

Shoulder & Neck Pain

DNA Health Report

REPORT CATEGORY —



PAIN

Sample Client

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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

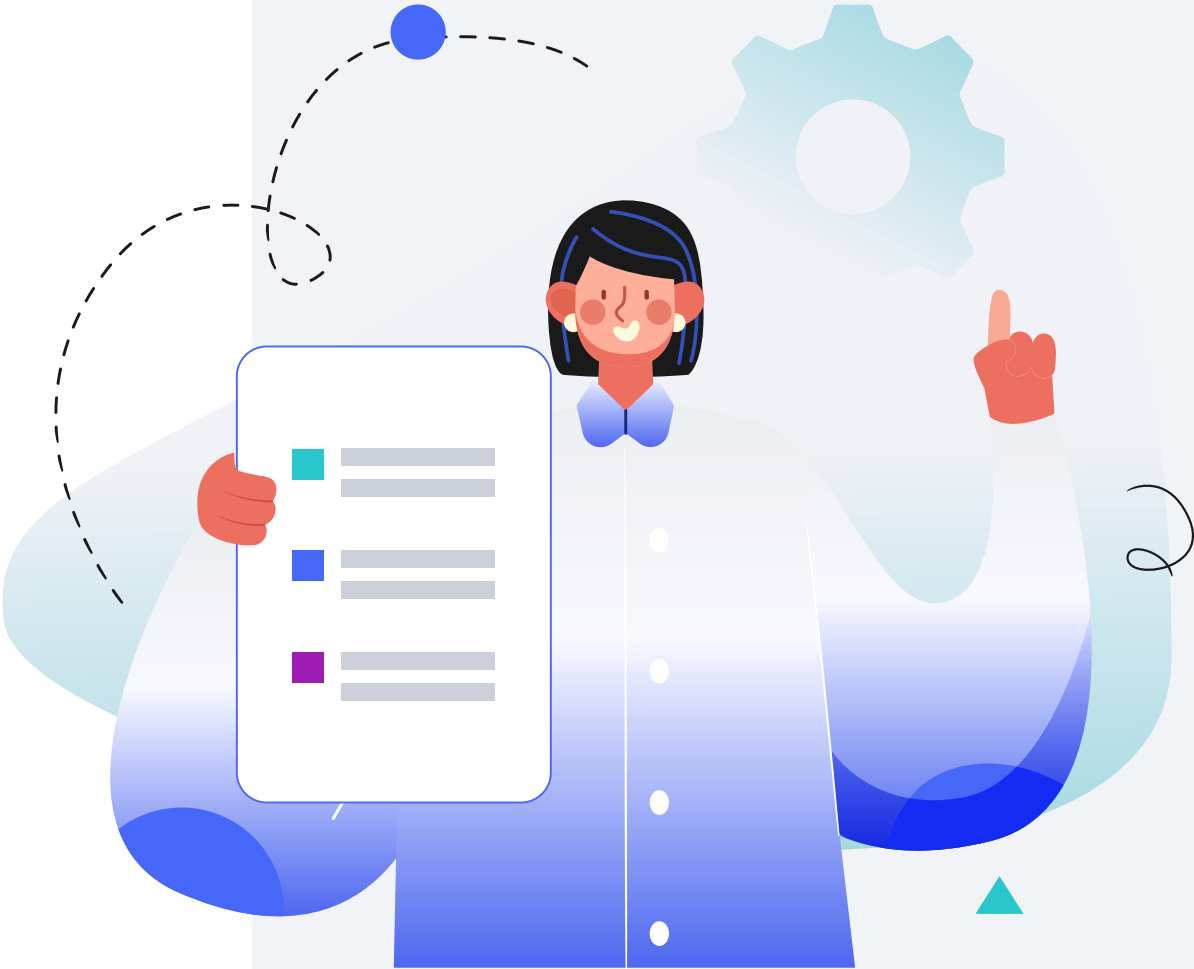
Male

HEIGHT

5ft 5" 165cm

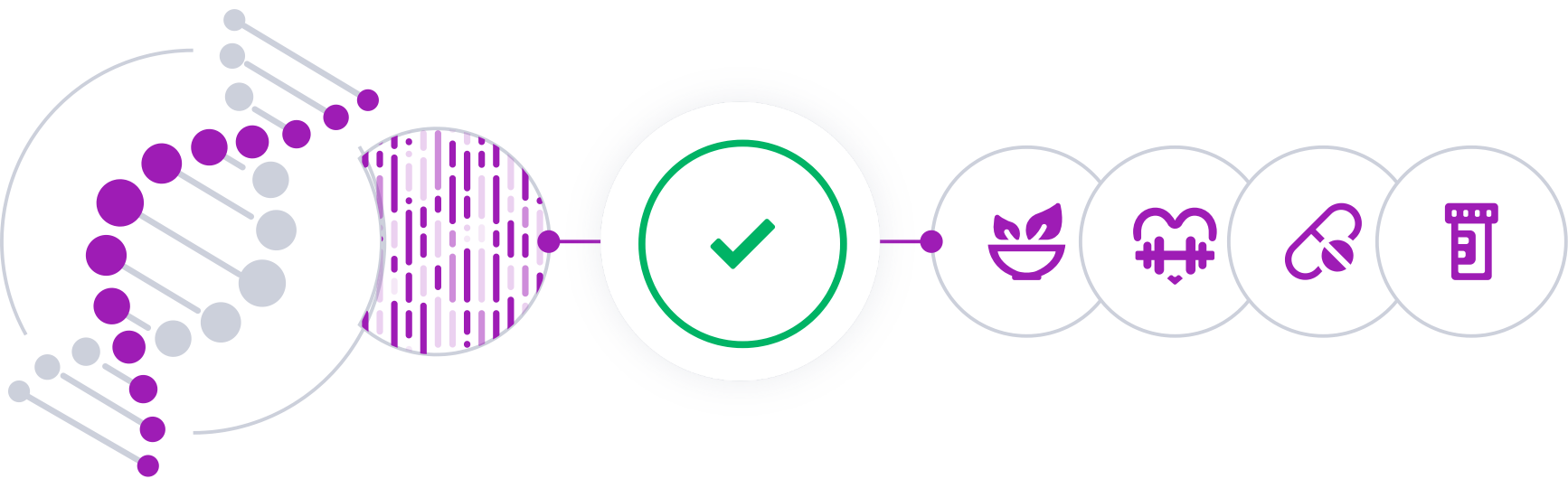
WEIGHT

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

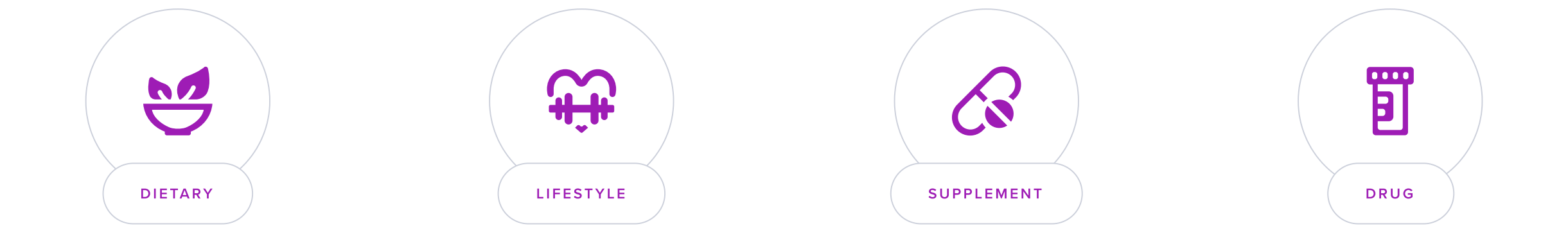
You have 2 risk alleles

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

How would you feel if you had to carry **40 bananas or 5 pineapples** with you everywhere you go? It'd probably get pretty tiring, right?

With the average human head weighing in at around **5 kg**, that's exactly what your neck and shoulders contend with on a daily basis.

Every time you get out of bed or go for a walk, your neck and shoulders put in work to make sure that your head is well supported. It's not surprising that lifting this weight 24/7 may lead to an injury at some point in your life.

