

★ Trigger finger (Patel, 2022)

Benjamin Patel, et al.
The Lancet Rheumatology

Muscles

STUDY SUMMARY

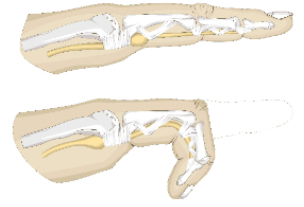
This report is based on a study that discovered 5 genetic variants associated with trigger finger.

YOUR RESULT



STUDY DESCRIPTION

A tendon is a cord of strong, flexible tissue, similar to a rope that connects your muscles to your bones. Trigger finger is a condition that can affect the tendons of the hand, causing pain, stiffness, and a sensation of locking or catching when you bend or straighten your finger. An estimated 2-10% of people will experience trigger finger during their life. In individuals living with conditions such as rheumatoid arthritis, the rate is much higher. To identify genetic variants associated with trigger finger, this study examined nearly 440,000 individuals of European ancestry. Researchers identified 5 genetic variants associated with the onset of trigger finger, including one that has been linked to the development of carpal tunnel syndrome. The study also implicated two genes: DIRC3 and IGFBP5. DIRC3 encodes a protein that controls the activity of other genes, and IGFBP5 plays a role in the regulation of muscle development.



Trigger finger prevents movement.

DID YOU KNOW?

The fingers themselves have no muscles. Instead, the muscles that bend the fingers are located in the palm and mid-forearm.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to trigger finger we summed up the effects of genetic variants that were linked to trigger finger 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 trigger finger. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to trigger finger. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to trigger finger. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for trigger finger to be -0.65**. 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 trigger finger is in the **32nd percentile**. This means that it is higher than the polygenic scores 32% of people. We consider this to be a **below average genetic predisposition to trigger finger**. 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 [Ⓞ] | YOUR GENOTYPE [Ⓞ] | GENE [Ⓞ] | EFFECT SIZE [Ⓞ] | VARIANT FREQUENCY [Ⓞ] | SIGNIFICANCE [Ⓞ] |
|----------------------|----------------------------|-------------------|--------------------------|--------------------------------|---------------------------|
| rs10521304_T | T / T | FTO | -0.20 (↓) | 54% | 2.74×10^{-14} |
| rs10203066_A | G / G | DIRC3 | -0.29 (-) | 14% | 6.73×10^{-13} |
| rs4244811_G | G / G | LTBP3 | 0.16 (↑) | 33% | 3.37×10^{-9} |
| rs2087927_A | G / G | IGFBP5 | -0.17 (-) | 26% | 4.04×10^{-9} |
| rs3790086_C | C / C | NQO1 | -0.14 (↓) | 54% | 3.61×10^{-8} |