

Health Related Fitness (HRF)

Physical Components of Fitness

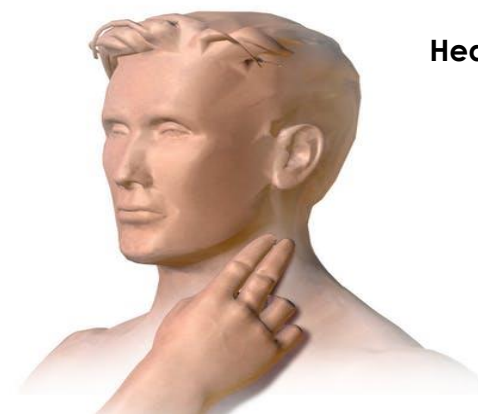
Aerobic Endurance	The heart and lungs working for a long period of time to supply oxygen to working muscles during physical activity.
Muscular Endurance	The muscles working for a long period of time against a fixed resistance.
Muscular Strength	The maximum force that can be generated by a muscle.
Speed	Distance divided by the time taken, measured in metres per second (m/s). The faster an athlete runs over a distance, the greater their speed.
Flexibility	The ability to move a joint fully and smoothly through its complete range of movement.
Body Composition	The ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body.

Skill Components of Fitness

Agility	The ability of a sports performer to change direction at speed without losing balance or time.
Balance	The ability to maintain centre of mass over a base of support, which can be dynamic (on the move) or static (stationary).
Co-ordination	The ability to use two parts of the body to perform a task smoothly and accurately, e.g. hand-eye co-ordination.
Power	An action that is a product of speed and strength, so it is fast and strong.
Reaction Time	The time taken for a sports performer to respond to a something occurring, e.g. starting gun in the 100m and the athlete sprinting.

Warm Up & Cool Down

Warm Up	Light continuous physical activity to prepare the body for exercise... <ul style="list-style-type: none"> • Dynamic stretches (stretches whilst moving). • Pulse raising activities, e.g. gentle jogging, knees up, side steps etc. • Sport specific activities, e.g. passing for football/netball/basketball.
Cool Down	Light, continuous physical activity to reduce heart rate and remove lactic acid from the muscles. <ul style="list-style-type: none"> • Static stretches (stretches whilst stationary). • Pulse reducing activities, e.g. gentle jogging to steady breathing.



Carotid

Heart Rate – Test Sites



Radial

Heart Rate (measured in beats per minute... 'bpm')

During exercise... your working muscles require oxygen therefore your heart rate increases so that the oxygen within the blood can be supplied to the muscles.

Heart Rate Maximum (bpm) = 220 – age (years).

To estimate your heart rate... you can use the 'Borg Scale' which is a rating from 6-20 (with 6 being low and 20 being high). You use this to estimate how hard you are working... multiply it by 10 and that is an estimate of your heart rate.

When exercising... it is recommended that an individuals heart rate is between 60–85% of their maximum heart rate to improve cardiovascular health and fitness.