

Components of Fitness - Components of Physical Fitness

The health of someone is the state of total mental, physical and social well being they are in. Most people think of health as the absence of disease and illness. The definition of the word, fitness, is; the ability to meet the demands of the environment. There are two main types of fitness that make up the way a person is, these are: physical fitness, sometimes known as cardio-vascular fitness and motor fitness.

Getting your fitness to its maximum and maintaining it is a very important and often difficult task that requires a lot of thought, time and effort. Athletes who over-train their bodies weaken their immune system, which makes them more prone to illness. Being fit may not help you live longer, but it can make you feel healthier, mentally and physically, for as long as you do live.

When you are training for a particular sport, you must make sure that you practice the skills of that sport and follow a fitness regime that is specific to that sport.

Health related fitness is something that everyone should have whether they play a sport or not. Keeping the body fit for health includes the following components

PHYSICAL FITNESS

Physical fitness is the capability to meet physical and physiological demands made by a sporting activity. In any chosen sport you need a lot of different parts of physical fitness to perform to the best of your ability.

STRENGTH

Strength is normally measured by the amount of weight the muscles can lift, or applying a force against a resistance during a single maximal contraction.

Examples of this are handgrip strength or the power from the leg from a vertical jump.

In the sport football strength is important in all positions. For an attacker strength in the leg is important for when they have an opportunity to shoot they have to be able to exert a reasonable

amount of force on the ball to make it move with speed and power increasing the chances of a goal if the shot is on target.

For a midfield player in a football team their strength is vital for the whole of the match. Being the link between the defence and attack midfielders are involved in the game the most and have a lot of running to do. Explosive strength is something that they need greatly when starting from a static position to sprinting for the ball.

For defensive players strength is probably one of the most important assets they could have. One way in which this strength is important is when defending a ball in the air. They need strength in their legs so they can jump vertically and head the ball away.

Goalkeeping, arguably the most important position on a football team requires a great deal of strength for a number of things, such as, diving in the air to save a shot or jumping in the air to catch a ball from a crossing situation.

Methods of improving strength can vary, weight training is an effective way of building up muscle strength increasing the capabilities of the body. It is important to know that concentrating on just the legs for a football player is not necessarily the best thing to do as upper body strength is also needed a great deal.

Flexibility

Flexibility is the range of movement possible at a joint. It is an important part of fitness that we need to keep into old age. We lose flexibility as we grow older. We should always remember to warm up before competition to stretch our muscles and tendons. An example of a flexibility test is the sit and reach test.

In football, for an attacker flexibility can be very important in the spine when jumping for a header. It is important to arch the back correctly in preparation for the thrust movement of the head and neck as contact is made with the ball. This way, power can be put on the ball, to generate speed.

For a midfield player flexibility can be when attempting to control the ball by using the chest. The back, again is arched backwards and the arms are pushed backwards to bring the chest out more, giving the ball a larger surface area to land on.

A defensive player would need flexibility in the legs for tackling. Defenders legs would have to be able to move in a range of different directions to enable a better chance of taking the ball in a sliding challenge.

A goalkeeper would need flexibility in the arms, hips and legs to enable them to spread their bodies accordingly when dealing with shots.

A good way of training flexibility is a 'sit and reach' training method in which you must try to stretch as far as you can whilst laying with your feet straight.

Muscular Endurance

Muscular Endurance is the ability of the muscle to work for long periods of time without tiring. There are two main parts of endurance that put together endurance, these are: **local muscle endurance** and **cardiovascular endurance**. Local muscular endurance is how long the actual muscles in the body can continue for before they get tired and cardiovascular endurance is how long the heart and lungs can supply oxygen around the body whilst participating in an activity. Good examples of local muscle endurance are sit-ups and chin-ups.

A main factor of how good somebody's endurance is depends a lot on body weight and fat. It can be difficult to reach and maintain a good level of fitness in the mentioned areas if you are carrying extra weight; this also applies to a good level of fitness. If your body is underweight it cannot store enough energy to keep you going. Being underweight can also mean that the body does not build muscle tone, and can cause joint injuries.

An attacker in football has to have good endurance so they can last the pace of the game and be prepared to make any runs when playing. Stamina levels in football have to be particularly good because of the pace the game is played at and the way the respiratory system works both aerobically and anaerobically.

Midfielders have to have the best endurance ability in football because they do the most running; the hamstrings and gastrocnemius have to be in particularly good shape to last a match and to avoid injury.

The reason defenders need endurance is because they have to keep up with any opposing players whilst under attack and if a team is constantly defending the defenders have to be in very good shape to be able to cope.

Goalkeepers don't particularly need endurance for running around as their job in a team requires them to stay inside the 18 yard box, however they do need to have a good level of endurance to be able to stay in a constant position of readiness for a whole match.

Bent knee sit-ups are a good method of increasing muscular endurance, as you have to push yourself to perform well.

SPEED

Speed is the maximum rate at which a person is able to move their body. Good ways of testing for speed are sprints, extended training of sprints can also lead to faster times. It is not just leg speed that a sprinter would have, but athletes who can throw a javelin require arm speed.

