

# Leave back pain behind

MHealthy  
Back Care Guide



[MHealthy.umich.edu/backcare](https://MHealthy.umich.edu/backcare)





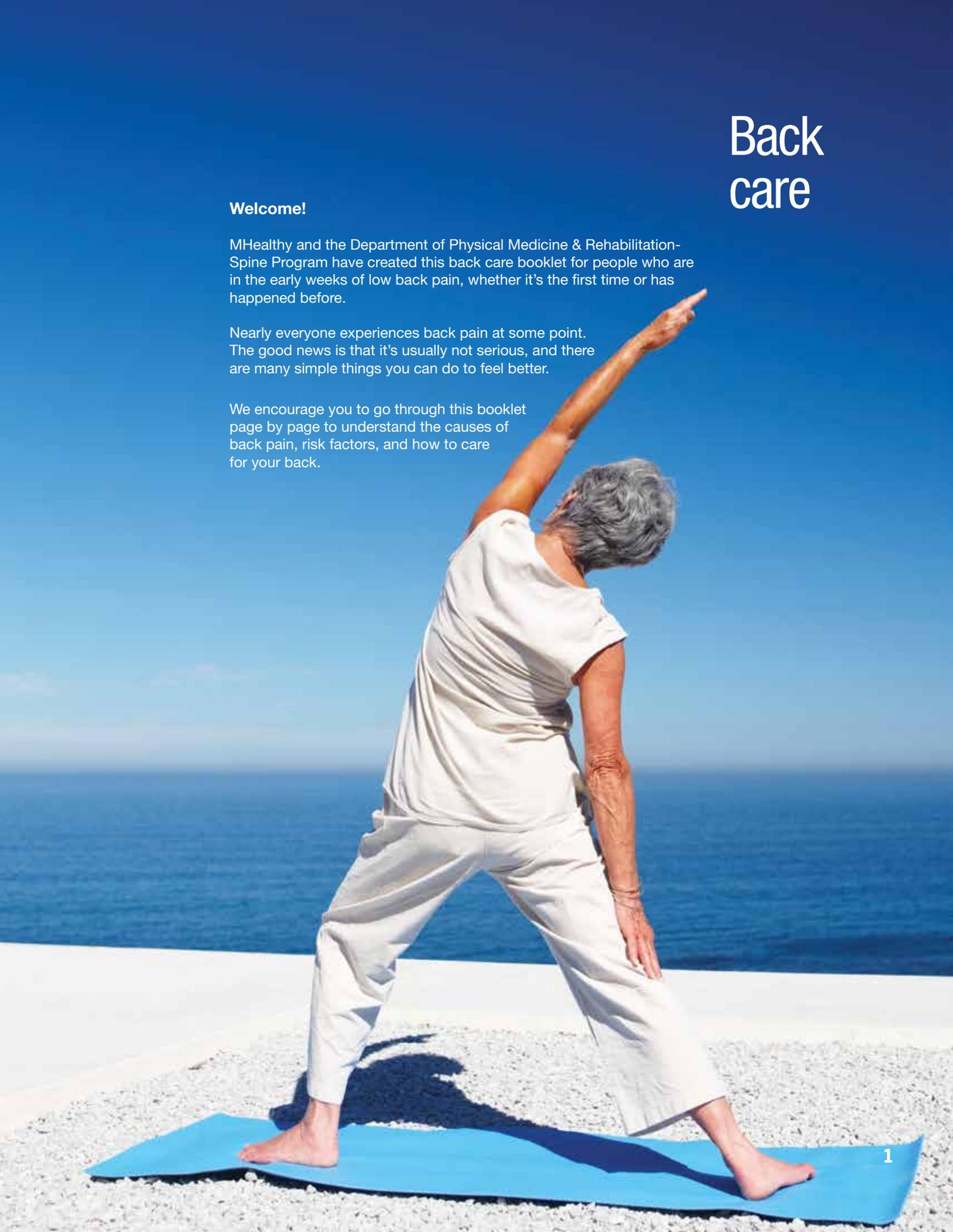
# Back care

## Welcome!

MHealthy and the Department of Physical Medicine & Rehabilitation-Spine Program have created this back care booklet for people who are in the early weeks of low back pain, whether it's the first time or has happened before.

