

JOINT RESTORATION - LEG LENGTH

Will My Leg Be the Same Length After My Hip Surgery?

This is a very tricky and complex question.

The short answer is your leg will be the same length as it was before surgery and the length it needs to be to keep your hip from dislocating.

The long answer is that most people's legs are not the same before surgery. This is a strange concept to people but we are not nearly as symmetric as we think we are. As a matter of fact, as orthopedic surgeons we consider up to a $\frac{1}{2}$ inch difference in leg lengths to be basically normal.

So how does this affect your leg length after surgery?

- Arthritis causes your leg to shorten about $\frac{1}{4}$ of an inch because of the loss of cartilage. This means that the leg length you have lived your life with was a $\frac{1}{4}$ of an inch longer than it is at the preoperative visit.
- If the goal of surgery is to restore your leg length to normal, I would want to make your leg $\frac{1}{4}$ inch longer at surgery. But if you started with a leg that was already $\frac{1}{4}$ inch longer, then that would mean your leg would be a $\frac{1}{2}$ inch longer after surgery and patients do not like that even though it would be technically correct.
- Instead, I try to keep the leg lengths the same as they are at the preop visit, because that is the length you have been accustomed to. However, this means that if you start with a longer leg, your leg will be longer than the other leg after surgery, even though I kept it the same length as it was before surgery.
- Further, if your leg was shorter before surgery, I may be able to lengthen the leg up to a $\frac{1}{4}$ inch to put it back to where it was your whole life and this would make the operative leg longer than before surgery but still shorter than the other leg. But if I do lengthen the leg a little it often feels like I've lengthened it a foot instead of a $\frac{1}{4}$ inch. This feeling resolves with time, but certainly can be disconcerting to people for a period of time.
- What's even more confusing is that because of the muscle spasm from surgery, almost everyone, regardless of the leg length FEELS like I have made their leg longer immediately after surgery.

What really determines leg length at the time of surgery?

- The stability of the hip. The tension of the ligaments and muscles determine whether the hip will be too tight, too loose or just right at surgery to prevent dislocation.
- My surgical technique does not involve cutting muscles or removing ligaments. And the ligament (the covering of the hip joint) that I do have to cut, I simply make an incision in and repair it at the end of surgery. Because of this technique, I am able to tension the hip properly to prevent dislocation and optimize leg length for you.

What does this all mean?

- The simple issue of leg length is not really nearly as simple as it seems.
- I go into surgery with the best plan to optimize your leg length within the parameters your body allows.
- The muscle spasm from surgery leads to almost everyone feeling like their leg is longer after surgery, regardless of the actual length of the leg.
- If your leg was longer than your other leg before surgery, it's likely to be longer than your other leg after surgery, otherwise your hip might dislocate.
- If your leg was shorter before surgery than your other leg, I may be able to increase the leg length up to ¼ inch if the ligaments aren't too tight.
- Most importantly - 6 months after surgery, the feeling of the difference between your legs (if there is one) will go away and you will not need a lift in either leg. This is because I adjusted your leg length to be as close to the length it was ten years to the best of my ability.

- Dr. Michael Swank

