

Rotator Cuff Injury

DNA Health Report

REPORT CATEGORY —



INJURIES

Sample Client

Report date: 15 January 2026

Powered by

 omicsedge

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

10 Your recommendations

24 Next Steps

- 24 Your Lab Results

DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

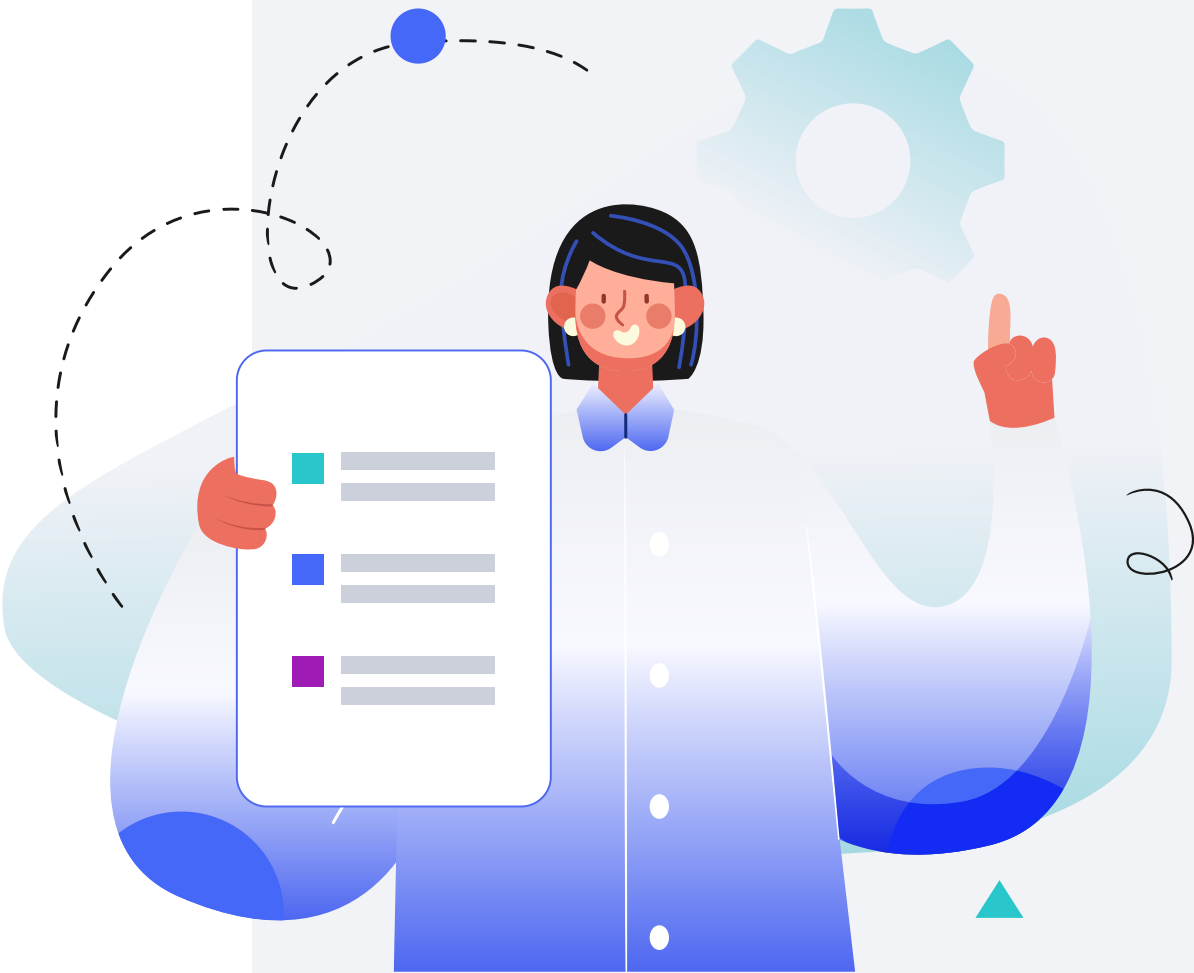
Male

HEIGHT

5ft 5" 165cm

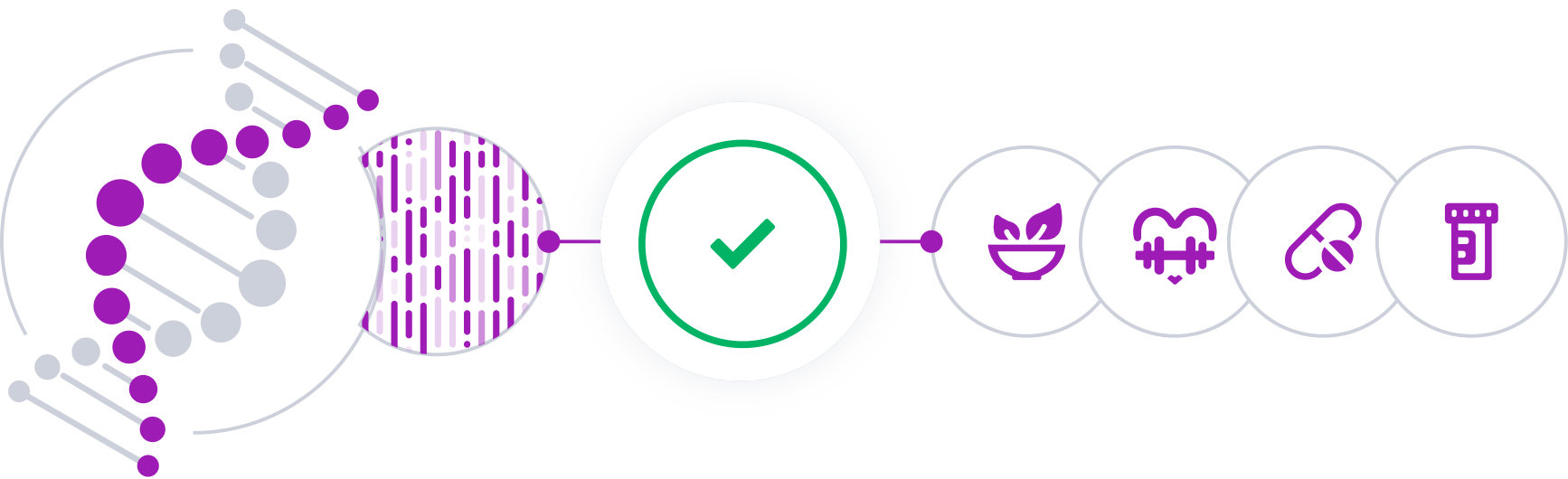
WEIGHT

137lb 62kg



How this works

Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.

