

GRAFTING FOR NERVE REPAIR

Facial Paralysis Can Occur With No Evident Cause

A Patient Can Be Their Own Donor for Nerve Grafting

Facial nerve repair is a very delicate procedure but can often be conducted in an ambulatory setting. While some facial paralysis cannot be corrected with surgery, some can benefit greatly from the process.

Please use this information on nerve grafting as an overview of the different options and processes related to nerve grafts.

01 | Cross-Face Nerve Graft

For cross-face nerve grafts a patient's undamaged facial nerve is used to provide working nerve tissue and fibers. A donor sensory nerve is harvested from the patient or a donor and is used to connect the nerves on both sides of the face. This procedure leads to regenerating nerves across the face to mend injured muscles used for facial expression. After a successful cross graft the undamaged nerve will send signals through the graft leading to facial movement on the damaged side of the face.

02 | Fascicular Grafting

Individual fascicular grafting is uncommon but can be used if a nerve defect is specifically defined. More commonly used is group fascicular grafting which will deliver the most successful results by grafting matching fascicular tissue. This procedure is used to deliver regenerating axons through the graft to the inactive tissues.

03 | Complications

There are many factors that go into a successful nerve graft. While the procedure is complicated in nature, there are many reasons a nerve graft can fail. Tissues used to graft or "mend" paralytic muscles may not be compatible. Donor nerves even from the same patient may not offer all the appropriate connections for a successful nerve graft. After a nerve graft has been completed, success of the procedure may not be

immediately known and it can take several weeks to months to identify if such a procedure was a success. Since all significant healing must occur for a nerve to repair and become functioning a patient must be understanding in the time it takes to see results. If there were dying tissues or failure in nerve harvesting the implications of these factors may not be known until months after the surgery has been performed.

04 | Postoperative Care

As with any surgery there are risks involved. It is important that the patient be cautious of any symptoms after surgery and that proper wound care is followed. Regular function of facial muscles and nerves can take months to return. Drains are placed to prevent hematomas which is imperative to proper healing. Any signs of fever, infection, sudden pain, or any other symptoms should be discussed with a provider.

For additional resources on facial paralysis please visit, <https://facialparalysiscenter.com>

Did You Know?

75% of facial paralysis is caused by Bell's palsy

References

<https://www.methodistfacialparalysis.com/crossface/>

https://www.medscape.com/viewarticle/423216_6