

1.2.1: The components of fitness for different physical activities

Cardiovascular endurance

Definition: the ability to exercise for a sustained period of time.

Method of measuring: multistage fitness test or 12-minute run.

Sporting examples: events that are of long duration such as long distance running or cross country skiing.

Muscular endurance

Definition: the ability to exercise a specific muscle or muscle group for a sustained period of time.

Method of measuring: sit-up or press-up test.

Sporting examples: events requiring the use of the same muscle group for an extended period of time such as rowing or long distance swimming.

Flexibility

Definition: the range of movement around a joint.

Method of measuring: sit and reach test.

Sporting examples: activities that require the demonstration of maximal ranges of movement, such as executing the splits position in gymnastics or dance.

Muscular strength

Definition: the maximum force a muscle can generate against a resistance.

Method of measuring: hand grip or one rep max.

Sporting examples: activities requiring high levels of strength such as weight-lifting or pushing in a rugby scrum.

Agility

Definition: the ability to change direction at speed.

Method of measuring: Illinois agility test.

Sporting examples: activities that require players to change direction quickly to catch or kick a ball, or to evade an opponent.

Balance

Definition: the ability to maintain the stability of the body's centre of gravity above the base of support.

Method of measuring: stork stand.

Sporting examples: some athletes when they are not moving (static balance) such as gymnasts, and others when they are moving (dynamic balance) such as skateboarders or windsurfers.

Reaction time

Definition: the time taken to respond to a stimulus.

Method of measuring: ruler drop.

Sporting examples: activities in which athletes have little time to react to the stimulus of the ball or other players such as batting in a cricket match.

Power

Definition: speed multiplied by strength.

Method of measuring: vertical jump test or standing broad jump.

Sporting examples: activities that require high levels of force to be applied quickly such as field events in athletics (throws and jumps).

Co-ordination

Definition: the ability to move two or more body parts at the same time.

Method of measuring: alternate hand throw.

Sporting examples: all racquet sports as athletes must ensure that both they, and their rackets, are in position to return the ball or shuttlecock.

Speed

Definition: the ability to move the body, or a body part, as quickly as possible from A to B.

Method of measuring: 30 or 50 metre sprint test.

Sporting examples: activities that require athletes to move quickly around the playing area to reach the ball or shuttlecock, or to outrun opponents.