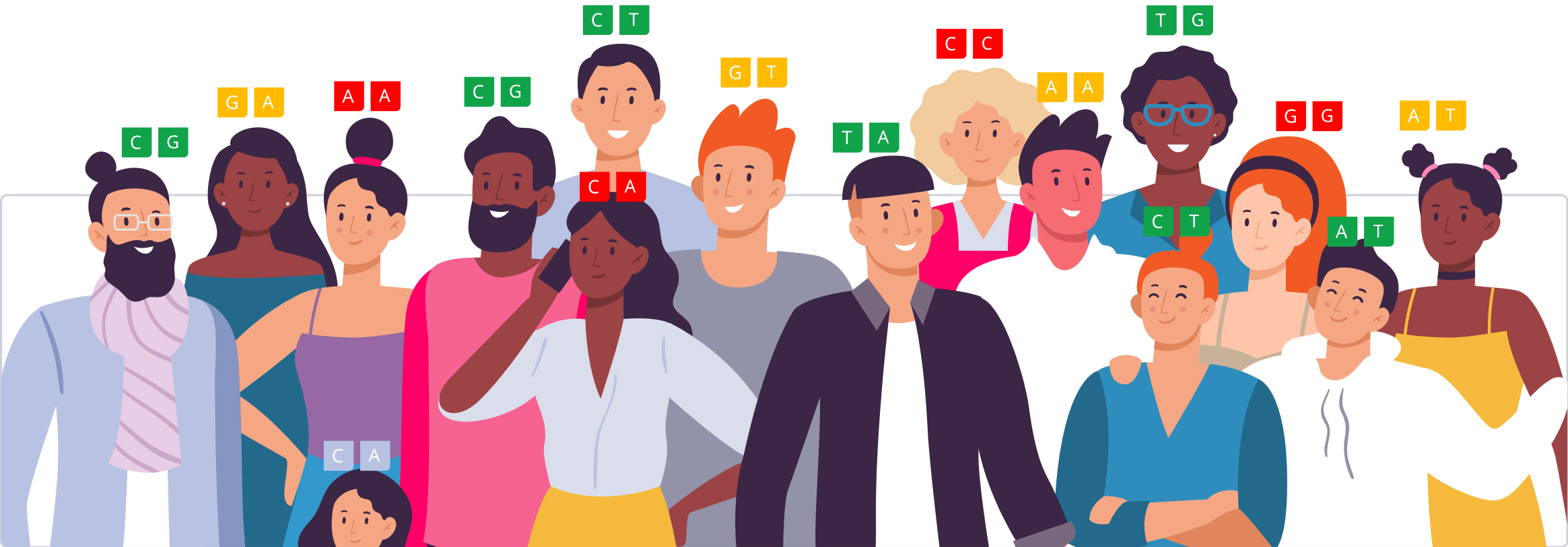


Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

In total, we analyze up to 83 million genetic variants.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

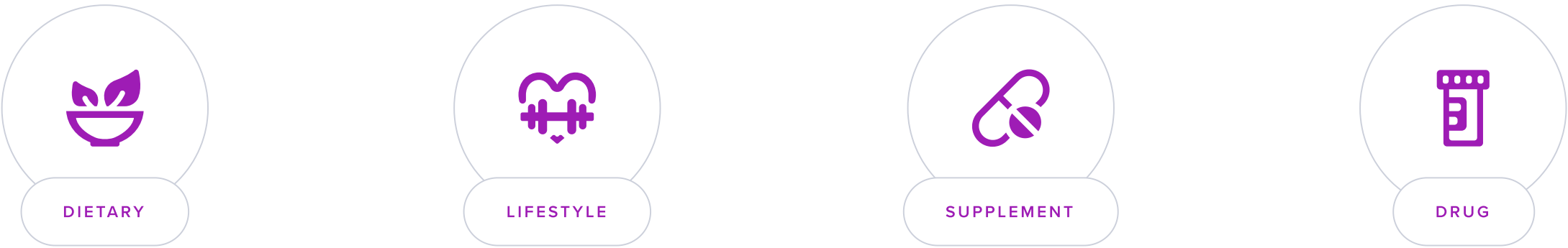
You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
-
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
-
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
-
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
-
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

The **rotator cuff** is a group of muscles and tendons that surround the shoulder joint. They keep the upper bone of the arm within the shoulder socket and help you lift and rotate your arms [\[R\]](#), [\[R\]](#).

When one or more of the rotator cuff tendons is torn, it becomes totally or partly detached from the bone of the arm. This usually occurs slowly over time, as a result of a wearing down of the tendon. Repetitive stress and reduced blood supply to the rotator cuff tendons due to aging are contributing factors [\[R\]](#), [\[R\]](#).

Alternatively, traumatic injuries from falls or lifting heavy objects can cause rotator cuff injury [\[R\]](#), [\[R\]](#).

Symptoms of a rotator cuff injury include [\[R\]](#), [\[R\]](#):

- A dull pain in the shoulder, especially when lifting your arm or lying on it
- Grating or cracking sounds when moving your arm
- Struggling to move your arm
- Shoulder weakness

The pain may be mild and only present when lifting your arm at first, but can become more noticeable over time. Some tears may not be painful at all but may still cause other symptoms [\[R\]](#).

Depending on how severe the injury is, treatment can involve [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Resting and using arm slings
- Strengthening and stretching exercises
- Painkillers
- Steroid injections
- Surgery

Rotator Cuff Injury Genetics

PERSONALIZED TO GENES

Based on the genetic variants we looked at, you may have a typical likelihood of developing a rotator cuff injury.

Try to take preventative measures to potentially decrease your risk. These include stretching and strengthening your shoulder muscles and avoiding repetitive overhead arm movements.

The **rotator cuff** is a group of muscles and tendons that surround the shoulder joint. They keep the upper bone of the arm within the shoulder socket and help you lift and rotate your arms. When one or more of the rotator cuff tendons is torn, it becomes totally or partly detached from the bone of the arm. This usually occurs slowly over time, but can also be caused by traumatic injuries from falls or lifting heavy objects [\[R\]](#), [\[R\]](#).

