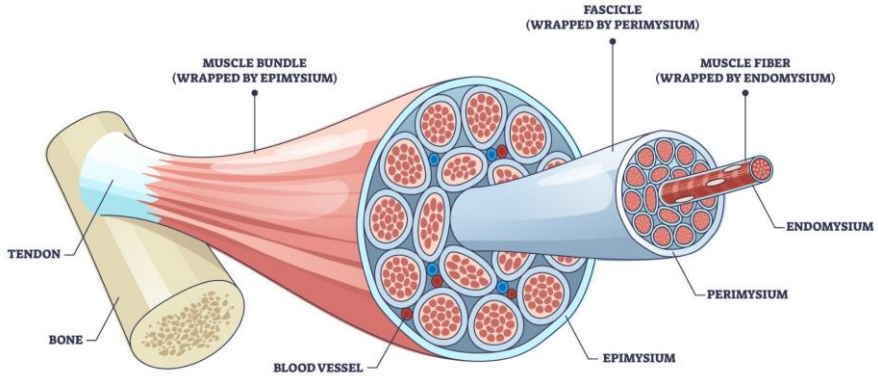
EXPLORE 1 LESSON 26



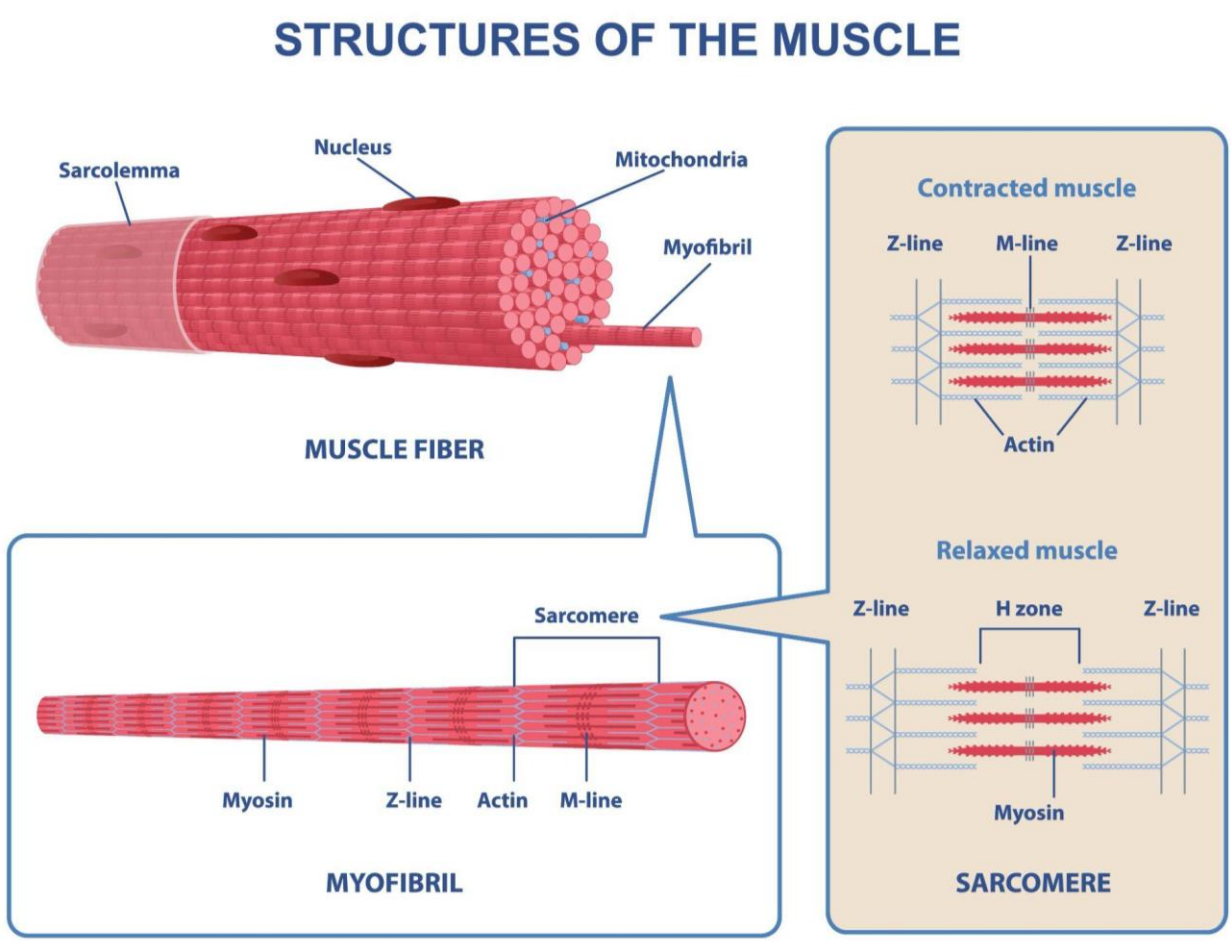
The person tries to lift a weight. The brain initiates the movement.



