

Hip Pain

DNA Health Report

REPORT CATEGORIES —



JOINT & TENDON
HEALTH



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

Hip pain is a common ailment with a wide variety of causes. It can be followed by everything from mild to debilitating symptoms.

About **10%** of the general population experiences hip pain issues, increasing up to **15%** for those over 60. For people who play sports like soccer, the rate jumps up to the **30-40%** range [R].

Sources of hip pain can be classified into two categories: **internal and external**. Internal hip pain tends to manifest inside the hip or groin area. External hip pain affects the areas surrounding the hip.

Common causes of internal hip pain can include [R]:

- Arthritis
- Fractures and sprains
- Bursitis (a type of joint inflammation)

Common causes for external hip pain can include [R]:

- Tendon injury
- Pinched nerve
- Torn muscle or ligament

Risk Factors

Hip pain is a common ailment with a wide variety of causes, such as arthritis, joint inflammation, or injuries. The two main types of hip pain are internal and external.

A number of factors can contribute to hip pain, including [R](#), [R](#), [R](#):

- Obesity
- Older age
- Sedentary lifestyle
- Certain sports and professions
- Weak bones
- Poor diet
- **Genetics**



TYPICAL LIKELIHOOD

Typical likelihood of hip pain based on 420,074 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
KAZN	rs549908604	AA
HIPK1	rs149055514	AA
PBX1	rs506068	CC
PGLYRP3	rs117034852	TT
SEMA4A	rs531735825	CC
FNDC7	rs181938434	GG
PGLYRP3	rs118113194	CC
KIAA1614	rs144390511	CC
KAZN	rs115204536	TT
KIF1B	rs143020152	GG
VPS13D	rs138529300	CC
ATAD3C	rs111262777	AA
FAM20B	rs138336064	TT
CTTNBP2N L	rs116671687	CC
LHX4	rs78614038	CC
MAN1A2	rs189116872	TT
MAN1A2	rs116275925	AA
SSU72	rs180728791	CC
ASTN1	rs115115964	GG
RRNAD1	rs116417099	CC
IGSF8	rs532759384	TT
TMCO1	rs56016731	GG
WDR47	rs115706763	TT

GENE	SNP	GENOTYPE
SOAT1	rs180740520	CC
S100A10	rs144300437	CC
TNFSF18	rs150765251	GG
CELA2B	rs3766162	GG
IL6R	rs186556055	TT
RGL1	rs12095136	GG
POGZ	rs144716349	GG
SPAG17	rs140162843	CC
VTGN1	rs531557664	AA
AGMAT	rs147196657	GG
TBX19	rs188624206	CC
FASLG	rs193286306	TT
LHX4	rs187217003	CC
ACBD6	rs60764610	TT
/	rs556859767	CC
/	rs76457339	CC
PBX1	rs75758371	GG

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 Hip Strain	2	Aerobic Exercise (Cardio)1 hour
3	Physical Therapy30 minutes	4	Core-Strengthening Exercises20 minutes
5	Nerve Stimulation30 minutes	6	Stability Training30 minutes
7	Acupuncture1 hour	8	Extra Virgin Olive Oil (EVOO)
9	Apply Heat15 minutes	10	Dynamic Tape Therapy30 minutes
11	Avoid Iron Supplements (Unless Deficient)	12	Aquatic Therapy30 minutes
13	Flexibility Training20 minutes	14	Use Height Adjustable Chairs
15	Bath Therapy20 minutes	16	Good Posture
17	Exercise Therapy1 hour	18	Avoid High-Impact Exercise
19	Turmeric	20	Acupressure1 minute
21	Manual Therapy	22	Aquatic Exercise1 hour
23	Balance And Mobility Training30 minutes	24	Tai Chi1 hour
25	Low-Intensity Exercise1 hour	26	Avoid Lifting Heavy Objects
27	Methylsulfonylmethane (MSM)1 g	28	Stretching15 minutes
29	Massage30 minutes		

1



Reduce Hip Strain

IMPACT4 / 5

EVIDENCE3 / 5

How to implement

To reduce hip strain, incorporate daily exercises that strengthen the muscles around your hips, such as squats and lunges, but avoid overdoing it to prevent injury. Limit activities known to exert excessive pressure on your hips, like running on hard surfaces or repetitive heavy lifting, choosing low-impact exercises like swimming or cycling instead. When sitting for prolonged periods, take short breaks every hour to stand and lightly stretch your hip muscles.

Description

Activities like prolonged sitting or standing, lifting heavy objects, etc. put extra strain on the hips, possibly contributing to hip injuries and hip pain. Reducing hip strain can be achieved through proper posture, regular stretching, and strengthening exercises. These practices support hip joint health and may help prevent discomfort and musculoskeletal issues.

The hips are complex joints that handle a lot of pressure and movement on a daily basis.

