

Advice and Guidance Notes to Prospective Candidates

South East Coast Ambulance Service NHS Trust

As part of the selection process for ambulance/paramedic employment you will be required to complete a fitness test.

The test is designed to assess your ability to carry out peak demands of ambulance work. We feel that this is necessary to ensure that you have sufficient physical ability to cope with extreme work demands, as and when these occur, and to minimise the health and injury risks known to exist within low fitness groups when regularly engaged in such hard physical work.

The testing objectives include being able to determine heart, lung and blood vessel capacities for whole body activity, muscular strength, flexibility and body composition. The test, that should last no longer than 20 minutes in total, is physically demanding and you need to be medically fit to undertake it.

Preparing for the Test

If you have not engaged in physical activity for some time, are not used to exercise, or suspect any problems (eg heart, joint or muscle problems) that may be made worse by exercise, please consult your own GP.

Do not exercise if you have, or are recovering from, colds, flu, fever, etc. If you require any further advice about types of exercise, intensities or duration, seek the assistance of a reputable qualified fitness trainer or health club, explaining your requirements.

Suggested Exercise

Grip Strength

Perform these exercises at regular intervals throughout the day.

- Squeezing a stress ball.
- Use spring loaded grip handles.
- Squeezing a tennis ball.

Back Strength

- Swimming.
- Back raises: Sets of 10 reps. Lie flat on the floor and raise just the upper body 6-8 inches off the floor. Keep legs straight and both feet on the floor at all times.

Aerobic Exercises

20-40 minutes every other day.

- Running.
- Walking up and down stairs.
- Use a rowing machine.
- Cycling or cycle machine.

Additional Advice

To help with all exercises, do three sets of 10 reps of the following:

Upper body exercises

- Dumbbell curls
- Tricep dips
- Press-ups
- Sit-ups

Lower body exercises

- Leg extensions
- Hamstring curls
- Leg press
- Squats
- Lunges

Alternatively join a gym, explain to the personal trainer what you need to achieve, and take their advice.

If while doing any of the above exercises you experience any pain, discomfort or difficulty breathing, stop immediately and consult your GP.

The Fitness Test

The test will comprise of a number of elements, each of which is listed below.

Aerobic capacity

The test will consist of a one minute period stepping up and down a 30cm step in time to a metronome. Following this period the candidate will commence one minute of chest compressions on a mannequin.

The candidate's heart rate will be measured during the period of activity and then for a period of two minutes after exercise to measure recovery heart rates.

The candidate will be wearing a heart rate monitor throughout this test and the readings will be taken at 30 second intervals.

The candidate will be measured against the following outcomes:

- Maximal heart rate – the candidate should not exceed 90% of maximum heart rate value. This is calculated by the formula:
 $(220 - \text{age}) \times 0.9$

If the candidate's heart rate exceeds this value during exercise and looks as if the exercise is having a negative impact on the candidate the test will be stopped.

- Following exercise the candidate's heart rate should fall. We would expect to see the heart rate fall by 12 beats a minute over the two-minute period. If this fails to happen the candidate will not pass the aerobic assessment and will be advised to seek further assessment from a doctor.
- Following exercise the candidate's heart rate should fall below 120 beats per minute by the end of the two-minute recovery period. If this fails to happen the candidate will not pass the assessment and will be advised to seek further assessment from a doctor.

Back strength

The candidate will be tested on lower back strength. The candidate will be expected to achieve a pull of 100 kg.

The candidate will be instructed in safe use of the machine and correct technique before they are asked to complete the assessment. The candidate will be given two opportunities to achieve the outcome.

Grip strength

The candidate will be tested on grip strength in both hands. The candidate has to achieve a grip strength of 31kg in their dominant hand and 30 kg in their non dominant hand.

The candidate will be instructed in the safe use of the machine and correct technique before they are asked to complete the assessment. The candidate will be given three opportunities to achieve the outcome.

Flexibility

The candidate will be tested on hamstring / lower back flexibility. The test will comprise of the candidate sitting on the floor, legs straight and being asked to touch their toes. The candidate will be instructed on how to safely complete this assessment.

Lifting assessment

The candidates (in pairs) will be asked to lift a Furley stretcher with a weighted mannequin on it. This will be a dead lift from the floor to standing and then a lower to the floor. The candidate will be given instruction on safe lifting techniques before they carry out this assessment.

Further information

All tests will be overseen by a qualified instructor. The candidates will be asked to sign a disclaimer before the fitness assessments are carried out and the candidates must declare any physical or fitness problems prior to participation. The tests can be halted at the instructor's discretion if they feel the assessments are having a negative impact of the candidate's health.

The candidates are asked to bring and wear suitable clothing to this assessment and flat shoes. The test will not be completed if the candidate is not wearing appropriate footwear.

A candidate has to pass all elements of the fitness assessment in order to progress.