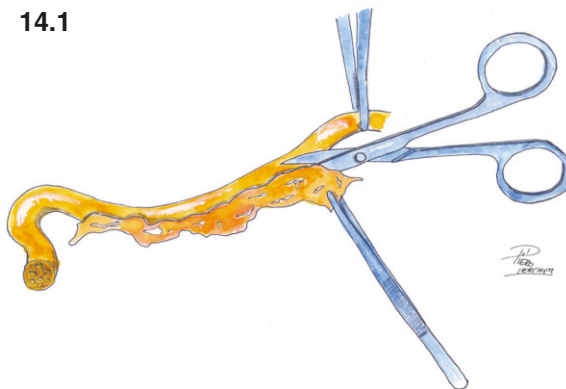


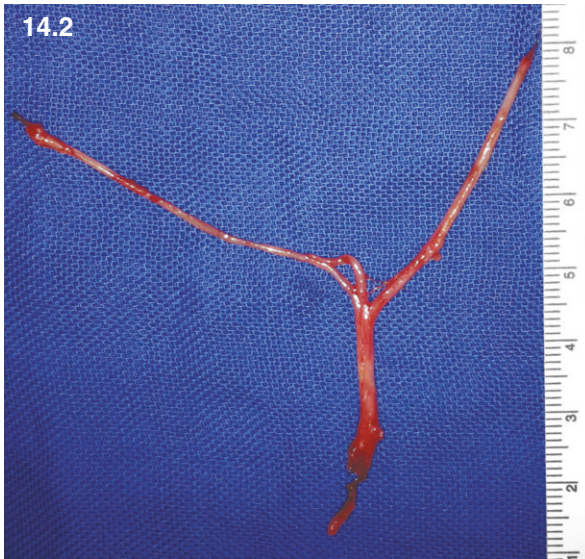
We prefer harvesting the sural nerve graft because the access is not limited when using a two-team approach, and morbidity at the donor site is negligible. Preoperatively, rule out previous trauma or surgery at the donor site. Any ischemic changes of the skin are a significant contraindication for harvesting this nerve. The drawbacks of sural nerve harvesting include the potential risk of developing neuroma and the difficulty to conceal the long scar.

1. The sural nerve is located posterior to the lateral malleolus and posteriorly in the calf. The patient is in a supine position, and a roll is placed beneath the buttocks to rotate the leg internally. A tourniquet is inflated to 350 mmHg. Incise the skin 1 fingerbreadth posterior to the lateral malleolus and locate the saphenous vein. Adjacent to the vein, identify the sural nerve and transect it distally along the lateral head of the gastrocnemius muscle. Retract the nerve very carefully and identify the proximal portion of the nerve which lies beneath the fascia. Use small transverse skin incisions to perform nontraumatic dissection of the nerve. Harvest the nerve with surrounding fat and connective tissue.
2. After removing the surrounding tissue with microscissors under the microscope (Fig. 14.1), place the nerve graft between the two ends of the recipient nerve.

14.1



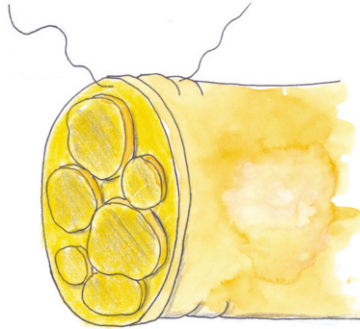
3. Cut the nerve to bridge the gap without tension (Fig. 14.2). Place the proximal nerve into the gastrocnemius muscle to prevent the development of neuroma. After harvesting wrap the leg with a compressive dressing.



## Epineurial Suture

1. Perform two stay sutures with 8-0 nylon from the epineurium to the internal epineurium. This is done to align the fascicles (Fig. 14.3a). If necessary, place interrupted sutures between the stay sutures. Rotate the nerve and approximate the posterior wall of the nerve. To prevent twisting of the nerve, let the assistant retract the nerve carefully on both sides.

14.3a



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## Epiperineurial Suture

1. By this technique the epineurium and the peripheral fascicles are accurately adapted with an 8-0 or 9-0 nylon suture. The stitch is passed through the epineurium and perineurium simultaneously, followed by circumferential interrupted suturing (Fig. 14.3b). No stay sutures are needed.

14.3b

