

**Are stem cell injections effective for osteoarthritis of the knee?**

<b>Clinical Question</b>	Are stem cell injections safe and effective for people with osteoarthritis of the knee?
<b>Bottom Line</b>	The findings of this review suggest that stem cell injections may slightly improve pain and function for up to six months compared to placebo. No significant improvement in quality of life was demonstrated but data was limited. Serious adverse events were rare, and no significant harms were reported. Comparisons with other treatments like glucocorticoids, hyaluronic acid, platelet-rich plasma, and NSAIDs had very low certainty evidence, making it unclear if stem cell injections offer significant benefits compared to these other treatments.
<b>Caveat</b>	Participants in the included trials were generally representative of people with knee osteoarthritis seen in clinical practice. And most trials included those with moderate radiographic disease.
<b>Context</b>	Osteoarthritis of the knee is a leading cause of pain and disability among adults, affecting about 10% of the world's population aged 60 and older. It involves the entire knee joint, with loss of cartilage, degeneration of menisci, inflammation of the synovium, and abnormal bone remodelling. Stem cell therapy, particularly using mesenchymal stem cells (MSCs), is a promising intervention. MSCs can be harvested from bone marrow, fat tissue, and other sources, and injected into the joint to potentially regenerate damaged tissues. Both autologous (self-derived) and allogeneic (donor-derived) MSCs are being explored for their therapeutic potential.
<b>Cochrane Systematic Review</b>	Whittle SL, Johnston RV, McDonald S, Worthley D, Campbell TM, Cyril S, Bapna T, Zhang J, Buchbinder R. Stem cell injections for osteoarthritis of the knee. Cochrane Database of Systematic Reviews 2025, Issue 4. Art. No.: CD013342. DOI: 10.1002/14651858.CD013342.pub2. This review contains 25 trials which included 1,341 participants.

**Pearls No. 769, April 2025, written by Assoc Professor Vanessa MB Jordan.**

Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013342.pub2/full>