

‘Fit to Pass’

Bleep test only

**The Job related fitness test
Advice on the test and training**



Know what your test involves

Ensure that you can pass

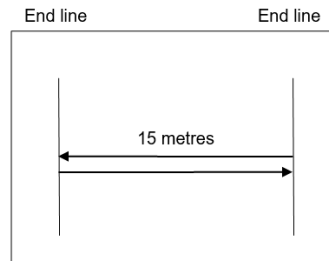
Improve your cardiovascular (CV) fitness

Know what your test involves

The general annual test is for substantive officers of all ranks and applicable staff where specified.

Test Format

- Bleep Test – pass mark level 5.4



The test involves running between two lines that are 15 metres apart, arriving at each end line in time with a series of audio beeps. At the end of each level the time interval between each beep will decrease meaning you need to run faster to keep in time. The lines are marked with cones at each end to denote the turning point. At the start, participants will be taken through a warm up, the nature of the warmup varies depending on the force you are joining.

For Dorset Police, the first part involves running to the start of Level 3. Thus, giving you the opportunity to understand the bleep system as well as warming you up. The test then starts back at Level 1.

For Devon & Cornwall Police the warm up consists of gradually raising your heart rate, in between the lines, to denote the specific area for the test. This will then be followed by general mobilisation of the joints relative to the test, including pulse raisers and active stretches specific to the major muscles used in the test.

Bleep Test (Shuttle Run) explained		
Required Level is 5.4 = 5 levels and 4 shuttles		
Total time	Distance Covered	Shuttles completed
3min 35seconds	525metres	35
Levels	Shuttles per level	Approximate seconds per shuttle
1	7	7
2	8	7
3	8	6
4	8	6
5	4	6

Improve your cardiovascular fitness

Please note: The normal process is if you are not used to exercise it is advisable to get yourself checked by your doctor before you start. However, due to COVID-19 we would not encourage those who may approach their GP to put extra pressure on an already stretched service. Therefore at this time we recommend delaying this process.

Always **warmup** before a session and **cooldown** afterwards!

See page 6 for more information on warmups and cooldowns.

Endurance element:

Rhythmic, aerobic type exercises involving large muscle groups are recommended for improving cardiovascular fitness i.e. running, cycling, swimming, rowing, or use of machines such as a cross-trainer to reduce impact. If running outdoors, try to run on softer ground and not always on tarmac to reduce the effect of impact on the joints.



Progress depends on your health status. It may consist of increasing any or all of the following; duration, intensity or frequency of activity. Any progression should be made gradually avoiding large increases to minimise risks of muscular soreness and injury.

In order to make gains your system must be overloaded, i.e. work harder than normal.

Guidelines

Aim for three CV training sessions per week of 30 to 60 minutes duration and two strength based sessions, of the same duration. For the CV sessions, work at approximately 55% to 90% of your maximum heart rate. Each of the sessions should vary as per the below explanation.

If you don't have a heart rate monitor, a good gauge is when you are at your lowest levels (55%) you should be able to carry out a normal conversation. Whereas, at the highest levels you will be out of breath and only able to maintain the level of exertion for shorter periods of time. Or put another way you are working hard and feeling puffed.

(To roughly calculate your maximum heart rate: 220 minus your age i.e. 220 – 40years = 180 beats per minute maximum. 75% would therefore be 135bpm.)

As your aim is to run in the test, ideally your training should include running.

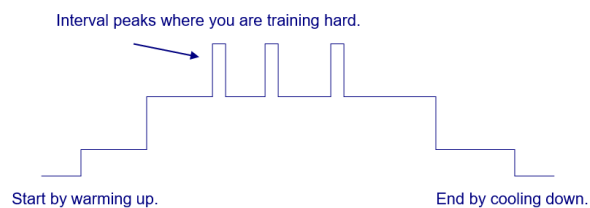
Don't overdo it though. One run could simply be a run at your own pace that over the weeks extends in duration so you are building up stamina. Another session could push boundaries (see interval or progressive training below). Running is a high impact activity so it is important to vary sessions allowing your body time to recover. Additional sessions could be anything low impact that raises your heart rate, i.e. cross trainer, rower, swimming, cycling etc.