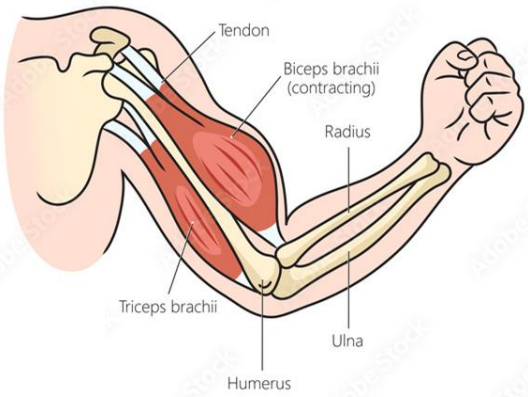
The somatic nervous system sends a nerve signal from the brain to the motor neuron. At the motor neuron, a chemical signal (acetylcholine) is sent to the muscle.



The chemical signal (acetylcholine) moves into muscle cells, called muscle fibers.

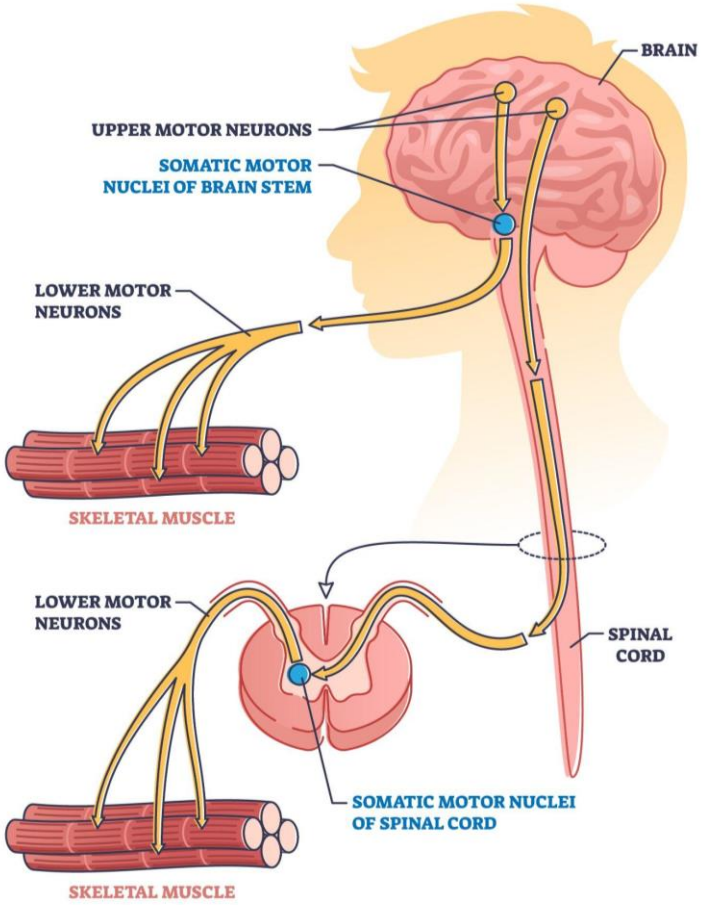


Proteins inside muscle fibers are organized into long chains that slide past one another called sarcomeres. Acetylcholine triggers the proteins in the sarcomere to slide towards one another to contract the muscle fibers.

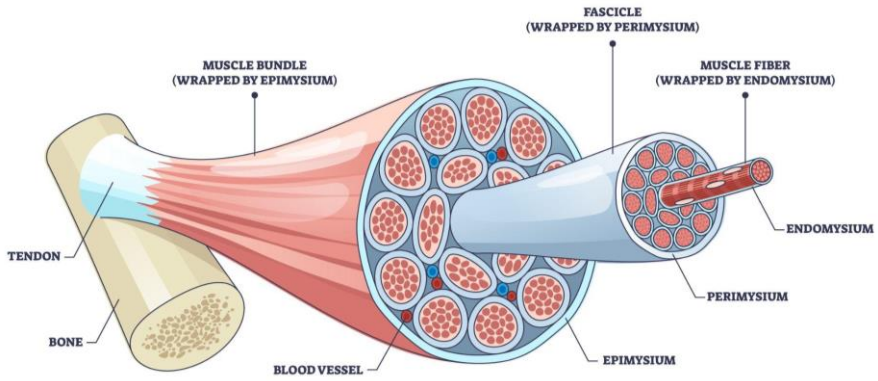


The person's muscles contract, and the person lifts the weight.

