

## Restless legs syndrome (RLS)

Restless legs syndrome (RLS) is an unusual condition of the nervous system characterised by the compelling need to move the legs. It is usually worse in the evening and can be a problem when trying to sleep.

The strange sensation in the calves has been described as a type of cramp, soreness or a creeping, crawling feeling. Some liken the sensation to shooting darts of electricity or even squirming insects inside the legs. The same symptoms can also be caused by other conditions including diabetes, iron deficiency anaemia, alcoholism and some forms of arthritis. It is relatively common in pregnancy.

Around five out of every 100 people will experience RLS at some time. Usually both legs are affected, but it is not uncommon to experience the unpleasant sensations in only one leg. The symptoms can be mild, moderate or severe. In severe cases, the person may be unable to sleep.

No one knows what causes RLS. It can begin at any age, including childhood (although this is thought to be underreported). There is a strong genetic link. Iron deficiency is the most important risk factor.

### Restless legs syndrome can affect anyone

Restless legs syndrome can affect people of any age, but certain groups of people tend to be more susceptible, including:

- Middle-aged and elderly people
- Pregnant women
- Those with a parent who experiences RLS (which suggests a genetic link)
- Those who have another sleep disorder called periodic limb movement disorder
- People on antidepressant medication.

### Periodic limb movement disorder (PLMD)

Periodic limb movement disorder involves uncontrollable jerking of the legs or, occasionally, the arms. It is also known as 'sleep myoclonus'. During sleep, these recurring movements can be severe enough to wake the sleeper.

In other cases, the person sleeps, but only lightly, since the jerks rouse them from deep slumber without waking them. The result may be poor sleep quality and daytime fatigue. The jerking can increase or decrease in severity from one night to the next, for no apparent reason.

The cause of PLMD is unknown, but factors that are recognised as being associated with this condition include:

- Being middle-aged or elderly
- Pregnancy
- Iron deficiency
- Renal failure
- The regular use of antidepressants
- A family history of the disorder
- Restless legs syndrome – most people with RLS have PLMD.

### Sleep deprivation and restless legs syndrome

Standing up, walking or any other exercise that involves the legs can usually relieve the unpleasant physical sensations of RLS. Sleep deprivation is one of the more common side effects of RLS, since sufferers may need to get out of bed and walk around many times every night in order to alleviate the cramps.

## The nervous system and RLS

Restless legs syndrome is thought to be caused by some type of malfunction of the motor system and, more specifically, of the dopamine pathway. However, research so far has failed to find any abnormalities in the brains, nerves or muscles of any RLS sufferer.

## Treatment of restless legs syndrome

Diagnosing RLS or PLMD is based on symptoms. Since the cause of RLS is unknown, the treatments that are available relieve the symptoms rather than curing the condition.

Some people find that symptoms improve if they cut back or avoid caffeine, alcohol and nicotine. Successfully managing an underlying condition, such as anaemia or diabetes, can sometimes alleviate RLS. As with many sleep disorders, inadequate sleep or sleep deprivation will make RLS worse.

It is very important to correct iron deficiency, after investigation of the cause of the iron deficiency. In some cases, an intravenous infusion (IV drip into your vein) of iron is needed.

In severe cases, medications such as anti-Parkinson disease medications, benzodiazepines or morphine can offer symptom control. Other medications used for RLS include some anti-epileptic medications.

## Where to get help

- Your doctor

## Things to remember

- Restless legs syndrome (RLS) is characterised by the compelling urge to move the legs, particularly when in bed and trying to sleep.
- The cause is unknown, but it is thought to involve a malfunctioning of the nervous system.
- Treatment options include limiting caffeine, alcohol and nicotine, treating any specific cause, maximising sleep duration and taking medication.

**This page has been produced in consultation with, and approved by:**

Newcastle Sleep Disorders Centre

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