Interval Training

Interval training consists of repeated workouts interspersed with recovery periods. The bursts of harder work allow your body to adapt to the training effect.

Example:

Once warmed up, run at your normal pace for five minutes. Then for 30 seconds to a minute, sprint as fast as you can without stopping, before returning to your normal pace to recover. Once recovered, repeat the short sprint and recovery. Aim for three times initially and then increase as your fitness improves. Ensure the last five minutes are at a normal running pace and then cool down including stretching of the main leg muscles to end.

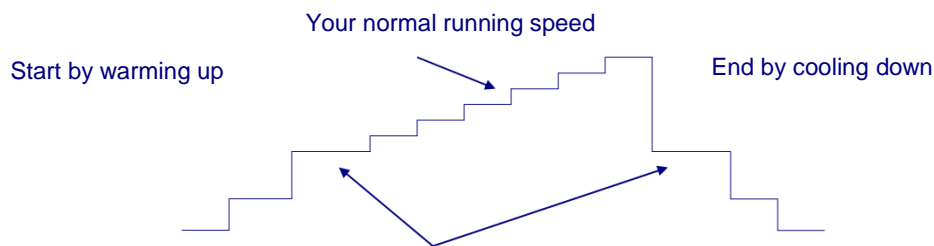


Progressive Training

Progressive training comprises of increases in intensity until high intensity is reached (80%) and then maintaining at that level for a length of time that is achievable. Initially during this programme the time will be short, around only five minutes, but should increase to at least 20minutes of constant 80 – 90% for longer periods. This mirrors the demands of the fitness test albeit without twisting and turning which if done repeatedly in training could increase risk of injury.

Example:

Once warmed up, run at your normal pace for one minute. Then every 30 seconds increase the pace slightly until you reach 80%. Toward the end of your workout you will be running at near max effort and only able to sustain the speed for a short period of time, approximately five minutes gradually increasing over the programme to 20minutes if possible. At this point, reduce speed substantially but keep running until you recover. Then run at a slower pace for a further five minutes and cool down.



Note: Both methods can be adapted to a variety of exercises or sports.

Rest

Don't overdo your training!

This shouldn't be viewed as not actively participating in training, but as improving nutrition and re-balancing your health by resting and sleeping well. So if you are feeling overtired prior to starting the next week's training, tone down or reduce the sessions according to how you have rested.

Rest should consist of one or two rest days a week, this will allow your body to adapt to the increased demand without breaking.

Starting Out

Remember, if you are not used to exercise it is always a good idea to get your doctor to check you out before starting.

Always start at a lower intensity & duration to allow your body to adjust to the new demands you are placing on it.

Progression

A programme should progress over a four to six week block of training. You should assess your standard at the start, and in the final week of the block. Depending on how you are feeling and responding, you should test again to see if you are improving, or how you then need to adapt your next four-six week block.

You can improve your fitness by increasing any, or a combination of, the below:

Frequency: Gradually build up the number of times you exercise a week.

Intensity: Gradually build up the effort you put into the activity. Slowly increase the intensity of each session i.e. the amount of work your heart and related systems have to do. A simple example would be to initially walk, then to walk with running intervals in between and eventually build up to running the whole way. Then it would be a matter of running faster each time or up hills etc to make your heart work harder.

Time (Duration): Gradually increase the amount of time you exercise. As you increase your fitness you will be able to exercise for longer, an initial 10 minute run could increase over time to 30 minutes or more.

Type of activity: The type of activity can vary in its level of demand on the body. Walking at a brisk pace on the flat would be a low level of demand. Walking up hills would increase the demand, start running and it increases further. Likewise the demand of a strength building exercise such as a free squat could be increased by adding dumbbells and further increased by adding more movement i.e. a squat to shoulder press.

