

# Interdisciplinary teams help knee replacement patients

By Katie Schrank

For a patient with knee pain, the journey towards relief is made easier thanks to an entire team of health-care professionals including family doctors, orthopedic surgeons, and chiropractors/podiatrists. These professionals all work together to provide a knee replacement patient with the best possible care.

After being referred to an orthopedic surgeon, most likely by a family doctor, a patient's journey begins with surgery preparation. To strengthen the muscles around the knee in preparation for surgery, an orthopedic surgeon might send a patient to a chiropractor/podiatrist for treatment.

To strengthen the muscles around the joints of the knee, a patient has to walk a lot. The problem is, when a patient's knee hurts, the last thing they want to do is walk. A chiropractor/podiatrist can assess a patient's condition and see if something they can provide, like orthotics, will be able to give the patient more mobility.

"Having proper footwear can prevent a patient from favouring one leg to the detriment of the other, which can cause major problems before and after surgery," says Diane Tyczynski, chiropractor faculty member at The Michener Institute. When it comes time for surgery, how prepared the patient is can aid in recovery time.

When a patient is deemed ready, an orthopedic surgical team will perform the knee replacement surgery, but that doesn't mean the work is done. Every patient rebounds differently and even if the knee replacement is successful, a patient can still run into physical problems that they will have to work on with their health-care team.

A condition called limb length discrepancy (LLD) can happen pretty quickly after surgery and can be a major roadblock in a patient's recovery. LLD means one leg is longer than the other. The longer leg can be the one with the knee replacement or the other. Patients with LLD will also favour one leg, either the shorter or longer depending on the person, at the expense of the other leg. A patient's body will try to compensate for the difference on its own and that is why a limp or a shuffle step can occur.

"LLD is actually a pretty common condition after knee

replacement surgery," says Tyczynski. "It has little to do with surgical technique, but can happen because some patients rebound differently than others from this type of surgery." If not treated right away, it can cause problems to the patient's new knee.

Some patients will experience serious back, hip or knee pain after surgery and will likely go to their family doctor for assistance. A family doctor may refer their patient to a chiropractor/podiatrist to check to find out if LLD is the cause of that pain.

Sometimes the difference in leg length can be so small that a patient doesn't realize it is the root of their back or hip pain. To find out if a patient has LLD there are many techniques a chiropractor/podiatrist can perform.

The first thing a chiropractor/podiatrist will do is gait testing, which has the patient walking in straight lines in front of the chiropractor/podiatrist so any oddities in the patient's walk can be identified. A simple difference in the measurement of each leg from hip to heel can be another indicator of LLD. There is also a push-pull technique used on the legs, and a knee height measurement that can be done.

One of the most common ways LLD can be treated is a heel lift administered by a chiropractor/podiatrist. There are two different lift options depending on the severity of the LLD. A lift can be added inside a patient's shoe if the LLD is small. If the LLD is larger, there is the option of adding a lift to the outside of the shoe instead, or as well.

Chiropractors/podiatrists usually start with a heel lift inside the shoe at a small height to see how the patient's condition is altered with a small height change. The patient will spend time in the lift before coming back to the chiropractor/podiatrist to be re-evaluated. If the lift hasn't corrected the LLD, then more height is added and so on until the patient no longer feels pain when walking. It is then that a patient can finally be comfortable with their new knee.

Although getting a knee replacement can be a long process, the relief from pain can be the light at the end of the tunnel for some.

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Chiropractor student Alison Cheng performs a technique to check if her patient has limb length discrepancy (LLD), a common condition patients can encounter after knee surgery. Photo credit Tim Chipman