Some people may be more prone to rotator cuff injuries than others. Risk factors include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Age (the risk tends to increase in people over 40 and tears are most common in those over 60)
- Taking part in sports that include repetitive arm lifting or overhead movements (e.g., tennis, baseball, weight-lifting, rowing)
- Occupations involving overhead work (e.g., carpentry, house painting, mechanics)
- Traumatic injuries and falls
- **Genetics**

In fact, up to 20% of differences in people’s chances of developing a rotator cuff injury may be due to genetics. Genes involved may influence [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Tendon growth and repair
- Inflammation
- Blood vessel development

Tips to help prevent a rotator cuff injury include [\[R\]](#), [\[R\]](#):



TYPICAL LIKELIHOOD

Typical likelihood of a rotator cuff injury based on 734,008 genetic variants we looked at



PERCENTILE



Your risk is greater than 38% of the population and lower than 62% of the population.

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
/	rs140539211	CC
DLC1	rs34045652	CC
MGAT2	rs1010586	CC
GLCCI1	rs4725069	CC
CPE	rs138457734	CC
STOML3	rs147482720	TT
ANXA1	rs74821598	TT
RORB	rs72727137	GG
USP6NL	rs3847425	CC
CCDC110	rs11727025	GG
KBTBD3	rs505416	GG
FRMPD4	rs144371252	A
AOAH	rs3807160	GG
STK24	rs912336	CG
EGFLAM	rs60486174	TT
PLCB1	rs6140637	AA
RBMS2	rs117991841	CC
LONRF1	rs17769850	TT
QKI	rs55958453	GA
SIPA1L2	rs789644	CA
S100A12	rs143640806	AA
ZNF519	rs117141423	GG
LRR1	rs186974390	CC
ERBB3	rs182687492	AA

- Stretching and strengthening your shoulder muscles
- Limiting repetitive overhead arm movements
- Avoiding lying on your shoulder while sleeping
- Avoiding cigarette smoke

GENE	SNP	GENOTYPE
NUTM2E	rs560458864	GG
PAWR	rs186324387	AA
RFC3	rs7139664	AG
/	rs750968	CG
ABCA9	rs9302983	TG
ALG13	rs185496698	C
THSD7A	rs575224171	GG
LPIN1	rs192110159	CC
ASTN2	rs562775223	CC
/	rs761804508	G
C5ORF63	rs145648292	GG
/	rs71404070	TT
TRIL	rs2237352	TT
SLC39A8	rs13107325	CC
CPNE1	rs2104009	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You’ll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

DOSAGE		DOSAGE	
1	Reduce Shoulder & Neck Strain	2	Physical Therapy30 minutes
3	Strength Training1 hour	4	Avoid High-Impact Exercise
5	Manual Therapy	6	Avoid Lifting Heavy Objects
7	Stretching15 minutes	8	Kinesio Taping
9	Massage30 minutes	10	Flexibility Training20 minutes
11	Exercise Therapy1 hour	12	PEMF30 minutes
13	CBD10 mg		

1



Reduce Shoulder & Neck Strain

IMPACT

5 / 5

EVIDENCE

4 / 5

How to implement

Adjust your workstation to ensure the computer screen is at eye level and your chair supports your lower back. Take frequent breaks every hour to stretch your neck and shoulders. Practice good posture by keeping your shoulders back and relaxed, and your ears over your shoulders when sitting or standing.

Description

Your shoulders and neck contain dozens of muscles and tendons that help you move. Reducing shoulder and neck strain refers to implementing ergonomic practices and exercises to alleviate tension and discomfort in these areas, which can help prevent musculoskeletal problems and promote better posture and overall physical well-being.

Your shoulders and neck contain dozens of muscles and tendons that help you move. Any of those can be strained [\[R\]](#), [\[R\]](#).

A strain is an overstretching or tear in a muscle or tendon. It can cause pain and limit movement [\[R\]](#), [\[R\]](#).

