

Welcome to the official British Army fitness programme. This exclusive six-part series of booklets has been developed by the Army Physical Training Corps to offer you a comprehensive guide to getting fit, based on the actual exercises and activities the Army uses to train soldiers. Each day, a different aspect of training will be covered in detail, including running, upper and lower body strengthening and even improvised Army training. But today we start with the routines that every workout should include: a warm-up, cool-down and stretch.

PLEASE NOTE

Check with your doctor before beginning this or any strenuous exercise regime.



How to warm up

The warm-up outlined over the next five pages is designed to raise your body temperature, heart rate and breathing rate, to mobilise your joints and “wake up” the neuromuscular (nerve to muscle) pathways to prime your body for the specific activity it is about to undertake. In military training, the warm-up is usually limited to around 10 minutes, and is broken down into the following stages:

1. MOBILITY EXERCISES

Gentle movements to get your joints moving more freely.

2. PULSE-RAISING ACTIVITY

Beginning the process of raising your heart rate through gentle, progressive aerobic activity.

3. SPECIFIC MOBILITY EXERCISES

The make-up of this stage is determined by the movements and muscle groups you will be using in your chosen activity, once the warm-up is completed, and is more dynamic than the exercises performed in stage 1.

4. FINAL PULSE-RAISER

This last segment raises your heart rate, breathing rate and body temperature further, so that you are fully geared up for your activity.

Now find out how to perform each of these stages effectively from pages 3 to 7.

Stage 1: mobility exercises

These gentle movements are all performed while stationary, and their purpose is to mobilise all the major joints of your body. Try to do each movement described 4-6 times, with each arm or leg where relevant



NECK ▲

Standing tall, drop your head directly to the left and right sides alternately. Now turn it to the left and right. Next, gently take your head backwards, then drop your chin to your chest. Finally, rotate your head from the left to the right, and then back from right to left.

SHOULDERS ►

Bring your shoulders up to your ears, and then roll them backwards and down. Now repeat the movement but in reverse, bringing your shoulders forward this time.



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HIPS ▼

Stand with your legs a little wider than hip-distance apart and make a big circle with your hips (pictured below). Do this in both directions. Now lift one knee up to the front and rotate your leg out to the side, before placing that foot back on the floor (not shown). Repeat with your other leg.



TRUNK ◀▼

Standing with feet hip-width apart, bring your arms to your waist and gently rotate your torso to the left and right, keeping the hips centred (pictured below). Now drop your hands to your sides, and slide each hand in turn down the outside of your thighs, bending the trunk to each side alternately. Again, keep your hips centred (shown left).



KNEES ▼

Standing tall, alternately bring each knee up to your chest. Next, take your feet up behind you to the bottom. Keep this movement slow and controlled throughout.



ANKLES ▲

With one foot raised slightly off the floor, point and flex your toes, then circle that ankle in both directions. Now repeat both exercises with the other foot.

DID YOU KNOW?

The purpose of a warm-up is simply to prepare your body, mentally and physically, for activity. An effective warm-up will improve your subsequent performance and reduce the risk of injury.

Stage 2: pulse raising activity

This initial pulse-raiser uses large muscle groups in repetitive movements to get your heart beating faster and to raise your body temperature. It can be done indoors – for example, simply marching on the spot – or outside by walking forwards, then gradually building up to a gentle jog over a 3-4 minute period.



DID YOU KNOW?

The Army no longer uses static stretching within its warm-ups. Although not considered harmful, research has shown no benefit in injury prevention or performance from static warm-up stretches. Dynamic methods, such as those shown here, better prepare the body for most forms of military training. If you really feel the need to stretch prior to exercise, do not hold the stretches for longer than 5 seconds, because this can “switch off” the muscles and inhibit performance.

Stage 3: specific mobility

The content of this warm-up segment depends on whether you are about to go for a run, work out with weights or take part in a kickboxing class. The

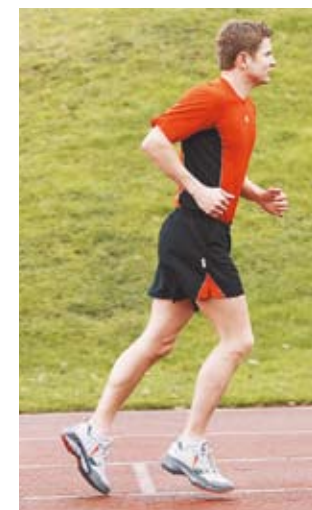


Stage 4: final pulse raiser

In this final warm-up stage, you further raise your heart rate and body temperature by working at a progressively faster pace. Ideally, this should be the activity you are about to perform – for example, if you are going for a run, your final pulse-raising activity should be jogging, with the pace gradually building up to your usual exercise intensity. Avoid a time lag between your warm-up and your main activity – otherwise many of the benefits will be lost.

exercises involved should take your joints through a similar range and direction of movement as the activity. For example, to warm up your trunk for a core conditioning workout, you might mobilise the area by arching and rounding the back from an all-fours position.