Nearly everyone experiences back pain at some point. The good news is that it's usually not serious, and there are many simple things you can do to feel better.

We encourage you to go through this booklet page by page to understand the causes of back pain, risk factors, and how to care for your back.



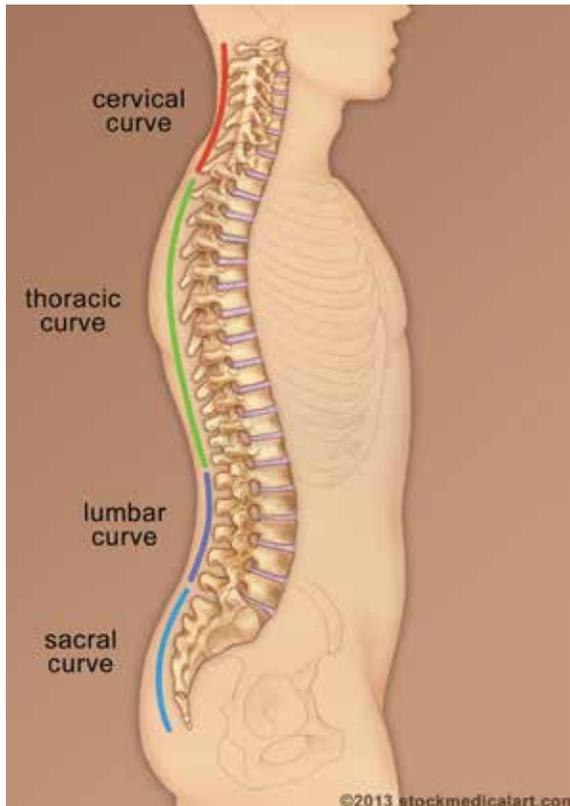
# 150 minutes

Most healthy adults need 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity each week to get the most health benefits.



## Spine Basics

Your spine does a lot of work! It holds up your head, shoulders, and upper body. It supports you so you can stand up, but also helps you bend and twist. It also protects the spinal cord. Your spine has four main curves that help you keep your balance and stand straight. The lowest part of the spine connects to the sacrum, a bone that fits between the two hip bones.



The spine is made of bones (vertebrae) that are stacked on top of each other with disks (intervertebral disks) in between them. When you walk or run, the disks act like a cushion and keep the bones from bumping into each other. The vertebrae attach to each other with joints and ligaments. This allows your spine to rotate, and bend backward, forward, and side to side. Muscles, tendons and ligaments support your back and help you move. Nerves carry messages between your brain and your muscles.

# About back pain

## Causes of Pain

We often don't know what causes back pain, but some likely reasons are:

- strained muscles
- sprained ligaments
- tight joints
- small tears in the disks

These injuries usually don't show up on imaging tests, like X-Rays, MRIs or CT scans. Most people with back pain aren't helped by getting these imaging tests. However, your doctor may order an imaging test if your symptoms call for one, or if you're not getting better after 4-6 weeks. Whatever the cause, this type of common back pain is usually treated the same way: stay active, limit time spent lying down to rest, apply ice (or heat if ice doesn't help you), and take non-prescription pain relievers.

The majority of people with low back pain symptoms don't know the exact reason for their pain. It can be frustrating not knowing what's causing your pain, but this doesn't mean that there's something serious going on. It's difficult to actually damage your spine. Back pain is common, and generally not serious.

80%

At some point, 80% of us will have low back pain.

Most people (about 90%) recover fully within 6 weeks.

90%



## Should I see a doctor?



While low back pain isn't serious in most people, there are a few warning signs to watch out for.

### **Call your doctor right away if you have:**

- weakness, numbness, or tingling in your leg
- pain spreading down your leg, especially below your knee
- new bladder or bowel problems
- unexplained weight loss, fever, or stomach pain
- constant or intense pain, especially when you lie down
- had a fall, blow to your back, or other injury
- a history of cancer, osteoporosis, steroid use, or drug or alcohol abuse
- pain for the first time and you're over 50 years old

If you don't have any of these warning signs, chances are good that your back will start feeling a little better within a few days. If it doesn't improve at all, or if the pain gets worse, call your doctor. Most people recover completely within a few weeks. If your back pain is still bothering you after a month, see your doctor.

