slow down the movement at the end round the joint to allow us to reposition the load. It is proven that performing strength training with eccentric and concentric muscle contraction is better than performing strength training with just concentric contractions. Also eccentric contraction can be voluntary or involuntary. Involuntary eccentric contraction will only occur when we try to move a weight that is more weight than the muscle can handle. Voluntary eccentric contractions occur when we are "smoothening out a movement."

Example: the quadriceps lengthens during the downwards phase of a squat.

Isometric

Isometric contractions are different to isotonic contractions because the muscles do not move. The muscles generate enough force that joints and muscles do not need to move when under tension. A good example of an isometric contraction is the hand grip. When we grip something with our hands we generate enough force that we do not move our wrists and then length of the muscle does not change. Another example is when you perform the plank your abdominals contract without movement, with constant planking you will start to tesale.co.uk develop a defined "six-pack".

Isokinetic

Similar to isotonic contractions, isokinetic cont ns require the muscle to lengthen and shorten at a constant rate of speed Dxumples of isokinetic contractions are rare. The best example is the breast where the water provides a constant, even resistance of the movement of

Definitions for words with the * at the end

- Actin: this is a contractile protein that takes parts in all types of cell movement, including muscle contraction; it works with another contractile protein Myosin.
- > Myosin: this is the main contractile protein, uses actin to help perform muscle contraction.
- Myoblasts: an embryonic cell that can turn into a muscle fibre cell.
- Fascicles: small bunch of nerves and muscle fibres.
- Myofibrils: made from actin and myosin.
- Acetylcholine: acetic acid of chlorine that is released when nerve conduction occurs creating muscle action by sending nerve impulses across synapses.
- Sarcolemma: membrane of a muscle fibre.
- T-Tubules: small tubes that run through muscles fibres.
- Troponin: muscle tissue protein that binds calcium and is a part of contraction.

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