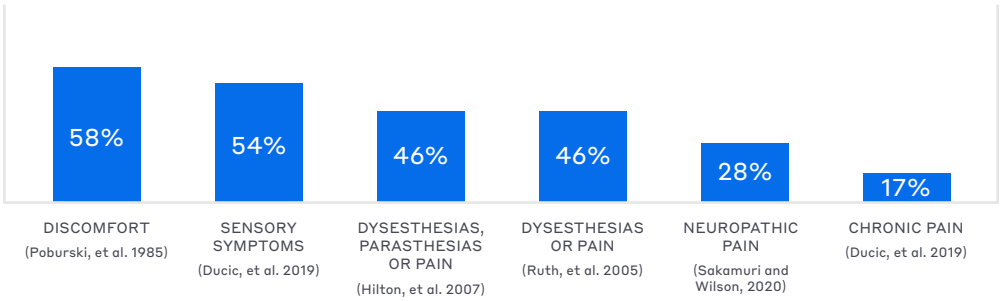
comorbidities from nerve biopsy procedures can significantly decrease patient quality of life

New or worsened neuropathic pain is one of the most feared complications of nerve biopsy procedures and affects nearly 50% of patients.[1] The primary factors driving nerve pain are direct trauma to the nerve, deafferentation and neuroma formation.[1,2]

Common comorbidities associated with nerve biopsy procedures

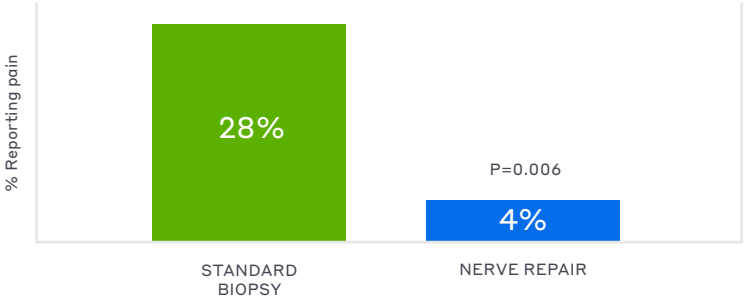


- **Current operative techniques for biopsies, including fascicular biopsies, do little, if anything, to prevent comorbidities[1]**
- **Literature shows spontaneous sensory recovery rates after nerve harvest range from 0 to 11.1% in adults[2]**

reconstructing the biopsied nerve can significantly reduce the likelihood of postoperative neuropathic pain and the risk of decreased patient quality of life[1]

Reconstructing the nerve biopsy site addresses multiple mechanisms of potential pain generation by preventing or reducing neuroma formation and allowing potential nerve regeneration to address the deafferentation while allowing for adequate biopsy lengths.[1]

Reconstructing the nerve significantly reduced postoperative neuropathic pain at 6 months following biopsy procedures.[1]



- **Allografts allow for the recommended 5 cm biopsy length to be repaired[1]**
- **The most commonly used allograft size in this study was 2–3 mm x 50 mm, a size appropriate for sural, superficial peroneal or superficial radial nerves[1]**

read the referenced studies

1. Allograft Nerve Repair Reduces Postoperative Neuropathic Pain Following Nerve Biopsy

   Sakamuri S, Wilson TJ. *Neurosurgery*. December 2020;87(6): E638-E645. doi:10.1093/neuros/nyaa250.

2. Chronic postoperative complications and donor site morbidity after sural nerve autograft harvest or biopsy

   Ducic I, et al. *Microsurgery.* September 2020;40(6):710-716. doi:10.1002/micr.30588.

3. Sequelae of sural nerve biopsies

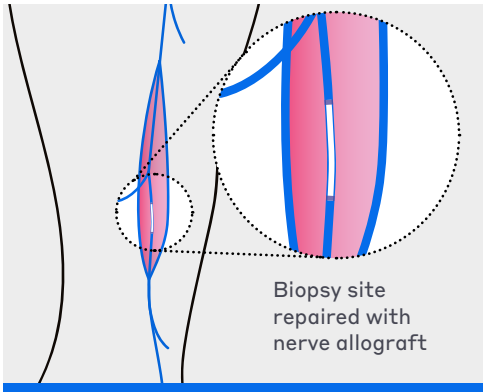
   Poburski R, et al. *Clin Neurol Neurosurg*. 1985;87(3):193-198. doi:10.1016/0303-8467(85)90006-x.

4. Complications following sural and peroneal nerve biopsies

   Hilton DA, et al. *J Neurol Neurosurg*. November 2007;78(11):1271-1272. doi:10.1136/jnnp.2007.116368.

5. Diagnostic and therapeutic value due to suspected diagnosis, long-term complications, and indication for sural nerve biopsy

   Ruth A, et al. *Clin Neurol Neurosurg*. April 2005;107(3):214-217. doi:10.1016/j.clineuro.2004.08.004.



Watch: Stanford neurosurgeon Thomas J. Wilson, MD explains muscle and nerve biopsy. Hear him discuss the risk of neuropathic pain after biopsy at the 15-minute mark. **youtu.be/7-uzcK9yzeA**

indications and trademark disclaimers

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