

**GetPhysical**

# Football keeps body in shape and mind sharp

**Players need to be constantly in motion and to think on the run. It also fosters friendships**

**Ng Wan Ching**

Physical agility and a quick mind are just two skills you can hone while playing football.

The beautiful game can also confer a whole host of other physical benefits, such as aerobic and cardiovascular fitness.

It is a good thing then that football is one of the most popular sports here, said Assistant Professor Benjamin Soon, who runs a new physiotherapy programme at the Singapore Institute of Technology (SIT).

The nature of the game requires players to be constantly in various stages of motion involving sprinting, running, jogging, walking and

jumping, he said.

This stresses the cardiovascular system to respond accordingly to the random shifts in intensity of physical demands during the game.

It's an approach somewhat similar in concept to interval training, which involves a series of high- and low-intensity cardiovascular workouts, said Prof Soon.

Alternating between high and low exercise intensity allows the body to adapt to exercise demands more readily, he added.

Players can also gain muscle strength, power and endurance, especially in their lower limbs, said Prof Soon.

Being able to control the ball comes down to using the correct

techniques, such as foot placement, ankle control, strength and body coordination during the kicking.

Almost all the muscles in the lower limbs and trunk are needed in order to pass a football properly, said Prof Soon.

They work differently and some muscles, such as the hip flexors and quadriceps, are required more intensely than others, like the tibialis anterior at the shin.

These muscles either work to stabilise the body and ankle or deliver the driving kick, he said.

They are all strengthened over time while playing football.

It is part of the training for professional footballers to work these muscles in the gym in order to play well, said Prof Soon.

Playing football also improves foot-eye coordination. This allows players to make pinpoint passes, free kick with precision, do fake manoeuvres to outwit the defence and dribble the ball. It also helps a player keep his head up during ball handling.

People who play football can also improve their mental fitness and concentration, said Prof Soon.

Players have to "think on the run", respond to teammates and work their body all at the same time. This may even help to improve their social interaction skills, he said.

**FOSTERING FRIENDSHIPS**

The social aspect of football is what Mr Dong Zhijun, 26, loves best. The SIT undergraduate, who is doing an aerospace systems degree course, started playing football in primary school as a co-curricular activity and it has become a passion.

"It is a great way to meet people and make new friends. I love team sports, where you can have fun with your friends and at the same time, keep fit," he said.

As he was a chubby kid, football also helped him to lose weight and improve his strength and endurance.

"It is a great way to release stress from all the school work and projects that I have," he said.

He plays football two to three times a week for two hours each time. "We do basic drills, tactical drills and, often, running," he said.

He also trains in the gym to improve his physical strength, which is beneficial when he plays in competitive matches for SIT, for instance, in the Singapore University Games.

Warming up before a game or match is also important.

A typical warm-up exercise session should include light jogging around the field and stretching of all the major muscle groups in the legs, arms, neck and back, said Prof Soon. The main purpose would be to get more blood into the muscles to prepare them for the action.

Warm-up sessions are also good for the brain, especially if they are reaction drills, said Mr Dong.

For instance, a coach may shout a number, say, 3. Then players have to scramble to gather in a group of three in the shortest time. The odd one out has to undergo some punishment for not being alert, said Mr Dong.

Another good activity is the monkey drill, where players gather in a circle surrounding one or two players inside. The ones forming the circle have to pass the ball around without it getting snatched away by the players inside the circle.

"It helps with decision-making and alertness," said Mr Dong.

**SOCER INJURIES**

Although football is considered a non-contact sport, this is far from the truth during a match, said Prof Soon. "I have seen many players with torn anterior cruciate ligaments, meniscus injuries and ankle sprains as a physiotherapist," he said.

Many injuries in football occur from contact with the opponent that results in the twisting of the knees and ankles.

Some happen because of the intensity of the game and the strenuous demands on the legs to perform twisting and kicking actions. Muscle strain in the hamstring and hip adductors is common, as well as bruises and accidental head injuries from knocks and kicks on the field.

Taking necessary precautions is important to lower the risk of injury. This includes warming up properly, stretching and regulating the intensity of play, especially if you do not play regularly.

Taping of the ankles and knees can be done to provide additional support against sprains.

Wearing proper boots and protection (shin guards) is important to reduce injuries to the ankles and shins. Goalkeepers should wear gloves.

"Football is a sport for everyone, girls too. As long as you can kick the ball, you can play football," said Mr Dong.

wanching@sph.com.sg

**Try these moves**

Footballer Dong Zhijun, 26, demonstrates some dynamic stretching exercises you can do before hitting the pitch

**1. DYNAMIC VERTICAL JUMP**

From a standing position, bend knees and jump vertically upwards. Tuck knees up onto the chest immediately upon jumping. Straighten the knees out again before landing and perform a quick rebound for another jump immediately.

Repeat the jumping sequence continuously five times.

This is a form of plyometric exercise which helps to increase jumping power for the lower limbs, helping the person jump higher. A plyometric exercise is one that involves a contraction followed by an explosive movement of the same muscle. It is done to help increase the ability of a muscle to generate explosive force.

**2. DYNAMIC ABDOMINAL AND HIP STRETCH**

Stand straight. Bring the right knee, hip and pelvis across the left side of the body while maintaining your balance on your left leg. At the same time, rotate upper body in the opposite direction to the right, with arms swinging to the right also. Put right leg down and repeat the same movements using the left hip and pelvis.

This stretches the buttocks and abdominal muscles.

Do these movements eight times on each side. Dynamic stretching is an over-exaggerated movement to stretch the muscles slightly further than they normally would.



Taking necessary precautions is important to lower the risk of injury during a football game. This includes warming up properly, stretching, and regulating the intensity of play. PHOTOS: DIOS VINCOY JR FOR THE STRAITS TIMES



**3. DYNAMIC GLUTEUS AND HIP ADDUCTORS (INNER THIGH MUSCLES) STRETCH**

Stand straight with your feet shoulder-width apart. Move the right knee up as high as possible. When the right leg comes down, do the same with the left leg.

Repeat the high stepping movements 16 times.

**4. DYNAMIC SHOULDER AND ABDOMINAL STRETCH**

Stand with left foot in front of the right. Raise both arms forward until they are at 90 degrees to the body. Swing both arms horizontally to the left together with the upper body while twisting the pelvis in the opposite direction. Reverse feet positions, with right foot in front of the left. Now, swing raised arms and upper body to the right while twisting the pelvis in the opposite direction.

Alternate the movements eight times.

**5. DYNAMIC HIGH KICKING**

Stand and swing the right leg forward from the hip. Try and keep both knees straight and body upright during the movement. As the right leg is coming down, swing it backwards in order to stretch the front of the right hip.

Repeat the same movement using the other leg. Do it eight times for each leg.

Source: Assistant Professor Benjamin Soon, Singapore Institute Of Technology