Similar to weightlifters who develop injuries due to poor form, **a lot of neck and shoulder injuries are actually caused by poor posture.**

Poor posture is becoming increasingly common, especially when it comes to tech. In fact, neck pain linked to smartphone use or working at a computer for prolonged periods even has its own name -- **tech neck!**

You can take steps to help avoid tech neck along with other aches and pains in this region by limiting your screen time or optimizing your workstation. **But unfortunately, some people are just more genetically prone to this type of injury.**

The good news is that you can identify genes linked to an increased risk of neck and shoulder pain, and take targeted action! This has the potential to help you wake up without a crick in your neck or a knot in your shoulder.

A great example of this is the [FKBP5](#) gene. A variant of this gene is linked to a higher risk of stress-related neck pain. So, if you carry this variant, you could try lowering your risk with stress busting habits like yoga [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Knowing how your genes function may also help point you in the direction of pain-relieving techniques.

For example, an [OPRM1](#) genetic variant may put you at an increased risk of pain by altering the balance of opioids in your body. In this instance, nerve stimulation using TENS may be a particularly beneficial pain reliever due to it's opioid-boosting properties [\[R\]](#), [\[R\]](#).

Let us take the weight off your shoulders by providing you with some gene-based recommendations that may help relieve your pain!

This report focuses on the genetics of shoulder and neck pain. Read more to find out:

- **How your genetics play a role in shoulder and neck pain**
- **Your genetic risk score based on over 900,000 genetic variants**
- **Personalized recommendations based on your genetics**

About Shoulder & Neck Pain

Key Takeaways:

- About **1 in 5 adults** have neck or shoulder pain.
- Up to **65%** of differences in people's chances of having shoulder and neck pain may be due to genetics.
- Other risk factors include: poor posture, prolonged sitting, poor sleep position, injury and overuse, stress, and older age.
- If you have high genetic risk or are experiencing symptoms, take action on modifiable factors like posture and sleep position.
- Click the **Recommendations** tab for potential lifestyle changes and **next steps** for relevant labs.

Your shoulders and neck are made up of many muscles, tendons, bones, and nerves in a complicated web. **An injury to any part of this system can lead to pain** [R, R].

About 1 in 5 adults struggle with shoulder or neck pain [R, R].

Most of the time, shoulder or neck pain is nothing to worry about. But sometimes it can be a symptom of a bigger problem. It can sometimes progress and even become disabling [R, R].

Many people find their lives changed by shoulder and neck pain. There is also a significant economic cost, as people may not be able to work [R].

Risk factors for shoulder and neck pain include [R, R, R, R]:

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



MORE LIKELY

More likely to have shoulder and neck pain based on 924,669 genetic variants we looked at



Your risk is greater than 84% of the population and lower than 16% of the population.

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CTRC	rs76827641	AA
UBE2J2	rs148734489	GG
ATAD3A	rs185493637	GG
SAMD11	rs150344285	GG
/	rs28676717	GG
/	rs201849880	TT
WNT4	rs139121331	CC
EFHD2	rs60181764	CC
/	rs12117533	GG
AJAP1	rs76062163	AA
CDK11A	rs2377229	AA
PLCH2	rs188383352	GG
VPS13D	rs564328546	TT
PRDM2	rs114362297	CA
CDK11A	rs187812406	GG
PRAMEF11	rs185548955	GG
NPHP4	rs9726616	CC
PRKCZ	rs72636362	AA
DHRS3	rs11582380	CC
C1ORF127	rs9430331	AA
SPSB1	rs141929420	GG
C1ORF158	rs144656670	CC
ID3	rs143112819	AA
LUZP1	rs191735472	AA

The most common neck injury is called *whiplash*. It can cause pain, loss of mobility, and stiffness. Whiplash occurs when the neck suddenly bends back and forth. Car crashes, contact sports, or assault can all lead to whiplash [\[R\]](#), [\[R\]](#).

Diagnosis and treatment of shoulder and neck pain depend on the underlying cause. Your doctor will decide on the appropriate strategy, which may include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Medication
- Physiotherapy
- Surgery

Many people also use complementary strategies to help manage shoulder and neck pain. These include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heat or [cold](#) packs
- [Acupuncture](#)
- [Yoga](#)
- Electrical tools like [TENS units](#)
- Chiropractic adjustment

Up to 68% of differences in people's chances of having shoulder and neck pain may be attributed to genetics.

Genes that may play a role in shoulder and neck pain influence [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Brain function ([FOXP2](#))
- Pain perception ([KCNS1](#), [GCH1](#), [ADRB2](#))
- Inflammation ([SLC39A8](#), [ANXA1](#))

GENE	SNP	GENOTYPE
KAZN	rs72644455	GG
DHRS3	rs144639438	CC
PADI2	rs113376264	CC
/	rs560214487	CC
TMEM51	rs530817306	TT
IGSF21	rs115263712	GG
KAZN	rs182241390	GG
NPHP4	rs115950443	GG
PANK4	rs180904073	GG
PAX7	rs191271197	CC
IFFO2	rs55793595	TT
/	rs546872994	CC

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	Massage30 minutes	4	Good Posture
5	Mindfulness-Based Stress Reduction (MBSR)2 hours	6	Strength Training1 hour
7	Shock Wave Therapy	8	Low-Level Laser Therapy (LLLT)30 seconds
9	Cognitive-Behavioral Therapy (CBT)	10	Relaxation Techniques30 minutes
11	Aerobic Exercise (Cardio)1 hour	12	Hot and Cold Applications15 minutes
13	Nerve Stimulation30 minutes	14	Myofascial Release5 minutes
15	Chiropractic Adjustment30 minutes	16	Cupping Therapy15 minutes
17	Sleep for 7+ Hours	18	McKenzie Method5 minutes
19	Apply Heat15 minutes	20	Biofeedback
21	Mindfulness Meditation30 minutes	22	Acupuncture1 hour
23	Stretching15 minutes	24	Spinal Manipulation
25	Yoga30 minutes	26	Topical Capsaicin
27	Tai Chi1 hour	28	Transcutaneous Electrical Nerve Stimulation (TENS)30 minutes
29	Iyengar Yoga1 hour	30	Exercise At Least One Hour a Day1 hour

31	Devil’s Claw	100 mg	32	Black Soybean	
33	Bacillus Subtilis		34	Pilates	30 minutes
35	Aquatic Exercise	1 hour	36	Ischemic Compression	30 seconds
37	Stability Training	30 minutes	38	Deep Breathing	5 minutes
39	CBD	10 mg	40	Sensory Deprivation	40 minutes
41	Bath Therapy	20 minutes	42	Flotation	1 hour
43	Mobility Training	10 minutes	44	Hydrogalvanic Bath Therapy	
45	Alpha-Lipoic Acid And Superoxide Dismutase	600 mg	46	Hatha Yoga	1 hour
47	PEMF	30 minutes	48	Acupressure	1 minute
49	Alpha-Lipoic Acid	100 mg	50	Superoxide Dismutase	100 mg

1



Reduce Shoulder & Neck Strain

IMPACT

5 / 5

EVIDENCE

5 / 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

Some common ways to relieve strain from your shoulders and neck include [\[R, R, R\]](#):

- Having good posture when sitting and standing
- Taking breaks to stand and move, if you sit for long periods of time
- Having your computer monitor at eye level
- Carrying a lighter backpack
- Sleeping in a good position (aligning the head and neck with the rest of your body)

It may be best to sleep on your back rather than your side. Side-sleeping is linked to shoulder pain. Using a spring or rubber pillow may help with neck pain [\[R, R, R\]](#).

Using chairs with arm supports (and other ergonomic changes) for work may help reduce neck pain [\[R, R, R\]](#).

Other professionals may follow job-specific practices to reduce shoulder and neck strain. Please review the **Occupational Safety and Health Administration (OSHA) guidelines** for suggestions related to your profession [\[R, R\]](#).

2



Physical Therapy

IMPACT

4 / 5

EVIDENCE

4 / 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 agree that exercise therapy may help with neck pain [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

It may also help with pain from neck injuries like whiplash [\[R\]](#), [\[R\]](#).

