



20M BEEP TEST (MSFT) TRAINING PACK



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MSFT / BEEP TEST

WHAT IS IT?

The beep test is a progressive, maximal effort fitness test that measures your aerobic capacity (VO2 max). It involves running 20-meter shuttles in sync with a series of beeps, which progressively speed up. The test challenges both your aerobic and anaerobic systems, with speed increasing as the test progresses.

DIFFERENT SCORE REQUIREMENTS

Scores are based on the level and number of shuttles completed. Here's a breakdown of typical requirements:

- General Fitness: Levels 5-7 are average for non-athletes.
- Athletes: Levels 10-13 are common for elite performers.

ROLE FITNESS TEST ENTRY (RFT-E) REQUIREMENTS (BRITISH ARMY)

The British Army uses the MSFT as an entry requirement for both Ground Close Combat (GCC) and Non-GCC. Here is a break down of the scores required depending on role:

- Paratrooper: 11.3.
- All GCC roles and Commissioning Course : 8.6.
- Non-GCC majority (except Royal Engineers): 6.6.
- Royal Engineers: 7.5.
- Junior Entry (JE) - 16/17 year old (Army Foundation College): 7.5.

Note* Regardless of role, all JE soldiers must achieve 7.5.

ROLE FITNESS TEST BASIC TRAINING (RFT-BT)

Upon completion of Basic Training the MSFT may be used to ensure soldiers/officers are at the required level of fitness prior to commencing Phase 2 training. Here is the breakdown of scores required:

- Paratrooper: 11.3.
- All GCC roles and Commissioning course: 9.5.
- Non-GCC majority (except Royal Engineers): 7.8.
- Royal Engineers: 8.3.
- Junior Entry: Same as standard entry (role dependant).

SOLDIER CONDITIONING REVIEW (SCR)

Upon completion of training, all service personnel will be subject to a biannual SCR which may include the use of a MSFT. See below for minimum required standard (level 3) and above across all roles:

MSFT level table (recorded by levels)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
-	-	04 00	04 07	05 08	06 07	07 08	08 07	09 06	10 04	11 02	11 10	12 07	13 04	14 01



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NUMBER OF SHUTTLES

This refers to the total number of shuttles needed to complete each round of the test. Not only does speed increase per round, but the number of shuttles (and ultimately distance) increases as well.

1. Boost Speed Endurance

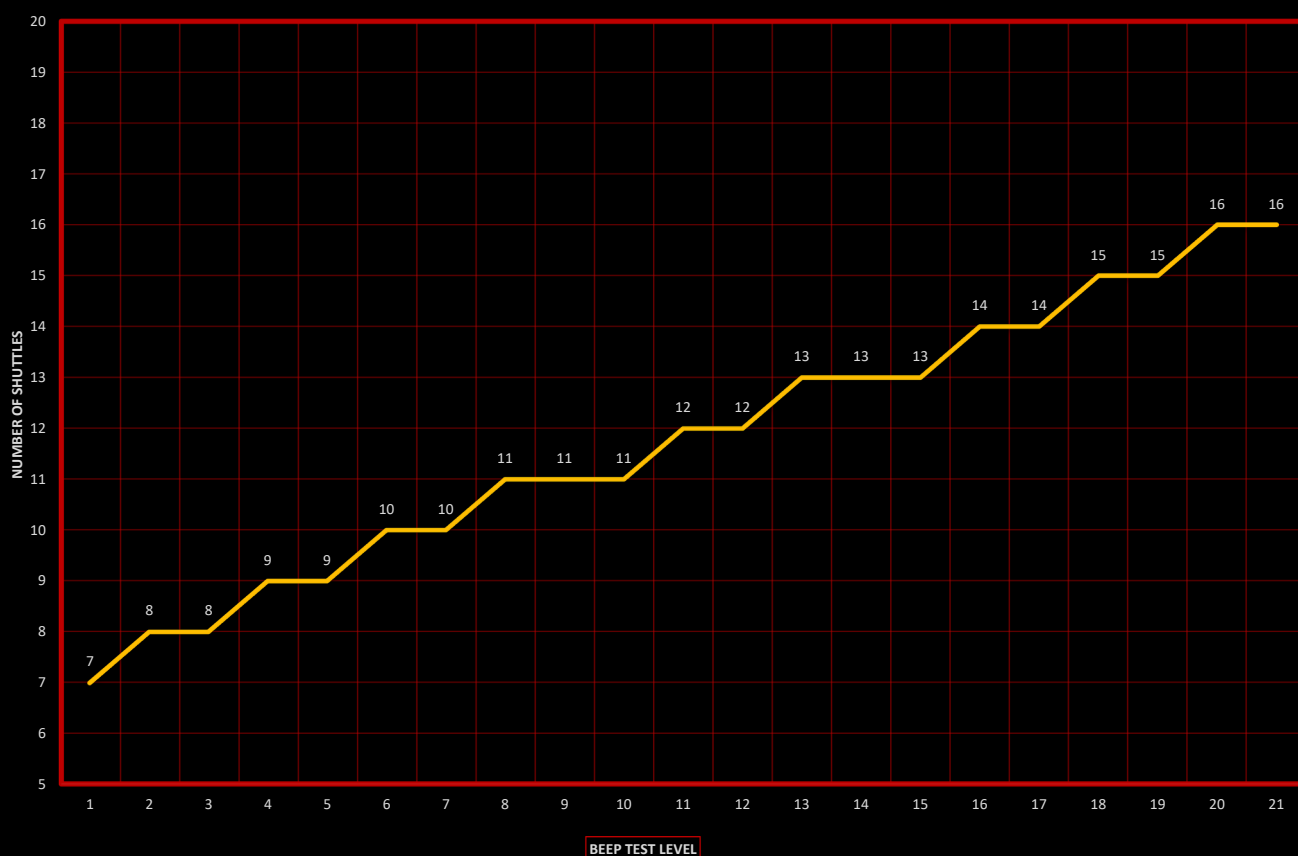
To handle more shuttles, work on speed endurance. Incorporate high-intensity interval training (HIIT), focusing on short sprints with minimal rest to mimic the test's increasing pace.

