Eredeti forrás:

http://www.footballscience.net/testing/aerobic-endurance/30-15-intermittent-fitness-test/

30-15 Intermittent fitness test

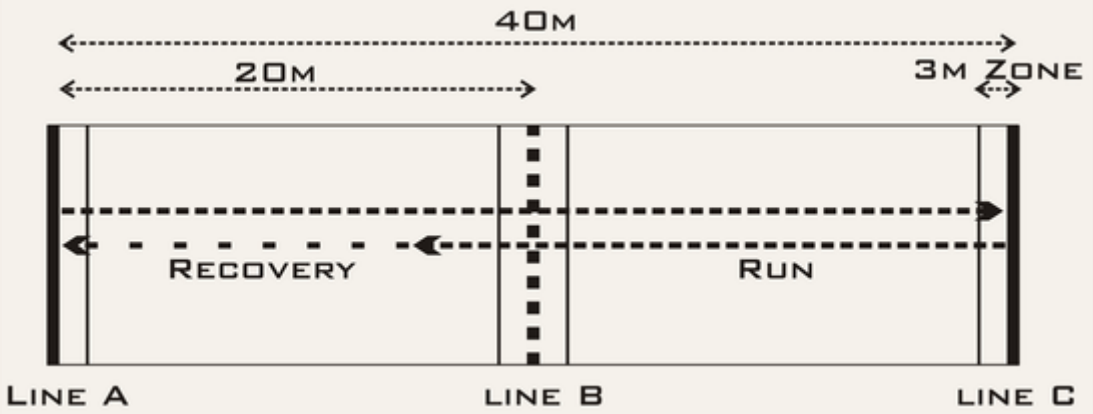
The 30-15 intermittent fitness test (30-15 IFT) was invented by Martin Buchheit (1) *- see references below* with the purpose to measure the maximal running speed that can be used furthermore for training prescription.

The test consists of 30-second shuttle runs interspersed with 15-second passive recovery periods on a 40-meter straight runway. The running velocity starts at 8 km/h and is increased by 0.5 km/h every 45-second stage thereafter. As a result, depending on the speed the participants have to cover an increasing distances at a given time. Deceleration, turning and acceleration generally takes time (0.7 seconds) which needs to be incorporated and the distance corrected.

Set-up, equipment, organization and data collection

In order to perform the test, a measurement tape is needed to setup the distances and cones to mark the lines. The audio file needs to be played with a player and it is most likely that extension cords are needed for power support. Otherwise batteries should be charged.

Three lines need to be setup for the 30-15 test. Line A should be 20 meter apart from line B and line C should be 20 meter apart from line B and therefore 40 from line A. A 3-m zone inside the 40 meter length should also be setup for line A and C. Line B should be within two 3-meter zones, one left and one right from line B.



30-15 Intermittent fitness test

Many players can perform the test at the same time. We suggest that one tester can look after 7 players in order to get valid results.

To conduct the test, players have line up at point A and start running towards point B and C on the first acoustic signal (“beep”). The athletes should be within the 3-meter mark of point B at the next “beep” and within the next 3-meter mark of point C at the following “beep”. The end of the 30-seconds running period is indicated by a different “beep” and a 15-second recovery period will commence the test, in

which the players will continue to walk forward to the next point to continue the test with the next 30-second period.

The test ends, if participants are totally exhausted and stop on their own volition or if participants were unable to reach the next 3-meter zone at the beep on three successive occasions. The running velocity during the last completed stage is taken as the maximum running speed (or VIFT = velocity for the intermittent fitness test).

As mentioned previously, it is essential that all athletes start the test at point A, run to point B, then turn at point C, run to point B, turn at point A etc and keep continue running forward only. If the athletes are exactly on a marked point when the running stage concludes then they simply stay at that point and wait for the next run stage to begin. As a result, the next 30-second period might not start at point A.

Reliability (2) and validity (3) were tested. The test –retest reliability score was high (ICC = 0.96).

Equipment

In order to perform the test, a measurement tape is needed to setup the distances and cones to mark the lines. The audio file needs to be played with a player and it is most likely that extension cords are needed for power support. Otherwise batteries should be charged.

Organization

All players can perform the test at the same time. We suggest that one tester can look after 7 players.

Data collection

As mentioned previously, the running velocity during the last completed stage is taken as the maximum running speed (or VIFT = velocity for the intermittent fitness test) and therefore the final score for an individual player.

VO2max calculation

The test can be used to estimate/calculate the players individual maximal oxygen consumption; VO2max = 28.3 – 2.15 G – 0.741 A – 0.0357 W + 0.0586 A x VIFT + 1.03 VIFT, where G stands for gender (female = 2, male = 1), A for age and W for weight.

The 30-15 test in football

The 30-15 IFT was used in several investigations (4-9).
The test showed significant correlation with the YYIRT level 1 in Iranian youth soccer players (6) and was used to measure aerobic endurance in amateur soccer players (7) but also as a prescription tool in Tasmanian youth soccer players (9).
There also seemed to be a proposal of various versions of the 30-15 IFT in team sport players (including futsal and soccer) (8) to measure inter-effort recovery.

References

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