

10 Tips to Eliminate **BACK PAIN**

How to Get Back to a Healthy Active Lifestyle without Medication or Surgery



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About the Author

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Clarke Tanner, a practicing physical therapist and founder of Thrive Physical Therapy, Inc., was elected by Virginia Living Magazine as the Top Physical Therapy Practice in Central Virginia from 2014- 2017. He is a certified clinical specialist in Spine Care and Orthopedics, with distinction, through the North American Institute of Orthopedic Manual Therapy and holds a variety of other specialty designations. Having practiced for greater than seventeen years, he has successfully helped thousands of patients with spine-related disorders. In the past, Clarke has worked through his own back injury and is familiar with the process of working back to full health. The experience helped his understanding and ability to more effectively assist his patients. He is passionate about physical therapy and enjoys working with his team to help his patients/clients return to the activities they enjoy and to thrive in life!

Introduction

If you are experiencing back pain, you are not alone! Studies show that Americans suffer from back pain in significant numbers and at great economic cost. It is a major contributor to absenteeism in the workplace; sixty to eighty percent of workers take time off because of it. The highest incidence of back pain occurs between the ages of 35 and 55. Also, it is the leading cause of disability in people under the age of 45. In the United States, greater than \$16 billion is paid per year in workers' compensation for lower back pain treatment; greater than \$8 billion is paid annually for lumbar surgery. Unfortunately, surgical outcomes for back pain have been minimally effective when measured by pain reduction and increased physical function. Clearly, back pain commands attention.

Why can back pain sometimes prove difficult to diagnose and treat? According to a classic study by Nachemson (1985), only 20% of those experiencing back pain can be given a specific patho-anatomical diagnosis. More simply put, only 20% can pinpoint a specific tissue-- such as disc herniation or muscle strain, etc.--to account for their symptoms. To add interest to the equation, it has been shown that seven out of ten people with no history of back pain have abnormal findings on an MRI. It has also been shown that positive findings on X-rays and MRI's have no predictive value for future pain or disability (Waddell and Burton 2000).

If someone has told you that you have pathology such as a disk injury, spinal stenosis, or arthritis, do not despair! This doesn't mean you will not do well. There is a great deal that can be done to help you return to the activities you enjoy and feel good in the process. We advise our patients to avoid fixating on pathology or labels, but rather on improving what is needed to get your body working again and back to the activities you enjoy. An important concept to understand is that **back pain is rarely the result of a single event or trauma, but rather a series of repeated, inefficient movements and repetitive stress during daily activities.** Your unique situation can be improved with the right education. For this reason, effective treatment for back pain requires analysis of the individual's movement patterns in addition to the anatomical factors contributing to pain or injury

At Thrive Physical Therapy, we examine how the body functions from a specific and global (whole system) perspective. We not only determine what is painful, but also identify--and correct--the underlying causes of our patient's discomfort. Back pain analysis can be complicated. Multiple factors must be considered such as mobility, strength or weakness, body alignment/posture habits, efficiency of movement, work and daily activities. By using a global perspective, we identify the factors that hinder the body's ability to heal and that increase the sensitivity of the nervous system. From experience, we have noted patterns and identified multiple factors that contribute to our patients' back pain. The key is to identify each patient's specific issues and to address them effectively.

Special Note

The following information and tips on treating back pain have proven effective from years of experience and, on occasion, supporting research. The tips are general and not intended to be a substitute for sound medical advice from a physical therapist who understands your history and has thoroughly examined you. Only through a complete examination and medical history can the best course of action for you be truly ascertained. The analogy we talk about in physical therapy is putting the individual's puzzle pieces together. Some people have more complex needs and require more pieces to be put together before they feel a significant change in their symptoms, while others respond quickly. The key, really, is determining what your puzzle pieces are and addressing them effectively. Do you have physical deficits such as core/hip weakness, mobility issues, postural deficits, and poor movement strategies? Or, is your problem more on the repair side of the equation? For example, are high stress, limited sleep, anxiety/fear, poor nutrition, and occupational stressors exacerbating your symptoms? Significant improvement in your condition can be achieved by using the guidelines and being consistent. We want you to benefit from increased knowledge and be well as a result. Work on what is most relevant to you, stick to it, and enjoy the improvement!