There are many causes of shoulder and neck strain. The most common ones include [\[R\]](#), [\[R\]](#):

- Poor posture
- Prolonged sitting
- Poor sleep position
- Injury and overuse
- Stress

Stress and overuse are common reasons for shoulder and neck strain in the workplace. Strain is common in people who work in:

- Dentistry [\[R\]](#)
- Construction [\[R\]](#)
- Medicine [\[R\]](#)
- Offices [\[R\]](#)

How it helps

Experts recommend reducing strain to the shoulders to help prevent rotator cuff injuries. Some useful tips include [\[R\]](#), [\[R\]](#):

- Stretching and strengthening your shoulder muscles
- Limiting repetitive overhead arm movements
- Avoiding lying on your shoulder while sleeping
- Having good posture when sitting and standing

2

Physical Therapy

IMPACT

4 / 5

EVIDENCE

3 / 5

How to implement

Attend physical therapy sessions 2-3 times per week for a duration of 4-6 weeks, depending on your specific condition and the advice of your healthcare provider. Each session typically lasts about 30-60 minutes, where a licensed therapist will guide you through targeted exercises, stretches, and possibly other treatments like electrical stimulation or ultrasound therapy.

TYPICAL STARTING DOSE

30 minutes

Description

Physical therapy is a therapeutic practice focused on optimizing physical function and mobility through specialized exercises, manual techniques, and therapeutic modalities. It helps individuals recover from injuries, manage chronic conditions, and improve overall physical well-being by enhancing strength, flexibility, and pain management.

Physical therapy (physiotherapy) helps people regain or maintain their ability to move [\[R\]](#).

Physical therapy can involve [\[R\]](#):

- Joint or muscle exercises
- Corrective movements
- Massage
- Education and advice

People mainly use physical therapy to help with [\[R\]](#), [\[R\]](#):

- Pain and injury
- Stroke recovery
- Chronic health conditions
- Headaches

Mirror therapy uses a mirror placed between the arms or legs. The image of a moving arm or leg gives the illusion of normal movement in the affected one. This therapy stimulates different brain regions and aims to improve mobility [\[R\]](#).

Constraint-induced movement therapy is another type of physical therapy. It consists of restraining the healthy leg or arm to increase the use of the affected one [\[R\]](#).

How it helps

Experts recommend physical therapy to improve pain, physical function, and quality of life in people with rotator cuff injury. Physical therapy may also help recover from rotator cuff surgery [\[R\]](#), [\[R\]](#).

Beneficial physical therapy techniques include:

- Manual therapy [\[R\]](#), [\[R\]](#)
- Exercise therapy [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Kinesio taping [\[R\]](#)

However, the quality of the evidence is generally low.

3

Strength Training

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Engage in strength training exercises, such as weight lifting or bodyweight exercises, for 60 minutes per session, 2 to 3 times per week. Ensure you work all major muscle groups and rest each muscle group for at least 48 hours before exercising it again.

TYPICAL STARTING DOSE

1 hour

Description

Strength training, also called resistance or *anaerobic* training, contracts the muscles against an external resistance for short periods of time. This helps gain muscle strength, tone, and mass. This can include activities like weight lifting, pushups, and crunches.

Strength training, also known as resistance training, is a type of physical exercise that uses resistance to build strength, anaerobic endurance, and size [R]. Some of the most common strength training methods include [R]:

- Weight lifting
- Bodyweight exercises like push-ups, pull-ups, squats, and lunges.
- Resistance bands
- Plyometrics or explosive force exercises

The benefits of strength training are numerous, and include [R]:

- Increased muscle strength
- Improved bone health
- Reduced risk of injury
- Improved balance and coordination
- Enhanced mood
- Boost metabolism

Consult with a doctor before starting any new exercise program, especially if you have any health conditions.

How it helps

Strength training (4x/week for 5 weeks), especially focused on eccentric external rotator muscle strength, increases the total exercise capacity of these muscles, potentially reducing shoulder rotator muscle imbalances and the risk of shoulder injuries in athletes engaged in overhead activities [R].

Resistance training has shown that gains in mean and peak torque for rotator cuff muscles may be maintained with reduced training frequencies, which is relevant for both rehabilitation and off-season training strategies [R].

Studies comparing different types of strength training (isokinetic vs isotonic) for the rotator cuff have found varied impacts on strength, power, and muscular balance, emphasizing the need for specific training protocols tailored to the needs of the rotator cuff for rehabilitation and performance enhancement [R].

4



Avoid High-Impact Exercise

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Opt for low-impact activities such as swimming, cycling, or walking instead of running or jumping exercises. Engage in these alternative exercises for at least 150 minutes per week, spread out over several days to ensure rest periods between sessions.

Description

For individuals with certain medical conditions or joint issues, avoiding high-impact exercise can help prevent injuries and joint strain. Choosing lower-impact activities like swimming or cycling can provide similar cardiovascular benefits while minimizing the risk of overuse injuries.