Exercise therapy may help with pain from shoulder injury, but the evidence is mixed [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Exercise therapy may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Improving posture
- Restoring normal muscle movement
- Boosting opioids and other pain-relieving compounds

Please note: *Talk to your doctor or physiotherapist before trying out new exercises. People with certain types of pain should be careful not to over-exercise, as this may worsen pain.*

 PERSONALIZED TO YOUR GENES

People with your **OPRM1** gene variant may be more sensitive to pain. This variant likely alters the activity of the opioids made by your body. Exercise therapy may help by boosting your opioids [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
OPRM1	rs1799971	GA	

3



Massage

IMPACT

3 / 5

EVIDENCE

3 / 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

Massage of the neck or shoulders (60 minute sessions, 1-4 times per week) may improve pain and mobility in the short term [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Massage may help relieve pain by [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lowering muscle tension
- Lowering stress
- Blocking pain signals
- Reducing inflammation

4



Good Posture

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Ensure your back is straight, shoulders pulled back but relaxed, and your head is aligned above your shoulders when sitting or standing. When sitting, keep your feet flat on the ground, and use a chair that supports your lower back. Do this continuously throughout the day, reminding yourself to adjust your posture whenever you notice it lapsing.

Description

Maintaining good posture helps prevent musculoskeletal problems, reduces the risk of back and neck pain, and supports overall spinal health. Proper posture can also enhance self-confidence and improve breathing and digestion.

Good posture may help lessen strain on your body. It involves keeping your head, shoulders, and hips aligned [\[R\]](#).

Forward head posture is a type of poor posture in which the head is pushed forward or tilted down toward the chest. This posture is common when using computers or smartphones [\[R\]](#).

Poor posture may lead to [\[R\]](#), [\[R\]](#):

- Muscle pain
- Headaches
- Breathing problems

How it helps

Research on over 18,000 people found that improper sitting posture may almost double the risk of neck pain [\[R\]](#).

In fact, people with neck and shoulder pain often exhibit worse postures compared to people without pain [\[R\]](#).

In line with this, interventions that include posture correction exercises may improve neck posture, pain, and function [\[R\]](#).

5



Mindfulness-Based Stress Reduction (MBSR)

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Enroll in an 8-week MBSR course, which includes a weekly 2.5-hour class, one all-day class after the sixth week, and 45 minutes of daily home practice guided by assignments and instructional recordings.

TYPICAL STARTING DOSE

2 hours

Description

Mindfulness-Based Stress Reduction (MBSR) is a structured program that teaches mindfulness techniques to reduce stress and improve overall mental and emotional health. MBSR has been shown to help individuals cope with chronic pain, anxiety, and other stress-related conditions.

How it helps

Mindfulness-based stress reduction (MBSR, 45 minutes/day for 8-12 weeks) may improve pain intensity, physical functioning, pain catastrophizing, and depression in people with chronic pain, including neck pain [\[R, R\]](#).

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6



Strength Training

IMPACT

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EVIDENCE

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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 may have moderate beneficial effects on pain, muscle strength, disability, and quality of life in people with chronic neck pain. Combining strength training with aerobic and stretching exercises may offer greater benefits [R, R, R, R].

7



Shock Wave Therapy

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Schedule and attend sessions for extracorporeal shock wave therapy (ESWT) with a qualified healthcare provider. Typically, treatments may involve 1 to 3 sessions a week over a span of 3 to 4 weeks, depending on the condition being treated and the severity of symptoms.

Description

Extracorporeal shockwave therapy is a medical treatment that uses shockwaves to stimulate healing and reduce pain in various musculoskeletal conditions. It is often used for conditions such as plantar fasciitis and tendinitis.

In extracorporeal shockwave therapy, sound waves are emitted and passed through parts of the body. Doctors use it to help reduce pain and stimulate tissue recovery in people [\[R\]](#), [\[R\]](#).

How it helps

A meta-analysis of 11 trials found extracorporeal shock wave therapy (especially focused) had large effects on pain intensity and pressure pain threshold but not neck disability [\[R\]](#).

In a non-placebo-controlled trial of 103 diabetic patients with shoulder adhesive capsulitis, receiving radial extracorporeal shock wave therapy for 12 weeks improved shoulder pain and function better than a low-dose intra-articular steroid injection [\[R\]](#).

8



Low-Level Laser Therapy (LLLT)

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Use a low-level laser therapy device, as directed by its manual or a healthcare professional, on the affected area. Generally, treatment involves applying the laser for a specified duration, often between 30 seconds to several minutes, per treatment area. Sessions can be conducted 2-3 times per week for a period of 4-12 weeks, depending on the condition being treated and the device used.

TYPICAL STARTING DOSE

30 seconds

Description

Low-level laser therapy (LLLT), also known as photobiomodulation, is a type of light therapy that uses low-intensity lasers to promote healing. It has been shown to be effective in treating a variety of conditions, including pain, inflammation, and wound healing.

How it helps

Low-Level Laser Therapy (LLLT) aids in healing and reducing inflammation in shoulder and neck pain by stimulating the cells in the affected area, encouraging quicker repair and growth. This results in reduced pain and discomfort, promoting movement and flexibility in the neck and shoulder region.

A systematic review and meta-analysis of studies on low-level laser therapy (LLLT) for neck pain and musculoskeletal disorders found varying results. In acute and chronic neck pain, LLLT showed statistically significant pain reduction immediately after treatment, but the clinical significance was uncertain due to study heterogeneity. LLLT appeared effective in reducing pain in adult patients with musculoskeletal disorders, especially when following dosage guidelines. For shoulder musculoskeletal disorders, LLLT provided short-term pain relief but no additional benefit in shoulder function. In myofascial neck pain, LLLT significantly reduced pain, and improved pain pressure threshold and range of motion, suggesting its potential as an adjunct therapy alongside other treatments like manual and exercise therapy [R, R, R, R, R].

9



Cognitive-Behavioral Therapy (CBT)

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Schedule weekly sessions with a certified cognitive-behavioral therapist for a period of 5 to 20 weeks. Engage actively in exercises assigned by your therapist both during sessions and as homework to apply CBT strategies to daily life.

Description

Cognitive-behavioral therapy (CBT) is a psychotherapeutic approach that has been effective in treating various mental health conditions by helping individuals identify and change negative thought patterns and behaviors. It is widely used for conditions like depression, anxiety, and phobias.

Psychotherapy (talk therapy) involves talking about your health with a licensed therapist. It may improve the way you react to certain experiences [\[R\]](#).

Talk therapy is a great way to improve many conditions, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Depression
- Anxiety disorders
- PTSD
- OCD
- Substance use disorder
- Bipolar disorder

Cognitive-behavioral therapy (CBT) is a type of talk therapy. CBT aims to change the way you think about your life and yourself. Through CBT, a therapist can help you develop healthy coping mechanisms [\[R\]](#).

How it helps

Stress is often associated with pain in the upper body, including the neck and shoulders [\[R\]](#).

Cognitive behavioral therapy (CBT) is the type of psychotherapy most commonly used for chronic pain. It aims to change the thoughts, emotions, and behaviors related to pain [\[R\]](#), [\[R\]](#).

Research shows that CBT may help with shoulder and neck pain [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reducing pain intensity
- Improving physical function
- Lessening pain catastrophizing
- Decreasing depression

10



Relaxation Techniques

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Incorporate relaxation techniques such as deep breathing exercises, meditation, or yoga into your daily routine. Spend at least 15-30 minutes each day practicing one of these techniques, preferably in a quiet, comfortable space without interruptions.

TYPICAL STARTING DOSE

30 minutes

Description

Relaxation techniques encompass various methods like deep breathing, yoga, meditation, and progressive muscle relaxation, aimed at reducing stress and promoting mental and physical relaxation. Practicing these techniques regularly can help manage stress, improve mental clarity, and enhance overall emotional well-being.

We all get stressed from time to time.

[Stress](#) can help you deal with a challenge or avoid danger. However, **it’s not healthy to be stressed for a long time** [\[R\]](#), [\[R\]](#).

Relaxation techniques such as [yoga](#) and [meditation](#) can relieve stress in different ways. Most of them focus on breathing and help you get rid of negative thoughts and emotions [\[R\]](#).

People use relaxation techniques to improve conditions like [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Depression
- Chronic pain

Progressive muscle relaxation is another relaxation technique. In this technique, you focus on tensing and relaxing different parts of your body. It is common to start with the toes and slowly work your way up to the neck and head [\[R\]](#), [\[R\]](#).

