

Restless Legs Syndrome

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Author: Ron Cridland, MD



Restless Legs Syndrome (RLS) is a condition where you have trouble getting your legs comfortable and keeping them still. This makes it hard to fall asleep. Some people describe it as a “creepy crawly” sensation or like ants or insects crawling under their skin. It usually occurs when you lie down to go to sleep but will often occur just sitting and relaxing in the evening. Sometimes it will occur whenever you sit down for long periods such as on long car or plane rides. The sensation sometimes builds to the point that if you do not move voluntarily the leg will twitch involuntarily. About 80% of people with restless legs will have [Periodic Limb Movement Disorder](#) where they will twitch periodically in their sleep. The sensation is not always limited to the legs. It can occur in the arms or torso as well. Most people get at least temporary relief by moving their legs or walking around.

RLS occurs in up to 10% of the population, more commonly in woman than men, and is a common cause of insomnia. There is a family history in up to 50% of people suffering from RLS. It is aggravated by low iron levels and thus tends to be more common in pregnancy. The development of RLS can sometimes be one of the first symptoms of iron deficiency anemia. It is more common in patients with kidney failure and may fluctuate in between dialysis sessions.

RLS is often caused or aggravated by antidepressant and antipsychotic medication although if the medication has significant sedating effects, the associated insomnia may be minimized. Caffeine, alcohol, and certain over-the-counter antihistamines can also make RLS worse.

Diagnosis

RLS is a clinical diagnosis based on the symptoms described above. There is no standard medical test. It is important to differentiate from nervous movement or pain. A person who nervously shakes their legs or taps their feet can stop movement if asked and continue to not move for as long as they pay attention to not moving. A person with RLS cannot stop moving for long. The longer they keep still the more uncomfortable they become until they just have

to move.

Someone with chronic aching or pain, especially in their legs, may also feel restless and have a hard time keeping still. RLS is often described as a “discomfort” and so it can be difficult to differentiate pain from RLS. I sometimes just ask patients, “Is it a painful discomfort or just uncomfortable?”

Investigations

It is worthwhile to do a CBC and serum ferritin to rule out iron deficiency as a contributing factor to restless legs. The ferritin should be above 50 micrograms per litre. Ferritin is a more sensitive way of measuring iron stores. Low iron stores will aggravate restless legs even if serum iron levels are normal and there is no anemia. Low serum folate is also sometimes associated with restless legs.

Treatment

Sometimes restless legs occur only after lying in bed awake for prolonged periods of time due to some other form of insomnia such as [Psychophysiological Insomnia](#) or [Delayed Sleep Phase Syndrome](#). If that is the case, treating the insomnia to reduce the time it takes to fall asleep may prevent the legs from becoming restless.

If the restless legs are mild and infrequent, then getting up and walking around may be all that you need to do once in a while. At the same time try to reduce any aggravating factors like alcohol or caffeine intake, or the use of antidepressant medications, antihistamines or major tranquilizers. Often times people are using these medications to help treat their insomnia. Keep in mind that these medications are not designed to manage insomnia and are being used for their side effects of sedation. If that is the case, then working on the non-pharmacological measures to manage insomnia would be helpful. Also, you should review your medications with your physician. You may be better off with a sleeping pill such as Zopiclone or Zolpidem which are designed for managing insomnia because they work quickly and are worn off by morning.

Magnesium supplements in pill or powder form are sometimes helpful for mild restless legs. You can find this at your pharmacy or health food store. The side effect of too much magnesium is usually loose stools so the dosage can be adjusted accordingly. It should not be used in those with heart block, bleeding disorders or renal failure. It may be combined with calcium when in pill form. The powder form may give more dosing flexibility.

Iron supplements are effective for restless legs secondary to low iron. Folate supplementation can be helpful for low folate levels.

For those with more significant restless legs, the above measures will not be enough. There are a number of effective medications. If the restless legs are intermittent then the medication can just be used as required. If the symptoms happen every night then the medication can be taken every night early enough to prevent the symptoms from starting.

Medication

The most effective medication is the anti-Parkinson medications, Pramipexol and Ropinirole. Pramipexol (Mirapex) 0.125 mg is taken an hour before bed time, increasing by one pill every 3 – 5 nights to a maximum of 1 mg per night to control restless legs. If the restless legs start when you sit down to relax in the evening, then the medication can be taken an hour before that time. If this results in restless legs during the night then half of the dose can be taken in the evening and the other half at bedtime. The most common side effect is nausea and this affects about 20% of patients. It is usually mild and often resolves spontaneously after about a week as your body gets used to the medication. If it is more than mild then the medication may need to be stopped. It can lower blood pressure which is usually not a problem on lower doses. It can unmask hallucinations or compulsive behavior in susceptible individuals and needs to be discontinued. It can occasionally cause insomnia. Insomnia could be managed with a benzodiazepine. There is a rare side effect of “sleep attacks” occurring during the day which needs to be looked out for when you first go on the medication. This is rare but has been reported in patients with Parkinson's Disease. In RLS we are usually making sleepiness better, not worse. Sometimes patients will develop rebound restless legs symptoms during the day especially on higher dosages. Another pill could be taken during the day to control rebound restless legs. If the medication loses its effectiveness or develops side effects on higher dosages, then a two week “drug holiday” will usually allow it to become effective again at lower dosages. When you go off the medication for two weeks, you can use another class of medication to temporarily control the restless legs.

Ropinirole is newer and similar to Pramipexole. The dosage is 0.25 to 4 mg and is used in the same way as Pramipexole with similar side effects except for sleep attacks. I find Pramipexole the more effective of the two.

Levodopa/carbidopa (Sinemet) 100/25 mg is an older anti-Parkinson medication that is effective. The SR or sustained release version is the best. Dosages higher than 200/50 are more prone to daytime rebound restless legs which can be managed by another 100/25 mg pill. Other side effects are similar to Pramipexole.

Benzodiazepines are effective. Usually Clonazepam in 0.5 to 2 mg is used although other benzodiazepines are effective too. The main issue with benzodiazepines are that tolerance can occur fairly quickly although drug holidays are also effective to regain effectiveness again.

Gabapentin in dosages of 300 – 1200 mg in the evening can be effective particularly if there is a pain component to the restless legs. It is the most effective with neurogenic pain such as peripheral neuropathy. The most common side effect is sedation.

Opiates such as Codeine 15 – 60 mg, Oxycodone 5 mg and Propoxyphene 200 mg are also quite effective but tolerance usually occurs quickly. It can be used to control RLS during a drug holiday from another class of medication.