

WE'VE ALL KICKED A FOOTBALL AT
LEAST ONCE IN OUR LIVES BUT
THERE IS MORE TO THIS NATION'S
FAVOURITE SPORT THAN JUST A KICK
AROUND IN THE PARK. IF YOUR
CLIENTS TAKE THEIR FOOTBALL
CAREERS SERIOUSLY YOU COULD
LEARN SOME USEFUL TIPS FROM
THIS ISSUE'S PULL-OUT
REPORT: JIM PETRUZZI



getting fit for soccer





physical demands of soccer

Soccer is a sport requiring high levels of physical fitness. It is one of those sports that demands not only speed but agility, strength, power and endurance. Players at top levels can run a total of 14 km in a typical game, not forgetting the frequent accelerations, decelerations, changes of direction and jumps they must undertake. But you don't have to be David Beckham to train specifically for football. Fitness is important at all levels of the game. Whilst being essential for elite performers (box 1), it is beneficial for players of all standards since both their effectiveness and enjoyment will improve as they develop their fitness. The aim of fitness training in soccer is to enable a player to cope with the physical demands of the game as well as allowing the efficient use of his various technical and tactical competencies throughout the match.

advising a football team or individual on fitness

It is important to take into consideration each individual's state of fitness. This can be done by assessing each component, including maximum oxygen uptake, flexibility, aerobic and anaerobic fitness.

The performance potential of a soccer player can be improved by fitness training which is generally divided up into aerobic, anaerobic and specific muscle training. Other factors that are important to a player's progress are his genetic background, diet and mental fitness. Improvements in performance depend upon the training methods used. Frequency, intensity,

progressive overload, type of exercise, specificity and recovery all play a part in determining performance.

how do you improve fitness?

Use fitness tests to profile the player then compare the results to the demands of soccer at each player's level. Perform tests at regular intervals and use the results as feedback to fine-tune the training programme. Fitness tests should be an integral part of your training programme and the basis on which your programme is built. In order to identify a player's physical strengths and weaknesses football-specific tests are necessary. The information gained from these tests can help set up long-term and short-term goals. In the event of long-term injury, chronic sickness, or a planned rest period, a player's previous assessments will also provide data that can be used for comparison purposes.

selecting a test

It is important that any fitness test used is specific for soccer and that it is reliable, feasible, and the conditions are similar each time the test is performed. Some appropriate tests which are soccer-specific include:

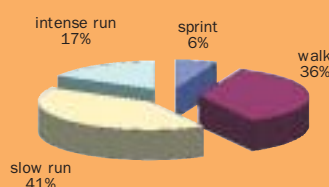
- standing long jump – this is a test of maximum anaerobic power (legs) and a functional test for initial acceleration and horizontal power.
- overhead medicine ball throw – this can be used as a test of upper body power. The athlete performs the equivalent of a football throw in with no run up.

box 1: positional fitness demands in soccer

full back

At professional level in a typical game the workload of a full back comprises:

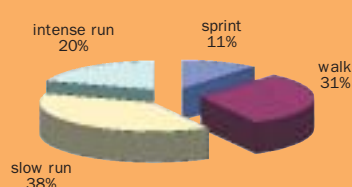
- 2.38 km of intense running
- 0.84 km sprinting
- 5.04 km walking
- 5.47 km slow running



midfield

The workload of a midfield player comprises:

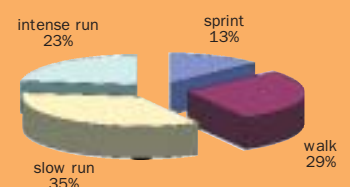
- 2.8 km intensive running
- 1.54 km sprinting
- 4.76km walking
- 5.32km slow running



forward

The workload of a forward comprises:

- 3.22km intensive running
- 1.82km sprinting
- 4.9km slow running
- 4.06km walking



NB: at semi-professional level the total demands are not as high, and in general a semi-professional player would cover around 20% less distance for each of the above categorised positions. Similarly, in an amateur league the workloads are 20-50% less, depending on the league.



- sit up max (1 min) – this is a measure of trunk endurance, correct form is important.
- one repetition maximum squat – for assessing maximum leg strength.
- cooper test – a test of aerobic fitness, the maximum distance covered in 12 minutes.
- 300-yard shuttle – this is a test of intermediate anaerobic power; it is performed as a shuttle run over 25 yards (300 = 12 x 25 yards).
- t drill – this is a test of agility, involves running forwards 10 yards, side stepping left 5 yards touching a cone, side stepping right 10 yards touching a cone, side stepping back 5 yards touching a cone and running backwards 10 yards to the start (see box 2).
- flexibility – ideally, the full range of motion for all major muscle groups should be tested, for instance, straight leg raises for hamstrings.

sprint starts – eg. 20 x 5 metre sprints with 30 seconds recovery.

foot speed drills – i.e. maximum number of foot contacts made in 10 seconds.

effective methods for maximum sprint speed

hill sprints – 10% gradient up and down.

sprint work – a typical work out could be 5-10 x 30-80m max efforts with 3-5 minutes rest between sets.

aerobic endurance

20 x 200 metres with 30 seconds recovery or 5-10 km run.

anaerobic (ATP-PC) training

20 x 20 metre shuttle with 45 seconds rest

10 x 60 metre with one min rest.

anaerobic (lactate development) training

5-8 x 300 metre fast with 45 seconds rest between repetitions.

8 x 350 metre with three minutes rest between repetitions.

strength and power

squat jumps, power lunges, power cleans 3-6 reps, 85% one rep. max.

flexibility

a combination of active and passive stretching for each major muscle group. **fp**

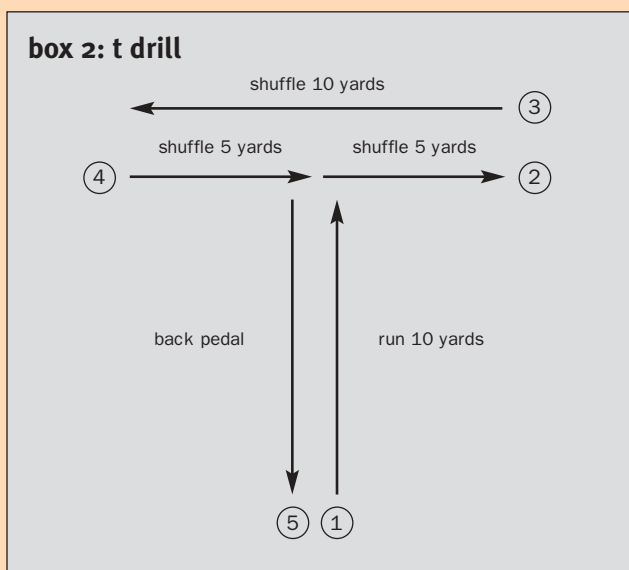
The above tests are basic, effective and easy to administer and can be used as the foundation of a football fitness programme.

training methods

effective methods for acceleration

All maximum leg strength exercises improve acceleration, as do leg plyometric exercises. Particularly useful are:

hurdle hops – single and double leg.



references (fitness assessment)

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