How it helps

High-impact exercises that involve repetitive overhead or throwing actions, common in sports like baseball, may lead to rotator cuff injuries. Young athletes are particularly at risk, although rotator cuff tears are rare in this group. These injuries often result from the high demands placed on the shoulder during such activities, leading to stress and potential injury to the rotator cuff [R].

In younger people and athletes, acute rotator cuff tears are often linked to traumatic events rather than degenerative changes that are more common in older adults. These injuries may occur during high-impact exercises where sudden, intense forces are applied to the shoulder, as seen in sports or high-intensity workouts [R].

Proper training and preventive exercises may help mitigate the risk of rotator cuff injuries by strengthening the shoulder muscles and improving joint stability. Programs designed to balance the strength of shoulder muscles and address biomechanical vulnerabilities may be effective in both preventing and rehabilitating rotator cuff injuries, especially in populations engaged in overhead sports or activities [R].

5



Manual Therapy

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Schedule a session with a certified manual therapist, such as a physical therapist or chiropractor, once a week for at least 3 to 6 weeks. During these sessions, allow the therapist to apply hands-on techniques to manipulate muscles and joints aiming to improve mobility and reduce pain.

Description

Manual therapy encompasses various hands-on techniques used by healthcare professionals, including physical therapists and massage therapists, to alleviate pain, improve mobility, and promote overall musculoskeletal health. It can be effective for addressing a wide range of conditions, from muscle tension to joint disorders.

How it helps

Manual therapy, when integrated into a comprehensive physiotherapy program, has shown improvements in pain reduction and increased range of motion in people with chronic rotator cuff injuries [\[R\]](#).

A study compared manual therapy combined with a home exercise program to placebo treatment in people with chronic rotator cuff disease. While immediate additional benefits over placebo were not evident, the manual therapy group showed greater improvements in shoulder function and strength at a 22-week follow-up, suggesting the benefits of manual therapy may take time to manifest [\[R\]](#).

A case series demonstrated that a combined approach involving manual therapy, exercises, and patient education tailored to individual impairments may improve symptoms and function in people with subacromial impingement syndrome, a common issue associated with rotator cuff injuries [\[R\]](#).

6



Avoid Lifting Heavy Objects

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Refrain from picking up items that require significant strain or exertion, typically defined as those weighing more than 25 pounds (11 kilograms), to avoid unnecessary pressure on your body. This restriction should be adhered to as long as your healthcare provider advises, which may be indefinitely for chronic conditions or for a specific recovery period following surgery or injury.

Description

Avoiding improper lifting techniques when handling heavy objects can help prevent back injuries and musculoskeletal strain. Practicing safe lifting methods and using proper equipment promotes spine and musculoskeletal health.

How it helps

Lifting heavy objects is recognized as a direct cause of rotator cuff injuries. A study noted that traumatic etiology, which includes lifting heavy objects, accounted for a portion of rotator cuff tears, indicating that heavy lifting may be a direct contributor to these injuries [\[R\]](#).

Another study showed that rotator cuff stress increases during upper limb weight-bearing lifts, which are common in people performing heavy manual labor. This stress is implicated in rotator cuff diseases, suggesting a link between lifting heavy objects and rotator cuff injuries [\[R\]](#).

Rotator cuff myotendinous junction injuries were also reported in people engaged in activities involving heavy lifting, showing how such activities may contribute to shoulder injuries [\[R\]](#).

7



Stretching

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Incorporate stretching exercises into your daily routine, dedicating at least 10-15 minutes each day. Focus on major muscle groups such as the neck, shoulders, chest, back, hips, and legs. For best results, stretch both before and after other physical activities, holding each stretch for 15-30 seconds without bouncing.

TYPICAL STARTING DOSE

15 minutes

Description

Stretching involves gently elongating the muscles to improve flexibility, reduce muscle tension, and enhance joint mobility. Regular stretching can help prevent injuries, promote better posture, and increase overall physical comfort.

Stretching is a form of physical exercise that involves moving a muscle or group of muscles to their maximum range of motion. The most common types are **dynamic** (involving movement) and **static** stretching.

Stretching can help **improve flexibility, range of motion, and posture**. It may also relieve stress, reduce muscle soreness and tension, increase blood flow, and reduce the risk of injuries.