Warm Up

You should always 'warm up' before commencing exercise and 'cool down' on completion. Each should last about five to ten minutes.

Your warm-up should start without much physical effort and moving gradually to a dynamic warm-up which concludes at a physical state equal to that required by the activity to follow.

Warming up helps prepare muscle groups for exercise and helps prevent injury. Hold stretches gently for 5-10 seconds.

Cooling down can assist in dispersing lactic acid that occurs during exercise and training. Hold stretches for 15-30 seconds.

The following exercises and volume is an example you may like to follow as a general warm-up:

Exercise	Volume
Jog – Easy jogging pace with turns every 50m, increase speed gradually.	6-8 x 50m
Ankle Rotations – Standing on one leg draw large circles with the toes of the elevated foot.	8 repetitions in both directions for each foot
Walking Lunges – Walk in a controlled and continuous way. Gradually lower the knee of the back leg to the ground.	40m
Standing single leg calf raise – On one leg perform dynamic heel raises. Ensure a controlled return.	8 repetitions per leg
Walking with high knee drive – While walking drive one knee high into the chest with a flexed ankle and drive the opposite arm to shoulder height.	40m
Parallel squat – With feet at shoulder width apart, squat down to where the thighs are parallel with the ground while keeping chest upright.	10 repetitions
Front lunge - Alternating steps forward with a strong drive off the ground with front foot and stable trunk, arms and head.	8 repetitions per leg

Jogging carioca - Sideways running Italian football style, trail leg to move past the lead leg, once behind then in front, with exaggerated hip rotation.	2 x 40m each way
Lateral lunge - Sideways step with a strong leg drive back to the midline and a stable trunk, arms and head.	8 repetitions per leg
Jogging buttock kicks - Forwards jogging with exaggerated knee flexion to bring feet up towards the buttock, fast legs slow travel.	40m
Shoulder shrugs - Draw large circles with the points of the shoulders, to the back and the front.	10 repetitions each way
Prone leg curls - Flex each leg at the knee joint, by attempting to curl your heel/foot to your buttocks. Imagine trying to actively kick your buttocks as the exercise should be done at speed, not slowly.	8 repetitions per leg
High knee skipping - As in walking with high knee drive but more explosively so that a skip is performed between each step.	40m
Straight arm circles - Move the arms in large circles past the ears and the side of the body.	8 repetitions each way
Standing hamstring kicks - Standing on one leg perform a controlled straight leg kick with gradually more vigour.	8 repetitions per leg
High knee carioca - As in jogging carioca, but now when the trail leg is passing to the front, lift the knee high by flexing at the hips.	2 x 40m
Sumo squat - With heels shoulder width apart, turn the feet out as far as possible, then gradually squat while keeping a stable trunk.	10 repetitions
Back slaps - With arms stretched out and away from the body to the horizontal, vigorously cross your arms over your chest and slap your back. At the same time rotate through your trunk and then open your arms in a controlled, vigorous manner and repeat.	10 repetitions
Shuttle sprint - Perform four continuous 5m sprints with alternating turns, gradually increasing the speed and effort, rest for 15 seconds and repeat.	2 sets (4 x 5m) 15 seconds rest

The cool down should include stretches as above and controlled breathing to help lower the pulse rate gradually. During the cool down the stretch can be held for between 15 - 30 seconds. Be careful not to overstretch.

Resistance Training

Resistance training is important to maintain a healthy musculoskeletal system. This form of training can help maintain healthy bones, stature, carriage and posture. It can also help offset some conditions such as osteoporosis.

Strength Resistance Training

The best way to improve strength in the muscles of the upper and lower body is performing resistance exercise, by using body weight, free weights or resistance machines.

A degree of strength in the arms, shoulders, chest, back muscles and lower limbs is essential for general fitness but for the bleep test we have added some specific lower limb exercises.

To improve strength, the muscles must be made to work against heavy resistance that is not normally encountered, i.e. they must be overloaded.

