

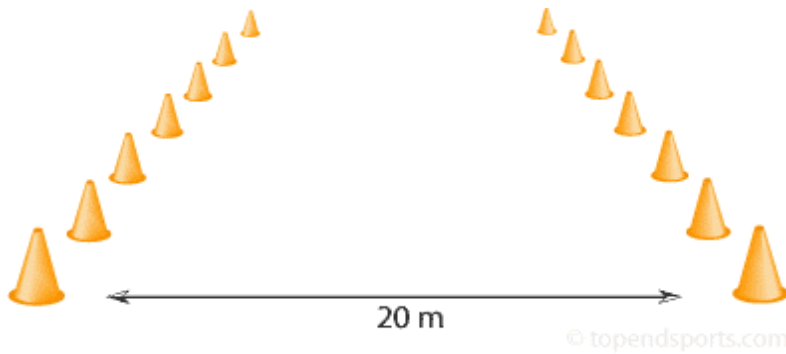
## *Fitness Testing*

### **Beep Test Instructions**

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(alternate names: Multistage Fitness Test, MSFT, 20m Shuttle, Bleep Test)

The multistage fitness test is a commonly used maximal running aerobic fitness test. It is also known as the 20 meter shuttle run test, beep or bleep test among others.



**Description:** This test involves continuous running between two lines 20m apart in time to recorded beeps. For this reason the test is also often called the 'beep' or 'bleep' test. The test subjects stand behind one of the lines facing the second line, and begin running when instructed by the cd or tape. The speed at the start is quite slow. The subject continues running between the two lines, turning when signaled by the recorded beeps. After about one minute, a sound indicates an increase in speed, and the beeps will be closer together. This continues each minute (level). If the line is not reached in time for each beep, the subject must run to the line turn and try to catch up with the pace within 2 more 'beeps'. Also, if the line is reached before the beep sounds, the subject must wait until the beep sounds. The test is stopped if the subject fails to reach the line (within 2 meters) for two consecutive ends.

**Scoring:** The athlete's score is the level and number of shuttles (20m) reached before they were unable to keep up with the recording.

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## Beep Test Levels & Shuttles

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Here is a table of the number of shuttles required to run for each level of the beep test. This schedule is for the version produced by the Australian Sports Commission, one of the most commonly used versions of the test.

Level	Shuttles	Speed (km/h)	Seconds per shuttle	Total level time
1	7	8.5	8.47	59.29
2	8	9	8	64
3	8	9.5	7.58	60.64
4	9	10	7.2	64.8
5	9	10.5	6.86	61.74
6	10	11	6.55	65.5
7	10	11.5	6.26	62.6
8	11	12	6	66
9	11	12.5	5.76	63.36
10	11	13	5.54	60.94
11	12	13.5	5.33	63.96
12	12	14	5.14	61.68
13	13	14.5	4.97	64.61
14	13	15	4.8	62.4
15	13	15.5	4.65	60.45
16	14	16	4.5	63
17	14	16.5	4.36	61.04
18	15	17	4.24	63.6
19	15	17.5	4.11	61.65
20	16	18	4	64
21	16	18.5	3.89	62.24

## Maximizing Your Beep Test Score

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The beep test is a test of fitness, and is used as a measure of your aerobic capacity. It is not something that you would normally train for, as you would usually be doing the training for your specific sport and using the test to determine if you have reached your training goals.

However, the test is also commonly used as an important selection criteria for some sporting teams or jobs. Therefore many people need to train specifically for the test in order to reach a desired score.

Ideally, the test should be a true representation of your aerobic fitness. However, due to the nature of the test, there may be inaccuracies and you may not be reaching the level you have the potential to. I see that there are three main areas that can be addressed to maximize your beep test score: mental toughness, pacing strategies and physical conditioning. Depending on what level you are at, one or more of these can be used to help you achieve your potential in this test.

## **Do Physical Training**

If you really want to significantly improve your beep test score, you need to do some aerobic type training. You cannot avoid it, you will have to do some hard work. This would include some long slow running with some interval training.

## **Prepare Well**

You should be physically ready to perform the test. You should have recovered with at least 24 hours since the last heavy training session, and be free from injury or illness. Make sure you hydrate well before hand (see pre-exercise hydration), and have a light meal 1-2 hours before the test. You should also feel comfortable, by wearing loose clothing and by having firm fitting footwear with a good grip. You should also perform a light warm-up before the test.

## **Be Mentally Tough**

The beep test can be a mentally tough test for some, and some good improvements can often be made, without any change in your base fitness, by a more positive state of mind. Pushing through the pain barrier may help you reach a higher level.

## **Use Sound Technique**

Using an efficient turning technique you will minimize any excess energy wasted during the turning phase. As you come in to the turn, time it so that only one foot just touches over the line, and turn sharply, not following a wide arc which will mean more distance traveled. You should drop your hips slightly as you turn, and push off strongly for the first few strides to get up to pace. When you get near the end of a level, try to be on time with the beep, and step up your pace straight away. Run efficiently to conserve energy - run with your shoulders relaxed and breath deeply and smoothly.

## **Use Pacing Strategies**

Also without any change in aerobic fitness, you may be able to improve your score by pacing yourself so that energy is not wasted from end to end. Try and stay relaxed, quickly getting up to the required pace. Running at a consistent pace will be more efficient.