2. Enhance Recovery

Improve your heart rate recovery (HRR) by including steady-state cardio in your routine. This helps you recover faster between shuttles.

3. Improve Agility

Work on your change of direction speed. Use agility drills like cone sprints to sharpen your turns and minimise wasted time.



BEEP TEST LEVEL



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RUNNING SPEED (KPH)

This is the average (and increasing) running speed in (Kph) that you will be required to run at in order to match the beep per round.

1. Interval Sprint Training

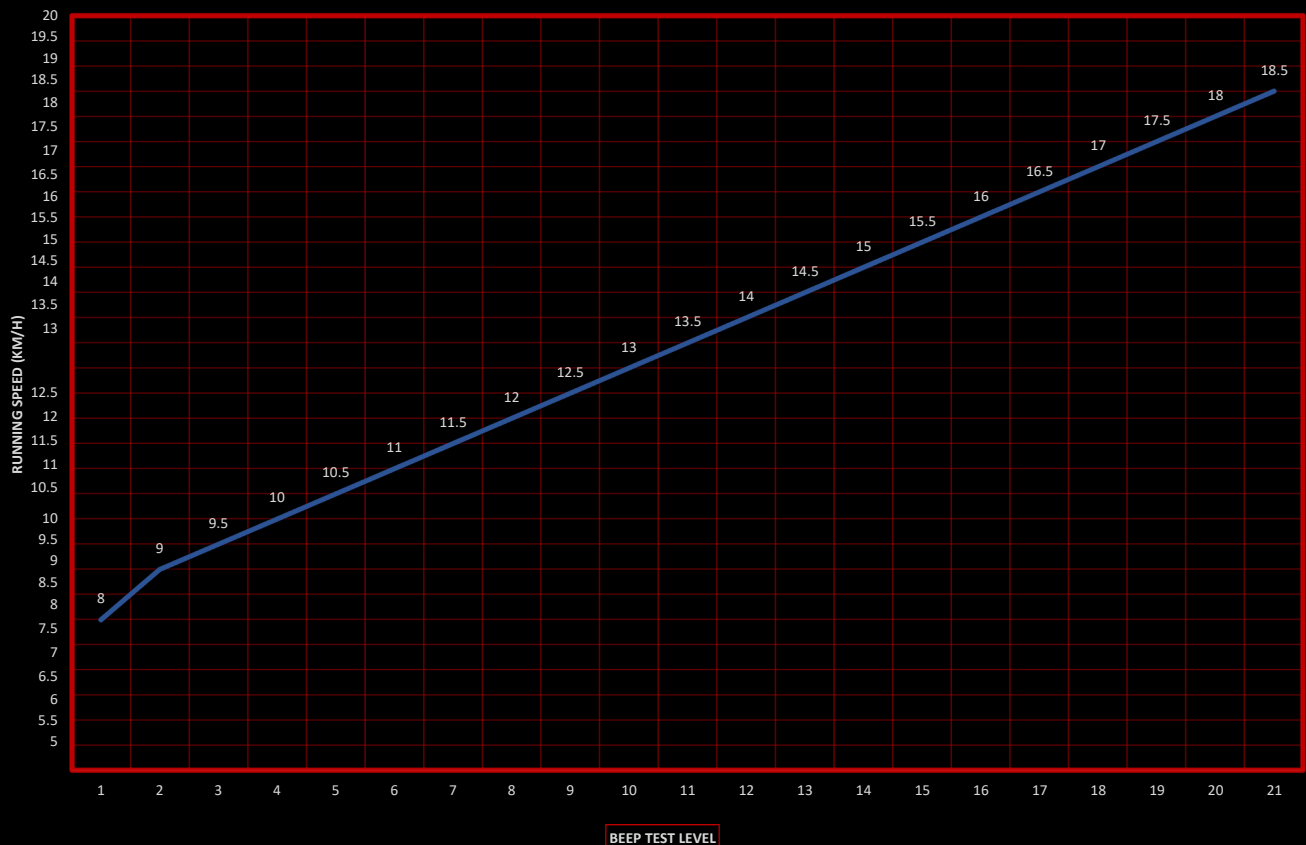
To improve running speed, incorporate interval sprints. Alternate between fast sprints and short recovery periods, gradually increasing speed to match the beep test demands.

