



SINGAPORE  
SPORTS COUNCIL

Sports  
Safety

# Safe Running Guide

Think Safe. Play Safe. Stay Safe.

# A Sports Safe Singapore

The Singapore Sports Council (SSC) recognises that safety must be a fundamental component of a sporting culture and a prerequisite for every healthy lifestyle. Therefore, SSC has set a corporate goal of zero injuries, in the belief that all accidents are preventable. Emphasising the need for personal accountability, SSC also urges people to be responsible for the safety of others. SSC's first Sports Safety Division was formed in 2006 directly under the purview of the CEO's office. It is tasked to promote safety throughout Singapore's sporting community and inculcate a safety-first mentality in the minds of every stakeholder. For more information, please visit [www.sportssafety.ssc.gov.sg](http://www.sportssafety.ssc.gov.sg)

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Cover photo by Tony Lim (Volunteer Photographer) for Singapore Sports Council

**Think Safe. Play Safe. Stay Safe.**

Another initiative by the Sports Safety Division, Singapore Sports Council

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# Introduction



Running has become one of the most popular physical activities amongst Singaporeans. Whether you want to run for better health, improved fitness, weight loss, leisure, or a competition, you will need to learn the safety aspects of running.

## Running and Injuries

Running has always been regarded as an effective way to improve fitness. When you run, your heart rate increases and over time, your stamina and energy levels will be higher.

However, running can pose the danger of injury if conducted in unsafe venues, or due to poor running biomechanics, over-training or training whilst medically unfit. Heat-related injuries can ensue due to insufficient fluid intake and / or running in improper attire. In extreme heat and / or high levels of humidity, vigorous physical exertion may also lead to heat-related injuries.

# Benefits of Running



## Regular running can help you improve / promote:

- Stamina
- Energy Level
- Weight Control
- Life Expectancy

## It can reduce the risk(s) of:

- Coronary heart disease
- Stroke
- Diabetes
- High Blood Pressure
- Bowel Cancer
- Osteoporosis
- Arthritis
- Anxiety
- Stress



Running is one of the most effective calorie burners. An average person burns about 300 calories by running at 8km/h for 30 minutes.

# Safety Tips for Running

## 1. Pre-Participation Screening

Complete the PAR-Q before you engage in any form of running if you fall into one or more of the following categories:

- 35 years of age and above
- have not been exercising regularly
- have any pre-existing medical condition (e.g. physical injuries, heart disease, high blood pressure, diabetes, etc)
- uncertain of your current health condition

If you are still unsure of your ability to start becoming more physically active, check with your doctor.

Do not run when you are unwell or if you are suffering from a significant medical problem, including injuries and acute infections (e.g. viral flu or chest infection). Serious complications may result. Resume only when you are completely well and even then, ensure that you start slow and run shorter distances. Do not run if you are under medication that can cause drowsiness.



## 2. Meals

There must be a period of about 2 hours after a meal before any running activity can be performed.

## 3. Warm Up, Cool Down and Stretch

The first part of every running session should be the warm-up. A good warm-up routine gradually prepares the body for the run. Individuals have different needs in a warm-up routine, but if well-planned and executed, the runner can experience an enhanced performance. The duration and type of warm-up exercise depend on the weather and intensity of the activity.

The warm-up session should assist the body physically and mentally as it:

- stretches the muscles and tendons
- generates heat in the body, particularly in the muscles and tendons

Note: Do some gradual aerobic exercise before stretching as cold muscles are prone to pulls and tears.

The benefits of a good warm-up routine:

- Increases the heart rate, increasing blood flow to the muscles
- Increased blood flow raises the temperature of the muscles, providing large amounts of nutrients and oxygen needed for the activity
- Increases the elasticity of muscles, ligaments and tendons to increase flexibility in preparation for the activity

Runners should also do a cool-down routine at the end of each running session, consisting of:

- activities of significantly reduced intensity, such as 2-3 minutes of easy jogging or walking
- 5 minutes of gentle, dynamic stretching exercises

Stretching activities should move the muscles through the full range of movement and include all muscle groups that will be or have been used in the main activity. Stretching can be done in different ways, but there is evidence that dynamic stretching (moving slowly through a full stretch) is better than static stretching (holding one angle for more than a few seconds).

The benefits of a good cool-down routine:

- Helps lower the heart rate to its normal range
- Helps muscles remove lactic acid and aid in recovery
- Helps prevent dizziness associated with an abrupt cessation of a physical activity

#### **4. Attire**

i. Running Shoes:

- Wear the right shoes for running
- Ensure shoes are comfortable and soles are not worn out
- Buy shoes in the afternoon when your feet are at their largest as your feet expand during a run
- Buy socks that are designed for running and have cushioning in the heel and toe regions

When buying a pair of running shoes, you will need to know if you have normal arch (normal pronation), flat (overpronation) or high arch (underpronation) feet. Depending on your running style and feet type, you will need to purchase your shoes accordingly.

## Discover your foot type using a simple test:

- 1) Wet the sole of your foot in a shallow depth of water, just enough to cover the sole completely.
- 2) Step onto a blank piece of thick paper or a paper bag.
- 3) Step off and check out your footprint.

### Normal Pronation

If you see about half of your arch, you are a normal pronator and can wear any type of running shoe although a stability shoe that provides moderate arch support is recommended. Runners who are lighter in body weight may consider getting neutral-cushioned shoes without additional support for a lighter pair.