As strength increases, it will be necessary to progressively increase the weight so as to maintain the muscle overload. This is known as progressive resistance.

The most relevant weight training exercises to develop strength specifically for pushing and pulling are exercises such as bench press and seated row, but any resistance exercise that involves pushing and pulling will be of benefit.

General resistance exercises using weights or the body as resistance are also good for developing grip strength and have the added benefit of improving the strength of other muscle groups. It is advisable to try and include weight-training exercises in your overall programme along with the more isolated exercises. However, if resistance machines or weights are not available, resistance bands or suspension training straps are a great alternative.

1. Find your maximum, i.e. the amount of weight you can push only once. (If it is your first time weight training guess at a weight you can repeat approximately 20 times - go straight to point number three)
2. Train with a weight that is no less than a third of your maximum but no more than half.
3. Work on 20 repetitions progressing to 30.
4. Raise the weight when you can achieve 30 repetitions and return to 20 repetitions.
5. Only one circuit is necessary but you must work to failure.

Strength

Strength is the ability of the muscle or group of muscles to increase function against a resistance achieving greater muscle mass and change in muscle shape.

This form of training builds up strength at the expense of speed. Therefore strength training should be accompanied with lighter weighted, normal speed or even increased speed exercises that are done to a faster than normal tempo, either at the end of the session, during, or as a

separate session. This is to ensure we don't slow muscle activation significantly as a result of doing strength training. It is a base on which your power circuit will be developed. You must follow a strength circuit for a period of four weeks minimum before progressing to power.

Calculating your strength circuit:

1. Find your maximum.
2. Training with two-thirds of your maximum.
3. Work on low repetitions of two or three but no more than five.
4. Raise the weight or increase the sets when you achieve five repetitions and return back to two or three reps.
5. Only one set is necessary at first, then progress to a maximum of four sets.
6. Remember, we suggest two strength or power sessions per week, so choose which one suits related to your response during the four to six week block in the other three sessions.

Power

Power is the ability of a muscle or group of muscles to increase function against resistance with speed, achieving greater muscle mass, change in shape and speed.

This is the ultimate form of weight-training. It develops strength with speed.

You can use a countdown timer on your phone, or an App such as GymBoss to time your exercises. To download please see the following links; [Apple Store](#), [Play Store](#).

Remember, full range of movement and quality are more important than quantity.

Calculate your power circuit for endurance with power as follows:

1. You should already know your maximum, however, it may well have risen since your strength training started, so re-set.
2. Train with two thirds of your maximum.
3. On the command 'Go' work on 15 repetitions as quickly as possible. Your partner must start the timer on 'Go' and stop the timer when you complete your fifteenth repetition.
4. Try and go faster each session until your time plateaus off.
5. Add on five more repetitions to make it 20.
6. When the time plateaus off again add five more repetitions to make 25.
7. When your time plateaus off on 25 repetitions, raise the weight and stay on 25 repetitions.

Calculating your power circuit for strength with power:

1. As above until number five.
2. Add more weight and reduce your repetitions to 10.
3. When the time plateaus off again add five more repetitions to make 15.

4. When your time plateaus off again at 15 repetitions, add more weight and reduce to 10 repetitions.
5. Remember, with this type of weight-training the danger of injury is increased - warm up thoroughly.

Strength Related (Upper Body) Resistance Programme

As a specified method for preparing for any strength test try the following resistance programme that includes pushing and pulling exercises.

In order to gain strength, it is important to use a reasonably heavy resistance, which can be anything between 75 - 90% of your one repetition max with no more than six repetitions:

Exercise	Reps	Sets
Bench Press	6	3
Bicep curl (dumbbells)	6	3
Upright row (barbell)	6	3
Seated row	6	3
Seated lateral pull down	6	3
Assisted chins – Over grasp	10	3
Assisted chins – Under grasp	10	3
Seated shoulder press	6	3
Peck deck	6	3