2. Build Aerobic Capacity

Enhance your aerobic base with steady-paced runs. This will help you maintain higher speeds for longer as the test progresses.

3. Focus on Technique

Work on running form and efficiency. Keep your stride smooth and ensure good posture to maximise speed without burning excess energy.





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TIME PER SHUTTLE (S)

This is the average time taken to conduct each shuttle. As speed and number of shuttles increase, the time between each shuttle naturally decreases, due to you hitting the line quicker.

1. Improve Acceleration

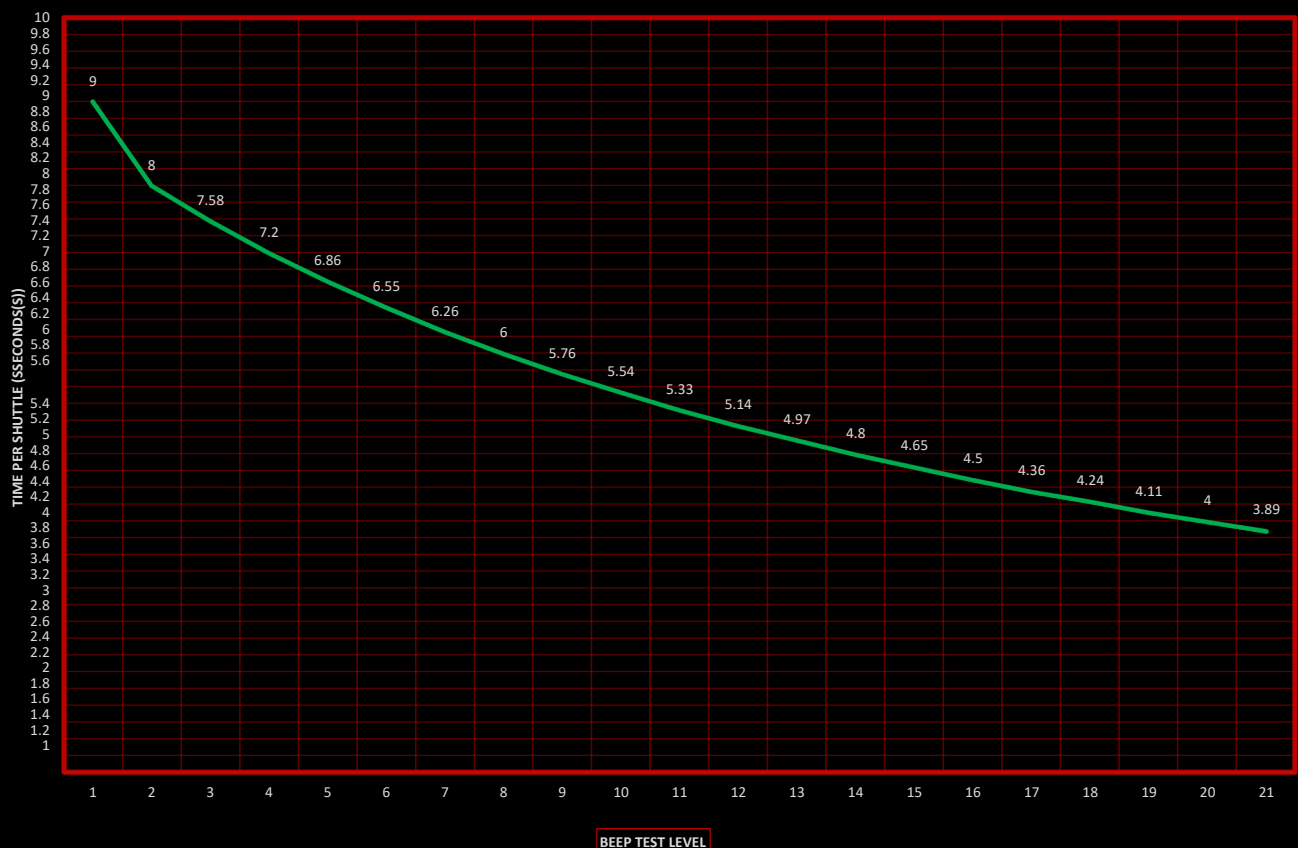
Focus on explosive acceleration from a standing start to hit the required pace quickly. Include short, sharp sprints in your training, working on a fast initial burst to reduce shuttle time.

