

CRAMPING YOUR STYLE!

CAUSES, PREVENTION AND TREATMENT OF MUSCLE CRAMPS

If you have ever woken in the middle of the night with an intense calf or arch pain you will know exactly what a cramp is. If you're a runner or an Athlete you may have felt the pain of a cramp towards the end of the game or race.

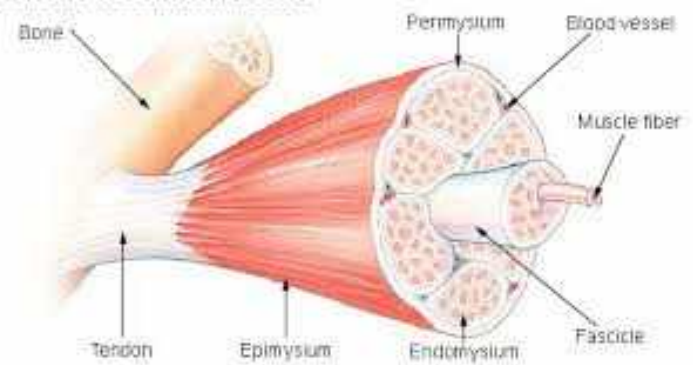


A NOTE ABOUT OUR MUSCLES

Our muscles are designed for movement. They are the tissues that can contract and move the other parts of our body, so we rely on them heavily.

It is skeletal muscles that allow for physical movement. These striated muscles are attached to bone in at least one place, and many pass across a joint and connect to bones at each end. They are the key to all of our conscious movements

Structure of a Skeletal Muscle



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SO ...WHAT ARE MUSCLE CRAMPS

A cramp is defined as a spontaneous or involuntary electrical activity of a large number of these **skeletal muscle fibres** that quickly develops into a painful, sustained contraction (muscle spasm) and lasts for a few seconds to a few minutes- or even longer.

Given our reliance on muscles for movement, when a muscle cramps they don't function for a brief time and it can be quite debilitating.

Muscle cramps are most commonly experienced in legs, calves and feet. Although can also spontaneously occur elsewhere. They may present as a lump of hard tissue visible under the skin's surface. Some people are especially prone to muscle cramps at night – the tightening of muscles in the calf, thigh or foot that often occur as they are awakening or falling asleep.