Activities like prolonged sitting or standing, lifting heavy objects, etc. put extra strain on the hips, possibly contributing to hip injuries and hip pain.

How it helps

The following activities may put strain on the hips, increasing the risk of injuries and pain [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Repetitive hip bending (e.g., frequent running)
- Putting direct pressure on the hip
- Prolonged sitting, standing, or squatting
- Physically demanding work (lifting heavy objects)
- High-impact sports such as hockey, basketball, and soccer

On the other hand, using **ergonomic and adjustable work equipment** may help reduce hip pain [\[R\]](#).

2



Aerobic Exercise (Cardio)

IMPACT4 / 5

EVIDENCE3 / 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

According to health experts, gentle [exercise](#) is one of the best things you can do to manage joint pain, including in the hip [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Types of exercise that can be good for hip joint pain include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Walking
- Cycling
- Swimming
- Water aerobics
- Yoga
- Tai chi

However, not all studies found aerobic exercise beneficial for hip pain [\[R\]](#).

Aquatic exercise includes swimming and water aerobics. This type of exercise improves pain, strength, and flexibility without putting a lot of strain on the painful joints. People tend to stick to aquatic exercise better than other types of training because it’s more comfortable [\[R\]](#).

3

Physical Therapy

IMPACT

3 / 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

According to experts and scientific research, physical therapy may help improve some cases of hip pain due to arthritis and injuries [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Potentially helpful types of physical therapy include:

- Exercise therapy [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Manual therapy [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Hydrotherapy [\[R\]](#)
- Dynamic tape [\[R\]](#)

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.*

4



Core-Strengthening Exercises

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Incorporate exercises like planks, bridges, abdominal crunches, and leg lifts into your daily routine. Aim to do these exercises for 20-30 minutes, 3 times a week. Each exercise should be performed in sets of 10-15 repetitions.

TYPICAL STARTING DOSE

20 minutes

Description

Core-strengthening exercises target the muscles of the abdomen, lower back, and pelvis, helping improve posture, stability, and reduce the risk of back pain. Regular core workouts support a strong and balanced musculoskeletal system.

The core, or trunk, includes several groups of muscles in your abdomen, back, and pelvis. Keeping these muscles strong helps stabilize your body, twist and bend your back, protect your back from injuries, and enhance your overall fitness [\[R\]](#).

Some exercises that help strengthen the core include [\[R\]](#):

- Crunches
- Planks
- Bridges
- Supine toe taps
- Bird dogs

The core can also be strengthened by practicing Pilates, kettlebell training, and some types of yoga [\[R, R, R\]](#).

How it helps

A meta-analysis of 5 trials and 124 patients with femoroacetabular impingement concluded that supervised physiotherapy programs focused on core strengthening exercises are more effective than unsupervised, passive, and non-core-focused programs at improving functional outcomes [\[R\]](#).

Core-strengthening exercises improve stability and balance, reducing strain and pressure off your hips.

5



Nerve Stimulation

IMPACT2 / 5

EVIDENCE1 / 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

According to a single study, [TENS](#) may improve hip pain after an injury [\[R\]](#).

Please note: Nerve stimulation may not be safe for people that have metal implanted devices, have epilepsy, or are pregnant. 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 [\[R\]](#), [\[R\]](#), [\[R\]](#).

6



Stability Training

IMPACT1 / 5

EVIDENCE1 / 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 of with 20 female patients with femoroacetabular impingement showed that adding trunk stabilization exercises to hip rehabilitation improved short-term clinical outcomes [R].

Stability training may help by strengthening the muscles around the hip joint. It also improves balance and alignment, which prevents uneven wear and tear of the joints.

7



Acupuncture

IMPACT1 / 5

EVIDENCE1 / 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

According to a single study, electroacupuncture applied for at least 3 months may help reduce hip pain due to osteoarthritis [\[R\]](#).

Acupuncture may help by blocking pain signals [\[R\]](#).

Please note: *Acupuncture is generally safe for most people, but 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 [\[R\]](#).*

8



Extra Virgin Olive Oil (EVOO)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 1-2 tablespoons of extra virgin olive oil into your daily diet. Use it as a dressing for salads, vegetables, or incorporate it into cooking, but avoid using it at high temperatures to preserve its health benefits.

Description

Extra virgin olive oil is a high-quality olive oil obtained from the first pressing of olives. It is rich in monounsaturated fats and antioxidants, like polyphenols, and is associated with various health benefits, including heart health and anti-inflammatory properties.

[Olive oil](#) is fat from the olive, a traditional tree of the Mediterranean Basin [\[R\]](#).

Olive oil has anti-inflammatory and antioxidant properties. It may also reduce the risk of [\[R\]](#), [\[R\]](#):

- Heart disease
- Diabetes
- Cancer

Olive oil is also the primary fat source in the [Mediterranean diet](#), which may improve brain and heart health [\[R\]](#).