1. Use Ice and Heat Correctly:

If you have symptoms that are new, or you have recently exacerbated an old injury, use ice for 15-20 minutes, 3-5 times daily for the first week following the injury. The defining characteristic is the existence of swelling and inflammation. Swelling is usually present in new injuries and responds well to ice. The exception to this is if you have a known sensitivity to ice from a medical condition or from prior experience and it does not work for you. For best results, the only thing that has to be cold is your back, not you. So, make sure the rest of your body is warm for best results.

Use Heat: If you feel stiff or have an old injury, use heat for 15-20 minutes, 1-3 times per day. Heat is a good idea with more chronic injuries where inflammation is usually less of an issue. It promotes muscle relaxation and connective tissue pliability, and increases circulation, which promotes healing, and it feels good.

2. Reduce Your Fear and Anxiety: A Special Section on Pain

Understand back pain and the healing process to reduce your fear and anxiety. Many of us have experienced a sprained ankle. Typically, when the ankle is injured, it swells, stiffens, and is painful. Walking becomes difficult, and the ankle is weak. The ankle feels vulnerable

for a while, but, in time, returns to normal (it frequently doesn't regain full mobility, which can contribute to problems later on). Generally, we don't worry too much about a sprained ankle because it eventually does well and rarely results in significant long-term disability. A testament to this is that there are few books and research articles on chronic dysfunctional ankles and their impact on disability. In contrast, many books have been written and studies done on chronic back pain and its high rate of disability. Why the difference?

Anxiety, an emotional response to injury and pain, may be the culprit. Anxiety levels intensify more with back injuries than with ankles. There are many reasons for this. First, people often use fear-inducing words to describe the origins of back pain such as "slipped", "herniated", or "ruptured" disc" and "compressed" nerve. These labels can be scary and unsettling when not understood. The next consideration is, what is injured? Are muscles, ligaments, and discs involved? The interdependence of these systems is a complex interaction, not easily untangled, when diagnosing pain. Moreover, back pain is recognized to be 80% idiopathic, or of unknown cause. Many of the preceding diagnoses are common findings in individuals with no current or past history of back pain, and are not indicative of how well they will do in the future.

Additionally, back pain is a prevalent, debilitating ailment. Most of us know people with back pain and its impact on their quality of life and disability. This awareness can add to anxiety and the fear of what could happen in the future from a back injury. In addition, the media deluges us with references to back injuries, pain, and pills to treat them. From the outset, the possibility of prolonged problems is a concern. Anxiety, fear, and worry about an injury add to the body's inflammatory response and stress levels, thereby increasing the experience or perception of pain. This exacerbates the problem. Fear and worry are not helpful responses, unless they cause you to take a necessary action towards a solution.

Although some tissues have better recuperative abilities than others, symptoms and the physiology of injury are similar in regards to the healing process. Tissues are damaged; a chemical inflammatory process ensues, which results in pain and swelling. The body then progresses through the healing process, and tissues gradually strengthen, becoming more stress tolerant. Through the rehab process, we work to insure healing, to help the patient regain mobility, strength, muscular control, and efficient movement patterns. With the treatment accomplished, the tissue and nervous system can return to normal, allowing for pain free physical activity. This is true of injured tissue in the ankle and the back.

We suggest considering all injuries, including back injuries, to be like an ankle sprain. Understand that when you injure your back, regardless of the tissue, it needs a chance to heal. Stress minimization and a period of protection to the tissue are necessary for optimal healing. Ankle sprains are easier to treat; we can splint, brace, or put you on crutches. However, with the back, we have to rely on reducing stress to tissue by avoiding painful activities, changing positions frequently (see tip #4), and doing your daily tasks with good position/efficient technique (no slouching on the couch!).

It is important to work to regain mobility, strength, muscular control, and efficient movement patterns to reduce your pain level and to be active without difficulty. Understand that your symptoms will be up and down as you work through the healing process. Likewise, occasional discomfort is not uncommon and should be expected. Last, but not least, work on your nervous system by having strong, positive thoughts. Be patient and stay in the present; do not project pain or problems into the future. Affirm that you are healthy and strong in

body and mind.

3. Get More Sleep:

Sleep is an essential function and a top priority in the physical therapy process. Simply stated, if you are not sleeping well, then you are not healing well, and your pain level will increase. Without going in to too much detail here, lack of sleep is associated with increased stress hormone, or Cortisol, levels in the blood, which can increase inflammatory response and pain levels. Chronic fatigue and pain syndromes can originate from prolonged deprivation or poor quality of sleep. Proper positioning with the body in neutral, a quality mattress, and relaxation strategies are important components we teach in physical therapy to facilitate this process. If you typically need eight hours, try to get 1-2 hours more, if you can, when you need to heal an injury.

