



Ligament Injury

(rs1800012) – COL1A1

Your DNA Outcome



You may have an increased vulnerability to ligament injury, anterior cruciate ligament (ACL) injury, and shoulder dislocation.

You Are Genotype

CC

Scientific Confidence Grade



Percentage of the Population with CC Genotype

72%

Recommendation

The ligaments within your joints, such as your Anterior Cruciate Ligament (ACL) and Medial Collateral Ligament (MCL) within your knee can be particularly vulnerable to injury. Since you may have an increased risk of ligament injury, keeping your joints healthy is important.

Be sure to stretch before and after your workout, warm up and cool down. When training, you want your training volumes to be high, and utilize proper technique to ensure you are reducing any unnecessary strain on your ligaments. Be proactive. Recognize when your technique is getting sloppy, when you are putting strain on your ligaments and can feel pain to reduce your risk of an injury. As you may be at an increased risk, being conscious of your technique is crucial as you may not be able to get away with bad technique without consequence. Maintain a good diet and good sleep habits to further reduce your injury risk.

Your muscle strength and function is directly linked to ligament injury risk. Quick directional changes, sudden deceleration, and jumping and landing activities are common movements in many sports, but if your muscles cannot take on the strain it is transferred to your ligaments. If you are hypermobile, it is important that you don't hang off your joints. You want to focus on movement patterns that actively support your position rather than passively support it.

Gene Summary

Your ligaments are made up of different types of collagen that give them their unique stiffness and elasticity. **COL1A1** plays an important role in collagen development, and therefore, overall ligament strength and integrity. Certain variants of this gene may increase the strength of your ligaments, like your ACL and those in your shoulder, which may decrease your risk of injuries, tears and shoulder dislocation.