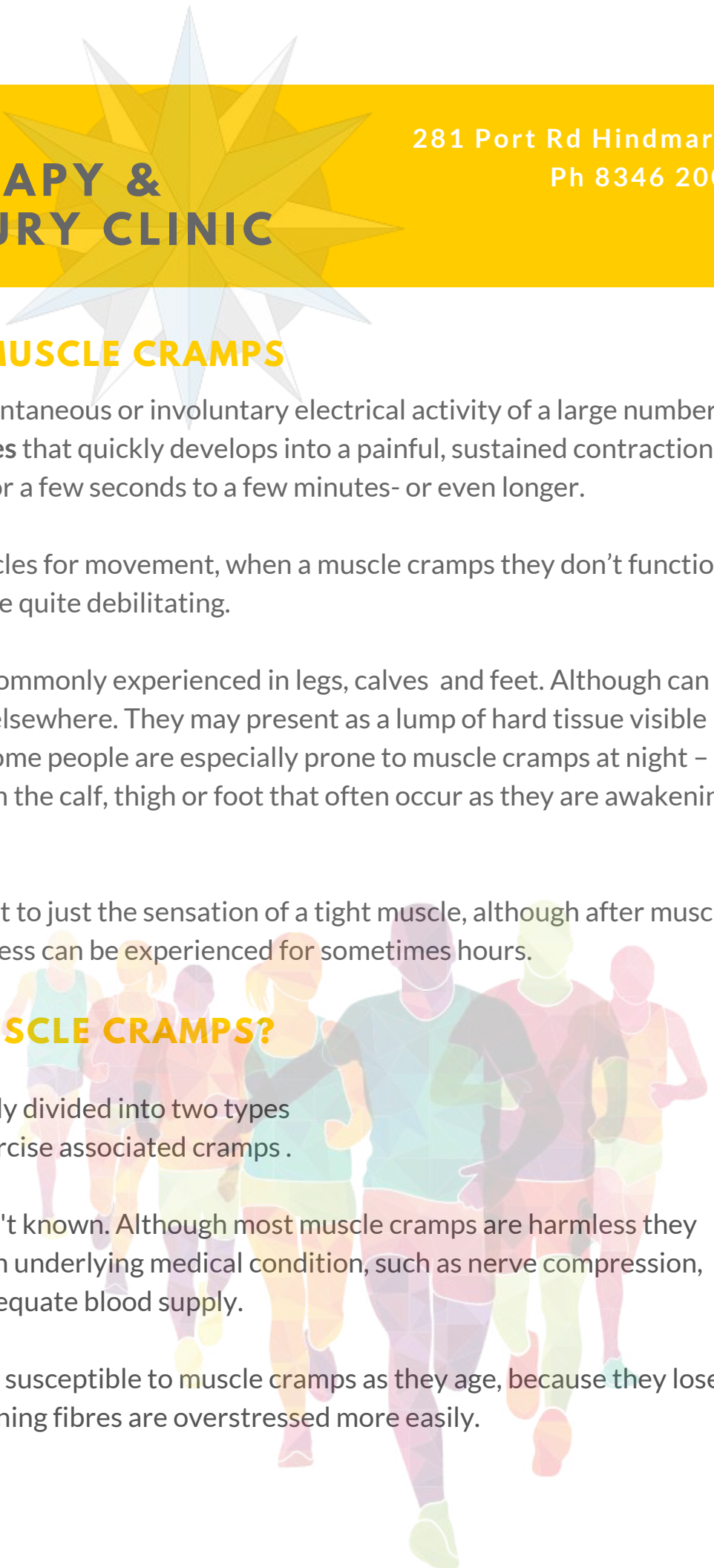
An actual cramp is different to just the sensation of a tight muscle, although after muscle cramps this residual tightness can be experienced for sometimes hours.

WHAT CAUSES MUSCLE CRAMPS?

Muscle cramps are generally divided into two types
Nocturnal cramps and Exercise associated cramps .

In many cases the cause isn't known. Although most muscle cramps are harmless they are sometimes related to an underlying medical condition, such as nerve compression, mineral depletion and inadequate blood supply.

Generally, people are more susceptible to muscle cramps as they age, because they lose muscle mass and the remaining fibres are overstressed more easily.





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COMMON THEORIES

Muscle cramps can happen if a **muscle is injured or overused** or they can occur during exercise with a builds up of lactic acid. We've all seen the athlete having to stop and stretch mid game, but still able to then play on.

Cramps also occur when a **muscle is not able to relax properly**. **Mineral depletion**, often due to the use of **diuretics** prescribed for high blood pressure medication, can lead to such cramps, as can a **lack of calcium, potassium and magnesium** in your diet.

In addition, if you are taking **certain medications**, such as birth control pills, or steroids, you may be more prone to muscle cramps

Statin drugs are often blamed for causing cramps but generally can cause constant muscle aches and rarely trigger cramps.

Reduced blood flow to the muscles also can cause cramps. This can occur from narrowing of the arteries to your legs caused by atherosclerosis but can even happen for stranger reasons. **Being cold** can constrict the blood vessels possibly causing cramps at night with cold feet.

Muscle cramps that occur in pregnancy are more commonly due to the need for additional minerals in the diet during pregnancy.

Standing on a hard surface or sitting in one place for an extended period of time can cause cramps, as can sleeping with your legs in an awkward position.

