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Exercise Lowers Odds of Back Pain by One-Third

By Dr. Mercola | December 1st, 2017

Back pain is one of the most common health complaints across the globe, and the No. 1 cause of job disability. It's also one of the most common reasons triggering opioid dependence, the side effects of which can be lethal. In fact, opioids are now the leading cause of death among Americans under the age of 50, and more than 202,600 Americans died from overdosing on these potent pain killers between 2002 and 2015 alone.

If you struggle with back pain, please know there are safer, more effective ways to address your pain than filling a prescription for a narcotic pain reliever. Two highly effective means of preventing lower back pain are closely related — staying active and practicing interrupted sitting may help to improve muscle strength and coordination, reduce stiffness and improve blood flow.

Physical Activity Is Foundational for Pain-Free Mobility

Exercise and non-exercise movement are two ends of the same spectrum. Exercise is important to raise your heart rate and improve muscle strength, while non-exercise movement is important for overall health. Both are also important to your back health. The benefits of exercising for 30 minutes or more each day may actually be counteracted by sitting for long periods of time.

While you may not be able to avoid sitting at work, it is important to make accommodations to improve your cardiovascular and musculoskeletal health. It may be tempting to lie down as much as possible when pain strikes, but as counterintuitive as it may seem, the evidence suggests increasing your activity is actually more effective.

So, do consider standing as much as possible during the day rather than sitting or lying down. The benefits of standing and walking as much as possible during the day, while maintaining good posture, cannot be overstated. In fact, using these strategies was exactly how I eliminated my own nagging back pain. Physical activity in combination with a healthy diet and fasting will also effectively address any excess weight you may be carrying that can easily translate into back and knee pain.

Exercise Lowers Odds of Back Pain by One-Third

A number of studies have concluded exercise is key for the prevention and treatment of back pain. Most recently, a systematic review of 16 published studies concluded that people who exercised lowered their odds of developing back pain by 33 percent. It also reduced pain severity among those who had pain from the outset.

The studies included a total of 4,310 individuals and ranged in duration from two months to two years. Five of the studies found that, compared to inactivity, exercise lowered the risk of back pain leading to disability by 38 percent.

In conclusion, the researchers suggest a combination of strength training, stretching and/or aerobic exercises done two to three times a week is recommended for the prevention of lower back pain. Lead author Dr. Rahman Shiri of the Finnish Institute of Occupational Health in Helsinki also noted:

The study shows that exercises for strengthening and stretching the lumbar and abdominal muscles, or a combination of strengthening and aerobic exercises protect against low back pain. Furthermore, exercise reduces the severity of low back pain as well as disability due to low back pain.”

This supports the findings of a 2016 review of 21 studies, which found that people with a history of back pain who exercised had a 25 percent to 40 percent lower risk of having another episode within a year than those who remained inactive. As above, strength exercises, aerobics, flexibility training and stretching were all beneficial in lowering the risk of

recurring pain.

Updated Treatment Guidelines for Back Pain Highlight Benefits of Activity

The evidence supporting physical activity when you have back pain is so strong, the American College of Physicians (ACP) have now updated its treatment guidelines for acute, subacute and chronic low back pain, sidestepping medication as a first-line treatment and recommending nondrug therapies instead, starting with exercise.

Considering back pain is a primary complaint for which opioids are prescribed, this change in treatment guidelines could save thousands of people from opioid addiction and death if widely implemented and followed in clinical practice.

According to the ACP, one major reason for avoiding drug treatment for back pain is because most patients with acute or subacute low back pain improve over time regardless of the treatment they receive, so narcotic pain relievers are an unnecessarily risky approach.

Dr. Rick Deyo, a spine researcher and professor at the Oregon Health and Science University and one of the authors of the new ACP guidelines, also notes there's no need to see a doctor for acute back pain, defined as pain that lasts up to four weeks and does not radiate down the leg. He likens it to a case of the common cold — most of the time you just have to wait it out.

