

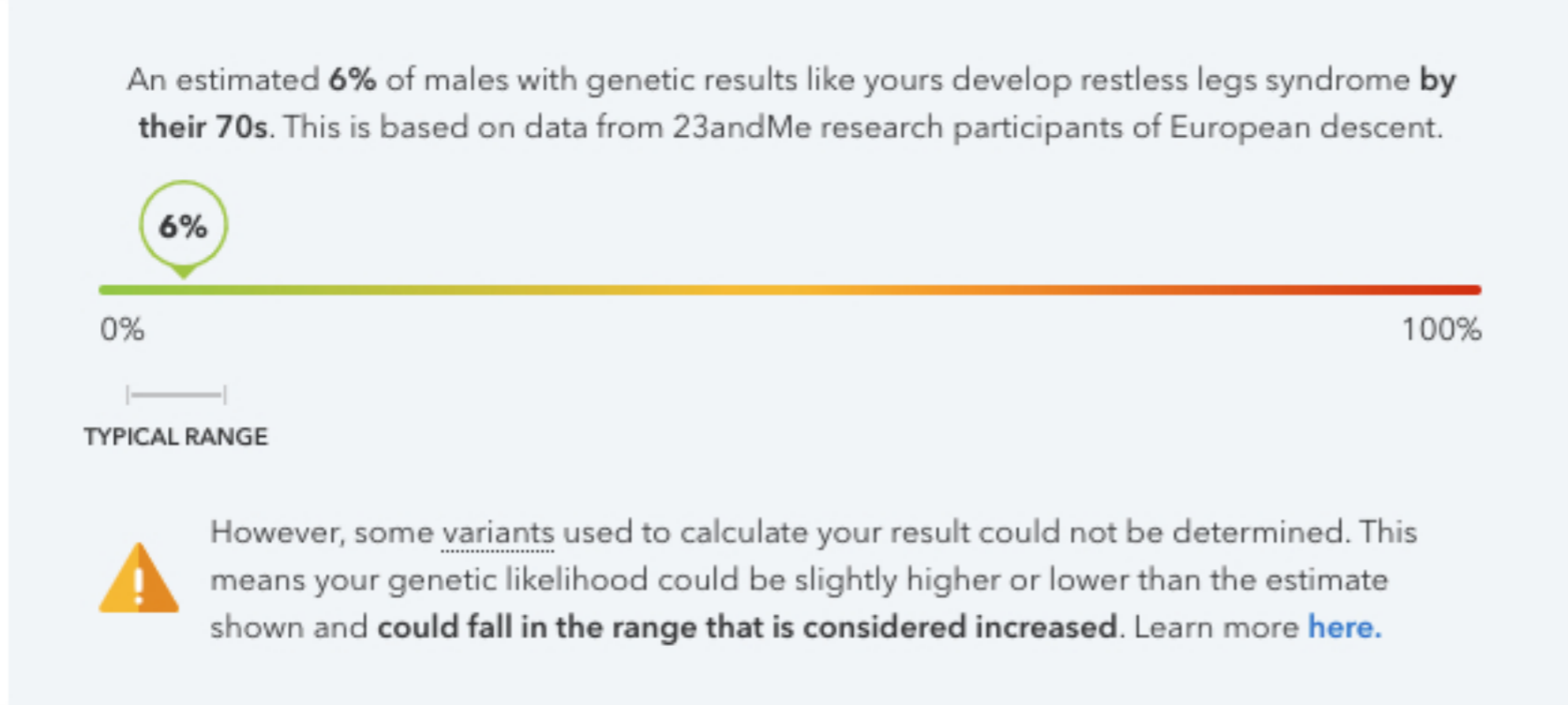
Restless Legs Syndrome

POWERED BY 23ANDME RESEARCH

Restless legs syndrome, sometimes called RLS, is a condition characterized by an uncontrollable urge to move the legs. The urge to move often gets worse during rest or inactivity, particularly at night, and is temporarily relieved by moving. Many people with RLS have trouble falling asleep and feel tired during the day.



Jamie, your genetic result is associated with a **typical likelihood** of developing restless legs syndrome.



Ways to take action

For people who experience RLS, the National Institutes of Health recommends healthy lifestyle habits that may help reduce the severity of symptoms.

