

Strength

Strength is the ability to overcome the resistance or act against the resistance.

Forms of strength

1. Isometric action: Torque produced by the muscle will be opposed by an equal torque and no movement will occur.
2. Concentric action: Torque produced by the muscle will be greater than the resistance to movement and the bones will move as the muscle shortens.
3. Eccentric action: Torque produced by the muscle will be opposed by a greater torque opposing the muscle action and the bones will move as the muscle is lengthened by this resistance.

Strength is a generic term used to describe many dissimilar abilities. There are three main types of strength required in sports. These are:

Maximum strength It is the ability of the muscle to overcome highest possible resistance through voluntary contraction or during one contraction the maximum tension generated by the muscle to overcome the resistance.

Explosive strength It is a complex kind of conditional ability and combination of speed and strength abilities. Depending on the nature of combination of strength and speed, the explosive strength can be further sub-divided as start strength, speed strength and strength speed. All the sub-divided parts are discussed in details below:

Start strength It is the strength of the athlete's is denoted by the production of rapid increasing in external force at the beginning of the muscle contraction.

Speed strength The building of speed strength is the key component of training and sports performance.

Strength speed The term itself indicates that the combination identified in action and together with strength demand high speed of movement.

Strength endurance It is a complex conditional ability and to counter fatigue produced by the strength load components in the selected sport. There are some other terms which are used in strength and normally according to the change in muscle length strength exercises are classified as static and dynamic strength.

Static strength It is the ability to act against the resistance with the maximum force oriented from that working muscle and apply to create the movement.

Dynamic strength The dynamic strength is more common in sports. The more dynamic the move and the greater the strength generated.

General strength It plays an important role in ensuring a comprehensive development of muscle groups.

Specific strength In this type of strength, the athletes are allows to formulation of an optimal strength topography correlation of strength properties of various muscle groups which is sufficiently harmonious and simultaneously corresponds to the sports specialisation.

Relative strength Muscle strength can be reported relative to body mass, lean tissue mass, and cross sectional area in muscle.