

## KNEE OSTEOARTHRITIS: INTRA-ARTICULAR INJECTIONS ("Cortisone" & viscosupplementation)

by: DR. TREVOR L. HALL, MD, CCFP, DIP. SPORT MED

Using a needle to inject medication into a knee or other joint has been used for many years for treating osteoarthritis (OA). Injections can play an important role in managing OA symptoms. There are two main types of injections: corticosteroids and viscosupplementation.

## **Corticosteroid injections:**

This type of injection (more commonly known as a "cortisone" injection) involves injecting an anti-inflammatory medication into the knee joint for the purpose of settling down a very inflamed joint. Corticosteroid injections are very useful in decreasing pain, inflammation and swelling. They usually take effect within a week of the injection and the effect may last for a number of weeks. People tend to worry about "cortisone" injections causing more damage to the knee, but having up to three injections per year appears to be quite safe. This type of injection is quite helpful in situations in which a person's knee is very inflamed and swollen as the corticosteroid can have a relatively quick and strong effect.

## Viscosupplementation:

A more recent advance in treating osteoarthritis involves an injection called "viscosupplementation" (e.g., Synvisc). Basically,



viscosupplementation involves injecting a substance called hyaluronan or hyaluronic acid into the joint. Hyaluronan is the "building block" that makes up synovial fluid which is the thick fluid that normally lubricates the knee joint. In a joint affected by OA, the synovial fluid becomes thinner and does not absorb shock as well.

Originally thought to act as a "lubricant", viscosupplementation has a more complex action that involves stimulating the joint lining to produce more synovial fluid naturally. Synovial fluid is important in shock absorption, lubrication and nutrition of the cartilage cells. Research has shown that formulations such as Synvisc can decrease pain and disability from knee osteoarthritis for prolonged periods, often up to a year. The best results occur in cases of mild to moderate osteoarthritis so people should

view viscosupplementation as an early treatment option as opposed to a "last-chance" option. Viscosupplementation has been shown to be a safe treatment in research studies. Some possible side effects include local skin reactions and occasional transient inflammatory reactions. As with any type of injection, risks of infection are minimized by using sterile injection procedure.

<u>Dr. Trevor L. Hall</u>, MD, CCFP, Dip. Sport Med., is a sports medicine physician, certified by the Canadian Academy of SportMedicine and



fellowship-trained at the University of Toronto. He is an assistant clinical professor at the McMaster University Medical School and a

guest lecturer at the University of Waterloo. He has worked internationally with Canadian national teams and currently is sports medicine consultant for WLU Football Team.