

Does stem cell transplantation benefit patients with knee osteoarthritis?

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Cell therapy represents a potential regenerative treatment for osteoarthritis. A recent analysis of all relevant published studies indicates

that stem cell transplantation from different sources is effective for treating knee osteoarthritis, the most prevalent chronic joint disease.

The review and meta-analysis, which is published in the *Journal of Orthopaedic Research*, included 16 studies involving 875 patients with knee osteoarthritis (441 in the [stem cell transplantation](#) group and 434 in the control group). Stem cell treatment was associated with significant reductions in patient-reported pain from the third month onwards.

The most significant pain relief at different postoperative months came from fat-derived and umbilical cord-derived stem cells. A patient's own fat-derived stem cells resulted in better pain alleviation compared with those from other donors. Also, a patient's own fat-derived stem cells led to the most effective recovery of knee joint function.

"Stem cell transplantation proved safe and effective for knee osteoarthritis treatment," the authors wrote. "Different sources of [stem cells](#) have a good effect on alleviating knee joint pain, restoring knee joint function, and minimizing patient trauma."

More information: Effect of stem cell transplantation on the outcomes of patients with knee osteoarthritis: a systematic review and meta-analysis, *Journal of Orthopaedic Research* (2023). [DOI: 10.1002/jor.25724](#). onlinelibrary.wiley.com/doi/10.1002/jor.25724

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