Autogenic training is a relaxation technique that a person may carry out on their own. It uses exercises that take the mind’s attention to bodily sensations such as warmth and heaviness [\[R\]](#), [\[R\]](#).

How it helps

There is a strong link between stress and shoulder and neck pain [\[R\]](#).

Stress may worsen pain by increasing [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Muscle tension
- Pain sensitivity
- Inflammation

Relaxation techniques may relieve shoulder and neck pain while boosting the quality of life. However, the evidence is mixed [\[R\]](#), [\[R\]](#), [\[R\]](#).

Specifically, **yoga** may decrease shoulder and neck pain by improving mobility. It may also help people cope with their pain [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

11



Aerobic Exercise (Cardio)

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Experts agree that exercise therapy may help with neck pain. Strength training may be most effective, but adding aerobic exercise may further enhance its benefits [\[R, R, R, R, R, R, R, R\]](#).

It may also help with pain from neck injuries like whiplash [\[R, R\]](#).

Exercise therapy may help with pain from shoulder injury, but the evidence is mixed [\[R, R, R, R, R, R, R\]](#).

Exercise therapy may help by [\[R, R, R\]](#):

- Improving posture
- Restoring normal muscle movement
- Boosting opioids and other pain-relieving compounds

Please note: *Talk to your doctor or physiotherapist before trying out new exercises. People with certain types of pain should be careful not to over-exercise, as this may worsen pain.*

12



Hot and Cold Applications

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Alternate applying a warm compress for 15-20 minutes, then a cold pack for 15-20 minutes to the affected area. Repeat this cycle 3-4 times per day for up to one week or until symptoms improve.

TYPICAL STARTING DOSE

15 minutes

Description

Alternating hot and cold applications, such as hot and cold packs, can help reduce pain and inflammation in sore muscles and joints. This method, known as contrast therapy, can promote muscle relaxation and improve circulation.

People use hot and cold applications to **relieve pain, improve blood flow, and more** [\[R, R\]](#).

Types of hot applications include [\[R, R\]](#):

- Heating pads
- Hot baths
- Saunas

Types of cold applications include [\[R, R\]](#):

- Ice packs
- Ice baths

How it helps

Experts recommend hot and cold applications for some people with neck pain [\[R, R, R, R\]](#).

A common method is to apply a cold pack for **up to 20 minutes, multiple times a day**. The cold pack can be alternated with a hot treatment, such as a heating pad [\[R\]](#).

Hot or cold applications may also help with shoulder and neck pain when used together with standard treatment [\[R, R, R, R, R\]](#).

They may help by [\[R, R, R\]](#):

- Reducing inflammation
- Boosting blood flow
- Relaxing the muscles

Make sure the pack you are using is not too hot or too cold. You can wrap a towel around the pack to help protect your skin [\[R\]](#).

13



Nerve Stimulation

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Nerve stimulation can be implemented by daily sessions of 15-30 minutes using a device specifically designed for this purpose. These devices often use electrical currents to stimulate nerves through the skin, which can be adjusted in intensity according to comfort. It's important to consult a healthcare provider for guidance on the specific type of nerve stimulation that may be most beneficial for your condition.

TYPICAL STARTING DOSE

30 minutes

Description

Nerve stimulation techniques involve the use of electrical impulses, like transcutaneous electrical nerve stimulation (TENS) or other methods to activate nerves, potentially providing relief from chronic pain, improving muscle function, and aiding in physical therapy.

Health professionals can stimulate your nerves using different strategies [\[R\]](#).

Many strategies use magnetic fields or electric currents. Examples include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- [Transcutaneous electrical nerve stimulation](#) (TENS)
- Transcranial direct current stimulation (tDCS)
- Transcranial magnetic stimulation (TMS)
- Transcutaneous auricular vagus nerve stimulation (taVNS)

Nerve stimulation may improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Cognition
- Mood
- Pain
- Seizures
- Tinnitus

How it helps

Experts agree that transcutaneous electrical nerve stimulation (TENS) may help relieve neck pain. However, the evidence is mixed and the studies are of low quality [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

TENS may also help relieve shoulder pain. As with neck pain, the effects are mixed [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

TENS may help by [\[R\]](#), [\[R\]](#):

- Reducing pain signals
- Boosting opioids and other pain-relieving compounds
- Increasing muscle relaxation

Please note: Nerve stimulation may not be safe for people with metal implanted devices or epilepsy. It may not be safe for pregnant women. Some types of nerve stimulation should also be avoided by people with bleeding disorders or heart disease. Do not use TENS on damaged or infected skin or on sensitive areas of the body. Consult your doctor before using nerve stimulation devices of any kind [\[R\]](#), [\[R\]](#).

 PERSONALIZED TO YOUR GENES

People with your **OPRM1** gene variant may be more sensitive to pain. This variant likely alters the activity of the opioids made by your body. **TENS** may help by boosting your opioids [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
OPRM1	rs1799971	GA	

14



Myofascial Release

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Incorporate myofascial release into your routine by using tools like foam rollers or massage balls, focusing on tense areas for about 5-20 minutes daily. You can also seek professional myofascial release therapy sessions, which typically last about 30-60 minutes, 1-2 times per week for targeted treatment.

TYPICAL STARTING DOSE

5 minutes

Description

Myofascial release is a type of massage therapy that can help to improve range of motion, reduce pain, and increase circulation. It can also help to improve posture and reduce stress.

How it helps

Myofascial Release helps relieve shoulder & neck pain by stretching and loosening the connective tissue (fascia) that envelops your muscles, enabling better mobility and relieving tension. Over time, it can help alleviate pain, improve stiffness and increase range of motion by removing pressure from the nerves and muscles in the affected area.

A meta-analysis of 13 trials and 601 participants with chronic neck pain found that myofascial release improved trapezius and suboccipital pressure pain thresholds, as well as non-significant effects on pain, flexion, extension, rotation, lateral flexion angle, and neck disability [\[R\]](#).

15



Chiropractic Adjustment

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Schedule and attend chiropractic sessions 1-2 times per week for a period of 4-6 weeks initially, depending on the severity of your condition. Your chiropractor may adjust the frequency based on your progress.

TYPICAL STARTING DOSE

30 minutes

Description

Chiropractic adjustments are manual manipulation techniques used by chiropractors to improve musculoskeletal function, relieve pain, and enhance overall mobility. They are often used as part of a holistic approach to address various health concerns, primarily those related to the spine and joints.

Chiropractic adjustment involves applying pressure to different parts of the spine. It tends to help with pain and headaches [\[R\]](#), [\[R\]](#).

Only a trained specialist should perform this procedure [\[R\]](#).

How it helps

Chiropractic adjustment may offer temporary relief from neck pain. It may also improve neck mobility [\[R\]](#), [\[R\]](#), [\[R\]](#).

In people with shoulder pain, chiropractic adjustment may improve shoulder strength and reduce pain frequency. However, it may not make the pain less intense [\[R\]](#).

Chiropractic adjustment may reduce pain by [\[R\]](#), [\[R\]](#):

- Reducing muscle tension
- Boosting pain-relieving compounds
- Promoting the growth and repair of muscles and nerve cells

Note that more high-quality evidence is needed to support the use of chiropractic adjustment for shoulder or neck pain.

Please note: *Chiropractic adjustment tends to be safe when done by a licensed specialist. However, some associated risks include nerve compression, stroke, and back problems. People at risk of stroke or those with bone problems should not seek chiropractic adjustment. Chiropractic adjustment may also not be the right choice for people who have numbness, tingling, or weakness in their arm or leg* [\[R\]](#).

16



Cupping Therapy

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

To practice cupping therapy as part of your lifestyle, schedule sessions with a qualified therapist once or twice a month to address specific concerns or for general wellness. Each session usually lasts between 5 to 15 minutes. Consistent treatment over several months may yield the best results.

TYPICAL STARTING DOSE

15 minutes

Description

Cupping therapy is an alternative therapy that involves placing cups on the skin to create suction. Some believe it may help with pain relief and muscle tension.

How it helps

Cupping therapy can enhance blood circulation to the shoulder and neck area, relieving muscle tension and promoting healing in these areas. This method could be beneficial in managing shoulder and neck pain by reducing inflammation and the severity of pain symptoms.