2. Minimise Turnaround Time

Practice efficient turns at the end of each shuttle. Focus on pivoting smoothly without losing momentum. Agility drills can help reduce time lost during direction changes.

3. Enhance Recovery

Work on active recovery during the short intervals between shuttles. Improving your heart rate recovery will allow you to maintain speed as shuttle times decrease.





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TOTAL LEVEL TIME

This is how long you will spend at each 'level' of the beep test. This fluctuates unlike all other components where they either increase (speed/number of shuttles) or decrease (time).

1. Increase Endurance Capacity

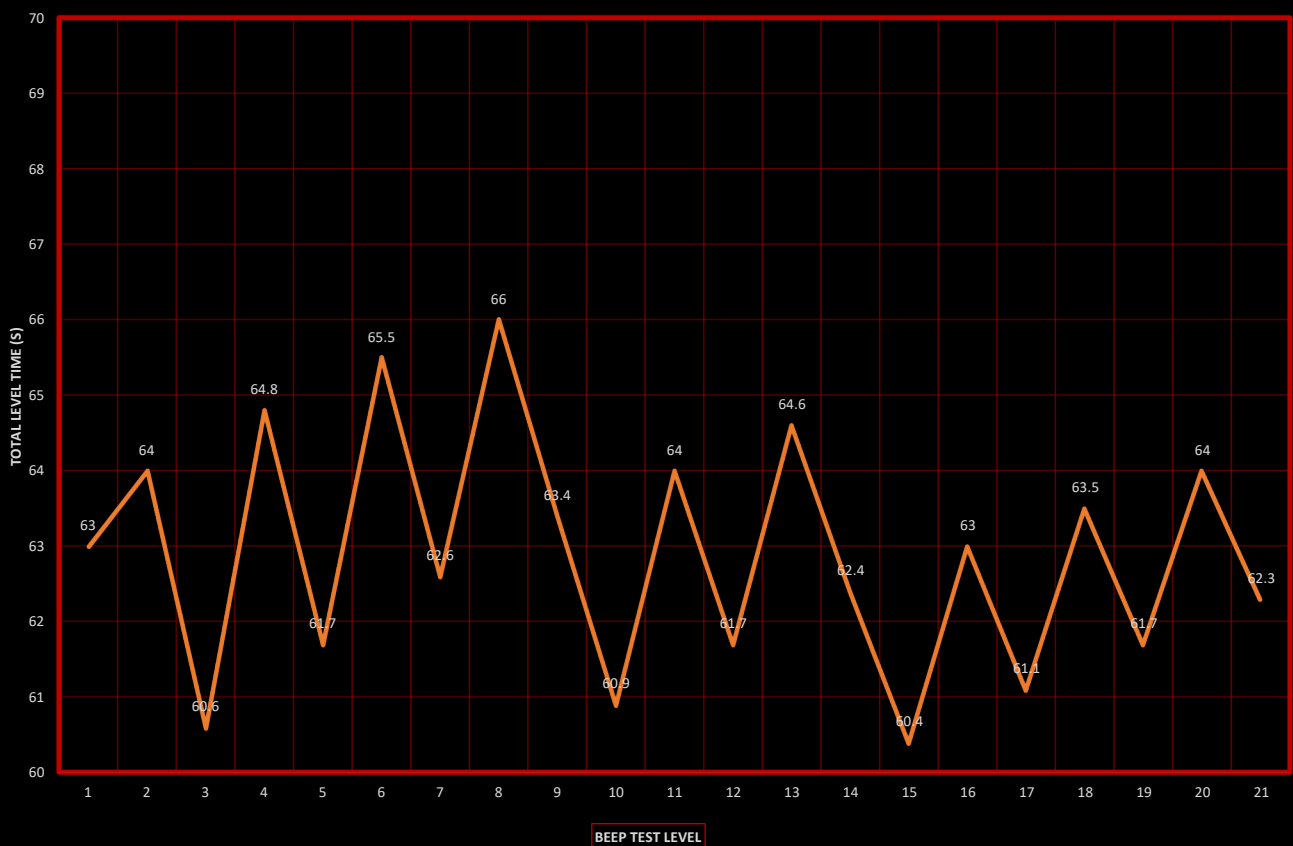
Improve your aerobic endurance through long-distance running and steady-state cardio. This will allow you to sustain effort over longer levels as the test progresses.

