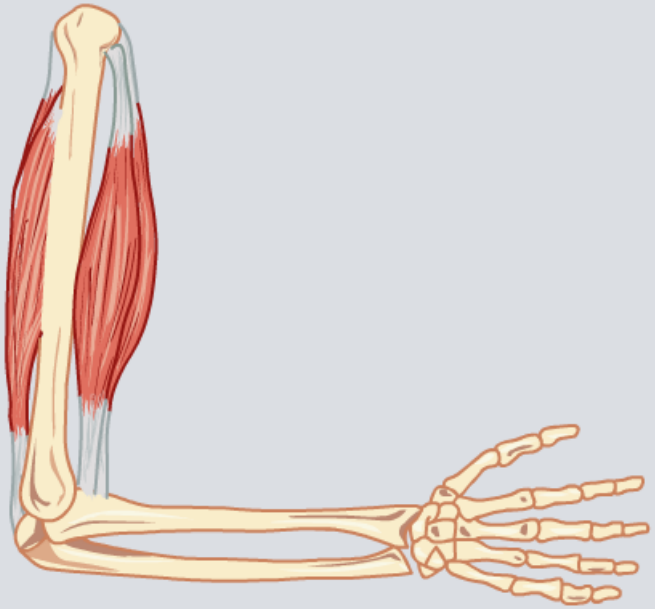
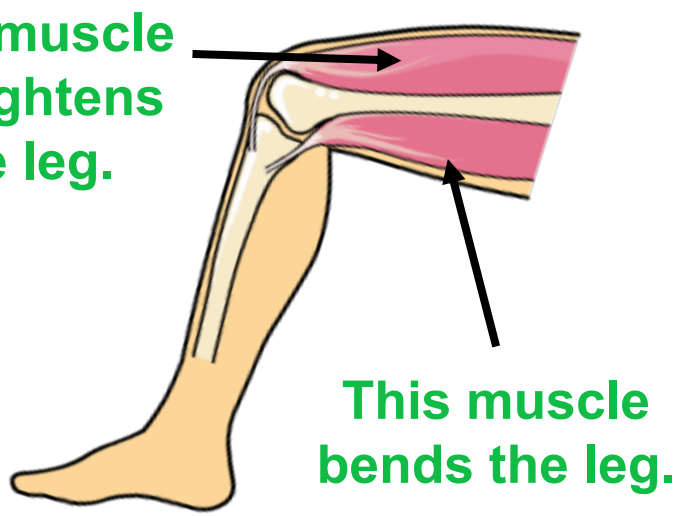
Controlling Movement



Producing movement

Muscle tissue is only able to generate a force while it is contracting, meaning that muscles are unable to push. Skeletal movements can only be produced by muscles **pulling** bones.

Therefore movement around the joints in the body requires a minimum of two muscles; one to generate a force in each plane of movement.



Most joints use pairs of muscles acting in opposite directions to generate movement. Such muscles are known as **antagonistic pairs**.

How do muscles move the skeleton?

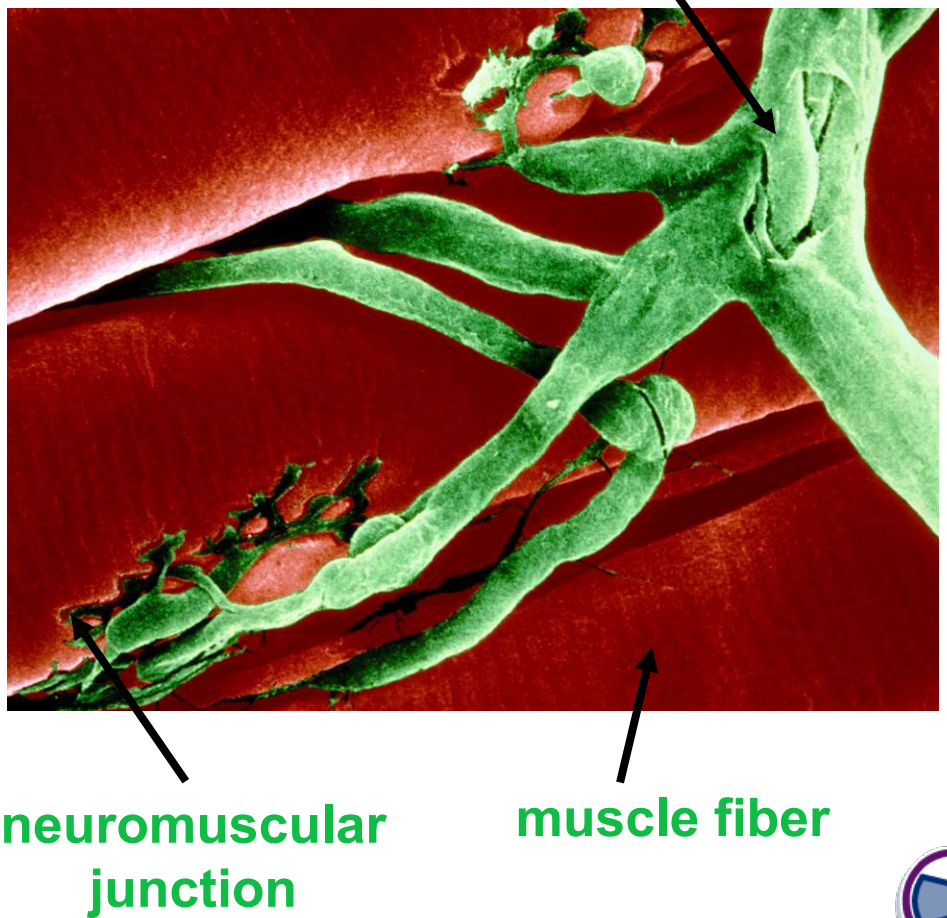
Antagonistic pairs

Nervous control

Skeletal muscle is under the control of the voluntary nervous system. Each muscle is controlled by a **motor neuron**.

Motor neurons interact with muscles at a **neuromuscular junction**, sometimes called a **myoneural junction**.

This is a specialized form of synapse that forms between a neuron and muscle fiber.



The neuromuscular junction

Summary – controlling movement