



Diseases and Conditions

Restless legs syndrome

By Mayo Clinic Staff

Restless legs syndrome (RLS) is a condition in which you have an uncontrollable urge to move your legs, usually due to leg discomfort. It typically happens in the evenings or nights while you're sitting or lying down. Moving eases the unpleasant feeling temporarily.

Restless legs syndrome, now known as restless legs syndrome/Willis-Ekbom disease (RLS/WED), can begin at any age and generally worsens as you age. It can disrupt sleep — leading to daytime drowsiness — and make traveling difficult.

Simple self-care steps and lifestyle changes may help you. Medications also help many people with restless legs syndrome.

The compelling desire to move is what gives restless legs syndrome its name. Common characteristics of RLS signs and symptoms include:

- **Sensation starts after being at rest.** The sensation typically begins after you've been lying down or sitting for an extended time, such as in a car, airplane or movie theater.
- **Relief by movement.** The sensation of RLS/WED lessens with movement, such as stretching, jiggling your legs, pacing or walking.
- **Worsening of symptoms in the evening.** Symptoms occur mainly at night.
- **Nighttime leg twitching.** RLS/WED may be associated with another, more common condition called periodic limb movement of sleep, which causes your legs to twitch and kick, possibly throughout the night, while you sleep.

People typically describe restless legs syndrome symptoms as abnormal, unpleasant sensations in their legs or feet, usually on both sides of the body. Less commonly, the sensations affect the arms.

The sensations, which generally occur within the limb rather than on the skin, are described as:

- Crawling

- Creeping
- Pulling
- Throbbing
- Aching
- Itching

Sometimes the sensations seem to defy description. Affected people usually don't describe the condition as a muscle cramp or numbness. They do, however, consistently describe the desire to move their legs.

It's common for symptoms to fluctuate in severity. In some cases, symptoms disappear for periods of time, then recur.

When to see a doctor

Some people with restless legs syndrome never seek medical attention because they worry they won't be taken seriously. Some doctors wrongly attribute symptoms to nervousness, stress, insomnia or muscle cramps.

But RLS/WED has received attention and focus from the media and medical community in recent years, making more people aware of the condition.

If you think you may have RLS/WED, call your doctor.

Often, there's no known cause for restless legs syndrome. Researchers suspect the condition may be due to an imbalance of the brain chemical dopamine, which sends messages to control muscle movement.

Heredity

Sometimes RLS/WED runs in families, especially if the condition starts before age 50. Researchers have identified sites on the chromosomes where genes for RLS/WED may be present.

Pregnancy

Pregnancy or hormonal changes may temporarily worsen RLS/WED signs and symptoms. Some women get RLS/WED for the first time during pregnancy, especially during their last trimester. However, signs and symptoms usually disappear after delivery.

RLS/WED can develop at any age, even during childhood. The disorder is more common with increasing age and more common in women than in men.

Restless legs syndrome usually isn't related to a serious underlying medical problem. However, RLS/WED sometimes accompanies other conditions, such as:

- **Peripheral neuropathy.** This damage to the nerves in your hands and feet is sometimes due to chronic diseases such as diabetes and alcoholism.

- **Iron deficiency.** Even without anemia, iron deficiency can cause or worsen RLS/WED. If you have a history of bleeding from your stomach or bowels, experience heavy menstrual periods or repeatedly donate blood, you may have iron deficiency.
- **Kidney failure.** If you have kidney failure, you may also have iron deficiency, often with anemia. When kidneys don't function properly, iron stores in your blood can decrease. This, with other changes in body chemistry, may cause or worsen RLS/WED.

Although RLS/WED doesn't lead to other serious conditions, symptoms can range from barely bothersome to incapacitating. Many people with RLS/WED find it difficult to fall or stay asleep.

Severe RLS/WED can cause marked impairment in life quality and can result in depression. Insomnia may lead to excessive daytime drowsiness, but RLS/WED may prevent you from daytime napping.

If you have signs and symptoms of restless legs syndrome, make an appointment with your doctor. After an initial evaluation, he or she may refer you to a doctor who specializes in conditions affecting the nervous system (neurologist) or a sleep specialist.