## Risk factors

As we've mentioned, nearly everyone experiences back pain at some point. It may not be possible to completely avoid back pain, but it helps to know what may increase the chance that you'll experience it.

There are some things that put you at a higher risk of back pain that you can influence, and others that you can't do much about.

### **Risk factors that you can't change:**

#### **Genetics**

Low back pain tends to run in families.

#### **Age**

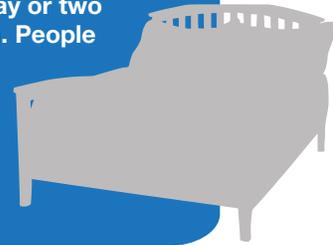
Back pain becomes more common as we get older.

#### **Previous back pain**

The strongest risk factor for future back pain is having a back pain episode in the past.



Bed rest is only okay for a day or two when dealing with back pain. People get better faster by staying active at home and at work. Having a positive attitude also helps!



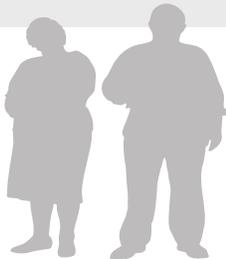
Fortunately, there are some back pain risk factors that you have the power to change. In fact, you can reduce your risk of back pain and improve your overall health while you're at it!

## Risk factors that you can change:

### Get enough physical activity



Back pain is more common among people who are not physically fit. People who exercise are also less likely to have back pain return. Moving your body regularly (walking, jogging, biking, swimming) helps to prevent strains, sprains, and other injuries. Exercises that focus on your balance and strength, like yoga and tai chi, can lower your risk of falling and injuring your back or breaking bones. Your abdominal muscles (the area around your stomach) actually provide a lot of the support your back needs, so it's important to strengthen them, too.



### Maintain a healthy weight

People who are overweight have an increased risk of low back pain, but there isn't enough evidence to say that being overweight causes back pain. Being overweight can put more stress on your spine. Being physically active can help to reduce back pain, even if you are overweight.



### Use safer posture

The way you position your body when you're working or doing everyday things can also raise your risk of experiencing low back pain. Heavy lifting, bending, twisting, pushing, pulling, repetitive work, staying in the same position for most of the day, and whole-body vibration are all risk factors for low back pain. Take breaks and try to change your position frequently so you aren't sitting (or on your feet) all day. (See our Posture Pointers on page 14).



### Quit smoking

People who smoke are at a slightly higher risk for low back pain. Researchers have a few possible explanations. One is that nicotine slows the flow of blood to the vertebrae and disks. This affects how they work, and may trigger a bout of back pain. Another possible explanation is that smokers tend to lose bone faster than nonsmokers. This puts them at greater risk for osteoporosis, another common cause of back pain.



If you're considering quitting, we want to help! Learn about MHealthy's tobacco treatment programs at [MHealthy.umich.edu/tobacco](http://MHealthy.umich.edu/tobacco).





## Self care

If your back hurts, it may feel like the couch is the best place to recover. This couldn't be further from the truth. Let's consider the difference between "hurt" and "harm." When something hurts, it doesn't necessarily mean something is terribly wrong. For example, when you have a headache, it can be very painful. But it's probably not a sign that you've damaged your head, right? Staying active might not feel great at first, and your back may still hurt. But if you don't have any of the warning signs mentioned on page 4, you're not likely to harm your back by moving.

You may need to take it easy when you're having an episode of back pain, but don't take it *too* easy! You can rest for a day or two, at most. But after that, the best thing you can do for your back is to start moving. Keep up with your normal activities, like work or household chores. You may need to start slow and ease into things. If you have a very physical job, ask co-workers for help or look for other ways to make your tasks easier to finish. There may also be safer ways to do your job, or devices that can help protect your back.

## Stay active during back pain:

Your spine was designed to move. People who are active usually have less back pain, and recover faster if they do experience it.

Regular exercise can:

- make your bones and muscles stronger
- improve your overall health
- help you stay flexible
- make you feel good!

