

## ★ Computer use for leisure (van de Vegte, 2020)

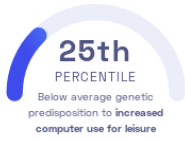
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Nature Communications

Behavior

### STUDY SUMMARY

Discovery of 36 genomic regions associated with using a computer for leisure.

### YOUR RESULT



### STUDY DESCRIPTION

From playing games to binge-watching the latest show to reading the latest entries in the Nebula Research Library, computers can be a great way to spend leisure time. In fact, the average American spends roughly 90 minutes per day using a computer for leisure! To find genetic markers associated with a propensity to use a computer for leisure, this genome-wide association study examined the genetic data of over 420,000 individuals of European descent. The researchers identified 36 regions of the genome associated with leisure computer use, many of which are near genes responsible for brain development and function. Of these 36 regions, 15 were also linked to watching television for leisure. However, while watching television was found to correlate with an increased risk of *coronary artery disease*, computer use was not found to be associated with an increased risk. Regardless, sedentary activities such as using a computer and watching television must be done in moderation. Excessive use may contribute to conditions such as insomnia and obesity.

### DID YOU KNOW?

Excessive time spent at the computer may cause a multitude of injuries, including back pain, neck pain, headaches, eyestrain, and carpal tunnel syndrome. Proper posture is important to help reduce aches and pains, and lowering the screen's brightness can reduce fatigue for the eyes.

### YOUR DETAILED RESULTS

To calculate your genetic predisposition to increased computer use for leisure we summed up the effects of genetic variants that were linked to increased computer use for leisure 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 increased computer use for leisure. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to increased computer use for leisure. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to increased computer use for leisure. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for increased computer use for leisure to be -0.21**. 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 increased computer use for leisure is in the **25th percentile**. This means that it is higher than the polygenic scores 25% of people. We consider this to be a **below average genetic predisposition to increased computer use for leisure**. 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>
rs4977839_G <small>NEW</small>	A / A	-0.02 (-)	58%	4.70 × 10 <sup>-9</sup>
rs9372625_G <small>NEW</small>	G / A	-0.02 (↓)	62%	5.70 × 10 <sup>-16</sup>
rs6744254_C <small>NEW</small>	T / T	-0.02 (-)	47%	5.40 × 10 <sup>-13</sup>
rs13262595_A <small>NEW</small>	A / A	-0.02 (↓)	44%	1.20 × 10 <sup>-12</sup>
rs2220599_C <small>NEW</small>	C / C	-0.02 (↓)	63%	2.40 × 10 <sup>-12</sup>
rs2748985_T <small>NEW</small>	T / T	-0.02 (↓)	45%	4.10 × 10 <sup>-12</sup>
rs140681455_C <small>NEW</small>	C / CGGCCG	-0.02 (↓)	62%	2.30 × 10 <sup>-11</sup>
rs11810110_C <small>NEW</small>	G / G	-0.02 (-)	65%	3.20 × 10 <sup>-11</sup>
rs2068625_T <small>NEW</small>	T / C	-0.02 (↓)	30%	4.00 × 10 <sup>-11</sup>
rs2345941_A <small>NEW</small>	A / A	0.01 (↑)	55%	4.00 × 10 <sup>-11</sup>
rs11708955_T <small>NEW</small>	C / C	-0.02 (-)	69%	4.20 × 10 <sup>-11</sup>
rs1448355_C <small>NEW</small>	C / T	-0.01 (↓)	38%	1.30 × 10 <sup>-10</sup>
rs73578186_C <small>NEW</small>	C / T	0.01 (↑)	68%	2.30 × 10 <sup>-10</sup>
rs55772938_A <small>NEW</small>	G / G	-0.02 (-)	70%	3.90 × 10 <sup>-10</sup>
rs11749912_A <small>NEW</small>	A / A	0.01 (↑)	42%	4.90 × 10 <sup>-10</sup>
rs2734849_A <small>NEW</small>	A / A	-0.01 (↓)	49%	8.20 × 10 <sup>-10</sup>
rs984409_A <small>NEW</small>	A / A	-0.01 (↓)	36%	9.30 × 10 <sup>-10</sup>
rs6774533_C <small>NEW</small>	C / C	-0.01 (↓)	29%	1.20 × 10 <sup>-9</sup>
rs4073003_A <small>NEW</small>	A / G	0.02 (↑)	87%	1.20 × 10 <sup>-9</sup>
rs113851275_G <small>NEW</small>	G / A	-0.02 (↓)	89%	3.20 × 10 <sup>-9</sup>
rs166835_C <small>NEW</small>	T / T	0.01 (-)	44%	3.40 × 10 <sup>-9</sup>
rs631130_A <small>NEW</small>	A / A	0.01 (↑)	44%	0.00 × 10 <sup>0</sup>
rs17789218_T <small>NEW</small>	T / T	-0.02 (↓)	76%	4.20 × 10 <sup>-9</sup>
rs10208088_C <small>NEW</small>	T / T	0.01 (-)	42%	4.40 × 10 <sup>-9</sup>
rs5835068_C <small>NEW</small>	CT / CT	0.02 (-)	12%	5.80 × 10 <sup>-9</sup>
rs206965_T <small>NEW</small>	C / C	0.02 (-)	21%	9.10 × 10 <sup>-9</sup>
rs35933007_G <small>NEW</small>	G / G	-0.02 (↓)	77%	9.20 × 10 <sup>-9</sup>