

## ☆ Restless leg syndrome (Didriksen, 2020)

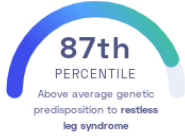
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Communications Biology

Sleep

### STUDY SUMMARY

Identification of novel 3 regions of the genome associated with restless leg syndrome.

#### YOUR RESULT



#### STUDY DESCRIPTION

Restless leg syndrome (RLS) is a disorder of the nervous system that results in uncomfortable feelings in the legs, along with overpowering urges to move them. The condition is thought to affect more than 1 in 10 individuals in the United States. RLS appears to be a heritable condition, with between 40 and 90% of affected individuals having a parent or sibling that is also affected. This study examined the genomes of over 500,000 adults of European ancestry and identified 22 regions of the genome associated with RLS, 3 of which are novel. Among the newly implicated genes are UNCX and LMO1. They encode proteins that are known to regulate the activity of genes in nerve cells.

#### DID YOU KNOW?

A 2006 study found that individuals affected by restless leg syndrome who performed moderate exercise 3 times a week saw a 50% drop in severity of the condition.

#### YOUR DETAILED RESULTS

To calculate your genetic predisposition to restless leg syndrome we summed up the effects of genetic variants that were linked to restless leg syndrome in the [study that this report is based on](#). These variants can be found in the table below. The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to restless leg syndrome. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to restless leg syndrome. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to restless leg syndrome. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for restless leg syndrome to be 0.02**. To determine whether your score is high or low, we compared it to the scores of 5,000 other Nebula Genomics users. We found that your polygenic score for restless leg syndrome is in the **87th percentile**. This means that it is higher than the polygenic scores 87% of people. We consider this to be an **above average genetic predisposition to restless leg syndrome**. However, please note that genetic predispositions do not account for important non-genetic factors like lifestyle. Furthermore, the genetics of most traits has not been fully understood yet and many associations between traits and genetic variants remain unknown. For additional explanations, click on the column titles in the table below and visit our [Nebula Library tutorial](#).

VARIANT <sup>Ⓞ</sup>	YOUR GENOTYPE <sup>Ⓞ</sup>	EFFECT SIZE <sup>Ⓞ</sup>	VARIANT FREQUENCY <sup>Ⓞ</sup>	SIGNIFICANCE <sup>Ⓞ</sup>
rs113851554_T	G / T	0.71 (↑)	7%	3.30 × 10 <sup>-276</sup>
rs61192259_C	C / A	-0.24 (↓)	41%	1.90 × 10 <sup>-103</sup>
rs45544231_G	G / C	-0.21 (↓)	42%	3.90 × 10 <sup>-80</sup>
rs868036_T	T / A	-0.21 (↓)	32%	1.80 × 10 <sup>-74</sup>
rs12046503_C	C / C	0.15 (↑)	41%	7.10 × 10 <sup>-48</sup>
rs1820989_A	C / C	0.12 (-)	47%	3.10 × 10 <sup>-32</sup>
rs10208712_G	A / A	-0.11 (-)	36%	5.90 × 10 <sup>-23</sup>
rs1836229_G	A / G	-0.09 (↓)	48%	6.20 × 10 <sup>-22</sup>
rs35987657_G	A / G	-0.11 (↓)	33%	3.90 × 10 <sup>-21</sup>
rs10952927_G	G / G	0.14 (↑)	13%	4.10 × 10 <sup>-21</sup>
rs111652004_T	G / T	-0.19 (↓)	10%	1.50 × 10 <sup>-20</sup>
rs80319144_T	C / T	-0.11 (↓)	24%	5.50 × 10 <sup>-20</sup>
rs112716420_G	C / C	0.22 (-)	8%	1.50 × 10 <sup>-18</sup>
rs365032_G	A / A	0.10 (-)	27%	1.50 × 10 <sup>-18</sup>
rs17636328_G	G / G	-0.12 (↓)	20%	2.70 × 10 <sup>-17</sup>
rs996064_T	A / A	0.19 (-)	6%	4.40 × 10 <sup>-16</sup>
rs1848460_T	A / A	0.09 (-)	26%	3.00 × 10 <sup>-16</sup>
rs62535767_T	C / C	-0.08 (-)	32%	4.80 × 10 <sup>-14</sup>
rs10769894_A	A / G	-0.11 (↓)	45%	9.40 × 10 <sup>-14</sup>
rs12450895_A	G / A	0.09 (↑)	21%	1.30 × 10 <sup>-12</sup>
rs340561_T	G / T	0.08 (↑)	20%	2.50 × 10 <sup>-10</sup>
rs10068599_T	C / C	0.09 (-)	33%	6.90 × 10 <sup>-10</sup>
rs12962305_T	C / T	0.06 (↑)	25%	4.50 × 10 <sup>-9</sup>