A meta-analysis of 21 trials and 1049 participants found low-quality evidence that dry cupping improves chronic neck pain and low-back pain, and moderate-quality evidence that it improves functional status for chronic neck pain [\[R\]](#).

17



Sleep for 7+ Hours

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Ensure you allocate enough time in your schedule to achieve a minimum of 7 hours of sleep each night. This might involve going to bed earlier or adjusting your evening routine to promote relaxation and make it easier to fall asleep.

Description

Optimizing sleep involves adopting healthy sleep habits and creating a sleep-conducive environment to ensure restorative and sufficient sleep duration. It supports cognitive function, mood stability, and overall physical health. Most experts recommend getting **at least 7 hours of good-quality sleep each night**.

[Sleep](#) supports your body and mind [\[R, R\]](#). More precisely, sleep helps:

- Support brain health [\[R, R\]](#)
- Maintain a healthy weight and appetite [\[R, R, R\]](#)
- Regulate blood pressure [\[R, R\]](#)
- Balance blood sugar [\[R, R\]](#)

Ways to sleep better include [\[R\]](#):

- Reducing your bright light exposure (screen time) in the evenings
- Sticking to a regular sleep schedule
- Avoiding hunger or large meals before bed
- Avoiding nicotine, caffeine, and alcohol before bed
- Maintaining a sleep area that’s cool, dark, and quiet

How it helps

Sleep problems are associated with an up to 66% increased risk of chronic pain in the low back and neck/shoulders. Those who exercise may have a lower risk despite their sleep issues, including [\[R, R, R\]](#):

- Insufficient sleep
- Low-quality sleep

18



McKenzie Method

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Perform the McKenzie method exercises daily, ideally under the guidance of a certified McKenzie therapist. Begin with 5-10 minutes per session, gradually increasing as advised. Continue as long as necessary to improve symptoms, maintaining regular sessions for at least 4-6 weeks for noticeable results.

TYPICAL STARTING DOSE

5 minutes

Description

The McKenzie Method is a physical therapy approach designed to manage musculoskeletal pain, especially in the back and neck. It focuses on exercises and movements that promote pain relief and spinal health.

How it helps

The McKenzie Method (for 4-24 weeks) may improve neck and shoulder pain, especially in cases of moderate-to-severe pain. It does not significantly improve disability indexes but shows a small reduction in pain and improvement in function [\[R, R, R\]](#).

19



Apply Heat

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Place a warm, not hot, heating pad or a warm wet towel on the affected area for 15-20 minutes at a time. Do this several times a day, ensuring there's at least a 1-hour interval between sessions to avoid skin damage.

TYPICAL STARTING DOSE

15 minutes

Description

Applying heat, such as through heating pads or warm baths, can help relieve muscle tension and soothe pain. It is a common method for managing muscle aches, menstrual cramps, and minor injuries.

People use hot applications to relieve pain, improve blood flow, and more [\[R\]](#), [\[R\]](#).

Types of hot applications include [\[R\]](#), [\[R\]](#):

- Heating pads
- Hot baths
- Saunas
- Hot water bottles

How it helps

Applying heat (for 30 minutes) may relieve neck and back pain and improve range of motion when used in addition to standard pain therapy. Heat may help by increasing pain tolerance [\[R\]](#), [\[R\]](#), [\[R\]](#).

20



Biofeedback

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Attend biofeedback sessions once or twice a week for about 8 to 10 weeks. During these sessions, a therapist will guide you through exercises to control different body functions, such as heart rate or muscle tension, using monitors that provide feedback on your physiological state. Practice the techniques learned during sessions at home daily to improve symptoms and manage your condition.

Description

Biofeedback is a type of therapy that teaches people how to control certain body functions, such as heart rate, blood pressure, and muscle tension. It can be used to treat a variety of conditions, including stress, anxiety, and chronic pain.

Biofeedback is a kind of “**brain training**” in which sensors are attached to your body. They detect information like your heart rate, temperature, and breathing rate. By seeing this information, you may be better able to control these functions [\[R\]](#), [\[R\]](#).

Biofeedback is used to help with [\[R\]](#), [\[R\]](#):

- Gut problems
- Chronic pain
- Migraines
- Insomnia
- Attention

[Neurofeedback](#) is a form of biofeedback that measures brain activity in real time [\[R\]](#).

How it helps

Biofeedback (for 3-12 weeks) may help reduce pain and discomfort in people with shoulder and neck pain. Studied biofeedback training modalities include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Electromyographic (EMG) biofeedback
- Visual biofeedback
- Visual electromyography biofeedback

21

Mindfulness Meditation

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Practice mindfulness meditation for 10-20 minutes daily. Find a quiet, comfortable place to sit or lie down, then focus on your breath, observing thoughts and sensations without judgment. Consistency is key, so try to incorporate it into your daily routine, perhaps in the morning or before bed.

TYPICAL STARTING DOSE

30 minutes

Description

Mindfulness meditation involves focused attention on the breath or a specific point of focus to cultivate mindfulness and reduce stress. Regular meditation practice is associated with improved mental clarity, emotional regulation, and overall well-being.

How it helps

Mindfulness meditation (for 8 weeks) may reduce pain intensity and stress, while improving quality of life in people with chronic neck pain [\[R, R\]](#).

22



Acupuncture

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Visit a licensed acupuncturist for a session, typically lasting between 30 to 60 minutes, once or twice a week. Depending on your specific condition, a course of treatment might range from a few weeks to several months.

TYPICAL STARTING DOSE

1 hour

Description

Acupuncture is a part of traditional Chinese medicine. It involves inserting thin needles at specific points on the body. People use it to relieve pain and allergies, as well as reduce nausea and improve sleep.

[Acupuncture](#) is a part of traditional Chinese medicine. It involves **inserting thin needles at specific points on the body**. People use it to [\[R, R, R, R, R\]](#):

- Relieve pain
- Improve sleep quality
- Relieve allergies
- Reduce nausea

How it helps

Acupuncture may help improve lower neck and shoulder pain. However, the evidence is mixed and of low quality [\[R, R, R, R, R\]](#).

Acupuncture may help by releasing natural [opioids](#) and other chemicals that reduce pain [\[R, R\]](#).

Please note: *Acupuncture is safe for most people. However, it may come with extra risks for pregnant women, people with pacemakers, and people with bleeding disorders. Consult your doctor or a licensed acupuncturist for more information* [\[R\]](#).

23



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

Experts recommend stretching the neck and shoulder after traveling long distances or working long hours [\[R\]](#).

Regular neck and shoulder stretching exercises (1-2x/day for 5 days/week for 4 weeks) may decrease pain and improve neck function among office workers suffering from chronic neck pain [\[R\]](#), [\[R\]](#), [\[R\]](#).

24



Spinal Manipulation

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Schedule regular appointments with a licensed chiropractor or physical therapist trained in spinal manipulation. These sessions should occur 1-2 times per week for 4-6 weeks to assess effectiveness for your condition.

Description

Spinal manipulation is a therapeutic technique performed by chiropractors or physical therapists to address musculoskeletal issues, improve spinal alignment, and alleviate back pain and discomfort.

How it helps

Spinal manipulation (for 11-12 weeks) may reduce pain and disability in people with neck pain. Spinal manipulation combined with exercise may offer greater benefits than either treatment alone [\[R, R, R, R\]](#).

25



Yoga

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Practice yoga for at least 20 to 30 minutes a day, most days of the week. Choose a style that matches your fitness level and goals, and consider attending a class or using online resources to guide your practice.

TYPICAL STARTING DOSE

30 minutes

Description

Yoga is a mind-body practice that combines physical postures, breathing exercises, and meditation. It enhances flexibility, strength, and mental well-being and is used for stress reduction, relaxation, and overall health improvement.

[Yoga](#) combines breathing, stretching, and relaxation techniques. Practicing yoga may help [\[R, R, R\]](#):

- Reduce [stress](#)
- Improve fitness
- Lower blood pressure and heart rate
- Manage pain

How it helps

Yoga (20-90 minutes/session, 1-7 sessions/week for 1-9 weeks) may reduce neck pain and disability while improving mood and quality of life in the short term. However, more studies are needed to confirm these benefits [\[R, R\]](#).