It may not be easy or pain-free to stay active while dealing with back pain. But the longer you wait to get your body moving, the harder it will be. The key is to listen to your body and notice how you feel after you are active. Over time, you'll be able to do more with less pain.

## Types of exercise:

Even if your back hurts, you can try gentle exercise for a few minutes at a time. Moving your body can actually help with muscle spasms. Try:

- walking
- swimming or water aerobics
- riding an exercise bike
- yoga or Pilates

If you take an exercise class, let your instructor know about your back pain so he or she can advise on which moves to modify or skip. Steer clear of high-impact exercises or ones that involve a lot of twisting or jumping until your back is feeling better.

## How much exercise:

A complete exercise program should include aerobic activity, stretching, strength training, and balance activities. Aerobic activity, or "cardio," makes you breathe harder and your heart beat faster. Most healthy adults need 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity each week to get the most health benefits. When you're doing a moderate-intensity activity, you should be able to talk, but not sing.

We understand that 150 minutes sounds like a lot, especially when you're having a backache. Start out at an easy pace, and gradually add a few minutes each day. You can even break it up into smaller chunks of time of at least 10 minutes, and spread it out through the week. For example, you could go for a 10-minute walk 3 times a day for 5 days. Everyone has to start somewhere, and some exercise is better than none. So if you're just starting out, or if you've fallen out of the habit of exercising, give yourself the credit you deserve for getting back on track!

**"Most of us will have an episode of back pain in our life. And for most of us, it will be a problem that will go away. If you do have an episode of back pain, it is important that you stay active."**

Tony Chiodo, M.D.  
Director,  
U-M Spine  
Program



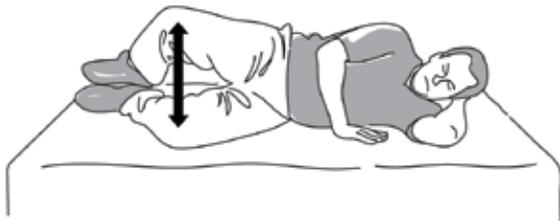
# Strength training\*



You will also want to work on strengthening your muscles at least twice a week. First, warm up at an easy pace for at least 3-5 minutes with an aerobic activity, like walking. Then, you can strengthen your muscles with weights or machines, resistance bands, using your own body weight (for example, push-ups or crunches), or even yoga. Be sure to work all of your major muscle groups (legs, hips, back, chest, abdomen, shoulders, and arms). You can work on different muscle groups on alternate days. If you're new to strength training, you may want to work with an MHealthy personal trainer, or other qualified fitness professional, to make sure you're using safe and correct form.

Here are some strengthening exercises for your back and hips. Visit the Exercises & Stretches page of MHealthy's Back Care website ([MHealthy.umich.edu/backcare](http://MHealthy.umich.edu/backcare)) to watch videos of these exercises, plus a few more. If your pain gets worse or spreads while doing these exercises, stop.

## Hip Abduction (Clam) Exercise



- Lie on your side with your shoulders and hips perpendicular to the table/floor and your hips and knees flexed 45-60 degrees.
- Keeping feet together, lift your top knee toward the ceiling.
- Do not allow the pelvis to roll backwards. The illustration shows the correct position for your hips which allows movement at the hip and decreases arching of the back. You should feel the top gluteal/buttocks area working after a few repetitions.
- Lift on a count of 2 and lower on a count of 4.
- Perform 1-2 sets of 10-15 repetitions as tolerated.

**\* PLEASE NOTE:**

*If you have pain going all the way down your foot, problems with bowel or bladder control, or have any of the other warning signs we've listed on page 4, these exercises are not right for you. Call your healthcare provider right away.*

## Gluteal Squeeze

- While sitting, standing, or lying on your back, squeeze the buttocks together.
- Hold for 5 seconds and repeat 10-15 times.
- Perform 1-2 times per day.



## Hip Adduction (Inner Thigh) Exercise

- Lie on your back with your knees flexed at approximately 90 degrees.
- Keeping feet in line with hips, place a ball or pillow between your knees.
- Take a breath of air in then exhale slowly while squeezing the ball for a count of 5.
- Perform 1-2 sets of 10 repetitions. Hold squeeze for 5 seconds.



