

KNEE OSTEOARTHRITIS: MEDICATIONS AND SUPPLEMENTS

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

Medications and over-the-counter supplements have long been used to lessen the pain from osteoarthritis (OA). Before using any prescription medication, you and your physician will need to weigh the risks and benefits of taking medication in relation to your personal preferences and health status. The same thought process must be applied regarding supplements as there are many other types of supplements and combinations of supplements. Be careful though since what you perceive as being a “natural” treatment may still cause side-effects or contain non-purified formulations. You should consult a registered dietitian and/or physician familiar with supplements to help you with these options.

The following is a summary of some common medications and supplements used for osteoarthritis:

Analgesics: These medications are “pain-relievers”. The most useful is acetaminophen (e.g., Tylenol) which can be used in regular doses with minimal side effects and is available without prescription. This medication can be quite helpful in relieving the mild “achiness” that can often occur with osteoarthritis.

Non-steroidal anti-inflammatories (NSAIDs): These medications decrease inflammation but also relieve pain. Medical doctors usually reserve using NSAIDs for acute exacerbations of OA or if there is an obvious inflammatory component (a lot of pain and swelling). NSAIDs can play an important role in managing osteoarthritis. A two-week course medication can do wonders to settle down an acutely inflamed and swollen joint. In the sports medicine field, this short-term use of NSAIDs is similar to their use for relieving inflammation in acute sports injuries. Some NSAIDs, such as ibuprofen (e.g., Motrin, Advil), are available over-the-

counter. Others, such as naproxen (e.g., Naprosyn), diclofenac (e.g., Voltaren) and meloxicam (e.g., Mobicox) are available by prescription. NSAIDs have a risk of irritating the stomach lining and causing ulcers, which is more of a concern in those who are older in age or who have other significant illnesses. The newer “COX-2” NSAIDs (e.g., Celebrex, Bextra, Vioxx) have a lower risk of ulcers and stomach side effects, however, there are possibilities of other side effects and some have recently been pulled off the market due to these concerns.

Any athlete using an NSAID (including the over-the-counter brands) should be careful to remain well hydrated, since there are some reports of possible kidney injury in runners who become dehydrated while using an NSAID.

Glucosamine: A substance that the body produces naturally, glucosamine acts as a “building block” for connective tissue such as cartilage and ligaments. Glucosamine is available as an over-the-counter supplement. Many research studies have shown that glucosamine can decrease OA pain and disability. Glucosamine appears to be quite safe according to these studies (dose: 500 mg tablets, 3X/day) but usually has to be taken for 1 to 2 months before seeing a significant effect. An intriguing possibility is that glucosamine may actually have a protective effect in slowing down the progression of OA. However, this effect has not yet been proven and research is ongoing in this area.

Chondroitin: Chondroitin is also a building block of connective tissue. More recent research has shown that chondroitin can have beneficial effects (less pain and disability) similar to glucosamine. In fact, the combination of glucosamine and chondroitin appears to have an additional beneficial effect

compared to just using the glucosamine alone.

Other supplements and combination products: There are many other types of supplements that are touted to decrease inflammation and help with arthritis. Unfortunately, most of these supplements are not as well studied by research so their benefits, and possible side effects, are not well-known or proven. In addition, there are many brand name products that combine a number of different supplements. It is important to read the label to find out exactly what is contained in the product. Just to confuse matters, some supplements (especially foreign products) are not well-regulated nor properly purified and so they may contain substances that are not listed on the label. Elite athletes who may be subject to drug-testing should contact the Canadian Centre for Ethics in Sport for more information about particular products.

In summary, medications and supplements can play a useful role in managing osteoarthritis. However, you should remember to consult with your physician, and possibly a registered dietitian, regarding the benefits and risks.

Dr. Trevor L. Hall, 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.