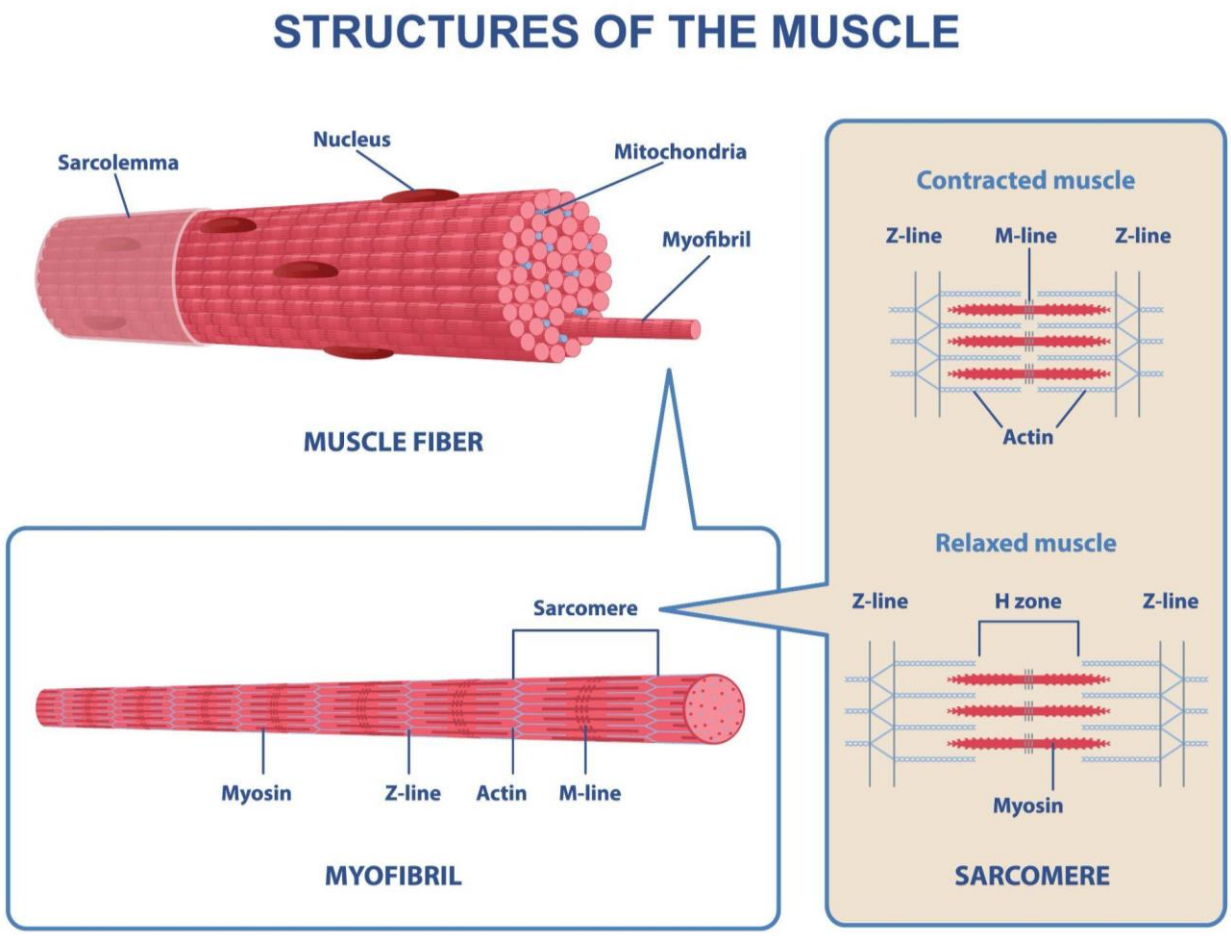
The person tries to lower the weight. The brain initiates the movement.



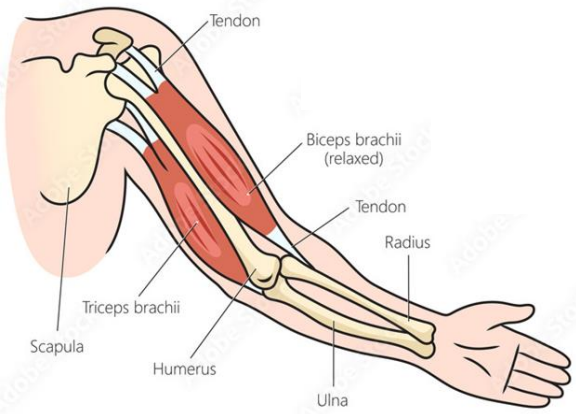
The somatic nervous system sends a nerve signal from the brain to the motor neuron. At the motor neuron, a chemical signal (acetylcholinesterase) is sent to the muscle.



The chemical signal (acetylcholinesterase) moves into muscle cells, called muscle fibers.

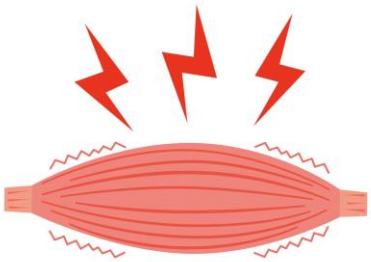


Proteins inside muscle fibers are organized into long chains that slide past one another called sarcomeres. The acetylcholinesterase breaks down acetylcholine, and the proteins in the sarcomere slide apart from one another to relax the muscle fibers.



The person's muscles relax, and the person lowers the weight.

The person lifts and lowers the weight repeatedly.



The person experiences muscle soreness 24-48 hours later.