To get the most out of stretching, try to do it regularly, breathe deeply, and ease into the stretches.

How it helps

Stretching may improve shoulder flexibility without adversely affecting the strength of the shoulder's internal and external rotators. This suggests that stretching may not be detrimental before activities like throwing, which are relevant for people with rotator cuff issues [R].

Proprioceptive exercises, which often include stretching components, may help manage shoulder pain and improve the quality of life for nursing professionals with rotator cuff disorders. This points to the broader applicability of stretching in managing rotator cuff conditions [R].

8



Kinesio Taping

IMPACT

1 / 5

EVIDENCE

3 / 5

How to implement

Apply kinesio tape directly to the skin over the affected muscle or joint area. The tape should be stretched slightly to create tension after being applied over the pre-cleaned skin. Typically, kinesio tape can be worn for 3 to 5 days, including during showering, before it needs to be replaced.

Description

Kinesio taping involves the application of special tape to support injured muscles and joints. It can help reduce pain, improve circulation, and enhance overall mobility when used correctly.

Kinesio Taping is a physical therapy technique that uses special tapes to help support muscles and tendons. People use Kinesio Taping to help with [\[R\]](#), [\[R\]](#):

- **Musculoskeletal injuries**
- Swelling due to lymph fluid buildup (lymphedema)
- Muscle stiffness

How it helps

A study involving multiple trials assessed the benefits and harms of KT for rotator cuff disease. It found very low-certainty evidence suggesting that KT may not improve pain, function, pain on motion, or active range of motion compared to sham taping or other conservative treatments. However, KT may improve quality of life compared to conservative treatments, though this evidence is also of low certainty [\[R\]](#).

A study examining the immediate effects of KT on shoulder muscle strength and range of motion in healthy people found that KT did not cause differences in shoulder external rotation peak torque, and shoulder internal and external range of motion [\[R\]](#).

9



Message

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Schedule a massage session, ideally with a licensed therapist, for 30-60 minutes, once a week. Choose a type of massage that suits your specific needs, such as Swedish for relaxation or deep tissue for muscle tension.

TYPICAL STARTING DOSE

30 minutes

Description

Massage therapy involves the manipulation of soft tissues to relax muscles, reduce stress, and alleviate pain. It can improve circulation, promote relaxation, and provide relief from various physical and mental health concerns.

If you’ve ever had a professional [massage](#), then you probably know how much good it can do. Massages may help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Pain
- Fatigue

Reflexology is a type of massage. It involves applying pressure to specific parts of your feet or hands. In theory, by pressing on these areas, you can relieve tension from other parts of the body [\[R\]](#).

Acupressure is a similar technique, in which pressure points are used to help with stress and pain [\[R\]](#), [\[R\]](#).

How it helps

Another study that included therapeutic massage in a rehabilitation program for junior dolphin swimmers with rotator cuff muscle efficiency issues found improvements in muscle strength, flexibility, and pain reduction [\[R\]](#).

A comprehensive review of manual therapies for rotator cuff disease, including massage, found that while manual therapy may not consistently improve function when used alone, it may effectively reduce pain and is generally considered safe with mild adverse effects [\[R\]](#).

10

Flexibility Training

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Incorporate flexibility training exercises, such as yoga or static stretching, into your routine for at least 20-30 minutes a day, three to five times a week. Focus on stretching all major muscle groups, holding each stretch for 10-30 seconds without bouncing, and breathing deeply to maximize benefits.

TYPICAL STARTING DOSE

20 minutes

Description

Flexibility training, such as yoga and stretching exercises, can improve joint range of motion, reduce the risk of injury, and promote better posture. Incorporating flexibility exercises into a fitness routine supports physical comfort and overall mobility.

How it helps

Eccentric isokinetic resistance training, which is a form of flexibility training, has been shown to improve the function and structure of the external rotator cuff muscles. This type of training may increase the range of motion and potentially reduce the risk of further injury [\[R\]](#).

A study involving female athletes participating in overhead activities showed that strength training, which often incorporates flexibility components, increased the eccentric external total work without impacting concentric internal total work. This suggests that such training may reduce shoulder rotator muscle imbalances and lower the risk of shoulder injuries [\[R\]](#).