## Supine Marching

- Lie on your back with your knees flexed at 90 degrees.
- Begin with breathing in through your nose. Follow with an exhale as you lift the left knee up. Inhale again and lower foot as you exhale. Repeat on right side.
- Perform 2 sets of 10–15 repetitions on each side. Increase as tolerated.



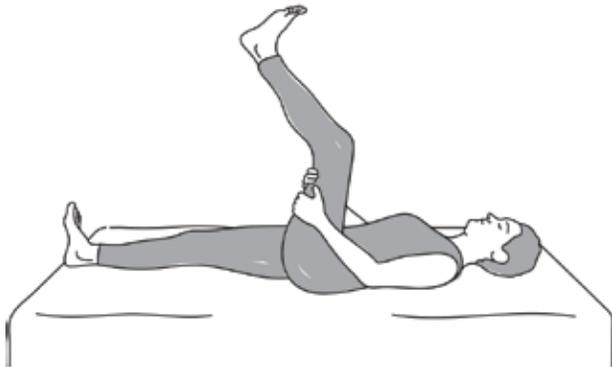
*If you have osteoporosis, stenosis, or have had back surgery, you should not do these exercises without first talking to your health care provider. If your pain gets worse while doing these exercises, stop immediately. Pain getting worse means it increases and stays increased, or it spreads to somewhere that didn't hurt before. That's another sign to see a healthcare provider who can help you.*

# Stretching\*



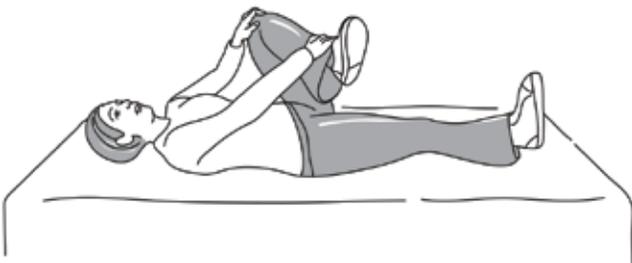
Stretching is an important part of exercising, but it also makes everyday things like putting on your socks a little easier. Stretching can help to reduce stiffness and pain, and can increase your range of motion. It's easy to do; you can even stretch while you're watching TV or reading. Warm up with a few minutes of walking or other gentle activity before you stretch.

Below are some of the recommended stretches for your back and hips.



## Supine Hamstring Stretch

- Lie on your back with your legs straight out.
- Hold your left thigh with your hands.
- Slowly lift your left leg until a stretch is felt in the back of your thigh.
- Repeat on opposite side.
- Hold 30 seconds. Repeat 2-4 times each side. Perform 1-2 times/day.



## Supine Buttocks & Piriformis Stretch

- To stretch your left buttocks, grasp your left knee with your left hand and your ankle with your right hand.
- Gently pull your knee toward your left shoulder while at the same time gently pulling your ankle toward your right shoulder until you feel a stretch in the buttocks.
- Hold 30 seconds. Repeat 2-4 times each side. Perform 1-2 times/day.

**\* PLEASE NOTE:**

*If you have pain going all the way down your foot, problems with bowel or bladder control, or have any of the other warning signs we've listed on page 4, these exercises are not right for you. Call your healthcare provider right away.*

## Seated Hamstring Stretch

- Select a sturdy chair without wheels. Sit on the edge of the chair with one leg straight and toes pointing up.
- Simply flex at the hips without bending the knee of the extended leg. You should feel a stretch on the underside of the leg.
- Hold for 30 seconds. Repeat 2-4 times each leg. Perform 1-2 times /day.



## Seated Piriformis Stretch

- Select a sturdy chair without wheels. Sit on the edge of the chair with one leg propped on opposite knee.
- Simply lean forward while keeping your back straight. You should feel a stretch in the buttocks area.
- Hold for 30 seconds. Repeat 2-4 times each leg. Perform 1-2 times /day.



## Standing Hip Flexor Stretch

- In a standing position with your right leg in front of your left leg, stand up straight. Tuck your buttocks underneath you and tuck in your stomach.
- Start with your weight on your left (back) leg.
- Slowly transfer your weight to your right leg. You should feel a stretch in the front of your left thigh.
- Hold for 20 seconds. Repeat 3 times on each leg.