NOTE You will find suggested mobility exercises within each of the coming booklets, geared towards the activities they feature.



Cooling down

At the end of every exercise session, it is important not to come to a sudden halt. Once your session is over, slow down gradually. The purpose of a cool-down is to return your body to its pre-exercise state – like a warm-up in reverse. If you do stop suddenly, the heart continues to pump large amounts of blood to the body, but the absence of activity means this blood can pool in the limbs, making you feel faint or dizzy. Stopping too suddenly also slows the removal of waste products from the body, hampering your recovery process and increasing the likelihood of sore muscles the next day, or the day after.

All you need to do is spend 3-5 minutes at the end of your workout reducing your pace, allowing your heart rate and breathing to return to normal. Your body temperature will remain elevated for a limited period, making the post-cool-down period the perfect time to perform some stretching.

Read about stretching on the following pages ...



PTI TIP

After a hard session, consume a carbohydrate-based food or beverage within half an hour. This helps maximise replenishment of your muscles' energy stores. Don't wait until after you've stretched and showered to refuel.



Stretching and flexibility

Good flexibility results from achieving optimal length in the muscles and connective tissues surrounding a joint, so that movement is as free as possible. This is important in enhancing performance and for your general health, and it may also play a role in preventing injury

Stretching straight after the cool-down section of your workout helps your muscles relax and return to their resting length. This is important because the muscles have a tendency to shorten if they are not stretched after the constant contractions involved in exercise – and over time, this can restrict your mobility.

It is, however, worth noting that

a brief post-workout stretch is not sufficient to improve your flexibility – it will only assist in maintaining your current range of movement. Acknowledging that flexibility is just as much a component of overall fitness as strength or stamina, the Army now incorporates regular stand-alone flexibility sessions into its military physical training on rest or recovery days.

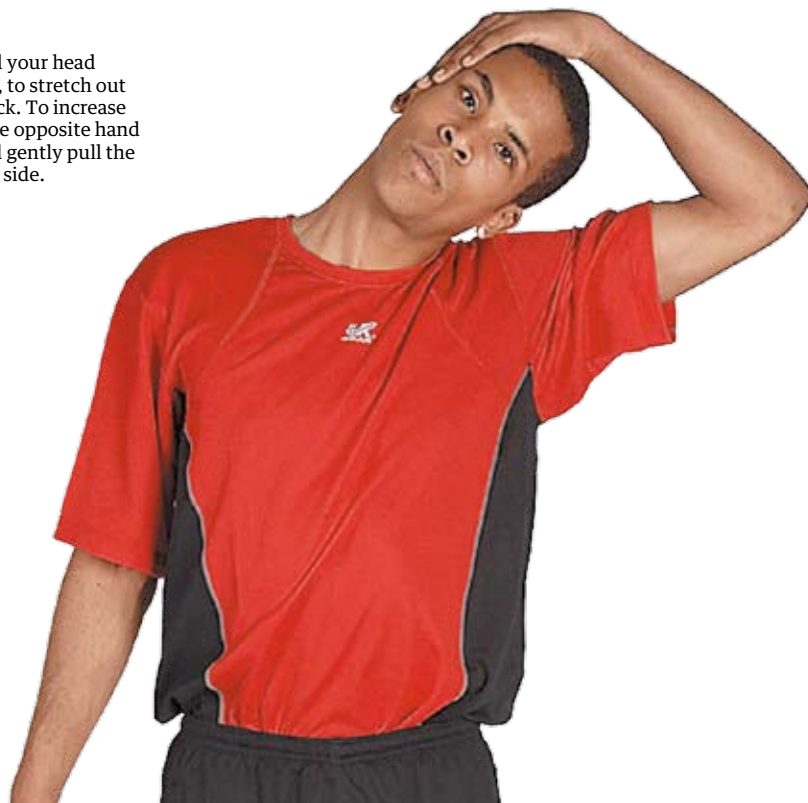
HOW TO STRETCH CORRECTLY

- Only stretch muscles that are thoroughly warm
- Stay relaxed and breathe freely
- Slowly lengthen the muscle towards the limit of your pain-free range. It should be a sensation of slight discomfort, not pain
- Concentrate on correct body alignment. Know what muscle or muscle group you are stretching
- Do not jerk or bounce – keep your movements slow and controlled
- Hold the stretch for 10-15 seconds. You should feel it “give” or relax a little. If you do, you can extend a little further into the stretch and hold for a further 10-15 seconds
- Repeat each stretch at least twice

Upper body stretches

NECK ▶

Stand tall and bend your head directly to the side, to stretch out the side of your neck. To increase the stretch, take the opposite hand over your head and gently pull the head further to the side.