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HOW TO EASE MUSCLE CRAMPS

- If you find one of your muscles cramping, first try **massaging it and stretching it**.
- **Heat** may alleviate some of the discomfort, so take a warm bath or shower or apply a heating pad to the affected area.
- If you'd prefer to try ice, use an **ice pack** on your muscle, but don't place it directly on the skin; use a thin towel as a barrier.
- Taking **non-steroidal anti-inflammatory medication** may also help ease the pain, and these are readily available over the counter.
- Stay hydrated; **drink fluids**. Sports drinks can be helpful in easing leg cramps.
- Maintain a healthy diet, rich in magnesium, potassium and calcium.
- Stretching both before and after exercising is also a good preventive measure.
- Wearing warm socks at night if you have leg cramps, and keeping your muscles strong and flexible with regular exercises and strengthening.
- Quinine tablets used to be recommended, but aren't anymore unless cramps are disabling due to interactions with other medications

RELIEF STRETCHES

Night time leg cramps in the calf: Sit up in bed, loop the blanket around your foot, and gently pull your toes toward you while you keep the knee straight

Calf cramps during the day can be stretched in the standing calf position

For hamstring cramps (in the back of the thigh), sit on the floor with your legs extended in front of you. Slide your hands down your legs



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For back cramps try the child's pose yoga posture below



For cramps in the front of the lower leg, stand up and put your weight on your toes, and lift your heels; this gently stretches the cramped muscle.

For arch cramps reach down and pull your foot up and the big toe back

Hold all stretches for 30 seconds, then slowly return to a starting position.
It may need to be repeated.

However, consider seeing your Health Professional if the cramps don't improve with self-care; occur frequently; prompt redness, swelling or changes to your skin; cause severe pain; or don't seem to bear any relation to exercise, overuse or any particular cause

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WHAT ABOUT WITH SPORT

The principles and causes are along the same lines- possibly dehydration, electrolyte imbalance, reduced blood flow and then add in muscle fatigue, insufficient training and poor stretching theories.



PREVENTION

Despite all the debate on causes, experts do agree on several steps you can take to reduce your cramping risk. Try these five strategies.

1. Take time to stretch. And you should pay particular attention to the muscles that are most prone to cramping. Stretch those muscles gently but thoroughly.
2. Train appropriately for every event.
3. Prepare your body for the elements.
4. Keep a sports drink handy and stay well hydrated through the day and any sporting event
5. Hop to it. Try some leaping, hopping, or skipping drills otherwise known as plyometrics as part of your regular exercise. Such exercises can improve muscle-nerve coordination, strength, and help loosen tight muscles.



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TREATMENT FOR ATHLETES

Even if you follow all of the above precautions, cramps may still strike during sport

1. Stop running immediately and stretch the affected muscle. This helps relax the spasm. You may have to stop and stretch a number of times before the cramp abates.
2. Apply deep pressure at the site of the cramp to provide relief. Just use your fingers to press into the affected muscle and hold for 10 to 15 seconds.
3. Drink a fluid with electrolytes. Sports drinks that contain electrolytes can help resolve cramps as well as prevent them.
4. Slow down for awhile. To keep a cramp at bay you need to take the stress off your muscles, so back off a bit. Besides, when a cramp hits, you may not have a choice.

WHAT CAN PHYSIO OFFER

The first priority of Physio treatment is identifying the cause of the cramps. Whether this be tight muscles, over-exercising or a cause that requires further investigation.

Our physiotherapists are experienced in finding out what is causing your cramps and will point you in the right direction.

Treatment may involve:

- Lengthening of hypertonic muscles.
- Restoring joint range of motion.
- Strengthening weak muscles.
- Modifying current exercise regimes

Lifestyle modifications can include

- Addressing adequate fluid intake.
- Reducing coffee/alcohol intake.
- Seeking advice on Vitamin/electrolyte balancing.

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We hope at least some of the above tips are helpful. You can speak with one of our Physios for more tips and advice on muscle pain. Call or email us and we will get back to you to answer your questions.

As Physios, we provide extensive education as part of our management and prevention programs, but realize not everyone can find the time or have the confidence to make an appointment, you are welcome to download these informative E-books that you may find useful to get you on your way.

OTHER RESOURCES



**MANAGING
KNEE PAIN**



**COMMON
SPORTS INJURIES**



**MANAGING
BACK PAIN**

To access our free E-book Resource just click the images above

You can call us on 83462000 at Hindmarsh or **CONTACT US ONLINE HERE** if you would like an appointment

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