2. Focus on Pacing

Learn to pace yourself during the early levels to conserve energy for the more intense stages. Practice keeping a steady rhythm that gradually increases as the beeps speed up.

3. Manage Fatigue

Incorporate interval training with progressively shorter rest periods to adapt to the increasing demands of the test. This will help you maintain performance as fatigue builds at higher levels.





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CUMALATIVE TIME (MIN:SEC)

This refers to total level time added together to show you how long (accumulated) you will be running for. You can identify total time needed to complete or make certain levels of the tests.

1. Mental Toughness Training

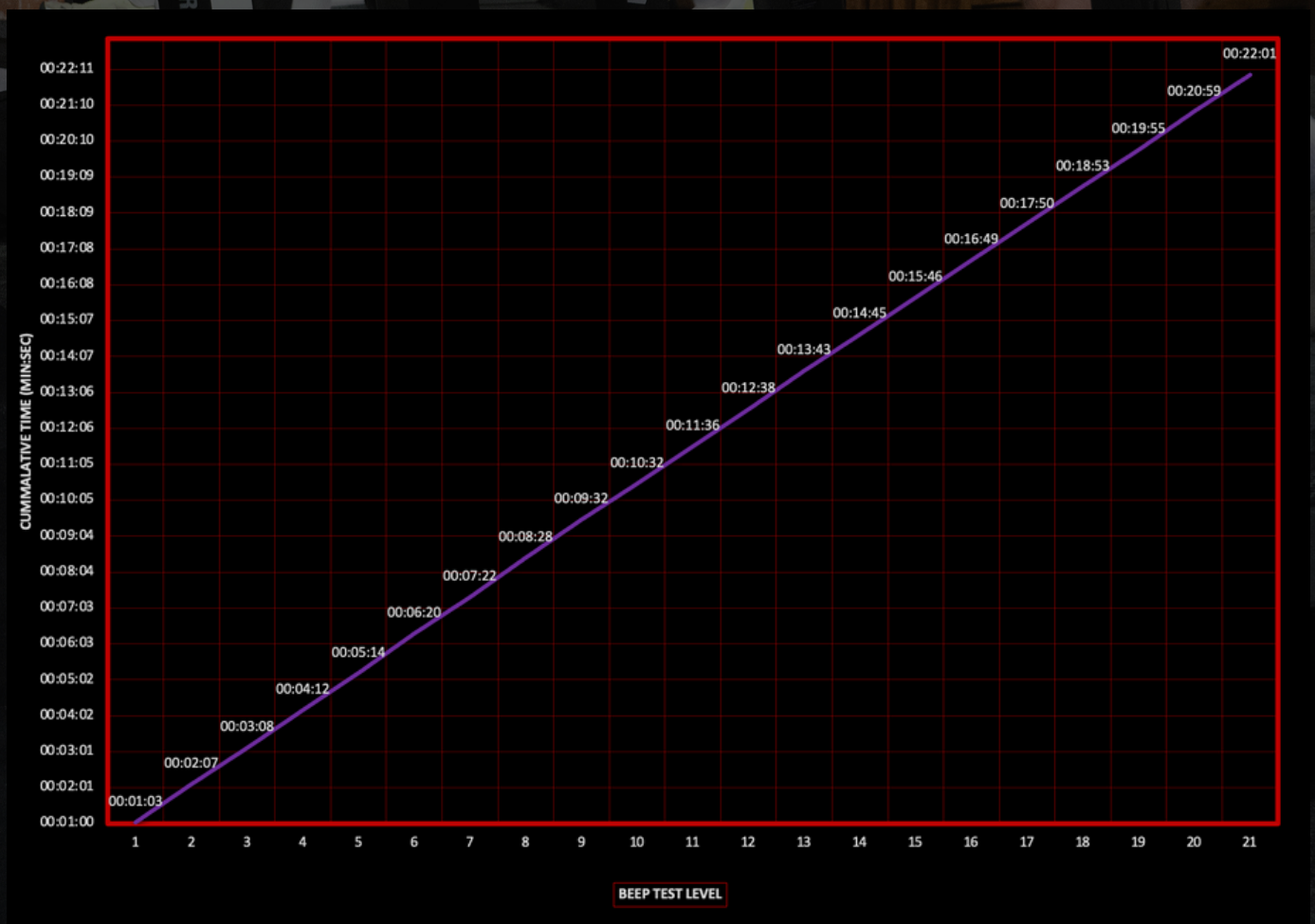
Endurance isn't just physical; it's mental. Focus on mental resilience by incorporating long-duration challenges (e.g., extended circuit workouts or time-based goals). Pushing past your comfort zone will help you stay focused and motivated when the beep test extends into the later levels.