*If you have osteoporosis, stenosis, or have had back surgery, you should not do these exercises without first talking to your health care provider. If your pain gets worse while doing these exercises, stop immediately. Pain getting worse means it increases and stays increased, or it spreads to somewhere that didn't hurt before. That's another sign to see a healthcare provider who can help you.*

# Find relief

There are many treatments for low back pain. However, some have more science behind them than others. There are actually a number of simple strategies you can try at home to help relieve your pain. If you don't have any of the warning signs mentioned on page 4, try the treatments below first. If your back isn't feeling any better after a few days, work with your doctor to explore other options.

X-Rays, MRIs, or CT scans are rarely needed for back pain. Neither is surgery. The problem often goes away on its own after a few days of light activity.



## Try these first

Treatment	Does it Work?
Staying active	Yes. Bed rest can slow the healing process and make your muscles weaker, tighter, and more painful. Moving your body gently is one of the best ways to manage back pain. Avoid activities that make your pain worse.
Ice/cold packs	Sometimes, and it's worth a try. Try using a cold pack (or a bag of frozen peas) at the first sign of a backache. Ice helps to stop muscle spasms, reduce inflammation, and calm the nerves sending pain signals to your brain. You can switch between a cold pack and a heating pad if you find it helpful.  <i>Use a damp towel between your skin and the cold pack. Don't use a cold pack for longer than 15 to 20 minutes at a time.</i>
Heat	Sometimes, but try ice first. Heat might make inflammation worse at first. If ice doesn't help, you can try heat. Use a heating pad, heated blankets, or even a hot shower.  <i>Don't use a heating pad for more than 15 to 20 minutes or fall asleep while using one.</i>
Non-prescription anti-inflammatory drugs like aspirin, ibuprofen, or naproxen	Sometimes, and the benefits usually outweigh the risks. These medicines help reduce pain and swelling.  <i>These can be hard on your stomach, so it helps to eat something when you take aspirin, ibuprofen, or naproxen.</i>
Acetaminophen	Sometimes, and the benefits usually outweigh the risks. This drug helps to reduce pain, but not inflammation. It's also usually gentler on your stomach than aspirin, ibuprofen, or naproxen.

## These may help some people, but shouldn't be the first treatment you try

Treatment	Does it Work?
Muscle relaxants	Sometimes. Your doctor may recommend a prescription-only muscle relaxant if other treatments have not helped you. Drowsiness is a common side effect.
Massage	There isn't enough research to show that massage helps back pain. The risks are low, so it is generally safe to try.
Spinal manipulation	Generally safe, but hasn't proven to be better than other less costly treatments. A trained spinal care specialist such as a physical therapist, chiropractor, osteopathic physician or physician who specializes in musculoskeletal medicine moves joints in your back for you.
Acupuncture	Generally safe, but there isn't enough evidence to show that it helps back pain. It involves a practitioner inserting small needles into the body at specific points.
Physical therapy	Yes. If your pain lasts for more than 4-6 weeks, your doctor may suggest a visit to a physical therapist.

## Usually not recommended in most cases

Treatment	Does it Work?
Narcotic (opioid) pain relievers	Generally not helpful for back pain lasting less than 3 months. They are prescribed only for a short period of time because they have risks of side effects, such as drowsiness and the potential for addiction.
Injections	Rarely used because injections are not helpful for back pain lasting fewer than 3 months. A doctor would use a needle to inject pain relievers, muscle relaxants, or anti-inflammatory drugs.
Back belts, braces and corsets	Research has not shown these to help people with low back pain. Only use one if a doctor or therapist recommends it.
Surgery	Only a very small number of people with low back pain need surgery. It may be necessary if you have cancer or a broken bone. For the majority of cases, it should only be considered after other treatments have failed.
Ultrasound, interferential therapy, short-wave diathermy transcutaneous electrical nerve stimulation, low-level laser therapy	All of these therapies involve applying energy to the skin's surface. None have been proven to be effective, particularly during the first 4-6 weeks of back pain.

