



# Harvesting of Free Grafts for Head and Neck Surgery

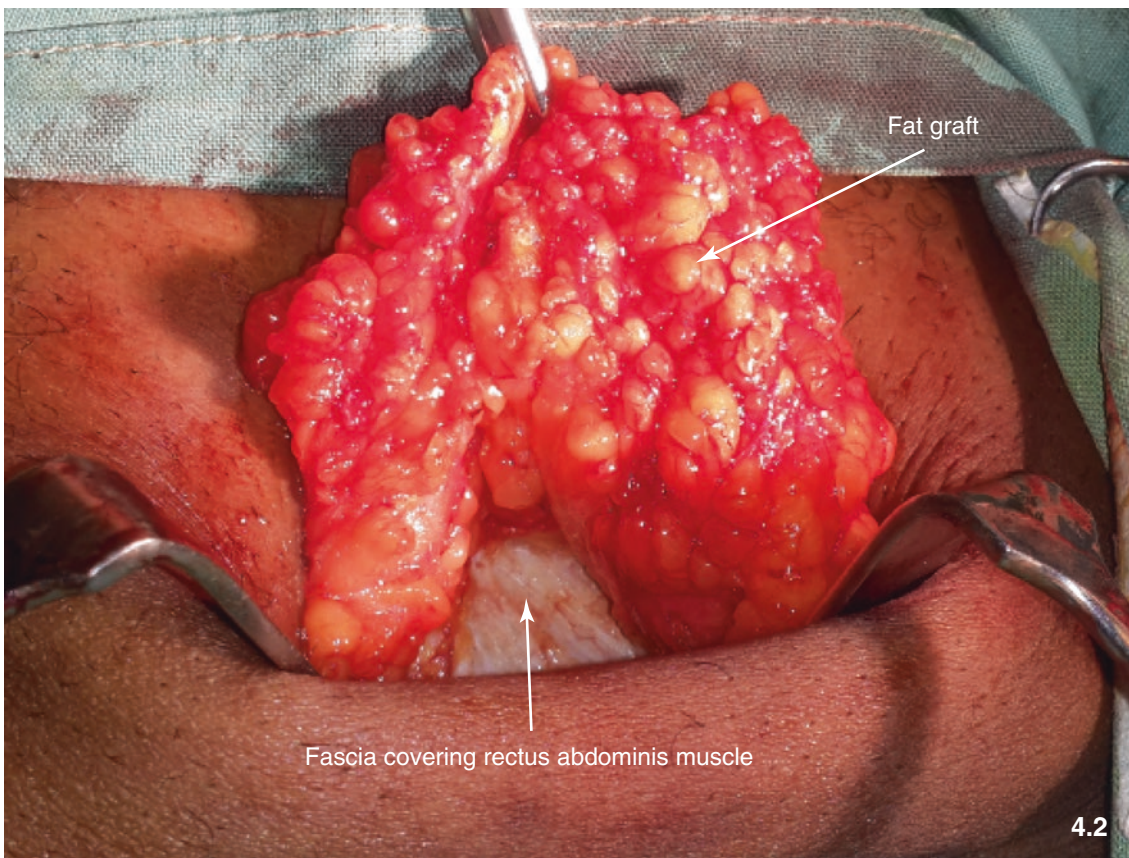
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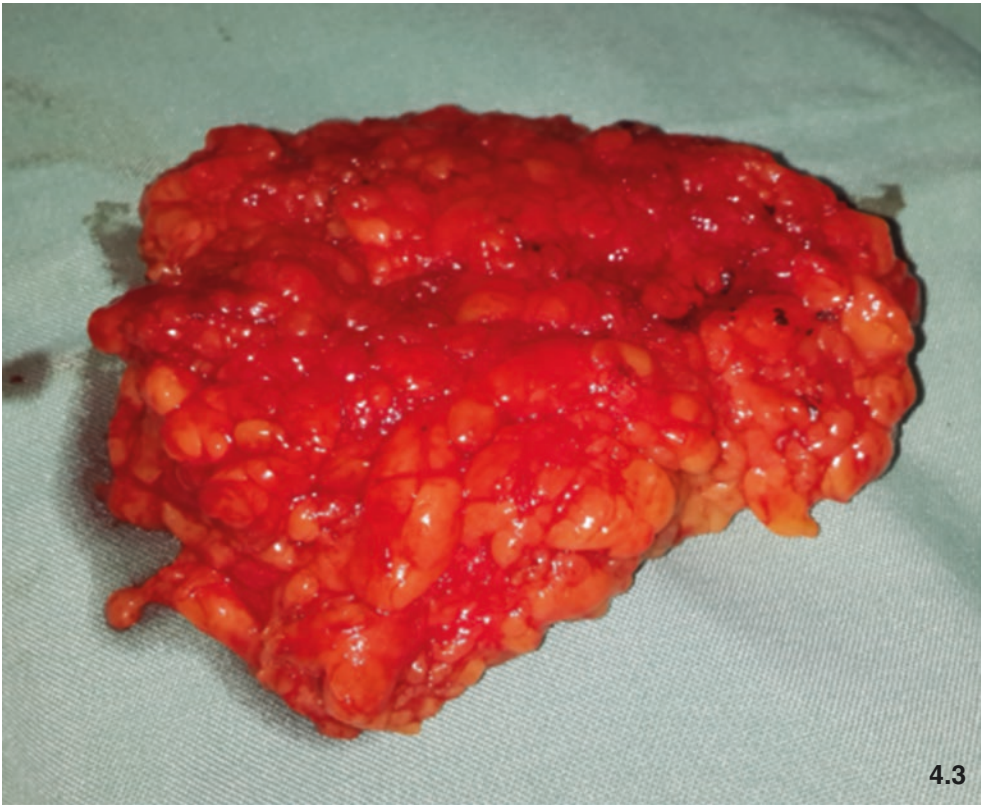
## 4.1 Abdominal Fat