Seventy-five to 80 percent of back pain cases resolve within two to four weeks, with or without treatment. In addition to exercise, the guidelines recommend using superficial heat, massage, acupuncture and/or spinal manipulation as a first line of treatment for acute or subacute back pain. The only drugs that made the list of treatment options are nonsteroidal anti-inflammatories and muscle relaxants.

Treatment Guidelines for Chronic Back Pain

Chronic back pain may occur consistently, or you may experience times of remission when the pain dissipates and you move about freely without discomfort. Chronic back pain, defined as being present for 12 weeks or more, occurs in approximately 20 percent of people. **For chronic low back pain, the ACP recommends the following treatment options:**

Exercise	Multidisciplinary rehabilitation
Acupuncture	Mindfulness-based stress reduction
Tai chi	Progressive relaxation techniques
Yoga	Electromyography feedback
Photobiomodulation	Cognitive behavioral therapy (CBT) or operant conditioning therapy, a branch of CBT where your behavior is modified by its consequences
Motor control exercises	Spinal manipulation (CHIROPRACTIC)

As you can see, a number of these treatments involve psychotherapeutic approaches. The reason for this is because mounting evidence strongly suggests that, in many cases, the pain has a psychological or emotional origin. This does not mean the pain is imaginary and not physically real. It simply means that you cannot separate your body from your mind, as they are closely interrelated and work in tandem.

Drug Treatment Guidelines Stress Lower Dosage and Patient Education

Patients with chronic low back pain who have tried and failed to find adequate relief from nondrug therapies “should consider pharmacologic treatment with nonsteroidal anti-inflammatory drugs (NSAIDs) as first-line therapy, or tramadol or duloxetine as second-line therapy,” the ACP guidelines state, adding, “Clinicians should only consider opioids as an option in patients who have failed the aforementioned treatments and only if the potential benefits outweigh the risks for individual patients and after a discussion of known risks ... “

The guidelines stress that even in the rare case when an opioid is given, it should only be prescribed in the lowest dose and for the shortest duration possible. Steroid injections and acetaminophen are also discouraged, as studies suggest neither is helpful or beneficial. Acetaminophen does not lower inflammation, and a review of the research shows steroids are on par with placebo when it comes to treating back pain in the long term.

Functional Exercises to Improve Back Pain

Strengthening and stretching the muscles in your back and core will go a long way toward preventing back pain. For example, when you sit for long periods of time, you typically end up shortening your iliopsoas, psoas and quadratus lumborum muscles that connect from your lumbar region to the top of your femur and pelvis. When these muscles are shortened, it can cause severe pain upon standing as they will pull your lower back (lumbar) forward.

When there's insufficient movement in your hip and thoracic spine, you also end up with excessive movement in your lower back. Research also shows that exercise helps improve your acceptance of pain, which in turn helps prevent inactivity caused by fear that movement will hurt.

As noted by Heather K. Vincent, Ph.D. in an ACSM guest blog, "total body resistance exercise reduces pain catastrophizing by as much as **64 percent**. Total body exercise also reduced perception of disability due to pain and pain during physical activities more than lumbar extension."

Yoga has demonstrated its usefulness in a number of studies. In one, taking one yoga class per week resulted in greater improvements in function compared to medication or physical therapy. The Yoga Journal has an online page demonstrating helpful poses.

Functional exercises such as the following examples are also recommended for lower back pain. For photos demonstrating each pose, see this Greatist article. Ideally, you'll want to do these types of exercises two to three times per week for 20 to 30 minutes per session.

1. Decompression breathing: This exercise focuses on maintaining a long, strong spine while breathing deeply. Stand slightly pigeon-toed; toes touching with heels spread slightly apart (this is not an exaggerated position) and knees slightly bent.

Looking straight ahead, shift your weight to your heels and pull your heels together as you reach toward the ceiling with your arms, pressing your fingertips together. With each inhale, focus on raising your ribcage away from your hips. As you exhale, tighten your core to maintain and support this elongated posture. Repeat for several breaths.