- Make sure your diet contains the right amount of iron
- Limit consumption of alcohol and caffeine
- Avoid smoking
- Exercise regularly with moderate-intensity activities
- Practice good sleep hygiene, like keeping a quiet bedroom and going to sleep and waking up at the same time every day
- Massage affected areas or take a warm bath



[Learn more from the National Institutes of Health](#)

About restless legs syndrome

What is restless legs syndrome?

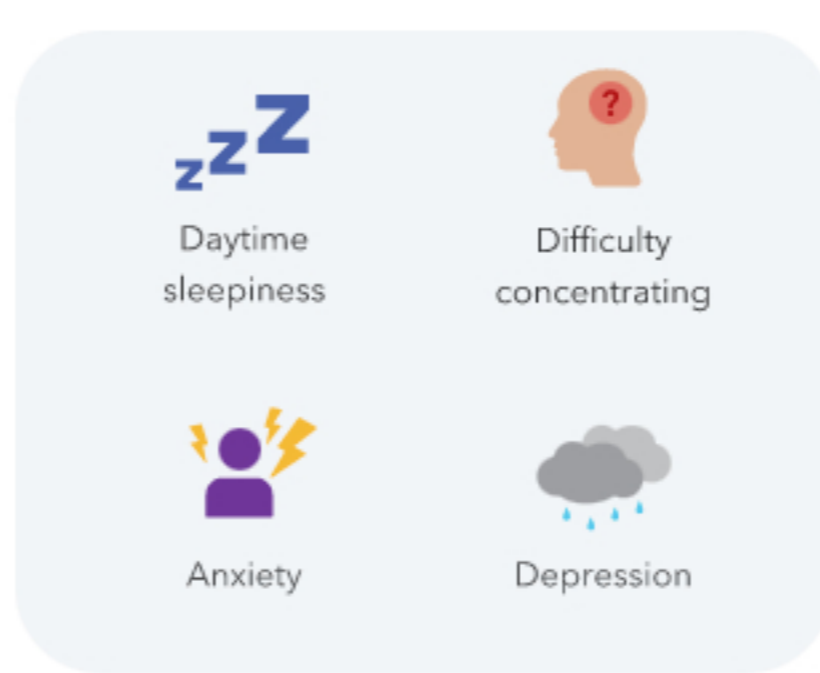
Restless legs syndrome, also called Willis-Ekbom disease, is a neurological condition characterized by an uncontrollable urge to move the legs. Scientists are still working to understand what causes RLS. Evidence suggests that reduced iron levels in certain parts of the brain may play a role. Additional evidence suggests that RLS may be related to dopamine, a chemical messenger in the brain that helps control body movement.



Iron levels
Dopamine signaling

How can restless legs syndrome impact your health?

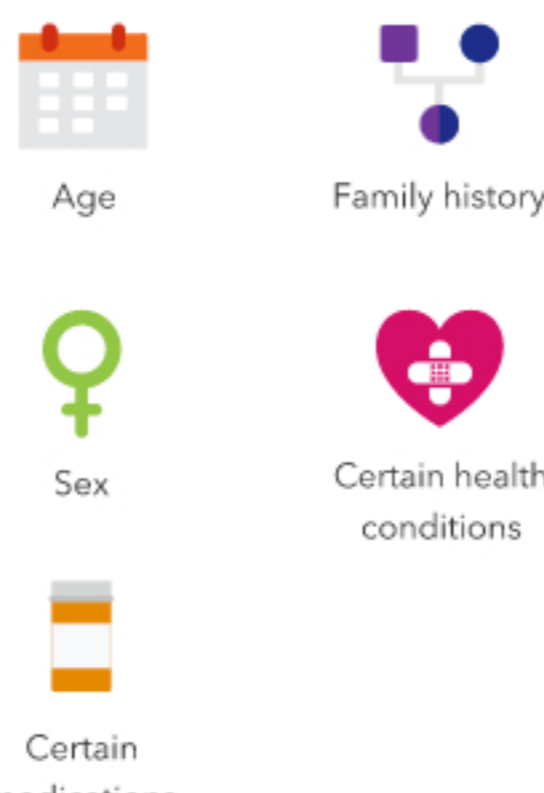
People with RLS experience uncomfortable sensations in their legs and sometimes other parts of their bodies. The sensations can range from mild discomfort to pain and can vary from day to day. This can make it difficult to fall asleep and stay asleep, resulting in daytime sleepiness, altered mood, and difficulty concentrating. RLS is also associated with an increased risk for anxiety and depression. For people who experience RLS, lifestyle modifications and other treatments, including medications, can help ease symptoms.