### Overpronation (Flat feet)

If you see virtually the whole of your footprint, you are an overpronator. Overpronators tend to be more at risk of injuries due to excessive foot motion as a result of the foot collapsing too much inward after the foot strikes the ground. In this case, stability shoes which have dual-density midsoles and support to limit pronation are ideal for mild to moderate overpronators. Motion-control shoes with firmer support are best for severe overpronators.



### Underpronators (High arch)

If you see just the heel of your foot and a rough outline of your foot, you are an underpronator. Underpronators tend to suffer from injuries due to excessive shock travelling up the legs after a footstrike as the arch does not collapse inward enough to absorb the impact of the footstrike. In this case, neutral-cushioned shoes that provide a softer midsole for better pronation are ideal. Avoid shoes with additional stability as that would limit pronation.



Excerpts taken from Runner's World ([www.runnersworld.com](http://www.runnersworld.com)). Reprinted with permission.

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## ii. Attire:

- Wear light and breathable clothing
- Avoid dark colours if running in hot weather as they readily absorb heat
- Wear cotton or dry-fit clothes when running in hot / humid weather



## 5. Fluid Intake



Staying hydrated is critical to your running performance and, more importantly, for preventing heat-related illnesses. Runners need to pay attention to the type and volume of fluid intake before, during and after exercise.

During a run, your body loses electrolytes through perspiration. Since electrolytes help your body retain fluids and may prevent muscle cramps, it is important that you replace them with sports drinks when you run for more than 90 minutes.

If your body is not sufficiently hydrated, its cells will draw water from the bloodstream, which will make your heart work harder. At the same time, your kidneys cannot purify blood effectively. When this happens, some of the kidney's workload is passed on to the liver and other organs, which may cause them to be severely stressed. Additionally, you may develop a number of minor health conditions such as constipation, dry and itchy skin, acne, nosebleeds, urinary tract infection, cough, sneezing, sinus pressure and headaches.

Dehydration occurs when insufficient water has been taken in to replace water lost from the body. Thirst is a feeling we get which tells us that the body needs water. Thirst, however, is a poor indicator of how much water we need and when. By the time we feel thirsty, we can already be dehydrated. Water should be consumed in small amounts before, during and after running. Plain water is better for replacing water lost than sweet and fizzy drinks.

## 6. Progressive Training

Start your running programme progressively. For beginners, the focus should be on volume (distance or time-based) rather than intensity. Start with an easy jogging pace for about 2-3 km or 15-20 minutes about 3 times a week. Increase your running distance and / or time gradually.

The intensity of the run should be considered only after you have achieved your target distance or timing comfortably. If you do not have prior knowledge about increasing the intensity of your running regime, consult a coach or someone who has had some experience in professional running.

While you progressively increase your running mileage (Volume) and subsequently move towards including speed (Intensity), you will need to be mindful about giving your body sufficient time to recover. Over-training without adequate recovery will lead to fatigue and even overuse injury.

Keep a record of your training details to monitor your training progress. Refer to the sample training record card below. Such a record will assist you in monitoring the volume and intensity of your workout and aid in recovery efforts to enhance performance.

SN	Date/Day	Time	Venue	Training	Mileage
1	12 Sep 11 Monday	5.30pm/ 6.15pm	Jurong Stadium	20 mins easy jog	3.0km
2	15 Sep 11 Wednesday	6.00pm/ 7.00pm	Clementi Stadium	25 mins easy jog	3.5km
3	18 Sep 11 Friday	5.30pm/ 6.30pm	Jurong West	30 mins easy jog/walk	4.0km

### Distance Running Tips:

- Keep a log of your training progress
- Train consistently and progressively
- Set realistic goals based on your fitness and performance levels
- Maintain your pace throughout the run; avoid speeding up especially during the final stretch of the race

## 7. Protective Equipment

The use of sun protection lotion, a cap and sun shades should be considered if running under strong sunlight. If running on roads / pavements in low light or during the night, use reflective clothing or markers to alert motorists.

## 8. Training Venue / Route

It is advisable for beginners to start their training in a stadium. The stadium provides an environment safe from hazards posed by road traffic and reduces the risk of injury caused by running on hard surfaces such as roads / pavements.

If running on a road / pavement, run against the flow of traffic for safety reasons. Be alert at all times for obstacles such as open drainages, slippery surfaces, pot-holes etc.

## 9. Inclement Weather

Do not run during a thunderstorm or in the presence of lightning. Avoid running between 12 noon to 3 p.m. Instead, run early in the morning (at dawn) or in the evening when it is cooler.

## 10. Use of Music Players

When using a music player during your run, ensure the volume is not turned on too high – stay alert and be aware of your surroundings.

## 11. Personal Identification

It is advisable to have your personal identification details with you, such as your name, NRIC no, address, blood type and contact number of your next of kin in case of an emergency. You should also have details of any pre-existing medical condition(s).

## 12. Choice of Running Route

Run in populated and well-lit areas. Avoid using isolated and / or poorly lit areas for your own safety.

## 13. Running with a Partner

Where possible, run with a partner or in a group for your safety.



## 14. Common Running Injuries

The following are common running injuries:

- Ankle Sprains
- Achilles Tendonitis
- Chafing
- Foot Blisters
- Heel Spur
- Iliotibial Band Syndrome
- Muscle Pulls or Strains
- Planter Fasciitis
- Runner's Knee
- Shin Splints
- Stress Fractures
- Stitches

For greater understanding, consult a physiotherapist for details on the causes, symptoms and treatments of the above common running injuries.



Partners in Sports



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