

## KNEE OSTEOARTHRITIS - BRACING

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Many advances have been made over the past decade in the area of bracing for treating osteoarthritis (OA) of the knee. Today's braces are lighter, yet made of stronger and more durable materials. Here is a breakdown on the options for bracing your knee in treating OA:

**Knee sleeve:** This type of sleeve is usually made of a stretchy material such as neoprene. There are some newer materials that are not as hot and thick as neoprene, thereby enhancing comfort. A knee sleeve is the least expensive bracing option, but research has shown that a sleeve can help to decrease pain, probably by improving the balance sense around the knee.

**Patella (knee cap) stabilizing brace:** This brace is a soft brace like a knee sleeve, but it has special straps and reinforcements to help decrease the stresses on the knee cap. This type of brace would help those who have osteoarthritis mainly behind the knee cap rather than OA throughout the whole knee.

**OA unloading brace:** This is the classic osteoarthritis brace and is the most expensive. These days, the OA braces are made of high-tech metals and composites such as carbon fibre, titanium and airplane-grade aluminum. They must be strong but also light and comfortable. Most of these braces are custom-fit to provide for the most comfort possible and for the best function. These braces are modeled after the sports braces that many athletes use for ligament injuries. The manner in which OA braces work is to "unload" the part of the knee that has the most degenerative changes. For example, if the inner or "medial" part of your knee is most

affected by the OA, the brace would be constructed to take some of the pressure off of the medial part of your knee. Research studies have shown that these braces are helpful in decreasing pain and disability in knee osteoarthritis, especially when the OA is confined to one part of the knee. According to research and clinical observations, this type of brace appears to work better than simply using a knee sleeve. There are many different brands of OA braces, each with slight variations in their structure and materials. For example, a person who does a lot of downhill skiing would probably opt for a shorter bottom end to fit into a ski boot properly. Alternatively, someone who is interested in maximum comfort may opt for an OA brace with a softer material at the top end.

**Ligament stabilization braces:** People who have ligament tears or "a loose knee", in addition to having OA, would probably benefit from a ligament stabilization brace. A knee that is more stable has less stress on it and less irritation of the arthritic areas. The features of a ligament stabilization brace can now be combined with the features of an OA unloading brace.

There aren't really any side effects of bracing except the occasional person who gets some skin irritation from a pressure point or from a reaction to the bracing material, both of which are usually easily correctable.

Using a brace for the knee can certainly help in decreasing pain and improving function in an osteoarthritic knee. The benefits of bracing depend on determining the right brace for a particular person, as well as getting a proper fit. One of

the major advantages of bracing is that the beneficial effect is felt quite quickly upon using the brace.

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### **Viewpoint from a bracing specialist:**

*"Over the past several years, OA bracing has entered the market and has changed the lives of many people who at one point were unable to complete their day to day activities. Clients are sometimes hesitant to wear a brace for daily use due to the possibility that they would be deemed "disabled". However, after educating clients on the effectiveness and the potential for improvement of their daily lives, they are more willing to give the OA brace a fair chance. The majority of clients that I have fit notice an immediate improvement in their symptoms and an increase in stability of their leg. OA bracing is definitely an option in the person that has mild to moderate OA and is seeking an alternative method in minimizing their daily pain without the possibility of surgery."*

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