

Fitness Testing - Speed and Agility

Speed and agility are components of fitness that are related and required by many sports including basketball, football and netball. The following fitness tests are aimed at measuring these components, allowing athletes to track any training progress.

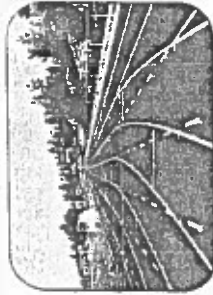
Speed



30 m Sprint Test

35 m sprint test

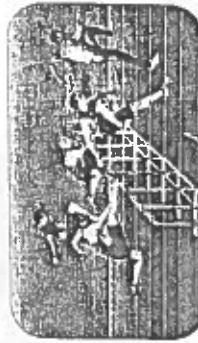
1. It is important that a sufficient warm-up is performed before the test as it involves fast, explosive muscle contractions that could cause injury if unprepared.
2. Start the test from a stationary position on someone's command, such as when a whistle is blown.
3. Sprint as fast as possible along the 35 m track.
4. The results of this test are usually measured in seconds (s).



A 35 m sprint test could be performed on an athletics track

The 35 m sprint test is a simple test used to measure an athlete's speed. Due to the short distance, this test specifically measures acceleration speed and is a useful tool for athletes looking to assess their speed training progress. The test involves running between two markers, such as cones, that are 35 m apart, and timing the speed in which an athlete can run from the first cone (from a stationary position) to the second cone.

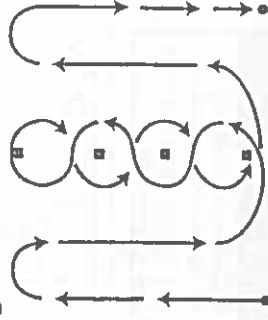
The 100 m hurdles requires speed



Speed and Agility

Illinois agility run test

1. As with the 35 m sprint test it is important that a sufficient warm-up is performed before this test as not only does it involve fast, explosive muscle contraction, but the athlete is expected to change directions rapidly, which could cause injury.
2. Start the test from a stationary position on someone's command, such as when a whistle is blown.
3. Sprint as fast as possible between the cones ensuring the correct route is taken.
4. The results of this test are usually measured in seconds (s).



An example of how cones would be set out to perform an Illinois agility test



Football requires speed and agility to run past opponents

The Illinois agility run test measures an athlete's speed and agility. Unlike a test that measures just speed, such as the 35 m sprint test, this test also measures agility by ensuring athletes have to navigate through a series of cones, forcing them to change directions as they run.

Average 35 m Sprint Test Results (seconds)

Rating	Males	Females
Excellent	< 4.80	< 5.30
Good	4.80-5.09	5.30-5.59
Average	5.10-5.29	5.60-5.89
Fair	5.30-5.60	6.90-6.20
Poor	> 5.60	> 6.20

Source: Arkinstall et al. 2010

Advantages ✓

- It is a reliable and valid way to assess speed
- It is a quick way of assessing speed
- Simple to set-up
- It is a practical method: can be done anywhere

Disadvantages ✗

- There is a relatively high risk of injury if a proper warm-up is not completed
- Requires athlete to run at maximum intensity for accurate results

Average Illinois Sprint Test Results (seconds)

Gender	Excellent	Above average	Average	Below Average	Poor
Males	< 15.2	15.2-16.1	16.2-18.1	18.2-19.3	> 19.3
Females	< 17.0	17.0-17.9	18.0-21.7	21.8-23.0	> 23.0

Source: Davis et al. 2000

Advantages ✓

- It is a reliable and valid way to assess speed and agility
- Not much equipment is needed

Disadvantages ✗

- There is a relatively high risk of injury if a proper warm-up is not completed
- It can take time to set up properly
- Times can be affected by footwear worn