2. Founder to forward fold: Moving straight from the decompression exercise above, push out your buttocks, leaning your upper body forward with knees slightly bent. Your arms are still stretched out overhead, maintaining an elongated spine. Keep your head in a neutral position, looking at the floor in front of you.

Hold 15 to 20 seconds, then bend forward until you touch the floor with your fingers. Your arms and back should form a straight line from your fingertips to your buttocks. Remember to keep knees slightly bent. Hold for 20 to 30 seconds. To stand, place your hands on your shins and bring your spine to a neutral position, then sweep your arms back and out to the sides and shift your hips forward as you raise your torso.

3. Adductor-assisted back extension: Lying on your stomach with flexed feet (so the weight is on your toes) and legs together, press your hips and knees into the floor while lifting your elbows and shoulders off the ground. Maintain a long, straight, neutral neck position. Hold for 20 to 30 seconds, then release and come back down.

4. Eight-point plank: Position yourself on the floor so that your feet, knees, elbows and fingers touch the ground. Your feet should be flexed, knees together, elbows positioned a few inches in front of your shoulders and fingertips gently resting on the floor.

The aim of this position is to form a long, neutral spine, which will require you to work your core muscles. To ensure the proper dynamics, pull your shoulders away from your ears, squeeze your knees and elbows toward the center of your body, and press your knees, toes and elbows down into the mat. Hold for 20 to 30 seconds. If done right, you'll likely start to tremble before the 30 seconds are up.

5. Woodpecker: Start out in a standard lunge position with the weight on your front heel. Lift your heel and reach your

arms out in front of your chest. Then, without shifting the position of your knee, push your buttocks backward until you feel the stretch in your hamstrings. Shift your arms to counterbalance. Once you feel the stretch, tighten your core, maintain a neutral spine, and slowly raise your arms parallel to your ears. Hold for 20 to 30 seconds. Repeat on the other side.

Other Commonsense Prevention and Treatment Strategies

If you suffer with sciatic nerve pain — typically felt as pain originating in your buttock, radiating down your thigh. Aside from what's already been mentioned above, the following common sense strategies can also help prevent an occurrence or recurrence of lower back pain:

Regular stretching

I strongly advise you to engage in a regular stretching program. My favorite is active isolated stretching (AIS), developed by Aaron Mattes. It's completely different from the traditional type of stretching, and is a great way to get flexibility back into your system.

Stop smoking

Smoking reduces blood flow to your lower spine, increasing the risk of disc degeneration.

Optimize your vitamin D level

Get enough vitamin D from sun exposure daily, as vitamin D helps keep your bones, including your spine, strong.

Maintain optimal weight

Carrying extra weight, especially around your middle, increases stress on the lower back and changes your center of gravity, also changing your posture.

Protect your back

You use your back muscles with most body movements, so it is important to protect your spine, especially while lifting. Do not bend forward to lift, but rather lower your body to the ground by bending your hips and knees while keeping your back straight. Use the muscles in your thighs and hips to rise again, holding the object close to your body to distribute the weight more evenly. Don't lift a heavy object above your shoulder level and avoid twisting your body while carrying a heavy object.

Mind your posture

You also protect your back by using good body mechanics to sit, stand, walk and sleep. It may feel like it is second nature to perform these daily activities, but when done incorrectly, you may be increasing chronic stress to your lower back. Practice proper posture while sitting and standing. Pay careful attention to consciously suck in your belly and rotate your pelvis slightly up. At the same time, keep your head back, with your ears over your shoulders and your shoulder blades pinched. This posture will keep your spine in proper alignment. Do this every hour while sitting and standing, holding muscles tight, for several minutes.

Stay hydrated

Your muscles and spinal discs depend on water to maintain good health and reduce inflammation.

Wear low-heeled shoes

High heels may make a fashion statement, but you'll likely pay the price after just a short time as high heels put your hips and lower back into poor alignment, placing stress on your lower back.