2. Fuel and Hydration

Your body's ability to sustain long efforts is directly influenced by your nutrition and hydration. Ensure you have the right pre-test fuel (balanced carbohydrates and electrolytes) to keep energy levels stable throughout the test, especially as cumulative time increases.

3. Breathing Techniques

Master breathing control to maintain efficient oxygen intake as cumulative time builds. Practicing controlled, deep breathing during training can help delay fatigue and improve endurance in the latter stages of the beep test.





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DISTANCE PER LEVEL (M)

This refers to total distance in meters required to achieve each level. As the level increases not only does speed increase, but also how far you must travel to reach the next round.

1. Focus on Running Efficiency

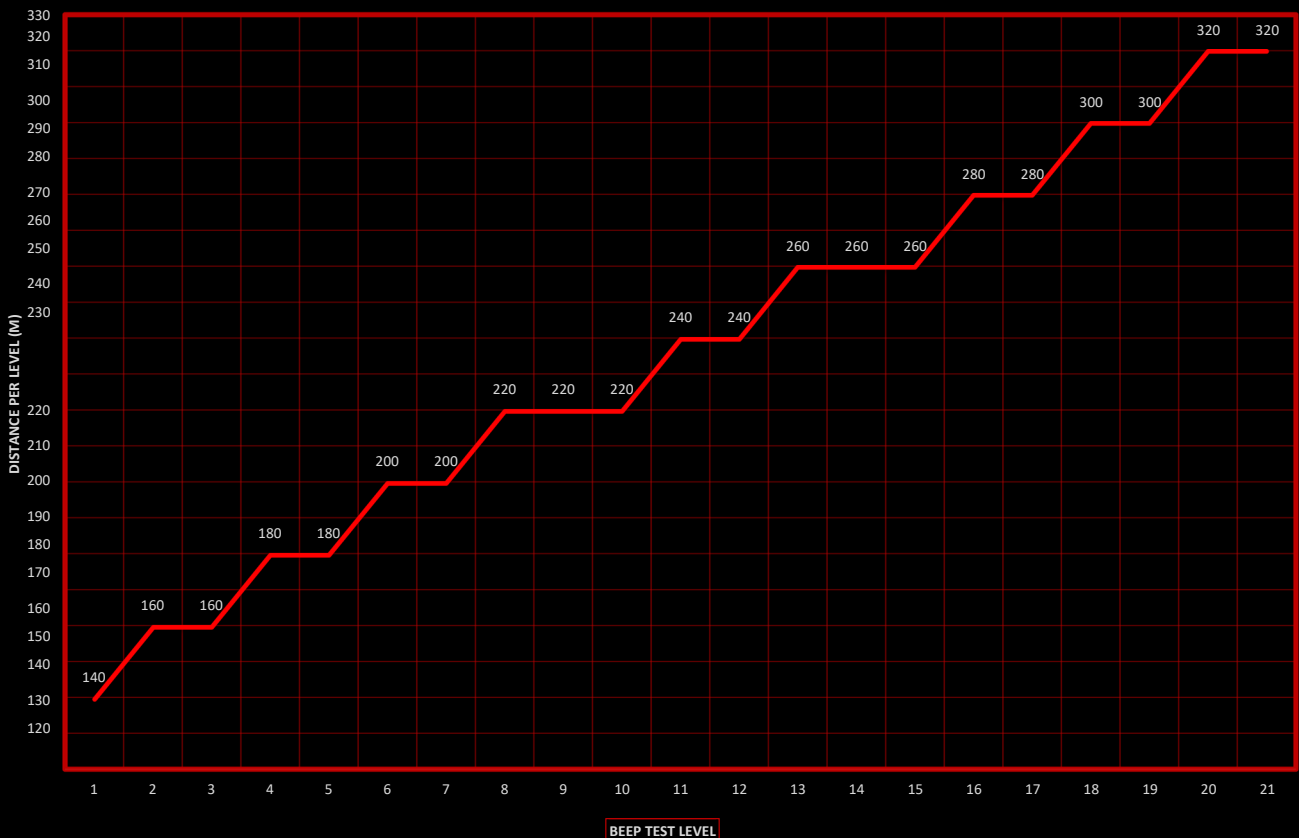
Work on improving your running form to cover the required distance with minimal energy waste. Efficient technique, including posture, stride length, and cadence, can help you maintain speed and endurance as distance increases.