Here's some information to help you get ready for your appointment.

Information to gather in advance

- **Write down your symptoms,** including when they started and when they tend to occur.
- **Write down key medical information,** including other conditions you have and any prescription or over-the-counter medications you're taking, including vitamins and supplements. Also note whether there's a history of restless legs syndrome in your family.
- **Take a family member or friend along.** Someone who accompanies you may remember information you missed or forgot.
- **Write down questions to ask** your doctor.

Some basic questions to ask your doctor about restless legs syndrome, include:

- What is the most likely cause of my signs and symptoms?
- Are there other possible causes?
- What tests do I need?
- What treatment options are available for this condition?
- I have other health conditions. How can I best manage them together?
- What self-care steps might improve my symptoms?
- Do you have educational materials I can have? What websites do you recommend?
- Where can I find a support group for people with restless legs syndrome?

What to expect from your doctor

Your doctor is likely to ask you a number of questions, including:

- Do you get an irresistible urge to move your legs?
- What words describe your symptoms?
- Do your symptoms start while you're sitting or lying down?
- Are your symptoms worse at night?
- Does movement make you feel better?
- Have you been told that you kick, shake or otherwise move your legs while sleeping?
- Do you often have trouble falling or staying asleep?
- Are you tired during the day?
- Does anyone else in your family have restless legs?
- How much caffeine do you have daily?
- What is your typical exercise program?

What you can do in the meantime

To ease your symptoms, try:

- Cutting back on or eliminating caffeine, alcohol and tobacco.
- Massaging your legs while soaking in a warm bath.

Your doctor will take your medical history and ask for a description of your symptoms. A diagnosis of RLS/WED is based on the following criteria, established by the International Restless Legs Syndrome Study Group:

- You have a strong, often irresistible urge to move your legs, usually accompanied by uncomfortable sensations typically described as crawling, creeping, cramping, tingling or pulling.
- Your symptoms start or get worse when you're resting, such as sitting or lying down.
- Your symptoms are partially or temporarily relieved by activity, such as walking or stretching.
- Your symptoms are worse at night.
- Symptoms can't be explained solely by another medical or behavioral condition.

Your doctor may conduct a physical and a neurological exam. Blood tests, particularly for iron deficiency, may be ordered to exclude other possible causes for your symptoms.

In addition, your doctor may refer you to a sleep specialist. This may involve an overnight stay at a sleep clinic, where doctors can study your sleep if another sleep disorder such as sleep apnea is suspected. However, a diagnosis of RLS/WED usually doesn't require a sleep study.

Sometimes, treating an underlying condition, such as iron deficiency, greatly relieves symptoms of restless legs syndrome. Correcting an iron deficiency may involve taking iron supplements. However, take iron supplements only with medical supervision and after your doctor has checked your blood-iron level.

If you have RLS/WED without an associated condition, treatment focuses on lifestyle changes, and if those aren't effective, medications.

Medication therapy

Several prescription medications, most of which were developed to treat other diseases, are available to reduce the restlessness in your legs. These include:

- **Medications that increase dopamine in the brain.** These medications reduce motion in your legs by affecting the level of the chemical messenger dopamine in your brain. Ropinirole (Requip), rotigotine (Neupro) and pramipexole (Mirapex) are approved by the Food and Drug Administration for the treatment of moderate to severe RLS/WED.

Short-term side effects of these medications are usually mild and include nausea, lightheadedness and fatigue. However, they can also cause impulse control disorders, such as compulsive gambling, and daytime sleepiness.

- **Drugs affecting calcium channels.** Certain medications, such as gabapentin (Neurontin) and pregabalin (Lyrica), work for some people with RLS/WED.
- **Opioids.** Narcotic medications can relieve mild to severe symptoms, but they may be addicting if used in high doses. Some examples of these medications include codeine, oxycodone (Oxycontin, Roxicodone), combined oxycodone and acetaminophen (Percocet, Roxicet), and combined hydrocodone and acetaminophen (Norco).
- **Muscle relaxants and sleep medications.** This class of medications, known as benzodiazepines, helps you sleep better at night, but they don't eliminate the leg sensations, and they may cause daytime drowsiness. Commonly used sedatives for RLS/WED include clonazepam (Klonopin), eszopiclone (Lunesta), temazepam (Restoril), zaleplon (Sonata) and zolpidem (Ambien).