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### 4.1.1 Operative Steps

1. The abdomen area in males is shaved and an incision is marked out 2–3 cm above the umbilicus from 3 o'clock to 9 o'clock position (Fig. 4.1).
2. The incision is made through the skin to the subcutaneous tissue to expose the fat. The dissection of the fat is continued till the rectus abdominis muscle fascia is reached. The fat is dissected superficial to the rectus abdominis muscle fascia. The overlying skin is undermined to isolate the required amount of fat (Fig. 4.2).
3. The free fat flap is harvested and trimmed to the required size (Fig. 4.3).





### 4.1.2 Potential Problems

1. Peritoneal perforation
2. Small amount of fat graft than required
3. Wound dehiscence causing cosmetic deformity

### 4.1.3 Suggested Solutions

1. To allow for shrinkage, the fat graft must be 30% more than the required.
2. Always leave 3–5 mm of fat layer in the subcutaneous tissue to prevent wound dehiscence.

3. Ensure that the dissection of the fat graft is done superficial to the rectus abdominis muscle. The dissecting scissors or diathermy must be held horizontal to the rectus abdominis muscle.

### References to Operative Procedure

1. Conger BT, Gourin CG (2008) Free abdominal fat transfer for reconstruction of the total parotidectomy defect. *Laryngoscope* 118:1186–1190
2. Davis RE, Guida RA, Cook TA (1995) Autologous free dermal fat graft: reconstruction of facial contour defects. *Arch Otolaryngol Head Neck Surg* 121:95–100