2. Strengthen Lower Body Muscles

Incorporate leg strength training, focusing on exercises like squats, lunges, and deadlifts. Stronger legs will help you handle the cumulative distance and maintain power throughout each level.

3. Use Progressive Overload

Gradually increase the distance you cover in your training sessions. Whether through long-distance runs or shuttle drills, progressively challenge yourself by increasing both speed and distance, simulating the demands of the test.





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CUMALATED DISTANCE (M)

This adds total distance per level together to provide you an accumulation of distance required over the test. in meters required to achieve each level. This will show you how far (accumulated) you will run. You can identify total distance needed to complete or make certain levels of the tests.

1. Build Aerobic Endurance

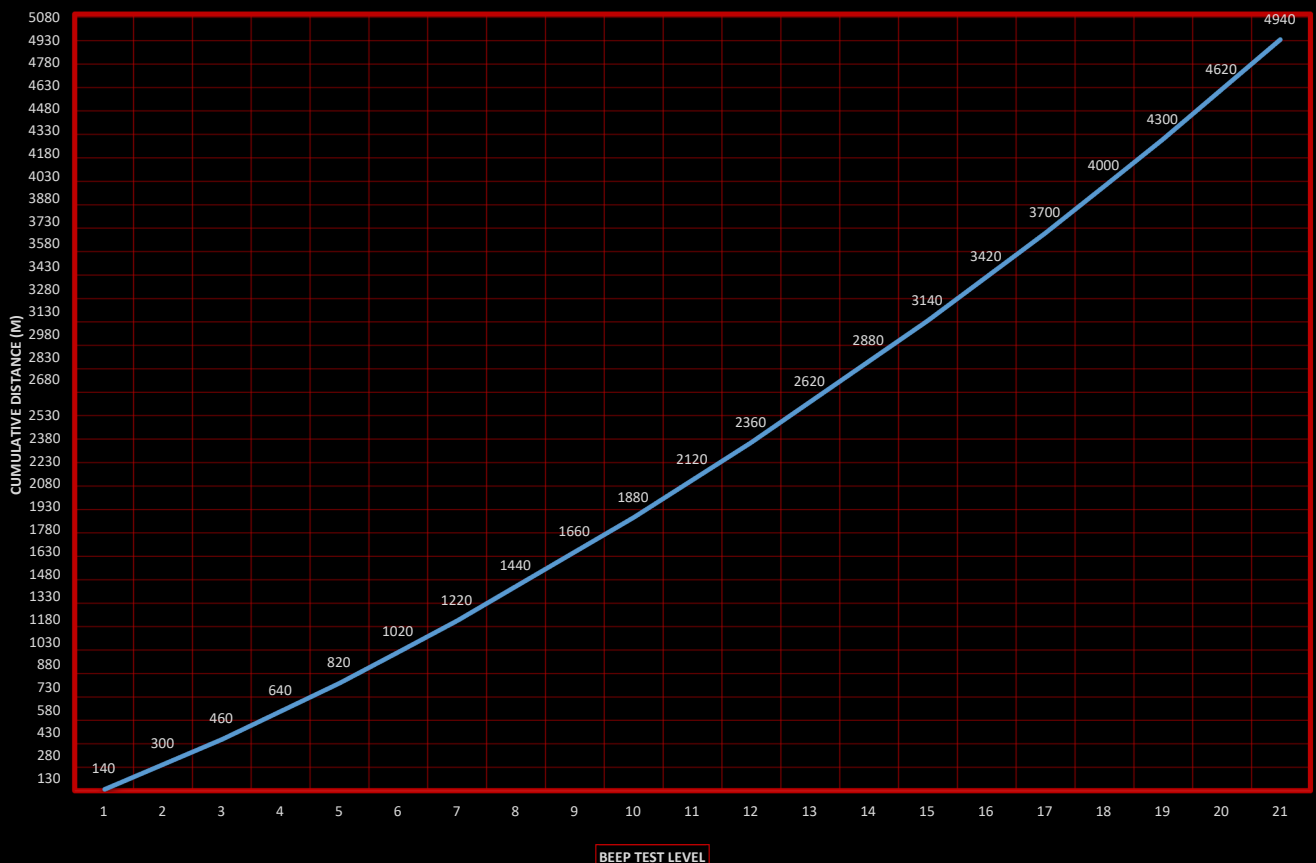
Gradually increase your weekly running volume with long-distance runs. This will build your aerobic base, allowing you to cover longer cumulative distances during the test.

