

Relaxed Knees
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This paper will explore why a person would want to work with “soft” versus “locked” knees. I’ll be discussing the benefits of keeping your knees relaxed as well as what can happen if you work with them tensed or stiff. I’ll also be taking a look at some information that states it’s not necessarily bad to “lock” the knees.

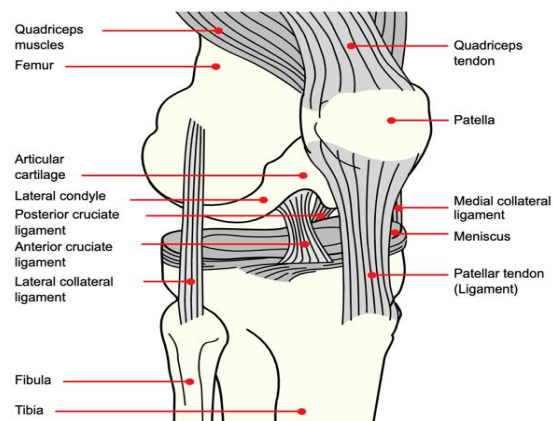
When I went through training to be a massage therapist in 1993 there was quite a lot of talk about “body mechanics”. I must have paid attention to what they had to say because 27 years later I’m still a body worker and have very few aches or pains. I recall things being said like, “While massaging the client keep your knees flexed and shift your weight between the lead and trailing foot as needed to maintain balance.” (Brothers, 2018, *7 Principles of Highly Effective Massage Therapy Body Mechanics*. Retrieved from <https://blog.mildred-elley.edu/blog/7-principles-of-highly-effective-massage-therapy-body-mechanics>). But perhaps the words of wisdom that stuck with me the most was the profoundly simple, “Work smarter not harder”, which I just learned originated in the 1930s by industrial engineer Allen F. Morgenstern. He was the creator of the work simplification program that was intended to increase the ability of people to produce more with less effort.

Prior to my hearing such phrases in the world of body workers I had also been told similar things regarding knees by the U.S. Army. I was in basic training in 1988 and besides shouting at us to, “Drink Water!” the drill sergeants were also loudly instructing us, “Do NOT lock your knees!” To illustrate just how serious they are regarding the knees, here’s a somewhat humorous passage from the book, *Basic Training for Dummies*, “Warning: If you don’t remember anything else, do not forget to unlock your knees when you’re participating in stationary drill. Bend your knees just enough so that it is not visible that you’re doing so but enough to allow the blood to flow smoothly through your legs. Failing to unlock your knees will impede the blood flow to your brain so that, after a time (and you will find that stationary drill in the military often requires you to stand still for long periods), you’ll grow faint and pass out. It’s not a pleasant experience to suddenly find yourself abruptly kissing the asphalt of a parade grinder or the steel of a ship’s deck.” (Wiley Publishing, Inc., 2011, *Understanding Stationary Drill*, from *Basic Training for Dummies*. Retrieved from <https://www.military.com/join-armed-forces/understanding-stationary-drill.html>).

According to the American Chiropractic Association, there are several factors to physically standing properly including bearing your weight primarily on the balls of your feet and keeping your knees slightly bent. Through the years, I have found that keeping my knees soft when working, along with proper foot placement, gives me a sense of grounded strength and stability. Keeping one’s body loose and relaxed assists with the easy flow of energy, that might otherwise block Chi. Related to Chi and energy flow, I’ve also heard talk about “locking knees” in the world of yoga.

During various yoga classes in which I’ve participated, I recall being told that I actually **should** lock my knees. “Locking the knee is NOT jamming your knee back as far as you can and trying to balance on it.” “There are 4 muscles in the quadricep femoris muscle group in the front of your leg. The one that is hardest to “turn on” is the vastus medialis obliquus (VMO) on the inside of the leg just above the knee. Its job is to extend the length of the thigh and to stabilize the patella (knee cap) so your knee tracks correctly. The VMO muscle is a common centre of weakness in many people because it will not become fully strengthened unless the leg is regularly extended fully. It becomes more fully activated when the knee is at a greater angle, especially when the leg is completely extended.” (Birkram Yoga Brookvale, *Why Locking the Knee is so important in Bikram Yoga*. Retrieved from <https://bikramaustralia.com.au/why-we-lock-the-knee>). Understandably, this led to some confusion which I came to realize was an issue of semantics.

I had previously understood locking knees to mean making them stiff and hyperextended.“ The word ‘lock’ implies making something fixed. Movement is dynamic, and while we need to be stable, we are not looking to overly grip on any joints, but for a balanced muscle activation. What we do look for in many Pilates exercises, is a full extension of the knees – an active drawing upward of the kneecap toward the hip bone. Working or standing with locked or hyper-extended knees brings that joint aligned slightly behind the ideal line with gravity, putting compressive stress and wearing down of the joint. Long term, a major ligament, commonly referred to as the ACL (anterior cruciate ligament), responsible for nearly 100% of your knee stability is weakened. In general, every time you hyperextend the knee, you are compromising yourself to injury. (Embodiment Movement Pilates Studio Blog, 2015. *A Locked Knee is Not Secure*. Retrieved from <https://embodimentmovementpilates.com/a-locked-knee-is-not-secure>).



“Knee diagram” by Mysid Licensed under Public Domain via Wikimedia Commons.

Edward Mohr, LMT conducted a field study that focused on testing the strength capability of 18 massage therapists. The results show that stacking and locking joints and properly transferring body weight allows massage therapists to achieve the same amount of pressure while decreasing the amount of effort needed. (Note: for individuals with lax knee joints, do not hyperextend the knee when “locking” the knee). (American Massage Therapy Association. *Work Smarter, Not Harder: Body Mechanics for Massage Therapists*. (2014). Retrieved from <https://www.amtamassage.org/publications/massage-therapy-journal/work-smarter-not-harder>). I also found studies that said things like, “People with hyperextension of the knees need to retrain what “straight” feels like and learn to not go to their “bony end-point”. They don’t get the pleasure of standing with a “locked out” knee. When the knee is locked it is very stable ligament-wise and it is easy to stand with little to no muscles needed. Keeping your knees “soft” takes some muscular work, including core work, and it’s hard to remember.” (Herman, 2017, *Knee Hyperextension: Its All In Your Mind!* Retrieved from <https://www.elliehermanpilates.com/ellies-blog/2017/11/20/how-to-help-hyperextension-its-all-in-your-mind>).

As I stated earlier, if there’s a discrepancy, it seems to be a matter of semantics. Be extra careful if you have a tendency to hyperextend? Of course. Stabilize the patella so your knee tracks correctly while holding yoga poses? Definitely. But I think it would also be helpful to use different words instead of summing all these different movements up as “locking”.

When it comes to soft vs. locked knees for bodyworkers, however, I agree with yoga practitioner, Maren Hunsberger, “If you lock your knee joint when standing, the ball and socket of the joint is forced ever so slightly out of place, usually overextended backward. In the long term, this can damage the joint cartilage and lead to aching, creaky, and even arthritic knees.” (Hunsberger, *Ask A Yogi: Is Locking the Knees in Yoga Poses a Bad Thing?* Retrieved from <https://www.doyou.com/ask-a-yogi-is-locking-the-knees-in-yoga-poses-a-bad-thing-89254>)

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