11



Exercise Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Begin by consulting with a physical therapist to assess your condition and create a personalized exercise plan. Follow the prescribed exercises consistently, focusing on areas needing improvement, such as strength, flexibility, or mobility. Start with gentle exercises, gradually increasing the intensity as you build strength. Ensure you perform the exercises correctly to avoid injury. Regularly check in with your therapist to adjust the plan based on your progress and feedback. Stay committed to the routine for the best results.

TYPICAL STARTING DOSE

1 hour

Description

Exercise therapy is a tailored approach to physical activity designed to improve mobility, strength, and overall health. It is often used to rehabilitate injuries, manage chronic conditions, and promote cardiovascular fitness.

How it helps

A study evaluated the effect of 12 weeks of progressive early active exercise therapy after surgical repair of traumatic full-thickness rotator cuff tears. The study found no difference in shoulder function, pain, and quality of life compared with usual care at 12 weeks and 1 year post-surgery. However, both groups showed improvements over time in all outcomes, indicating the overall benefit of exercise post-surgery [\[R\]](#).

A qualitative study explored how exercise therapy influenced clinical outcomes in people with rotator cuff-related shoulder pain. It identified three causal explanations for the benefits of exercise: improved shoulder strength, changes to psycho-emotional status, and overall health effects. The success of exercise therapy was contingent on a strong therapeutic relationship, a structured program, and timely clinical progress [\[R\]](#).

12



PEMF

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Use a PEMF (Pulsed Electromagnetic Field) device for 30 minutes to 2 hours daily. Position the device as directed by the manufacturer, typically over the area of concern or discomfort. It can be part of your daily routine, such as during rest or activity, without a specific end date unless advised by a healthcare professional.

TYPICAL STARTING DOSE

30 minutes

Description

PEMF, or Pulsed Electromagnetic Field therapy, involves the use of electromagnetic fields to stimulate cellular activity within the body. This therapy is believed to help improve circulation, reduce pain and inflammation, and enhance cellular function.

How it helps

Using a PEMF (Pulsed Electromagnetic Field) therapy can help treat a rotator cuff injury by stimulating the body's natural healing process. It increases blood flow, reducing inflammation and pain, and helps regenerate damaged tissues.

In a placebo-controlled trial of 86 patients with rotator cuff tendinopathy, applying 8 sessions of electromagnetic transduction therapy (a high energetic PEMF) as an add-on to 3 sessions of extracorporeal shock wave therapy further improved pain and function. Applying PEMF for 4 weeks also improved pain in a placebo-controlled trial of 29 patients with persistent rotator cuff tendinitis [\[R\]](#), [\[R\]](#).

13



CBD

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a CBD supplement in a dosage ranging from 10 to 40 milligrams per day. Start with the lowest dose and gradually increase it based on your body's response. This can be taken orally in the form of capsules, edibles, or oil drops under the tongue. For ongoing issues, such as anxiety or chronic pain, it may be used daily, while for acute issues, it might be used as needed.

TYPICAL STARTING DOSE

10 mg

Description

CBD is a non-psychoactive compound found in cannabis plants and is used in various forms, including oils and creams. It may have potential benefits for pain relief, anxiety reduction, and overall relaxation, although more research is needed to fully understand its effects.

[Cannabidiol](#) (CBD) is a compound found in cannabis. Unlike its cousin THC, CBD is not psychoactive and can’t get you “high” [\[R\]](#).

People use CBD to:

- Reduce anxiety [\[R, R\]](#)
- Relieve pain [\[R, R, R\]](#)
- Prevent seizures [\[R\]](#)
- Improve sleep [\[R\]](#)

How it helps

CBD can help manage pain and inflammation associated with a rotator cuff injury by interacting with receptors in your brain and immune system. This interaction reduces pain and swelling, thereby promoting healing.

In a placebo-controlled trial of 99 patients who had undergone arthroscopic rotator cuff repair, supplementation with CBD (25-50 mg, 3x/day for 14 days) reduced pain in the immediate perioperative period [\[R\]](#).

Please note: *CBD can interact with medications and raise the levels of liver enzymes. It may not be safe for pregnant women. Never use CBD without consulting your doctor. Also, make sure to verify the legality of CBD in your country or state* [\[R, R, R, R, R\]](#).

Next Steps

Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

	Vitamin B12	687 pg/mL		9 Nov 2025
	Creatine Kinase	173 IU/L		9 Nov 2025