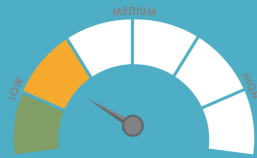


Braces & Wedges



Early to mid stages



Works best in stage 3 & 4

What is it?

Knee braces or appropriately placed heel wedges can help redistribute the load and avoid too much force going through the affected joint.

This method is only appropriate for a select few patients who have a certain type of asymmetrical joint wear.



Benefits

Fair to good evidence for using heel wedges and knee braces for specific types of asymmetric joint wear. It can slow down deterioration.

Moderate drop in pain, improvement in activities of daily living (ADL) and mobility in the short term.



Risks

No major risks identified with the use of these physical aids.

Avoid over-tightening of the brace to prevent pressure effects to the skin.

Some patients with heel wedges may feel off-balance at the start of treatment.



Very low cost



Minor



May affect balance



Minor



Minor



No more than usual



Minor



Minor



Minor

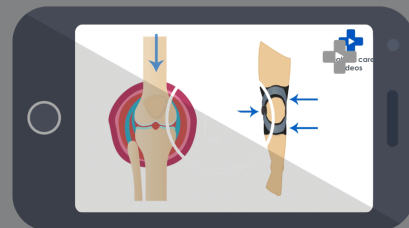


Minor



Minor

Limitations due to treatment



Video

What does it involve?

Heel wedges - By placing a wedge in the sole of the footwear, at the level of the heel, the forces in the knee are redistributed correctly.

For example, the wedge commonly used to treat bow-legs (a knee which curves outward from the middle) is higher on the outer side.

Braces - These achieve a similar effect to heel wedges by placing appropriate straps which, when tightened, will help the forces in the joint to be evenly distributed.

Effort/burden

These items are prescribed by a physiotherapist after a full clinical assessment.

You may have to swap the heel cushion to different footwear, and it may not work in all footwear.

Applying the brace can be cumbersome and may limit the type of clothes you can wear.

These aids need to be worn regularly to gain full benefit.

Benefits

There is fair to good evidence for the use of heel wedges (bowleg) for various knees and knee braces for specific types of asymmetric joint wear (unicompartmental arthritis).

Moderate drop in pain, improvement in activities of daily living (ADL) and mobility in the short term.

Potential to slow down the speed of deterioration and joint wear.

Limitations and side effects

In the initial stages of using heel wedges, patients may find that their balance is affected.

These interventions are not applicable to all types of asymmetric wear of the joint and therefore only a few patients will benefit from this.

Risks

No major risks identified with the use of these physical aids.

Avoid over-tightening of the brace to prevent pressure effects to the skin.

Cost

Low cost option for the patient and a variable cost for the NHS.

NHS: Generally not an expensive option, but braces tend to be single-use and may need replacing.

What if no treatment is done?

Arthritis will continue to deteriorate.

Symptoms will get worse; sometimes rapidly.

Will have a negative influence on other management options, e.g. surgery, in the future.

References

<https://bmjopensem.bmj.com/content/2/1/e000195> (unloading knee brace)

<https://www.ncbi.nlm.nih.gov/pubmed/29543576> (Valgus off-loading brace)