How it helps

According to a single study, consuming extra virgin olive oil (52 mL/day for at least 3 months) may reduce hip pain [\[R\]](#).

9



Apply Heat

IMPACT

0 / 5

EVIDENCE

0 / 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 to the hip can relax muscles, increase blood flow, and provide relief from pain and stiffness.

10



Dynamic Tape Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Apply dynamic tape to the affected area, ensuring the tape is stretched about 50-75% of its maximal length for optimal tension. The tape should be worn for 3-5 days, including during physical activities and showers, and then replaced. Use the taping technique specific to your injury, which may require a professional's guidance initially.

TYPICAL STARTING DOSE
30 minutes

Description

Dynamic tape therapy involves using a specially designed elastic tape to support injured or strained muscles and joints. It is believed to provide support while allowing for a range of motion, potentially aiding in the recovery and management of musculoskeletal conditions.

How it helps

Dynamic Tape Therapy helps with hip pain by providing support to the hip muscles and joints, reducing strain and assisting movement. Regular use of this therapy may train those muscles to function better, effectively acting as a preventive measure against further hip pain.

11



Avoid Iron Supplements (Unless Deficient)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Only take iron supplements if a blood test shows you are iron deficient. If not deficient, do not use iron supplements. For those diagnosed with iron deficiency, follow your healthcare provider's instructions on the type and dosage of iron supplement to take.

Description

[Iron](#) (Fe) is an essential mineral. It helps make [hemoglobin](#), a protein that carries oxygen to cells. In this way, iron **increases energy** and supports **brain and immune system function** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Avoiding unnecessary iron supplements, particularly without a confirmed deficiency, can prevent the risk of iron overload, which can lead to health issues like hemochromatosis and oxidative stress.

However, too much iron can be bad for the body. It can deposit into organs, such as the liver, heart and the pancreas. This can cause issues such as liver disease, heart problems and diabetes [\[R\]](#), [\[R\]](#).

How it helps

Genetically higher iron levels may be linked to an increased risk of hip osteoarthritis [\[R\]](#).

Please note: Some people deficient in iron may need to take iron supplements. Your doctor should help you make that decision based on your actual iron levels.

12



Aquatic Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Participate in aquatic therapy sessions 2-3 times a week for at least 30 minutes. These sessions should be guided by a professional therapist who specializes in aquatic therapy, and the program should be tailored to your specific health condition and physical capabilities.

TYPICAL STARTING DOSE

30 minutes

Description

Aquatic therapy involves performing exercises and rehabilitation activities in a water environment. It is particularly beneficial for individuals recovering from injuries, surgeries, or certain medical conditions, as the buoyancy of water reduces the impact on joints, eases pain, and improves mobility and muscle strength.

How it helps

Aquatic therapy uses the resistance of water to help improve hip joint mobility and decrease pain through gentle exercises.

13



Flexibility Training

IMPACT

0 / 5

EVIDENCE

0 / 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

Increasing flexibility can help alleviate tightness and pain in the hip area by stretching the muscles and increasing range of motion.

14



Use Height Adjustable Chairs

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Select a chair that allows you to adjust its height so that your feet can rest flat on the floor with your knees at a 90-degree angle. Use this adjustable chair whenever you are seated for extended periods, aiming to maintain an ergonomic posture to reduce strain on your back.

Description

Height adjustable chairs are ergonomic office or seating solutions that allow users to customize the chair's height to their preferences. They promote proper posture, reduce the risk of musculoskeletal issues, and enhance overall comfort during extended periods of sitting.

How it helps

Using height adjustable chairs allows you to maintain a more ergonomic posture that helps reduce stress on your hip joints, which in turn can help alleviate hip pain and prevent its occurrence. By ensuring your feet are flat on the floor and knees at hip level, it reduces strain and promotes better body alignment.

15



Bath Therapy

IMPACT

0 / 5

EVIDENCE

0 / 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 helps alleviate hip pain by using warm water to soothe and relax the muscles around the hip, reducing tension and promoting healing. Additionally, the buoyancy of water can relieve stress on the joints, which can help prevent hip pain from reoccurring.

16



Good Posture

IMPACT

0 / 5

EVIDENCE

0 / 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

Maintaining good posture reduces strain on the hips and can prevent pain caused by misalignment and imbalance in the body.

17



Exercise Therapy

IMPACT

0 / 5

EVIDENCE

0 / 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

Exercise therapy strengthens muscles, tendons, and ligaments around the hip to support the joint, reducing the pain. Regular engagements in carefully selected exercises also improve the hip's movement range, preventing future discomfort and pain.

18



Avoid High-Impact Exercise

IMPACT

0 / 5

EVIDENCE

0 / 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

Avoiding high-impact exercise like running or jumping can reduce the stress and pressure on your hips, which often exacerbates hip pain. This means your hip joint doesn't have to work as hard, and you're less likely to worsen any existing damage or pain.