It may take several trials for you and your doctor to find the right medication or combination of medications that work best for you.

Caution about medications

Sometimes dopamine medications that have worked for a while to relieve your RLS/WED become ineffective. Or you notice your symptoms returning earlier in the day. This is called augmentation. Your doctor may substitute another medication to combat the problem.

Most drugs prescribed to treat RLS/WED aren't recommended during pregnancy.

Instead, your doctor may recommend self-care techniques to relieve symptoms. However, if the sensations are particularly bothersome during your last trimester, your doctor may approve the use of certain drugs.

Some medications may worsen symptoms of RLS/WED. These include some antidepressants, some antipsychotic medications, some anti-nausea drugs and some cold and allergy medications. Your doctor may recommend that you avoid these medications, if possible. However, if you need to take these medications, talk to your doctor about adding drugs that to help manage your RLS/WED.

Making simple lifestyle changes can help alleviate symptoms of RLS/WED.

- **Try baths and massages.** Soaking in a warm bath and massaging your legs can relax your muscles.
- **Apply warm or cool packs.** Use of heat or cold, or alternating use of the two, may lessen your limb sensations.
- **Try relaxation techniques, such as meditation or yoga.** Stress can aggravate RLS/WED. Learn to relax, especially before bedtime.
- **Establish good sleep hygiene.** Fatigue tends to worsen symptoms of RLS/WED, so it's important that you practice good sleep hygiene. Ideally, have a cool, quiet, comfortable sleeping environment; go to bed and rise at the same time daily; and get adequate sleep. Some people with RLS/WED find that going to bed later and rising later in the day helps in getting enough sleep.
- **Exercise.** Getting moderate, regular exercise may relieve symptoms of RLS/WED, but overdoing it or working out too late in the day may intensify symptoms.
- **Avoid caffeine.** Sometimes cutting back on caffeine may help restless legs. Try to avoid caffeine-containing products, including chocolate and caffeinated beverages, such as coffee, tea and soft drinks, for a few weeks to see if this helps.

RLS/WED is generally a lifelong condition. Living with RLS/WED involves developing coping strategies that work for you, such as:

- **Tell others about your condition.** Sharing information about RLS/WED will help your family members, friends and co-workers better understand when they see you pacing the halls, standing at the back of the theater, or walking to the water cooler many times throughout the day.
- **Don't resist your need for movement.** If you attempt to suppress the urge to move, you may find that your symptoms worsen.
- **Keep a sleep diary.** Keep track of the medications and strategies that help or hinder your battle with RLS/WED, and share this information with your doctor.
- **Stretch and massage.** Begin and end your day with stretching exercises or gentle massage.
- **Seek help.** Support groups bring together family members and people with RLS/WED. By participating in a group, your insights not only can help you but also

may help someone else.

References

1. Restless legs syndrome. National Institute of Neurological Disorders and Stroke.
http://www.ninds.nih.gov/disorders/restless_legs/detail_restless_legs.htm. Accessed Nov. 30, 2014.
2. Tarsy D. Clinical manifestations and diagnosis of restless leg syndrome in adults.
<http://www.uptodate.com/home>. Accessed Nov. 30, 2014.
3. Tarsy D. Treatment of restless leg syndrome in adults. <http://www.uptodate.com/home>. Accessed Nov. 30, 2014.
4. Garcia-Borreguero D, et al. The long-term treatment of restless legs syndrome/Willis-Ekbom disease: Evidence-based guidelines and clinical consensus best practice guidance: A report from the International Restless Legs Syndrome Study Group. *Sleep Medicine*. 2013;14:675.
5. Silber, MH, et al. Willis-Ekbom Foundation revised consensus statement on the management of restless legs syndrome. *Mayo Clinic Proceedings*. 2013;88:977.

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