

Fitness Assessment Information – Please read carefully

Staffordshire Fire & Rescue Service recognises the vital importance of good health and fitness to enable the role of operational Firefighters to be carried out safely and effectively. All operational personnel are required to undergo a Fitness Assessment to evaluate their aerobic capacity upon entry into the service.

Aerobic capacity is a measure of how much oxygen your body is able to take in and utilise. It is a good measure of how someone is able to perform aerobically (in the presence of oxygen) over a prolonged period of time – which is vital for the role of a Firefighter. Aerobic capacity is measured in $\text{ml}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ and for entry level selection, new recruits will be required to attain at least $42 \text{ ml}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ (irrespective of age or gender) before proceeding to the job related tests. The fitness assessment will consist of two parts and will take approximately 30 minutes:

Static Health Assessment: Blood pressure, weight, BMI, waist circumference. A blood pressure of below 160/100 mmHg is required to proceed to the physical fitness assessment.

Fitness Assessment: either a sub-maximal prediction, using the Chester Treadmill Test (CTT), or a measurement using Gas Analysis (use of a breathing mask and monitoring system to measure breath by breath oxygen consumption) using an adapted CTT, incorporating a ramped protocol. Throughout the test you will be constantly monitored for your safety, which may result in the test being halted prematurely. In addition you are in control at all times and can stop should you feel uncomfortable in any way.

If new recruits do not meet the required standard of $42 \text{ ml}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$, but fall between $35 - 42 \text{ ml}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ they *may* be offered a retest, subject to the degree of failure and the likelihood of future success. Where future success is likely, and if required, the applicant may be offered advice to facilitate obtaining the required standard. We reserve the right to recommend one retest, usually within a 4 week period, deferment or no test.

Chester Treadmill Test Protocol:

Operating at a set speed of 6.2km/hour (3.9 mph) with incremental incline level changes over 12* minutes duration.

*When incorporating gas analysis a slightly longer duration and/or speed increase may be required to obtain an accurate reading. We would usually expect a test to last no longer than 15 minutes, although this is likely to depend upon individual fitness levels

Warm up: Gentle loosening and limbering; walk on treadmill at 0% for approximately 3 – 6 minutes; gradually increasing the speed to 6.2km/hour (3.9mph), then the test can commence.

TIME (Mins)	2	4	6	8	10	12
Gradient (%)	0	3	6	9	12	15
RPE	<14	<14	<14	<14	<14	<14
VO ₂ ml·kg ⁻¹ ·min ⁻¹	14	19	25	31	36	42

Please ensure that you are adequately hydrated and wear appropriate clothing and footwear for exercise (trainers, t-shirt, shorts or tracksuit).

It is your responsibility to inform us if you are currently taking any medication or have suffered a recent illness or injury which may affect your ability to undertake the tests safely or satisfactorily. Please complete the enclosed Physical Activity Readiness Questionnaire (PAR-Q) and return to the Service Health and Fitness Advisor at least 10 days prior to attending for your fitness assessment.

A good starting point to prepare for the assessment if you do not currently follow a regular aerobic training programme would be to do a minimum of 3 aerobic (brisk walking, jogging, running, cycling, rowing) sessions lasting a minimum of 30 minutes at a high intensity (above conversation pace, so you are likely to feel breathless). If you consider your fitness level to be low at present it can take several weeks to increase this to a level where you will be able to pass the Fitness Assessment. We strongly advise early preparation and draw your attention to the 'Preparatory Fitness Programme' booklet in your recruitment pack.