Other factors that can impact your chances of developing restless legs syndrome

It is estimated that up to 7-10% of the general U.S. population may have RLS. Besides genetics, some factors that can increase a person's chances of developing RLS include:

- Age (this condition tends to be more common as people get older)
- Family history
- Sex (more females than males are diagnosed with RLS. Some females develop RLS during pregnancy but for most, symptoms disappear after delivery)
- Certain health conditions (such as iron deficiency, end-stage kidney disease, and nerve damage)
- Currently taking certain medications



Keep in mind

This report **does not diagnose** restless legs syndrome. **Consult with a healthcare professional** if you are concerned about your likelihood of developing restless legs syndrome, have a personal or family history of restless legs syndrome, or before making any major lifestyle changes.

If you have already been diagnosed with restless legs syndrome by a healthcare professional, it is important to **continue any treatment plans** that they prescribe, including medications and lifestyle modifications.

The likelihood of developing restless legs syndrome also depends on **other factors**, including age and family history.

This report **does not account for every possible genetic variant** that could affect your likelihood of developing restless legs syndrome.

This report is based on a genetic model **created using data from 23andMe research participants**. It has not been clinically validated and should not be used to make medical decisions.

[How we got your result](#)

Methods

This report is based on a statistical model that takes into account your genetic results at 23,099 genetic **markers**, along with the ethnicity and sex you reported in your account settings, to estimate the likelihood of developing restless legs syndrome. We used data from 23andMe research participants to calculate this estimate. Results and estimates may be updated over time as the model or scientific understanding about this condition improves.

About the result

People whose result is associated with odds of developing restless legs syndrome that are at least 1.5 times higher than average are considered to have an increased likelihood. Between 9% and 25% of individuals receive an "increased likelihood" result, depending on ethnicity. These results are based on many genetic markers, and random test error at one or more of these markers can lead to a small margin of error in your estimated likelihood of developing restless legs syndrome. For people whose estimates are near the boundary between typical and increased likelihood, this margin of error may introduce some uncertainty about whether their estimated likelihood is considered "typical" or "increased". Your genetic result is associated with a typical likelihood. Based on the available genetic markers used to calculate your result, there is a 10% chance your genetic likelihood estimate could fall on the other side of the boundary and be in the range that is considered increased.

Scientific validity across ethnicities

We verified that the model meets our scientific standards for individuals of European, Hispanic/Latino, East/Southeast Asian, South Asian, Sub-Saharan African/African American, and Northern African/Central & Western Asian descent.

How we may use ethnicity and sex to customize this result

- If you indicated in your account settings that you are of European, Hispanic/Latino, East/Southeast Asian, South Asian, Sub-Saharan African/African American, or Northern African/Central & Western Asian (Middle Eastern) descent, your result is tailored based on data from individuals of that ancestry.
- If you indicated in your account settings that you are predominantly of both Hispanic/Latino and another ancestry, your result will be based on data from individuals of Hispanic/Latino descent.
- If you indicated in your account settings that you are predominantly of both Sub-Saharan African/African American and European descent, your result will be based on data from individuals of Sub-Saharan African/African American descent.
- If there is not enough data from individuals of your ethnicity or combination of ethnicities at this time, your result may be based on data from individuals of European descent because the most data is available for this population.
- Your Restless Legs Syndrome result also takes into account the sex you indicated in your account settings.

See our [white paper](#) to learn more about the science behind this report.

Read More:

- Allen RP. (2015). "Restless Leg Syndrome/Willis-Ekbom Disease Pathophysiology." *Sleep Med Clin.* 10(3):207-14. *
- Mayo Clinic. "Restless legs syndrome." Retrieved August 12, 2020, from <https://www.mayoclinic.org/diseases-conditions/restless-legs-syndrome/symptoms-causes/syc-20377168>. *
- National Institute of Neurological Disorders and Stroke. (2020). "Restless Legs Syndrome Fact Sheet." Retrieved August 12, 2020, from <https://www.ninds.nih.gov/disorders/patient-caregiver-education/fact-sheets/restless-legs-syndrome-fact-sheet>. *
- Ohayon MM et al. (2012). "Epidemiology of restless legs syndrome: a synthesis of the literature." *Sleep Med Rev.* 16(4):283-95. *
- Restless Legs Syndrome Foundation. "Frequently Asked Questions." Retrieved August 13, 2020, from <https://www.rls.org/understanding-rls/faq>. *

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