

# Health and fitness for firefighting



## Why do I have to be healthy and fit?

Extensive research by fire agencies places emphasis on cardio-respiratory (heart/lung) fitness, muscular strength and endurance as a means of ensuring that firefighters have the capacity to perform firefighting and planned burning tasks for long periods under arduous conditions.

Individuals with higher levels of fitness are able to meet the demands of these roles better. They are able to combat fatigue and cope with heat and sustained fireline work in smoke and dust.

Fitness also leads to reduced injuries, lower stress and safer work. Only people who are deemed to have suitable health and fitness will be offered on ground positions.

## How does NPWS determine health and fitness levels?

### Health

Part of the selection process is a specific medical assessment. This pre-employment medical will be conducted by a contractor nominated by NPWS. The medical will be paid for by NPWS.

### Fitness

Part of the process is a test of suitable fitness levels by the use of a Task Based Assessment. A successful assessment is required for this employment.

## What is a Task Based Assessment (TBA)?

TBAs are physical tests that model work undertaken in the field.

TBAs do not simulate fire conditions such as heat, smoke and dust that are likely to be found on a fireline or prescribed burn.

They are used to ensure that employees have the range of physical skills required to fight fires. These do not alter for age, race or gender, making it fair and equitable for all applicants.

All applicants applying for firefighter roles must undertake the pack hike test and a rake hoe test.

## What is the pack hike test?

The pack hike test assesses your fitness ability. It is a test of aerobic fitness and muscular endurance.

Participants must wear appropriate footwear and clothing. Footwear should have a tread sole, such as hiking boots or runners/sports shoes. Open styles of footwear such as thongs and sandals are not permitted. Recommended clothing includes loose fitting long or short sleeve shirts, long or short pants. Hats and sunglasses should be worn for additional sun protection.

## Who must complete the Task Based Assessment?

All categories of firefighters must successfully complete the Task Based Assessment to be considered for firefighting roles.

## What does the Task Based Assessment involve?

| Rating | Name                   | Pack Hike Test  | Rake Hoe Test  |
|--------|------------------------|---|--|
| A      | Arduous Pack Hike Test | 4.83km walk carrying 20.5kg in 45 minutes.  | To continuously construct a mineral earth rake hoe line to a width of 50 cm by achieving 165 strikes in less than 3 minutes. |
|        |                        | Individuals who weigh 68kg or less are eligible to carry a lesser weight of 15.4kg. |  |
| B      | Moderate Field Test    | 3.22km walk carrying 10.0kg in 30 minutes.  |  |
| C      | Light Walk Test        | 1.61km walk carrying 0kg in 16 minutes.   | To continuously construct a mineral earth rake hoe line to a width of 50 cm by achieving 120 strikes in less than 3 minutes. |

## How do I get firefighter fit?

Check with your doctor before starting any new fitness training program or dramatically increasing the one you are currently in if you:

- are over 40 years of age
- have experienced faintness, light-headedness or blackouts
- have experienced unusual heartbeats such as skipped beats or palpitations
- have ever been told that your blood pressure is abnormal
- have high cholesterol
- have ever had heart trouble or a heart attack
- have a family history of heart problems
- have any major illnesses.

Make sure that any program you undertake has a warm up, conditioning and cool down phase.

### Remember

- Never exercise if you are feeling unwell or in pain.
- Stop any exercise that causes pain immediately and see a doctor.
- Keep a record of what you have achieved with goals set along the way.

Always check your heart rate while exercising. As a guide, in training your heart rate should be around 75% of the maximum.

Calculate this by:  $(220 - \text{age}) \times .75 = \text{training heart rate}$  (note your heart rate can go above and below this figure).

The recommended minimum training sessions are:

- 30 minutes, 2 to 3 times per week to maintain fitness
- 30 minutes, 4 times per week to increase fitness.

## Training for the pack hike test

The best way to train for the pack hike test is to take a staged approach to the walk. Start by walking the pace required, even if you only walk 1/2 or 1/3 of the total distance to begin, i.e. walk 1610 metres in 15 minutes. Progress to 2415 metres in 22.5 minutes. Then to 4830 metres in 45 minutes.

Then in the same pattern slowly add weight to the pack. If you are unable to increase the weight an increase of 5% in gradient is equal to 5kg, so try walking up hills.

Always make sure that you are wearing a suitable pack and that it is adjusted correctly, with the weight placed high on the back and close to the body.

Wearing of a pack while walking at this pace has been known to cause friction burns, possible sites include lower back, armpits and hip points. Make sure clothing is not bunched, has no seams in these areas and stop and re-adjust pack and load if you feel any discomfort.

### Always train with care

This information is only a general guide. Your ability to pass these tests will depend on advice from your doctor and your fitness level.