## Definitely not recommended

Treatment	Does it Work?
Traction	No. Traction has not proven to help people in the first 4-6 weeks of back pain.
Bed rest	Not for more than a day or two. Bed rest is less effective at reducing pain and improving function at 3-12 weeks than advice to staying active. Resting too long can also lead to stiff joints and weaker muscles.

# Posture pointers

Poor posture makes your muscles and ligaments struggle to keep you balanced—which can lead to fatigue, back pain, headaches, and other problems. You may not be able to prevent every episode of back pain, but being mindful of how you move your body helps to keep your spine strong and stable.

Follow these tips and your back will thank you.

## SITTING

- ✓ Sit up straight
- ✓ Keep your feet flat on the floor or on a footrest
- ✓ Hips should be even or slightly higher than your knees
- ✓ Place a small pillow or folded towel at the curve of your lower back, if needed
- ✓ Adjust your chair height so that your eyes are near the top of your monitor

**DO**



**DON'T**



- ✗ Slouch
- ✗ Sit for more than 60 minutes

Stretch every

**30-60 minutes**

## STANDING

- ✓ Keep your ears, shoulders, hips, and ankles in line with each other
- ✓ Relax your shoulders
- ✓ Put your weight on the middle of your feet, not on your toes or heels, and shift from one foot to the other
- ✓ Adjust your work surface to elbow height

**DO**



**DON'T**



- ✗ Slouch
- ✗ Stand for a long time without changing positions
- ✗ Wear high heels or shoes without proper support

Rest one foot on a

**1-2 inch** high box or inside a cabinet door

## LIFTING & CARRYING

- ✓ Hold items close to your body at elbow height
- ✓ Bend at hips and knees
- ✓ Keep your back straight
- ✓ Lift slowly
- ✓ Turn your feet to change directions

**DO**



**DON'T**



- ✗ Bend at the waist
- ✗ Lock your knees
- ✗ Twist
- ✗ Reach with your arms

Ask for help with **heavy items** or use carts or hand trucks and always push instead of pull

## DRIVING

- ✓ Sit high and close to the steering wheel
- ✓ Adjust your seat so that your knees are bent and slightly lower than your hips
- ✓ Set the lumbar rest or use a rolled up towel to have a slight inward curve in your lower back
- ✓ Move often

**DO**



**DON'T**



- ✗ Drive in the same position for a long time
- ✗ Sit far away from the wheel or pedals

Try to take breaks at least **once an hour** on long trips

## SLEEPING

- ✓ Use a comfortable mattress
- ✓ Put a pillow between your legs if you sleep on your side or under your knees if you sleep on your back

**DO**



**DON'T**



- ✗ Sleep on a sagging mattress

The average person spends **1/3 of his life** sleeping. Using a back-friendly position is very important for your health

# Before you go

## It's up to you

You don't have to take back pain lying down! You can choose to stay active and make yourself more comfortable while your back heals. Focus on what you can do instead of letting back pain just happen to you.

## Will back pain return?

In most people, it's not unusual to have another episode of back pain within a year. Use the strategies you've learned to get it under control. If there is a next time, you'll know what to expect and what to do. As always, see your doctor if your pain doesn't improve.

## And remember:

- Back pain is very common, and can hurt a lot. But it's usually not anything serious.
- Bed rest is only okay for a day or two at most. People get better faster by staying active at home and at work.
- X-Rays, MRIs, and CT scans are rarely needed. Neither is surgery. The problem often goes away on its own after a few days of light activity.
- Most people with low back pain recover fully within six weeks.

We hope that you have found this booklet useful, and that you've learned ways to manage low back pain.

## Stay Positive



“The way you think about pain can shape how you experience it. If you feel afraid, this can make your muscles tense up, adding to your pain. When this fear keeps you from moving, your body gets weaker, you feel stressed, and the whole cycle starts over again. Fear of making things worse is typically the biggest hurdle to doing what's best for your back. Instead, try relaxation techniques and gentle exercises to help ease pain.”

— Andrew Marsh, PT, Cert. MDT,  
Physical Therapist, U-M Spine Program



Need  
more  
help?

Visit the resources page at

**[MHealthy.umich.edu/backcare](https://MHealthy.umich.edu/backcare)**

for a complete list of resources available to U-M employees.



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