26

Topical Capsaicin

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Apply a capsaicin cream or gel to the affected area 3 to 4 times daily. Make sure the skin is clean and intact before application. Avoid contact with eyes, mouth, and other sensitive areas. Use consistently for several weeks to see improvement.

Description

Capsaicin is a compound found in chili peppers and is used topically in creams and patches for its potential to alleviate pain related to conditions like arthritis, neuropathy, and muscle soreness.

[Capsaicin](#) is the compound that makes chili peppers spicy [\[R\]](#).

People use topical capsaicin to relieve pain and oral capsaicin to aid weight loss [\[R\]](#), [\[R\]](#).

In the short term, capsaicin causes pain. However, **if you’re exposed to a lot of capsaicin over a long period of time, it can reduce your pain sensitivity** [\[R\]](#), [\[R\]](#).

***Please note:** Capsaicin may irritate the skin. Consult your doctor if the irritation is severe or lasts longer than 4 weeks. If capsaicin gets in your eyes, flush them with water immediately and consult your doctor* [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Long-term capsaicin use may reduce pain sensitivity [\[R\]](#), [\[R\]](#).

Topical capsaicin (0.025-0.075%, 2-4 times/day for up to 5 weeks) may help relieve neck pain [\[R\]](#), [\[R\]](#).

***Please note:** Capsaicin may irritate the skin. Consult your doctor if the irritation is severe or lasts longer than 4 weeks. If capsaicin gets in your eyes, flush them with water immediately and consult your doctor* [\[R\]](#), [\[R\]](#), [\[R\]](#).

27



Tai Chi

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Practice Tai Chi for 30 to 60 minutes at least twice a week. Choose a quiet, spacious area and follow along with a qualified instructor, either in person at a class or through an online video tutorial, to ensure proper technique and maximum benefit.

TYPICAL STARTING DOSE

1 hour

Description

Tai Chi is a traditional Chinese mind-body practice involving slow, flowing movements and deep breathing. It is known for its potential to reduce stress, improve balance, and enhance overall physical and mental well-being.

Tai chi involves gentle movements and breathing to strengthen and relax the mind and body. Practicing tai chi may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Manage pain
- Improve fitness
- Increase well-being
- Improve sleep and mood

How it helps

Tai Chi (90 min/session, 4x/week for 3-6 months) improved neck mobility and sleep quality. However, it did not improve shoulder and jaw mobility [\[R\]](#), [\[R\]](#).

28



Transcutaneous Electrical Nerve Stimulation (TENS)

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Apply TENS unit electrode pads around the area in pain; begin with the device set to a low setting and gradually increase intensity to a comfortable level. Use the device for 15-30 minutes per session for pain relief, and it can be used multiple times a day as needed.

TYPICAL STARTING DOSE

30 minutes

Description

TENS is a therapy that uses low-level electrical currents to relieve pain by stimulating the nerves. It's commonly used as a non-invasive method to manage various types of pain, such as musculoskeletal pain or chronic pain conditions.

How it helps

TENS may reduce pain intensity in people with chronic neck pain. However, the evidence is of very low certainty [\[R\]](#).

29



lyengar Yoga

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Attend a 90-minute lyengar yoga class at least once a week. Choose a class led by a certified lyengar yoga instructor to ensure proper guidance and technique adherence.

TYPICAL STARTING DOSE

1 hour

Description

lyengar yoga is a style of yoga that emphasizes proper alignment and the use of props to support poses. It can help improve flexibility, balance, and mental well-being through precise and controlled movements.

How it helps

A meta-analysis of 21 trials identified lyengar yoga among the interventions effective for managing persistent neck pain [\[R\]](#).

Yoga was more effective at improving pain intensity, disability, range of motion, and quality of life than a home-based exercise program in a non-placebo-controlled trial of 51 patients with chronic neck pain [\[R\]](#).

lyengar yoga often involves postures that stretch, condition, and align the neck and shoulder muscles, which can help reduce tension and relieve pain.

30



Exercise At Least One Hour a Day

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Dedicate a minimum of 60 minutes to moderate-intensity activities such as brisk walking, swimming, or cycling. Do this most days of the week, aiming for at least 5 days to optimize benefits.

TYPICAL STARTING DOSE

1 hour

Description

[Exercise](#) can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [\[R\]](#).

There are many ways you can be active. You can walk, run, swim, dance, or play team sports. **Everything counts, and it's never too late to start!**

Try to get at least **60 minutes of moderate physical activity on most days**, including walking. **Getting a mix of cardio (min 150 min/day) and strength training (min 2 times a week) may be optimal.**

How it helps

Engaging in small daily amounts of exercise (for at least 10 weeks) may reduce neck and shoulder pain and tenderness. Even brief sessions lasting 2 or 12 minutes per day may help. Studied exercise modalities include [\[R\]](#), [\[R\]](#):

- Progressive resistance training
- High-intensity elastic resistance training

31



Devil's Claw

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Take 600-2000 mg of devil's claw supplement daily, preferably with a meal to help with absorption and to minimize potential digestive discomfort.

TYPICAL STARTING DOSE
100 mg

Description

Devil's claw is an herbal remedy traditionally used to manage conditions like arthritis and pain. Some studies suggest it may have anti-inflammatory and analgesic effects, making it a natural option for pain relief.

Devil's claw (*Harpagophytum procumbens*) is an herb used in traditional medicine. Its name comes from its hooked appearance [R].

People take devil's claw to potentially help with pain [R].

How it helps

Devil's claw extract (960 mg/day for 4 weeks) may help reduce shoulder and neck pain [R].

- It may help by [R, R, R]:
- Activating the body's natural [opioids](#)
 - Reducing inflammation
 - Relaxing the muscles

32



Black Soybean

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Incorporate black soybeans into your diet by adding them to salads, soups, or stews, or by making a black soybean hummus. Try to consume about 1/2 cup of cooked black soybeans daily for at least 4 weeks to observe potential health benefits.

Description

Black soybeans are a nutritious legume rich in protein, fiber, and antioxidants. They can be a valuable addition to a plant-based diet, promoting heart health, and providing essential nutrients.

How it helps

In a study of 260 sedentary office workers with cervical pain, consuming black soybean (15-30 g/day for 24 weeks) relieved pain. Black soybeans may help by reducing pain sensitivity [R].

33



Bacillus Subtilis

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Take a probiotic supplement containing Bacillus subtilis at a dose recommended by the manufacturer, typically once daily with a glass of water, preferably on an empty stomach for optimal absorption. Continue this regimen daily for at least one to two months to evaluate its benefits.

Description

Bacillus subtilis is a beneficial bacteria strain commonly used in probiotic supplements to support digestive health and maintain a balanced gut microbiome. Incorporating probiotics containing bacillus subtilis may promote better gut function.

How it helps

In a study of 30 people with neck and shoulder stiffness, taking a product with *Bacillus subtilis* (250 mg/day for 4 weeks) reduced stiffness and pain. *B. subtilis* may help by improving blood flow [\[R\]](#).

34



Pilates

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Engage in Pilates exercises for at least 20-30 minutes, 3 times a week. Focus on core strength, flexibility, and mindful breathing. It is suitable for both beginners and advanced individuals, adjusting the difficulty of exercises as necessary.

TYPICAL STARTING DOSE

30 minutes

Description

Pilates is a form of exercise that focuses on strengthening the core, improving flexibility, and enhancing overall body awareness through controlled movements and breathing techniques. Its health benefits include increased core strength, improved posture, enhanced flexibility, and better balance, making it a popular choice for those seeking a holistic approach to fitness.

Pilates is a type of exercise that emphasizes proper alignment, breathing techniques, and precise movements.

It involves a series of controlled movements performed on a mat or with specialized equipment, such as a reformer or Cadillac. Pilates helps strengthen the core muscles, improve flexibility, and promote mind-body awareness.

How it helps

Practicing Pilates programs for 6-12 weeks improved pain and disability in 2 trials of 63 participants with chronic neck pain. In one of them, it was as effective as yoga. However, a meta-analysis of 5 trials and 224 participants found low-quality evidence that Pilates doesn't improve neck pain or disability better than other methods [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

In a non-placebo-controlled trial of 33 patients with continuous shoulder pain, practicing Pilates 5 days/week for 10 days improved all disease scores [\[R\]](#).