19



Turmeric

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate 500-1000 mg of turmeric into your daily diet, either by adding ground turmeric spice to your food, such as in curries, soups, and smoothies, or by taking a dietary turmeric supplement. This should be done daily for at least 8 weeks to observe potential health benefits.

Description

Turmeric is a bright yellow spice derived from the root of the *Curcuma longa* plant. It contains curcumin, a potent antioxidant and anti-inflammatory compound. Turmeric is used for various health conditions, including reducing inflammation, alleviating joint pain, and supporting digestive health.

How it helps

Its active compound, curcumin, has anti-inflammatory properties that may alleviate joint discomfort.

20



Acupressure

IMPACT

0 / 5

EVIDENCE

0 / 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 may help alleviate hip pain by targeting specific points to release muscle tension and improve circulation in the affected area.

21

Manual Therapy

IMPACT

0 / 5

EVIDENCE

0 / 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 for hip pain involves hands-on techniques to improve joint mobility and alleviate pain. Regular therapy may increase flexibility, enhance circulation, and reduce further wear-and-tear, thus preventing future pain.

22

Aquatic Exercise

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Participate in aquatic exercise sessions, such as swimming or water aerobics, for 60 minutes, 3 to 5 times per week. Ensure the exercise intensity is moderate, allowing you to talk but not sing during the activity. Consistency over time is key, so aim to incorporate this into your weekly routine for at least 3 to 6 months to observe benefits.

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

Exercising in water provides a low-impact environment that can reduce stress on the hip joint while strengthening surrounding muscles.

23



Balance And Mobility Training

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate balance and mobility exercises into your routine three to four times per week. Each session should last approximately 30 minutes and include activities such as standing on one foot, walking heel to toe, and tai chi or yoga. Start with simple exercises and gradually increase difficulty as your balance improves.

TYPICAL STARTING DOSE

30 minutes

Description

Balance and mobility training exercises, such as yoga or tai chi, can improve stability and reduce the risk of falls, particularly among older adults. These exercises enhance overall physical function.

How it helps

Improving balance and mobility can help stabilize the hip joint and prevent falls, reducing the risk of further injury and pain.

24



Tai Chi

IMPACT

0 / 5

EVIDENCE

0 / 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 promotes gentle movements and balance, which can improve hip flexibility and strength without excess strain.

25



Low-Intensity Exercise

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate 60 minutes of low-intensity activities, such as walking or gentle yoga, into your daily routine. Aim to do this 5 days a week to achieve the best results.

TYPICAL STARTING DOSE
1 hour

Description

Low-intensity exercise, such as walking or gentle yoga, provides numerous health benefits, including improved cardiovascular health, stress reduction, and enhanced overall fitness without the strain of high-intensity workouts.

How it helps

Low intensity, non-impact exercises can help maintain strength and mobility in the hip without exacerbating pain.

26



Avoid Lifting Heavy Objects

IMPACT

0 / 5

EVIDENCE

0 / 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 places significant strain on your hip joints, potentially leading to pain or exacerbating existing discomfort. By avoiding this action, you can minimize unnecessary stress on the hips, help alleviate pain and prevent further damage to the area.

27



Methylsulfonylmethane (MSM)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 1 to 3 grams of Methylsulfonylmethane (MSM) per day, divided into three doses. This can be in the form of capsules or powder that is mixed with water. It is recommended to start with a lower dose to assess tolerance, then gradually increase to the desired dose over a period of 1 to 2 weeks.

TYPICAL STARTING DOSE

1 g

Description

MSM is a naturally occurring sulfur compound found in foods and used in dietary supplements. It has anti-inflammatory properties and may be used to support joint health and reduce exercise-related muscle soreness.

A molecule of MSM is broken down in the body into a sulfate (sulfur) group and two methyl groups.

The following may increase people’s needs for sulfur and methyl groups: physical activity, recovery from injuries, inflammation, infections/sickness, toxins, etc.

People also need more sulfur when taking hormones (DHEA, pregnenolone, etc.), drugs (Aspirin, Tylenol, NSAIDs, birth control, etc.) or supplements (flavonoids & polyphenols - resveratrol, quercetin, curcumin, etc.) that undergo sulfation.

How it helps

MSM might have anti-inflammatory properties that can aid in reducing joint inflammation, thereby helping alleviate hip discomfort.

28



Stretching

IMPACT

0 / 5

EVIDENCE

0 / 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

Regular stretching can ease tension in the hip muscles and increase flexibility, helping to reduce discomfort.

29



Massage

IMPACT

0 / 5

EVIDENCE

0 / 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 can help to relax tight muscles and fascia surrounding the hip, promoting pain relief and aiding in recovery.

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 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.

