

## Nocturnal Leg Cramps

Nocturnal leg cramps can lead to a rude awakening: you're suddenly sleepless and in pain in the middle of the night. Symptoms of nocturnal leg cramps include excruciating contractions of the calf muscles, and sometimes of the foot muscles as well. Nocturnal leg cramps are true cramps and not spasms. The muscle remains in a cramped and contracted position, which accounts for the intensity of the pain. Many people have an occasional leg cramp. However, they occur frequently in some people. They are more common in older people. About one in three people over the age of 60, and about half of people over the age of 80, have regular leg cramps. About four in 10 people who have leg cramps have at least three per week.

## What causes leg cramps?

In most cases, the cause is not known. One theory is that cramps occur when a muscle that is already in a shortened position is stimulated to contract. As the muscle is already shortened, contracting further may cause the muscle to go into spasm (commonly happening at night in bed). This theory explains why stretching exercises may cure the problem. Although the reason that cramps occur is not fully understood, a number of risk factors have been identified. These include an imbalance of the minerals (electrolytes) involved in muscle contraction and relaxation, including magnesium, potassium, calcium and sodium; being in poor physical health; having tight or inflexible muscles, or poor muscle tone; muscle injury or fatigue; wearing high-heeled shoes for longer periods of time.

## Management

Magnesium: helps all the muscles of the body to function optimally and to contract in a normal, healthy way. It is also important for exercise performance. Taking a magnesium supplement may help prevent muscular cramps and spasms and aid in the management of leg cramps that occur during the night.

Stretching exercises: at first, do stretching exercises of affected muscles, three times a day. Do the last exercise shortly before bedtime. If the cramps ease off, you may then only need to do the exercise once or twice a day to keep the cramps away. Give yourself a two to four-week trial of regular calf stretching exercises to see if your cramps ease off. The cramps may not go completely, but their frequency and/or severity may reduce.

The posture of the legs when resting in bed: positions that prevent the calf muscle from shortening when you are asleep may help. The following are not proven treatments (from research studies) but some experts believe that they help to prevent cramps:

- Use a pillow to prop the feet up in bed while sleeping on your back.
- Hanging the feet over the end of the bed while sleeping on your front.
- Keeping blankets loose at the foot of the bed to prevent toes and feet from pointing downwards during sleep.