

Complete Rehabilitation after Injury: A Balancing Act

Joint injuries, such as ligament sprains or tears, occur commonly in individuals of all ages and all activity levels. After this type of injury the first, and often, main concern of Physiotherapists and patients alike is to decrease swelling and pain and restore movement and strength to the affected area. While these are important goals in the rehabilitation process, there is another piece to the puzzle, one that is often neglected. Complete rehabilitation of an injured joint also requires retraining of the balance and proprioception system.

Now what does that mean exactly? We all have a good idea of what “balance” means, but what about “proprioception”? Basically, you need proprioception in order to be able to balance. Your sense of balance comes from the proprioceptors in your body. Proprioceptors are sensor cells that are found in all the joints in the body. These sensors give your body information about the position of a particular joint in relationship to the rest of your body. As you move, the proprioceptors in the joints sense the changing positions of your ankles, knees, etc. and send that information to your brain, allowing the balance system to make tiny corrections in your balance. In other words, slight changes in the ground you are walking or running on require slight adjustments in your balance system in order to avoid injury.

This fine tuned system is what allows us to keep our balance during a variety of activities such as walking on uneven or slippery ground, jumping, running, or standing on one foot to name a few. Pay close attention the next time you are walking in sand, on ice or along uneven ground and you may notice a very slight wobbling sensation in your knees and ankles. This is your balance system at work!

By now you may be wondering what this all has to do with an injury. Simply put, after an injury your balance system loses its ability to sense changes in the joint position and correct for these changes. The balance system must re-learn how to react appropriately when faced with challenges. Proper retraining of balance can help decrease and prevent further pain in the injured joint by making the joint more stable. Further, by improving joint stability you decrease the risk of re-injuring that joint. This is extremely important because it has been shown that without proper rehabilitation the risk of re-injuring an affected joint increase dramatically.

So how do we re-train our proprioceptors and improve our balance after an injury? Exercise is the key to strengthening the balance system just as it is the key to strengthening the muscular system. A well-designed balance program can get you back on the road to recovery and back to your favorite activities safely. Physiotherapists are trained to prescribe and progress individualized balance and proprioception programs. For more information contact your local health professional or contact us at Yellowhead Physiotherapy & Athletic Centre (204) 476-5632.

Submitted by Susan Kohinski, Physiotherapist