4. Sit Less:

Sitting for prolonged periods (standing can be harmful as well, but that is for another discussion) has been linked with many adverse health effects as seen in this link to a New York Times article <https://well.blogs.nytimes.com/2016/03/29/sitting-increases-the-risk-of-dying-early/>. Also, from the perspective of mechanics, static sitting tends to be tough on the spine and contributes to restricted hip flexor mobility-- not helpful for reducing back pain with walking and standing. From a health perspective, we are meant to move, so do it regularly and often.

5. Critically Evaluate and Improve Your Standing Alignment/Posture:

Think of your body segments as blocks. The head, rib cage, pelvis, and feet should be aligned vertically as if directly stacked on top of each other. See pictures below from Florence Kendall's classic text for ideal and dysfunctional postures. An easy way we have found to accomplish this is to first center

your weight over your feet and then make sure your sternum-- pubic bone are aligned vertically (hand placed on the upper chest should be aligned with hand placed just below the belt line when viewed from above while looking down or from the side when looking in the mirror). Please note, if you lack hip flexor or thoracic mobility, achieving an upright vertical alignment is more difficult. Here is a link to correcting standing alignment from our patient education video library

<https://www.youtube.com/watch?v=yVrJfzcSrT4>

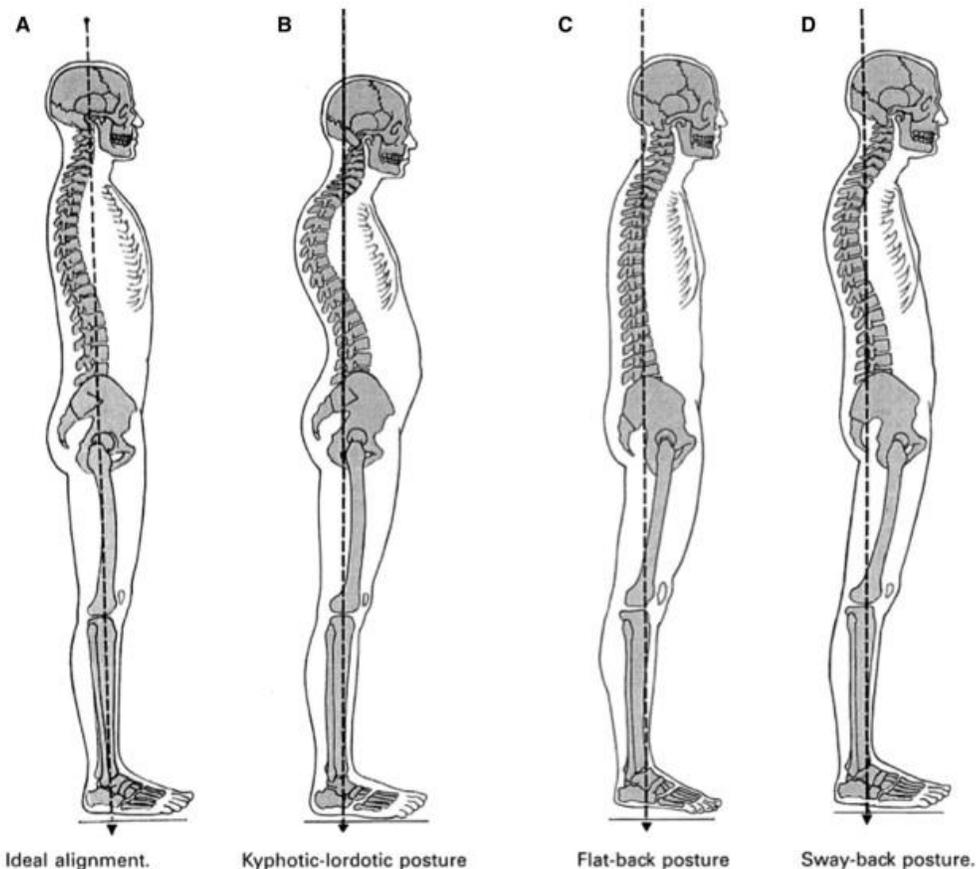


Figure 1 The 4 postural types defined according to the classification of Kendall. (A) Ideal alignment. (B) Kyphotic-lordotic posture. (C) Flat-back posture. (D) Sway-back posture. (Reprinted from Kendall FP, McCreary EK, Provance PG, Rodgers MM, Romani WA. *Muscles: testing and function, with posture and pain*. 5th ed. Baltimore, MD: Lippincott Williams & Wilkins; 2005)