Pilates strengthens your core and improves your posture, which helps to take off the stress from your neck and shoulder muscles. Additionally, it improves flexibility and range of motion in these areas.

How to implement

TYPICAL STARTING DOSE

1 hour

Description

Aquatic exercise involves physical activity performed in water, such as swimming, water aerobics, or aquatic therapy. It is gentle on the joints, making it suitable for individuals with mobility issues, and can help improve cardiovascular fitness and muscle strength.

Aquatic exercise is any type of low-impact physical activity performed in a pool. In this type of cardio exercise, water helps the body float, which reduces gravity and makes the practice more comfortable and tolerable [R, R].

Compared to land-based exercise, aquatic exercise may be better by [R]:

- Reducing the stress and impact on joints
- Lowering fracture risk

Hence, it is usually **recommended for the elderly**. Aquatic exercise is also suitable for people who don't know how to swim [R].

How it helps

Aquatic exercise may alleviate pain and enhance functional mobility in people with musculoskeletal pain, such as neck and shoulder pain. The buoyancy provided by water may help by reducing stress on painful joints and muscles, facilitating easier movement and exercise [R, R].

36



Ischemic Compression

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Apply firm pressure directly to the trigger point in the affected muscle for about 30 seconds to 2 minutes, or until you notice a significant reduction in pain. Repeat this process for each trigger point 3-5 times a day, depending on your tolerance and the response of the muscle, ideally integrating it into your daily routine for consistent relief.

TYPICAL STARTING DOSE

30 seconds

Description

Ischemic compression is a manual therapy technique used by healthcare professionals to alleviate muscle tension and reduce pain. It can be effective in treating musculoskeletal conditions and promoting improved mobility and comfort.

How it helps

Though beneficial, dry needling was found to be more effective than ischemic compression in reducing neck pain intensity, pain-related disability, and improving range of motion based on 15 studies with 725 participants [\[R\]](#).

A study with 41 patients found that myofascial therapy using ischemic compression on shoulder trigger points reduced chronic shoulder pain symptoms compared to controls, suggesting its effectiveness [\[R\]](#).

Ischemic compression applies sustained pressure to trigger points, helping to alleviate muscle tension and improve blood flow. This practice aids in relieving pain, enhancing mobility, and reducing inflammation.

37

Stability Training

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Integrate stability exercises into your workout routine 2-3 times per week. These exercises include activities such as using a stability ball, performing balance exercises on a balance board, or doing body-weight exercises that focus on balance and core strength, such as planks and single-leg stands. Spend approximately 20-30 minutes per session focusing on these exercises.

TYPICAL STARTING DOSE
30 minutes

Description

Stability training is a form of exercise that focuses on enhancing core strength and balance through targeted movements and exercises, often incorporating equipment like stability balls, balance boards, or resistance bands. It helps improve overall stability and posture while reducing the risk of falls and injury.

How it helps

A meta-analysis of 6 studies found that stabilization reduced pain scores at 4-6 weeks, neck disability at 10-12 weeks, and reduced depression at 4-6 weeks. However, it had no impact on pain scores at 10-12 weeks or 6 months. Two other studies found no effect on shoulder pain [\[R\]](#), [\[R\]](#), [\[R\]](#).

Stability training strengthens muscles around the neck and shoulder, improving the support and alignment of these areas. This form of exercise can also increase flexibility and promote proper posture, which further helps in alleviating the pain.

38

Deep Breathing

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice deep breathing exercises for 5-10 minutes at least twice a day, ideally in the morning and before bed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose.

TYPICAL STARTING DOSE
5 minutes

Description

Deep breathing techniques, such as diaphragmatic or abdominal breathing, can promote relaxation, reduce stress, and improve lung capacity. Regular deep breathing exercises can contribute to overall mental and physical well-being by reducing tension and increasing oxygen supply to the body.

How it helps

Deep breathing exercises and training (5 days/week for 8 weeks) may decrease pain intensity and improve the neck range of motion in people with chronic neck pain [\[R\]](#), [\[R\]](#).

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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 may help manage shoulder & neck pain by reducing inflammation, a key factor in many types of pain. It also interacts with your body’s endocannabinoid system, which can decrease pain perception and provide relief.

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* [\[R, R, R, R, R\]](#).

40



Sensory Deprivation

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Engage in sensory deprivation by spending 20 to 40 minutes in a quiet, dark room, free from distractions such as your phone or background noise, at least once a week. Alternatively, for a more immersive experience, consider using a sensory deprivation tank once a month, where you float in saltwater in a dark, soundproof tank.

TYPICAL STARTING DOSE

40 minutes

Description

Sensory deprivation involves isolating an individual from sensory input to induce deep relaxation and altered states of consciousness. It is used for relaxation, meditation, and potential mental health benefits.

How it helps

In a non-placebo-controlled trial of 37 patients with chronic neck and back pain, using the flotation-REST technique 9x during 3 weeks reduced the most severe perceived pain (but not low pain), improved optimism, reduced anxiety and depression, and increased the ease of falling asleep. However, undergoing 5 flotation sessions (60-90 min, each session separated by 4 days) caused no long-term benefits in a placebo-controlled trial of 99 suffering from chronic pain disorder with psychological and somatic factors [\[R\]](#), [\[R\]](#).

Sensory deprivation can reduce muscle tension by allowing the body to fully relax in a weightless environment. It also promotes stress relief, which can indirectly lessen muscle stiffness associated with these pain areas.

41



Bath Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Submerge in a warm water bath, ideally between 92-100°F (33-38°C), for 15-20 minutes, three to four times a week. Avoid using very hot water to prevent skin dryness.

TYPICAL STARTING DOSE

20 minutes

Description

Balneotherapy (balneum, “bath” in Latin) is a type of therapy that involves using **water with minerals and salts**. The water used for balneotherapy is **at least at 20°C** and has a **mineral content of at least 1g/L**. Balneotherapy includes bathing in natural springs, mineral baths, or swimming pools with mineral-rich water

Balneotherapy (balneum, “bath” in Latin) is a type of therapy that involves using **water with minerals and salts**. The water used for balneotherapy is **at least at 20°C** and has a **mineral content of at least 1g/L**. Balneotherapy includes bathing in natural springs, mineral baths, or swimming pools with mineral-rich water [\[R\]](#), [\[R\]](#).

Waters for balneotherapy contain a mixture of organic and inorganic compounds, such as hydrogen sulfide (H2S) [\[R\]](#), [\[R\]](#).

People use balneotherapy to help with [\[R\]](#), [\[R\]](#):

- Joint and back pain
- Fibromyalgia
- Skin conditions (e.g., psoriasis)

How it helps

Bath therapy (for 2 weeks) including a vasodilatory agent may help alleviate chronic shoulder-neck pain according to a small study [\[R\]](#).

42



Flotation

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate a flotation therapy session into your schedule 1-2 times per week, each session lasting for about an hour. Find a local spa or facility that offers sensory deprivation tanks or flotation tanks, and book your sessions in advance to ensure availability.

TYPICAL STARTING DOSE

1 hour

Description

Flotation therapy, involving relaxation in a sensory deprivation tank filled with buoyant saltwater, is believed to reduce stress, ease muscle tension, and promote mental relaxation. It can provide a calming and rejuvenating experience, potentially benefiting mental and physical well-being.

How it helps

In a non-placebo-controlled trial of 37 patients with chronic neck and back pain, using the flotation-REST technique 9x during 3 weeks reduced the most severe perceived pain (but not low pain), improved optimism, reduced anxiety and depression, and increased the ease of falling asleep. However, undergoing 5 flotation sessions (60-90 min, each session separated by 4 days) caused no long-term benefits in a placebo-controlled trial of 99 suffering from chronic pain disorder with psychological and somatic factors [\[R\]](#), [\[R\]](#).

Flotation therapy supports your body in a near-weightless environment, reducing strain and pressure off the painful areas.

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Mobility Training

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate mobility exercises into your daily routine, allocating at least 10-15 minutes each morning or evening to perform stretches and mobilizations that target all major joints and muscles in your body. Consistency is key, aim to practice mobility training daily for ongoing improvements in flexibility and joint health.