Intermediate or power related (lower limb) Resistance Programme

Exercise	Reps	Sets
Prone leg curl	10-15	3
Hip abductors	10-15	3
Bicep Curl (dumbbells)	10-15	3
Leg extension	10-15	3
Hip abductors	10-15	3
Squats (Smiths machine)	10-15	3
Toe Extensions	10-15	3
Leg lunges (with dumbbells)	10-15	3
Leg press	10-15	3

The equipment, exercises and muscles used

To devise your own circuit choose nine exercises to work all muscle groups:

Equipment	Exercise	Muscles used
Leg press	Toe extensions Leg press	Ankles and calves Thighs and buttocks
Bench press	Flat / angled chest press	Chest
Leg extension		Thighs
Leg curl		Thighs and buttocks
Low pulley	Upright row Bicep curl Seated row	Neck, shoulders, biceps Biceps Neck, shoulders, back
High pulley	Seated lat pulldown Tricep pushdowns	Lats Triceps
Adjustable pulley	Side lateral raises	Shoulders
Cable crossover	Fly curls Reverse fly curls	Chest and shoulders
Assisted chins	Over grasp Under grasp	Lats and biceps Lats and biceps
Dips	Seated or full	Chest, shoulders, triceps
Abductor station	Seated thigh abduction	Hips, thighs, buttocks
Total hip machine	Hip extension / flexion Leg abduction /	Hip flexors / extensors Abductors
Seated shoulder press	Military press Behind neck press	Neck, shoulders, triceps Neck, shoulders, triceps

Abdominal Conditioning (Core Stability)

'Core stability' describes the ability to control the position and movement of the central portion of the body. Core stability training targets the muscles deep within the abdomen which connect to the spine, pelvis and shoulders. These muscles assist in the maintenance of good posture and provide the foundation for all arm and leg movements.

Good core stability can help maximise running performance and prevent injury. The ability to maintain good posture while running helps to protect the spine and skeletal structure from extreme ranges of movement and from the excessive or abnormal forces acting on the body. Simple exercises such as leg raising / lowering, leg extensions, crunches and hamstring raises are all beneficial.

Positive Action



We aim to employ a representative workforce that reflects the diversity of the communities we serve and attracts the best talent from the widest pool of people. However, some groups of people are currently under-represented in our workforce as a whole, or in particular positions.

We particularly encourage applications from the following under-represented groups to join our police family:

- Young people
- BAME communities
- People with disabilities
- Women
- Lesbian, gay and bisexual
- Transgender

In order to achieve this we are proud to pursue a policy of 'Positive Action'. Positive Action refers to a range of measures and initiatives that we provide to actively encourage and assist individuals from under-represented groups to apply to work for Dorset Police. All selection procedures are the same and final selection is based solely on merit.

If you are from an under-represented group and are interested in finding out more information, we invite you to make contact with our Positive Action Team to discuss what assistance we can provide. To find out more, visit www.dorset.police.uk/pa or www.dc.police.uk/pa.

Staff Support Groups

These play a very important role in our organisation, empowering employees and officers from under-represented groups to have their voice heard at all levels of the organisation. The groups act as support mechanisms and undertake advocacy and representative roles. They enable the Force to involve and consult staff from a range of diverse groups on a variety of issues including its people policies and processes. Support groups in the Force include the LGBT Network, Christian Association, Black and Minority Ethnic Group, Mental Wellbeing Network and the Women's Network.

To find out more, visit www.dorset.police.uk/staffsupport or www.dc.police.uk/staffsupport.

Help

If you have any questions, you can contact the Fitness leads for D&C and Dorset as below. For queries relating to any of the named exercises in the first interest please utilise resources on the internet.

D&C – Ross Barbour Ross.Barbour@Devonandcornwall.pnn.police.uk

Dorset – Louise Dutch Louise.Dutch2@Dorset.pnn.police.uk

Bleep test - Download the 15m bleep test on the PoliceUK.com site. Occasionally access to this download is not possible but if this happens, you can access via the website, bleep test downloads such as https://download.cnet.com/Bleep-Test-15m/3000-2129_4-75003027.html