6. **Ensure That You Have Sufficiently Mobile Hip Flexors:**

If you lack hip flexor mobility--common in the modern population in part because we all tend to sit too much--then maintaining a well aligned, upright, vertical posture is more difficult. One way to determine if your hip flexors are tight is to lie on your back, bring one knee to your chest firmly, and then let the opposite leg relax towards the floor. If your thigh has difficulty resting on the floor, this frequently indicates the need for increased hip extension and more mobile hip flexors. Here is a link to one of our favorite methods of addressing this deficit. <https://www.youtube.com/watch?v=eR3wXKyxedY>

7. **Ensure That You Have Reasonable Core/Trunk Stability – Control:**

This is a bit more difficult to determine without professional advice, as there are many

factors contributing to core function as well as training it effectively. At Thrive, we have multiple ways to determine an individual's needs with this; however, a simple push-up can be of assistance. Assume a prone, face down, position on the floor. Place your hands just outside the shoulder, at the level of your collarbones, with your lumbar spine reasonably flat, with your chin down facing the floor (make sure neck is not extended, and nose is facing the floor). Then, while maintaining proper body alignment, perform a push-up without bracing or thought of how to stabilize your trunk. If your body is efficient, you should be able to maintain a straight body without sagging from the pelvis/lumbar spine and without having to brace your abdominals actively. If you are able to do this easily, then your core is likely reflexically stable and responsive. If you sag or have to perform a large abdominal brace to accomplish the movement, then this is an area that could likely use additional work. If upper body strength is a limiting factor in this, it is permissible to perform the preceding with the knees on the ground. Here is a link to a helpful beginning level trunk stabilization exercise <https://www.youtube.com/watch?v=ikunORdr2wM>.

8. Ensure That You Have Good Core and Hip Strength:

The hips are essentially the motor you should be using to walk, push/pull, and lift with along with your core/trunk musculature. The core and hips work together functionally and are mutually dependent on each other. If you have a weak core you likely have

weak/suboptimal hips and vice versa. With weak hips (and core) a common substitute in standing is to use excessive lumbar back muscle activity, with standing and ambulation, which can contribute to back pain. A good test for this is to sit at the edge of the chair, cross your arms across your chest, hinge from the hips placing her nose over the toes and practice standing up and sitting down by pushing down through your heels. Essentially, you are performing a standing squat with the use of your hips. If you are able to accomplish this 30 times with good technique while feeling the effort in your rear end (not your quads) with good balance, then your hip stability is, at least somewhat, functional. Here is a link to a sit-to-stand maneuver as well as a bridge, both of which are good ways to evaluate and train for hip strength from our video education library.

Functional Squat <https://www.youtube.com/watch?v=SsB941ix8TA>,

Supine Bridge <https://www.youtube.com/watch?v=0c0jvFk2pWg>

9. Ensure That You Have Sufficient Thoracic Mobility/Alignment:

If you lack thoracic mobility and have an increased thoracic curve, then the lumbar spine will typically make up for this deficit with excessive extension in standing (particularly if there is insufficient core/abdominal control to prevent this compensation). See picture above. To ascertain this, look at yourself in the mirror. Do you have an increased forward curve in your thoracic spine or excessive curve in your lumbar spine? If this is the case, thoracic mobility may be a contributing factor. A simple way to improve this is to lie on your back with your knees bent, head supported on a small pillow, and your palms facing up, as if lying in sand. Relax and breathe for five minutes while imagining yourself sinking further into the sand. This exercise relaxes muscle tension and helps increase thoracic mobility with breathing.

10. Ensure That You Have Good Single Leg Balance:

In order to stand and walk without pain, one must have the preceding variables but also balance. Balance is a good measure of how efficiently the body is working. Here is a way to evaluate it. With your weight centered of your feet as mentioned in step one, attempt to stand on one foot, remaining still without shifting your body or hip. You should be able to accomplish this for at least 15 seconds without extraneous body movements or dropping/rotation of the pelvis. If this is difficult, work to retrain it and improve by practicing standing on one leg while maintaining vertical body alignment and a stable pelvis.