BACK AND SHOULDERS ▼

Stand with your feet hip-width apart and your knees slightly bent. Link your hands together in front of you. Push away through the shoulders and upper back, rounding your back into a C-shape.



CHEST ▲

Clasp your hands behind your back and gently pull your arms away from the back, keeping them as straight as possible and your shoulders down, as shown.

SHOULDER STRETCHES ▼

Stand tall with your feet hip-distance apart. Take your right arm across the body, grasping it just above the elbow with the crook of your left arm and gently pulling it to the chest (bottom picture). Don't hunch your shoulders up. Now swap sides.

To stretch the front and middle of your shoulders, go on to all fours, sit back on your haunches and then bend your torso forward, extending your arms out on the floor in front of you (below).



FOREARM AND WRIST STRETCH ▼

Extend both arms out in front of you, turning your left hand upwards and using your right to gently press the fingers down and back towards the body. Feel a stretch along the underside of your arm and wrist. Then swap sides.



TRICEPS STRETCH ◀

Extend your right arm above your head and then bend the elbow, dropping the forearm behind your head. Now gently push the elbow back and down with your left hand. Swap sides.

Trunk stretches: back and abs



SIDE STRETCH ◀

Stand with your feet hip-distance apart and, keeping the hips central, take your torso directly to one side, sliding that hand down the outside of your leg. To increase the stretch, bring the opposite arm up beside your ear. Now swap sides.



LOWER BACK STRETCH ▶

Lie on the floor and bring your knees into your chest, grasping hold of your shins. Lift your head to your knees to increase the stretch.

MODIFIED COBRA ▶

Lie face down on the floor and raise yourself up on to your forearms, elbows directly below shoulders, forearms pointing forwards. Press your hipbones into the floor and allow your back to extend, looking forwards and not up or down.



Lower body

QUADRICEPS STRETCH ▶

Standing tall, grab your right foot with your right hand, bending the leg and taking the foot behind you up to your bottom. Keep your legs aligned and don't arch the back or tip the pelvis forwards as you press the foot to the bottom.

CALF STRETCHES ▼

Take a big step (about 1m) forward with your left leg while keeping your right leg straight. Bend the left knee and press your hips forward, keeping the right heel pressed into the floor. Ensure the right toes are pointing directly forwards.

Now bring your back leg closer to the front one and bend both knees (not shown), to stretch the lower part of your back calf. Swap sides and repeat both stretches.



HIP FLEXORS ▶

Adopt a lunge position and take your back knee to the floor, laces facing down. Keep the torso upright and lean into the front leg until you feel a stretch along the front of your hip. Make sure the front knee does not extend beyond the ankle, as this puts excessive stress on the joint. Swap sides.



HAMSTRINGS ▲

Stand tall and extend one leg out in front of you, foot on the floor, keeping the other knee bent and resting your hands on the bent leg's thigh. Keep your back straight and abdominals gently contracted. Swap sides.



GLUTEAL/ HIP STRETCH ▼

Lie on your back with your knees bent and feet raised. Put your right foot over your left thigh and link your hands behind the left thigh, to gently pull the legs towards your torso and stretch out the right hip. Swap sides.



PTI TIP

If you can, put aside some time to go through a comprehensive flexibility workout once or twice a week, based on the stretches shown here. Hold each stretch for 20-30 seconds (longer than in a post-workout stretch) and repeat 3-4 times. Flexibility gains come gradually – and will decline if this stretching is not regularly maintained.



GROIN STRETCHES ◀

Sit on the floor and bring the soles of your feet together (top picture). Gently press down on the inner thighs with your elbows. Then, extend your legs out straight to the sides, taking them as far apart as is comfortable and keeping your back straight (bottom picture).



DID YOU KNOW?

Our flexibility declines with age – collagen fibres within the connective tissue thicken and get stiffer, while soft tissue becomes more dehydrated, decreasing joint lubrication and causing “creakiness”. Regularly taking joints through their full range of movement and stretching helps attenuate this.

