

8 Essential Tips to Eliminate
**NAGGING HIP
AND KNEE PAIN**

without Pain Meds 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 orthopedic-related disorders. In the past, Clarke has worked through his own back injury and is familiar with the frustrating 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 hip and or knee pain, you are not alone! Studies show that as high as 25% of Americans suffer from knee pain. Osteoarthritis is the most common cause of knee pain in people over the age of 50 and one in two individuals will develop significant degeneration past middle age. Up to 19.6% of people will develop hip osteoarthritis and pain. Also, osteoarthritis and rheumatic conditions are one of the leading causes of disability in the United States. In American women, 5.3% will undergo at least one total knee replacement. Clearly, hip and knee pain and the development of degeneration are a concern!

If someone has told you that you have pathology such as a meniscus tear, degeneration or arthritis, do not despair! This does not mean you are relegated to a sedentary life. 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 instead to focus on the positive aspects of healing, restoring the body to health, and returning to the activities you enjoy. An important concept to understand is this: **Hip and knee pain is not usually 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 hip and knee 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. Hip and knee pain analysis can be complex. 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' hip and knee pain. The key is to identify each patient's

specific issues and to address them effectively. Emphasis here is always on the individual's circumstances.

Special Note

The following information and tips on treating hip and knee pain have proven effective from years of experience and, along with 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 accurately determined. Your condition is like a puzzle and your history and movement patterns are pieces of that puzzle. Some people have complex puzzles and require more pieces to be put together before they feel significant improvement in their symptoms, while others have less complex puzzles and respond quickly to treatment. 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? You can achieve significant improvement in your condition by following the guidelines and being consistent. We want you to benefit from increased knowledge and, as a result, be well. 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 prior medical condition, and ice does not work for you. For best results, the only thing that has to be cold is your knee, not you. For best results, make sure the rest of your body is warm.

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 less of an issue. Heat promotes muscle relaxation and connective tissue pliability, increases circulation, promotes healing, and feels good.

2. 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 may 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 the healing process. If you typically need eight hours, try to get 1-2 hours more, if you can, when you need to heal an injury.

3. 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 hip and knee pain. From a health perspective, we are meant to move; so do it regularly and often.

4. Insure You Have Good Ankle Mobility:

In order to have good knee function it is essential to have adequate ankle dorsiflexion. Lack of ankle mobility will adversely affect lower extremity alignment and your ability to generate force, robbing you of power and/or adding to lumbar spine stress. A good way to determine if you have the necessary ankle mobility is to evaluate your ability to perform a full squat as shown in this video https://www.youtube.com/edit?o=U&video_id=SsB941ix8TA . If you are unable to keep your feet facing straight ahead without turning out at the lower leg and/ or you cannot squat without shifting your weight back over your heels and leaning forward at the trunk, insufficient ankle motion is quite likely the problem. Here is one of our favorite corrective ankle exercises from our video library that also develops hip strength.

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

5. 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 firmly to your chest, 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=eR3wXKyxeyD>

6. 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 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>