Bonus Section

11. Perform Cardiovascular Exercise Regularly:

Cardiovascular exercise is one of the most powerful producers of our own natural pain-reducing hormones, endorphins. Not only do endorphins reduce pain, they also promote healthy brain chemistry, improving our memory, mental acuity, and feeling of well being. Our only word of caution here is to choose an exercise that is appropriate for your current condition and fitness level. Start slowly. If walking is currently painful for you, then this would not be a wise choice. Instead, pick cycling, swimming, etc... if you know

that your body handles it better.

12. Be Confident You Will Improve:

If you truly believe nothing can help you, then you are right, nothing will. It is essential that you believe you will improve. The hope and belief that something will work is the driving force that creates action to pursue solutions and to work towards a goal. I have seen patients with severe conditions progress beautifully in treatment and get back to thriving in life. I have also seen people with relatively minor conditions fail to improve as they should. Attitude and belief are key factors in both. Truly believe you will thrive--no matter what--and you will!

13. Have Realistic Expectations and Be Patient:

If you have a severe degenerative condition or pathology, unfortunately, no one can take that away. It does not mean that you will not do well or that you have to suffer significant pain. It may take time and effort to improve and manage your condition. Commit to leading an active life. Complete elimination of pain should not be your goal and primary measure of success. Success is achieved by being active and getting back to what you enjoy doing. This, generally, happens in small steps. Celebrate the little milestones on the way to big progress.

14. Find a Good Physical Therapist:

I am obviously biased here, but I think there is no better action you can take to be rid of back pain quickly than working with a skilled physical therapist. I have worked on countless people, with varying degrees of spine dysfunction, and seen them achieve miraculous improvement and return to the activities they love. Everyone should work with a physical therapist for prevention as well as treatment of unexpected injuries or conditions. Much like you have a dentist to prevent problems with your teeth, you need a physical therapist to prevent and heal injuries.

I would recommend a few guidelines in picking a location and therapist. Your therapist should have specialty training in hands-on, corrective care (manual therapy), as it has been shown to be more effective than traditional physical therapy care. Manual therapy is hands -on work to mobilize/manipulate stiff joints, increase muscle relaxation, connective tissue pliability, and or guide/facilitate proper movement or muscle activation with the ultimate goal of improving movement. Also, the therapist should provide some degree of one-on-one care, without heavy reliance on aids/technicians. Your sessions should not feel like a group exercise class or trip to the gym. Treatment should not center on passive modalities such as ultrasound, ice/heat, and electrical stimulation, but rather foster an active approach focused on improving movement efficiency. Your therapist should be a good educator and provide an understanding of corrective exercise, posture, and movement training, to empower you to self manage and improve your condition.

If you are in need of a good physical therapy group, please consider us. My team and I are highly effective at helping people eliminate pain and get back to thriving in life. I am confident your experience with us will be exceptional.

Conclusion

So there you have it: 10 strategies (plus 4 bonus tips and a special section on pain) to help you improve your health, reduce back pain, and improve how you feel on a daily basis. Commit to work on them regularly. Small things can make a large difference, but it takes dedication, positivity and consistency. These suggestions are just a beginning. Much more can be done to help you feel better and to get you back to the activities you love. In the coming weeks, we will be sending you more advice on how to improve your health and to regain your active lifestyle. We include the importance of the role physical therapy plays in this process. I hope you enjoy the information and that you will use it to achieve your goals. We hope this is the beginning of a long-term relationship with us at Thrive Physical Therapy. We want to provide you with the information and care you need to achieve a healthy, active lifestyle and to thrive in life!

In good health,

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Physical Therapist Specializing in Spine Care

Health Advice Disclaimer

We are giving general information that we have seen help our patients with a variety of spine -related disorders. It is not intended to be specific to your condition, nor can we determine if it is the best course of action for you without knowing about your history

condition, and undergoing a thorough physical exam by a licensed physical therapist. Each individual's presentation, progression through the rehabilitation, and results are unique and varied, depending on multiple factors. Significant injury risk is possible if you do not follow due diligence and seek suitable professional medical advice about your injury prior to participation in any exercise or corrective program. Thrive Physical Therapy does not expressly imply or guarantee specific results from the material contained in this report. Following these suggestions is at your own risk without prior consultation with an appropriately qualified medical professional.

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