

Describe the chemical reaction at the neuromuscular junction across the synapse.

Electrical signals from a nerve release neurotransmitters into the synapse, the space between the nerve and a muscle. These neurotransmitters are usually acetylcholine (ACh). They slot into receptors on the motor end plate and fire the muscles to contract. Acetylcholinesterase, which is an enzyme that breaks down ACh, is released and ends the contraction, so it doesn't happen constantly.

Distinguish between isotonic and isometric contraction.

Isotonic contraction puts the same tension on all muscles, such as when lifting a weight. Isometric contraction keeps the lengths of all muscles the same while changing the force against them.