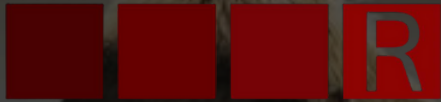
2. Improve Fatigue Resistance

Incorporate tempo runs and threshold training to enhance your ability to sustain high effort over increasing distances. This will delay the onset of fatigue, enabling you to run further as the test progresses.

3. Track Progress and Set Milestones

Use the cumulative distance data to set incremental goals in your training. Track your running distance per session and gradually push your limits, mimicking the demands of the test's increasing levels.





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DOCTORS RECOMMENDATIONS

Dr Ash spent 13 years in the British Army earning the right to wear the coveted Green Beret and British Military Parachute Wings. In the later stages of his military career, he went on to qualify as an Exercise Rehabilitation Instructor (ERI) and refined his practice working as an ERI attached to Headley Court, The Special Boat Service (SBS), The Gurkhas, Commando Forces and The Parachute Regiment.

Dr Cox has a history within elite sport as a national and international competitor in weightlifting and powerlifting. After helping redesign the rehabilitation and treatment pathway for P Company candidates, Dr Cox pursued a PhD in sports, exercise, and health science. As well as individual recommendation throughout, Dr Ash would like to offer you 5 overarching key recommendations that can help you enhance your performance and achieve the next level of excellence in the beep test.

1. Nutrition

Fuel your body with a balanced diet rich in complex carbohydrates, lean proteins, and healthy fats. Prioritize meals that provide sustained energy, especially leading up to the test. Include slow-digesting carbs like oats or whole grains a few hours before the test to avoid energy crashes.

2. Hydration

Stay hydrated throughout the day, not just before the test. Aim for 2-3 litres of water daily, and consider adding electrolytes to your water to replace salts lost through sweat, especially if training intensively or in warm environments.

3. Rest and Recovery

Ensure you're getting adequate sleep and recovery. Aim for 7-9 hours of quality sleep each night to allow your muscles to recover and your body to perform optimally. Include rest days in your training schedule to avoid overtraining, which can negatively impact performance.

4. Training

Focus on interval training and high-intensity conditioning to build speed and endurance. Structure your workouts with periods of maximum effort followed by short recovery periods. This will mimic the increasing intensity of the beep test and improve your ability to maintain performance as the test progresses.

5. Technique

Work on your running efficiency and agility. Practice sharp turns and acceleration to maintain speed during shuttle changes. Use agility drills and practice efficient, controlled changes in direction to save energy and time as you progress through the levels.

Implementing these recommendations will require commitment and effort, but we are confident that if you do so this will bring on your beep test performance immensely.

BECOME A RED ON ATHLETE
BECOME A RED ON COACH