TYPICAL STARTING DOSE

10 minutes

Description

Mobility training is a form of physical therapy that focuses on improving an individual's range of motion, flexibility, and functional movement patterns. It helps enhance joint mobility, reduce the risk of injuries, and promote better physical performance in daily activities or sports.

How it helps

A single-center study compared thoracic spine mobility exercise and thoracic spine manipulation for chronic neck pain in 26 office workers. Both groups improved pain and disability similarly, with differences noted in cervical spine range of motion, not thoracic spine parameters [\[R\]](#).

Mobility training may help by improving flexibility, reducing stiffness, and strengthening the muscles around these areas.

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Hydrogalvanic Bath Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Hydrogalvanic bath therapy, also known as Stanger bath, is a soothing treatment that combines warm water immersion with gentle electric currents to promote relaxation and alleviate pain [R].

This therapy is particularly beneficial for those suffering from joint pain, muscle aches, and nerve-related conditions like arthritis and neuropathy. The warm water helps to ease stiffness and increase blood flow, while the electrical currents stimulate nerves and muscles, providing a gentle massaging effect. This dual-action treatment not only reduces physical discomfort but also promotes mental relaxation [R, R].

How it helps

Hydrogalvanic bath therapy alongside exercise (20 min/day, 4 days/week for 12 weeks) improved pain, disability, and quality of life compared to Transcutaneous Electrical Nerve Stimulation (TENS) in a small study involving 34 people with chronic nonspecific neck pain [R].

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Alpha-Lipoic Acid And Superoxide Dismutase

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 600 mg of alpha-lipoic acid in oral supplement form daily, alongside 140 IU of superoxide dismutase in oral form, preferably with meals to enhance absorption. Continue this regimen daily for at least 3 to 6 months to evaluate its effectiveness.

TYPICAL STARTING DOSE

600 mg

Description

Alpha-linolenic acid (ALA) is a type of omega-3 fatty acid found in plant-based sources like flaxseeds, chia seeds, and walnuts. It is essential for maintaining heart and brain health and is considered a healthy dietary fat. Superoxide dismutase (SOD) is an antioxidant enzyme produced by the body to help protect cells from oxidative stress and damage caused by free radicals.

How it helps

Alpha-Lipoic Acid aids in reducing inflammation within the body, including shoulder and neck areas, thereby alleviating pain. Superoxide Dismutase, as an antioxidant, contributes to the elimination of harmful substances which might intensify the pain.

In a study, group 1 received ALA and SOD in addition to physiotherapy, while group 2 had only physiotherapy. Both groups initially improved, but at 60 days, group 1 continued to see greater reduction in pain (VAS), more neck pain improvement (mNPQ), and better compliance with physiotherapy [R].

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Hatha Yoga

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice Hatha Yoga for 60 minutes at least twice a week. Choose a quiet, comfortable space and consider guided sessions for beginners or those unfamiliar with the poses. Consistency over a period of months to years is beneficial for appreciating its full effects.

TYPICAL STARTING DOSE

1 hour

Description

Hatha yoga is a gentle and accessible form of yoga that combines physical postures, breathing exercises, and meditation. Practicing hatha yoga regularly can promote flexibility, stress reduction, and overall physical and mental well-being.

How it helps

Hatha yoga (for 10 weeks) reduced shoulder and arm pain in 42 women with breast cancer [\[R\]](#).

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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

PEMF (Pulsed Electromagnetic Field) therapy can help treat shoulder & neck pain by improving circulation and reducing inflammation in the affected area, thus accelerating the body's natural healing process. This non-invasive treatment may result in pain relief and improved mobility.

In a non-placebo-controlled trial of 86 patients with chronic neck pain, receiving PEMF for 6 months improved pain better than standard therapy. In a placebo-controlled trial of 56 patients with shoulder impingement, applying PEMF for 3 weeks as an add-on to shoulder exercises decreased pain while improving physical function and strength, However, PEMF wasn't more effective than sham-PEMF at improving pain and physical function in a placebo-controlled trial of 46 patients with this condition [\[R\]](#), [\[R\]](#), [\[R\]](#).

48

Acupressure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply firm pressure on specific acupoints related to your condition using your fingers or a blunt object for 1-3 minutes. Repeat this process 2-3 times a day for several weeks to potentially observe improvements.

TYPICAL STARTING DOSE

1 minute

Description

Acupressure is a traditional Chinese healing technique that involves applying pressure to specific points on the body to promote relaxation, alleviate pain, and improve overall well-being.

How it helps

Acupressure (for 3-4 weeks) may help manage neck and shoulder pain by [\[R, R, R\]](#):

- Reducing pain intensity
- Alleviating muscle stiffness
- increased neck range of motion
- Improving functional mobility

Combination with aromatic lavender essential oil or massage may offer greater benefits and reduce stress levels [\[R, R\]](#).

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Alpha-Lipoic Acid

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 600-1800 mg of alpha-lipoic acid daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

100 mg

Description

[Alpha-lipoic acid](#) is a natural antioxidant found in almost every cell in your body. People use alpha-lipoic acid to help with issues like skin aging, weight loss, and high blood sugar [\[R, R, R\]](#).

People use alpha-lipoic acid to help with [\[R, R, R, R\]](#):

- Complications of high blood sugar
- Skin aging
- Weight loss
- Carpal tunnel syndrome

How it helps

In a study of 96 people with chronic neck pain, receiving a combination of alpha-lipoic acid (600 mg/day) and superoxide dismutase (140 IU/day) as an add-on to physiotherapy (for 60 days) improved neck pain better than physiotherapy alone [\[R\]](#).

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Superoxide Dismutase

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take superoxide dismutase supplements in the form of capsules or tablets, typically ranging between 100 to 500 mg per day. It's best taken on an empty stomach for optimal absorption, and users should consult with a healthcare provider for personalized dosage instructions based on their specific health conditions. This supplement is usually taken for periods ranging from a few weeks to several months, depending on the intended health benefit and individual response.

TYPICAL STARTING DOSE

100 mg

Description

Superoxide dismutase (SOD) is an enzyme that helps to protect cells from damage caused by free radicals. SOD helps to neutralize free radicals by converting them into harmless molecules.

How it helps

In a study of 96 people with chronic neck pain, receiving a combination of alpha-lipoic acid (600 mg/day) and superoxide dismutase (140 IU/day) as an add-on to physiotherapy (for 60 days) improved neck pain better than physiotherapy alone [\[R\]](#).

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.

✓	Rheumatoid Factor	7.7 IU/mL	✓ 014	9 Nov 2025
✓	Creatine Kinase	173 IU/L	✓ 44196	9 Nov 2025

Your Lifestyle Assessments

Ever heard of the term Nature vs. Nurture?

The thing is, both DNA and environment play a role in determining your health risks. The following assessments shows how much of an impact your lifestyle, environment and medical history are having on your health risks.

LIFESTYLE

You have a **reduced risk** of neck pain based on the answers you provided.

Your Lifestyle Risk

LowDecreasedAverageIncreasedHigh

Factors impacting your risk:

What is your age?	Increasing Risk	!
41		
Do you work at an unadjusted chair, computer, or desk?	Decreasing Risk	✓
No		
Do you work in cold temperatures (e.g., in freezer plants or outdoors during winter months)?	Decreasing Risk	✓
No		
Do you work in manual labor?	Decreasing Risk	✓
No		
Have you ever been diagnosed with diabetes?	Decreasing Risk	✓
No		
Do you often feel stressed, unmotivated, or unsupported at work?	Decreasing Risk	✓
No		
In a typical week, how many times do you participate in any physical activities or exercise for 30 minutes at a time? (such as walking, running, bike riding, weight training, yoga, etc.)	Decreasing Risk	✓
*Note: longer exercise equals more sessions (e.g., 1 hour = 2 sessions)		
8 or more		
Do you smoke tobacco?	Decreasing Risk	✓
No, never		
Do you often experience periods of low mood?	Decreasing Risk	✓
No		
On a scale of 1 to 5, how would you rate the amount of stress in your life in the past month (at home and at work)?	Decreasing Risk	✓
2		
Have you ever had an injury to your neck?	Decreasing Risk	✓
No		

Your BMI: 22.77	Decreasing Risk ✔
What is your sex? Male	Decreasing Risk ✔
What is your height? 165 cm	No impact —
What is your current weight? 62.0 kg	No impact —