All footballers need to be fast, the flow of the game depends highly on this and to keep up with the play you cannot be slow.

Attacking players have to have speed when on the ball or making crucial runs. It is important to beat defenders using speed or getting behind them to collect the ball.

Midfielders need speed so they can get back and forth on the pitch and wingers especially need it so they can bring the ball forward and get into advantageous crossing positions.

Defenders speed is crucial in the game when they are tracking attackers, man marking or getting back from attacking set pieces.

One of the best methods of training to increase speed is by doing shuttle run training. This makes you push the body increasingly to get to higher speeds in shorter distances.

Components of Motor Fitness

Motor fitness is the capability to perform successfully at a particular game or activity.

AGILITY

Agility is the ability to change the direction of the body quickly. Goalkeepers and gymnasts are good examples of people who have this ability to do this.

A situation when attackers may need to be agile is when a challenge is made upon them. They may need to avoid the tackle and changing the shape of the body whilst evading any harm is a necessity.

Midfield players need to be agile when taking opposing players on, being able to twist and turn with the ball and able to confuse a player so you can beat them is a good skill to have. Also, being able to skip challenges is a good skill to be able to do, this also applies to strikers and attacking players.

Defensive players agility is required for trying to challenge a player with the ball, if an opposing player manages to turn the defender they have to be agile enough to reposition themselves quickly enough to stay with the game.

Goalkeepers, as mentioned above are required to have great agility as they need to be able to get to the ground or dive across the goal within a split second to save any shots.

Shuttle runs are also a good way of improving agility with training as you have to turn quickly in small spaces.

REACTION TIME

Reaction time is the time it takes to respond to a stimulus. The stimulus could be a starting pistol in a race, or a ball being returned over the net in tennis.

In football attackers reaction times have to be good so they can get to the ball as soon as possible. For example, trying to deflect a shot away from the direction the goalkeeper is going or collecting the ball from a ricochet.

Midfield players reaction times have to be fast so they can respond to short passes or so they can fit into a fast flowing game of football with lots of passes in the build ups of attacks.

Defenders need good reaction times so they can respond from set pieces or shots where they can get the ball away from the danger areas.

Goalkeepers moving to get their body in line with the ball to save a shot need very fast reaction times.

POWER

Power is, in simple terms, "strength x speed" or doing strength movements quickly. A shot putter uses power when moving a shot from their neck. A high jumper needs power in their legs to lift their body, vertically, over the bar.

Attackers need power so they can force their way through on goal and try to have a shot.

Midfielders rely on their power to help them dribble the ball past players, it is important so they can get past players easier without getting forced off the ball.

Defenders use power to tackle opposing players and use it to stand their ground, not letting anyone get past.

Power can be improved by learning how to incorporate the strength training into practice. For example, by improving the strength of the muscles in the arms a goalkeeper should be able to throw a ball out of the area further and harder.

BALANCE

Balance is the ability to keep upright while you are standing still or moving. Gymnasts balancing on their hands or on a beam are often thought to have good balance, but we all have to balance when we are standing or riding a bike. There are two types of balance; static, such as a gymnast or dynamic, such as a footballer under pressure from a challenge.

Attackers and midfielders in football when dribbling a ball have to have good balance when an opponent tries to shoulder charge them. The players need to shift their body weight to prevent themselves from falling over. When being tripped to stop yourself from falling over you have to move your centre of gravity quickly.

Defenders may need to use balance when turning around quickly to keep up with a player taking the ball past them.

Goalkeepers use balance to keep the angles that the ball may come from narrowed down, increasing their chances of making a save or stopping the ball.

Balancing can be improved with simple exercises such as trying to walk across a beam, eventually you would learn how to shift your weight so you could make it across the beam without falling.

CO-ORDINATION

Co-ordination is the ability to use different senses and body parts together to perform smooth and accurate motor tasks. Hand/eye co-ordination is needed when hitting a moving ball in tennis, cricket and baseball. Foot/eye co-ordination is needed when volleying a football or juggling the ball.

Attackers, especially strikers, are expected to be able to volley a ball well enough to make a considerable impact with the target. This requires precise timing, thought and concentration.

An example of when a midfield player may use co-ordination in a game of football is if they flicked the ball up and then volleyed it over a player so an attacker could run onto the ball.

Defenders co-ordination skills would not really be expected to be as precise as attackers and midfielders. Times a defender may use this type of skill may be a simple act of volleying the ball high and away from danger.

Goalkeepers need both hand/eye co-ordination and foot/eye co-ordination to do their job properly. Saving the ball by catching it or punching it away requires skill and dealing with pass backs using the feet are also examples of this.

Training to improve co-ordination can be done with simple training methods such as juggling small balls using the hands or using footballs and using your feet.

Another aspect of fitness is attitude. A good mental attitude will help a person want to stay in shape and help the body achieve high levels of fitness. If a person has decided that they're "not sporty", then they're going to have a difficult time working past their attitude to achieve even basic fitness for health.