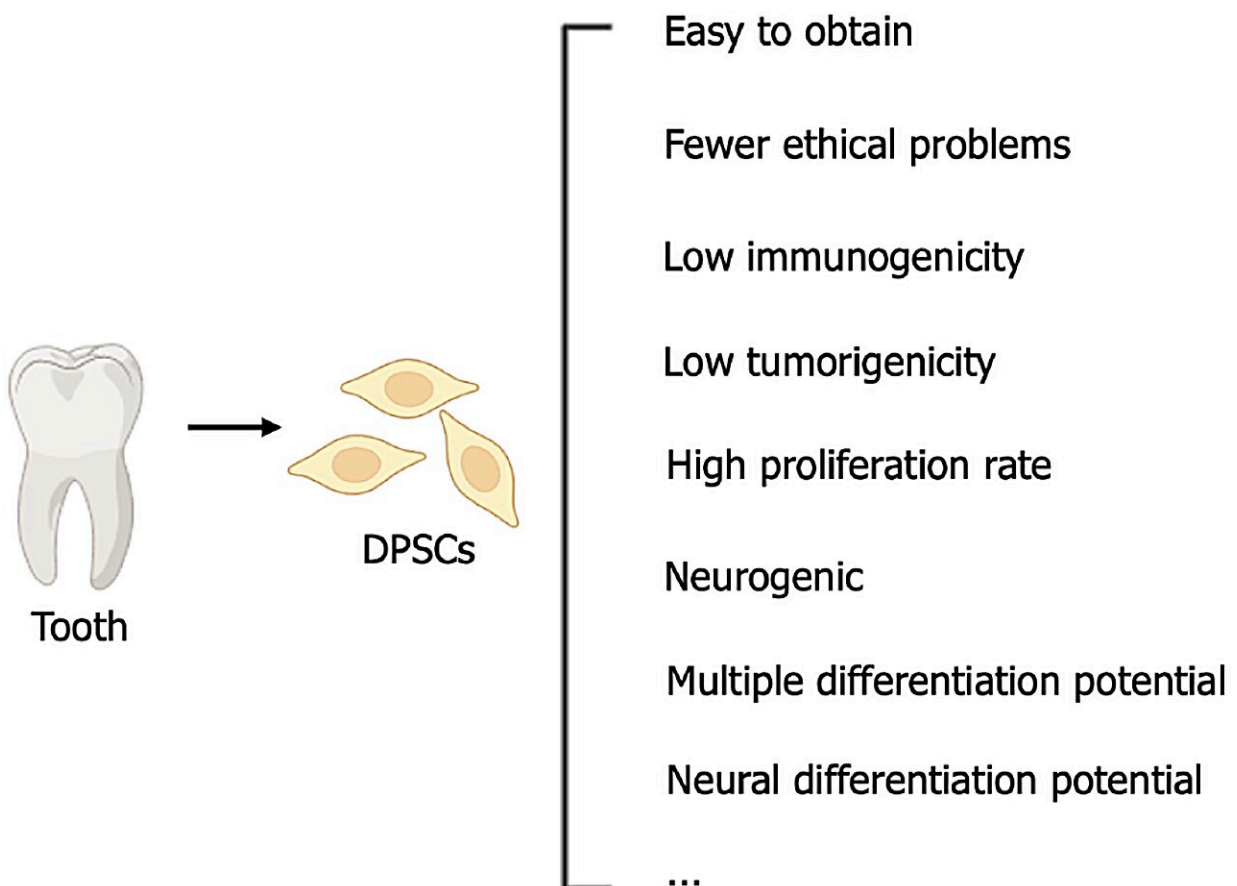


Study reveals that dental pulp stem cells and their products could help regenerate peripheral nerves and more

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Advantages of dental pulp stem cells as alternative stem cells for nerve regeneration. The figure was created with BioRender.com. DPSCs: Dental pulp stem cells. Credit: *World Journal of Stem Cells* (2023). DOI: 10.4252/wjsc.v15.i10.960

Peripheral nerve injury (PNI) seriously affects people's quality of life. Stem cell therapy is considered a promising new option for the clinical treatment of PNI. Dental stem cells, particularly dental pulp stem cells (DPSCs), are adult pluripotent stem cells derived from the neuroectoderm.

DPSCs have significant potential in the field of neural tissue engineering due to their numerous advantages, such as easy isolation, multidifferentiation potential, low immunogenicity, and low transplant rejection rate. DPSCs are extensively used in [tissue engineering](#) and regenerative medicine, including for the treatment of sciatic nerve injury, facial nerve injury, spinal cord injury, and other neurodegenerative diseases.

A new article [published](#) in the *World Journal of Stem Cells* reviews the potential applications of dental pulp stem cells (DPSCs) and their derivatives in the field of nerve regeneration.

First, the paper describes the current status of stem cell therapies for [peripheral nerve injury](#) (PNI) and discusses the advantages of DPSCs in this field. Then, it reviews the status of research on the neuroregenerative ability of DPSCs and their derivatives. Finally, the research summarizes the potential of DPSCs in treating PNI and the underlying mechanism, with an aim to provide valuable guidance and a basis for future research.

More information: Wen-Bo Xing et al, Potential of dental pulp stem cells and their products in promoting peripheral nerve regeneration and their future applications, *World Journal of Stem Cells* (2023). [DOI: 10.4252/wjsc.v15.i10.960](https://doi.org/10.4252/wjsc.v15.i10.960)

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