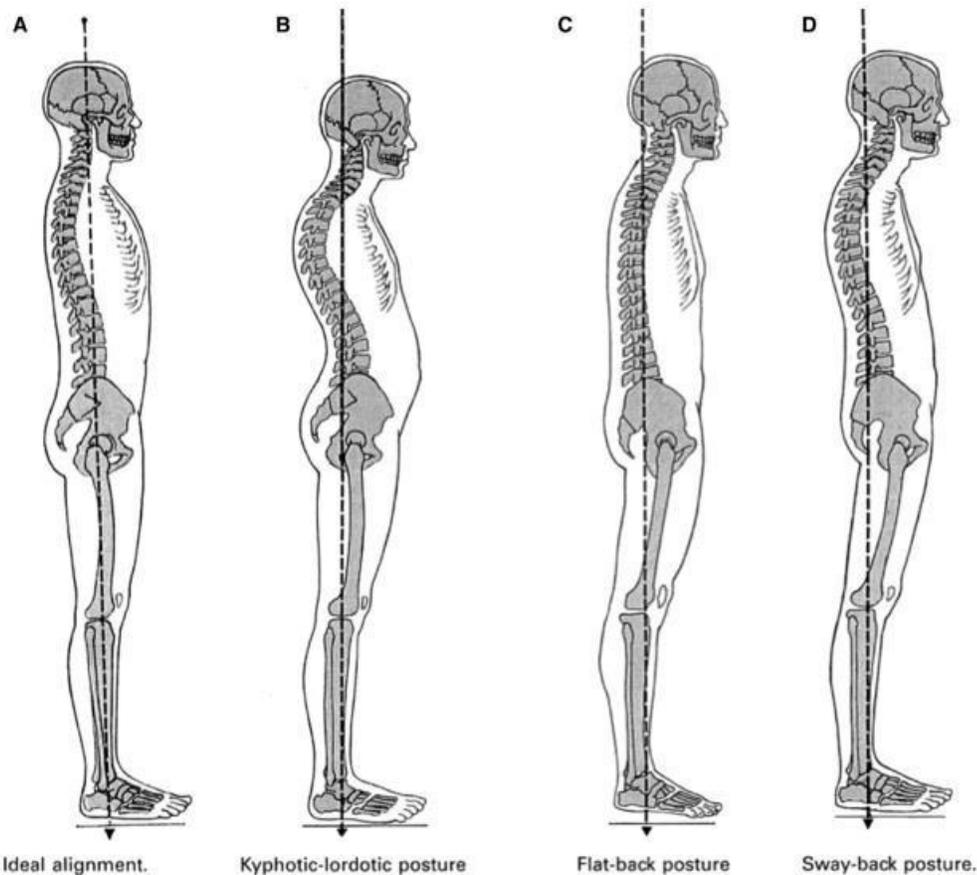


Figure 1 The 4 postural types defined according to the classification of Kendall. (A) Ideal alignment. (B) Kyphotic-lordotic posture. (C) Flat-back posture. (D) Sway-back posture. (Reprinted from Kendall FP, McCreary EK, Provance PG, Rodgers MM, Romani WA. *Muscles: testing and function, with posture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

7. **Ensure That You Have Good Hip Strength:**

The hips are, essentially, the motor you should be using to walk, push/pull, and lift, 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) it is more difficult to maintain good lower extremity alignment and knee tracking with walking, squatting, etc... that can contribute to knee and hip 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. You are, basically, 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, from our video education library, to a sit-to-stand maneuver, as well as a bridge, both of which are good ways to evaluate and train for hip strength. Functional Squat <https://www.youtube.com/watch?v=SsB941ix8TA>, Supine Bridge <https://www.youtube.com/watch?v=0c0jvFk2pWg>

8. **Critically Evaluate and Improve Your Knee Tracking:**

Having stability and proper knee tracking is very important for preventing and eliminating hip and knee pain and to perform a single leg squat. The picture below shows poor stability and improper tracking on the left and corrected on the right. With a small, single leg squat the knee cap should fall directly over the mid line of the foot and 2-3rd toe (as if imaginary plumb line is suspended from mid line of your knee cap). If the knee migrates in over the great toe/inside of the foot, this is not ideal. The preceding can be caused by a weak hip and/ or stiff ankle which will contribute to increased stress to the hip and knee. Here are a couple of links that will help you understand proper knee tracking and hip stability.

Single leg squat: https://www.youtube.com/edit?o=U&video_id=mf_-LgSJq10
Functional squat: https://www.youtube.com/edit?o=U&video_id=SsB941ix8TA



Bonus Section

9. Perform Cardiovascular Exercise Regularly:

Cardiovascular exercise is one of the most powerful producers of our own natural pain-reducing hormones, endorphins, and promotes cartilage health. Not only do endorphins reduce pain, they also promote healthy brain chemistry, improve 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 or swimming, if your body handles it better.

10. Ensure that You Have Good Single Leg Balance:

In order to walk, squat, and ascend/descend stairs without pain, one must have the preceding variables but also balance. Balance is a good measure of how efficiently the body is working. Evaluate your balance this way: With your weight centered on your feet, attempt to stand on one foot, remaining still without shifting your body or hip. You should be able to do this for at least 15 seconds without extraneous body movements or

dropping or rotating 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.

11. Find a Good Physical Therapist:

I am obviously biased here, but there is no better action you can take to be rid of hip or knee pain quickly than working with a skilled physical therapist. I have worked on countless people, with varying degrees of spine, knee and hip dysfunction, and seen them achieve miraculous improvement and return to the activities they love. Moreover, 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 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 proven 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 facilitate proper movement or muscle activation to improve 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: 8 Tips (plus 3 bonus tips) to help you improve your health, reduce hip and knee pain, and improve how you feel on a daily basis. Commit to work on them regularly. Small actions can make a big 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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Health Advice Disclaimer

We are giving general information that we have seen help our patients with a variety of hip-Knee 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 or 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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