## 4.2 Fascia Lata

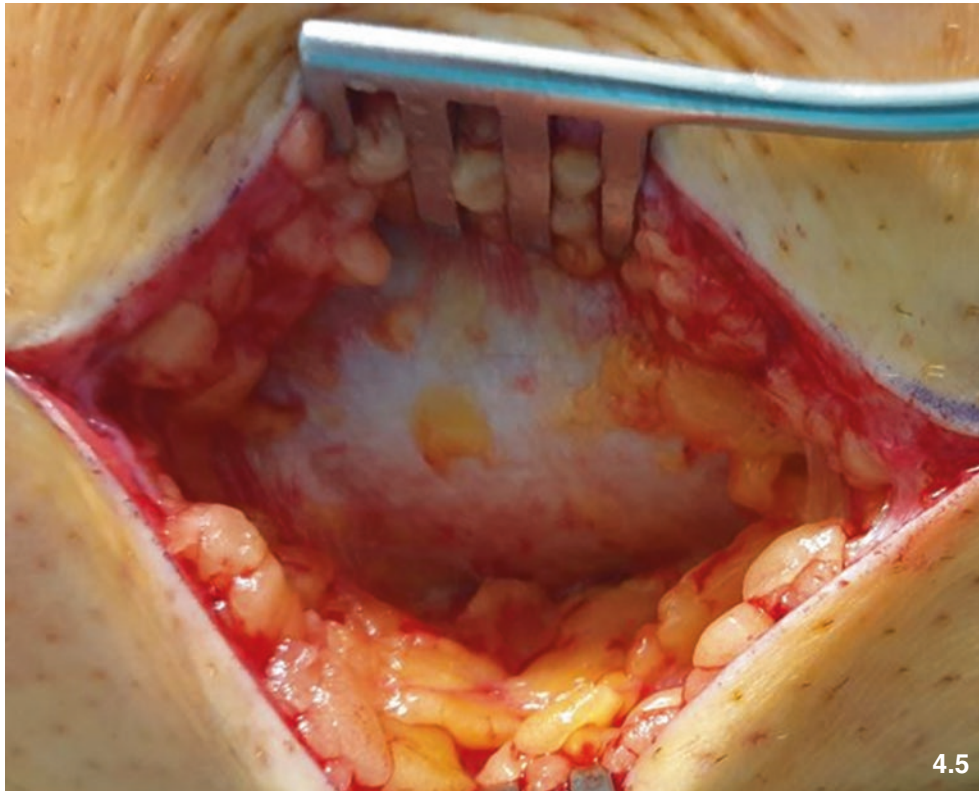
Herwig Swoboda

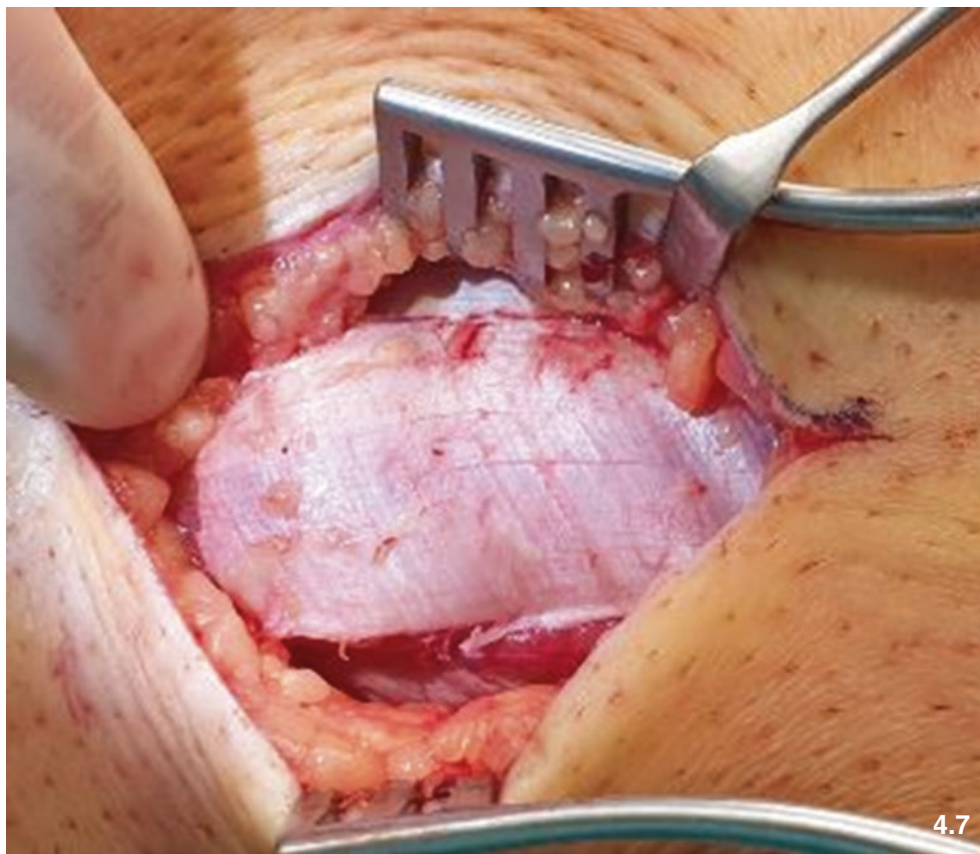
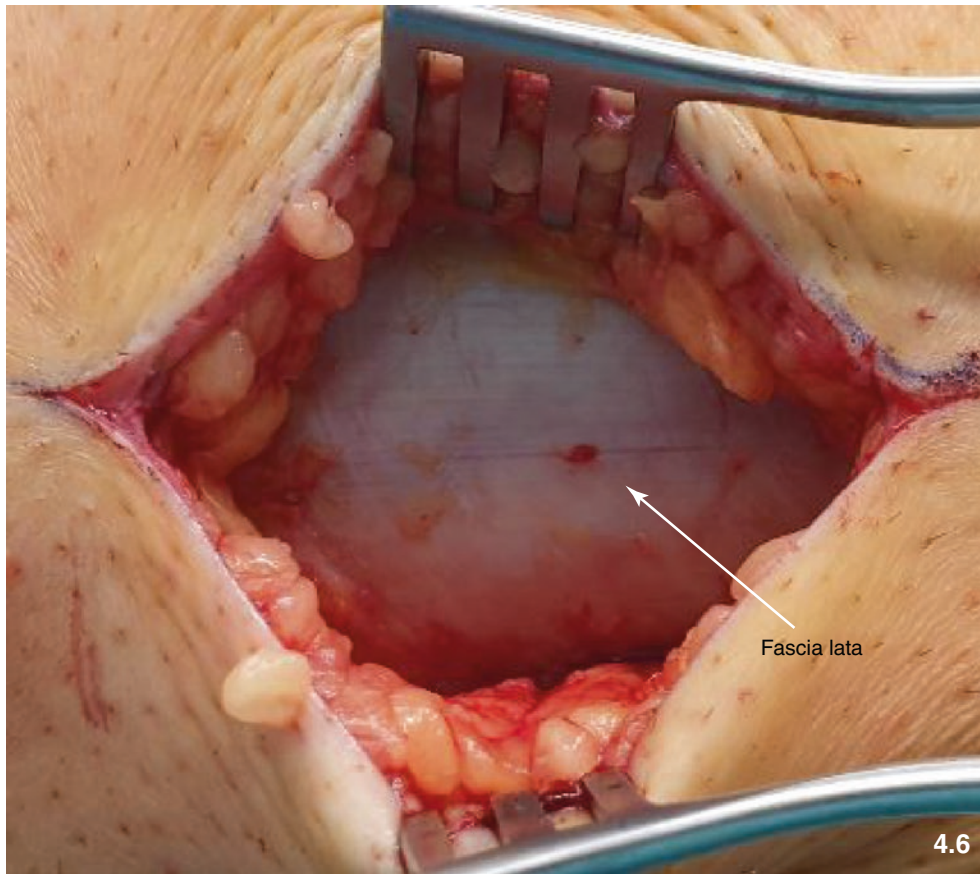
### 4.2.1 Operative Steps

1. The patient is made to lie on his side or in supine position and the knee is extended. The size of the graft usually determines the type incision required. Antiseptic preparation was done on the lateral aspect of the thigh from its upper end down to the knee. A line was drawn from the anterior superior iliac crest to the head of the fibula. A transverse or straight line incision is made in the lower part of this line a few centimeters above the knee when a smaller graft around 5 cm in length is needed (Fig. 4.4).
2. The fascia lata is identified as glistening white sheet of avascular tissue with fibers running parallel to the axis of the leg; it was exposed and was defined clearly (Fig. 4.6).
3. The required dimension of fascia lata is cut with knife and blunt-tipped scissors to avoid injury to the muscle underneath (Fig. 4.7).
4. The fascial lata is separated from the underlying vastus lateralis muscle (Fig. 4.8).
5. The fascia is removed and placed separately wrapped in wet cloth before use (Fig. 4.9).
6. The fascial gap is closed by interrupted sutures over the vastus lateralis muscle (Fig. 4.10).

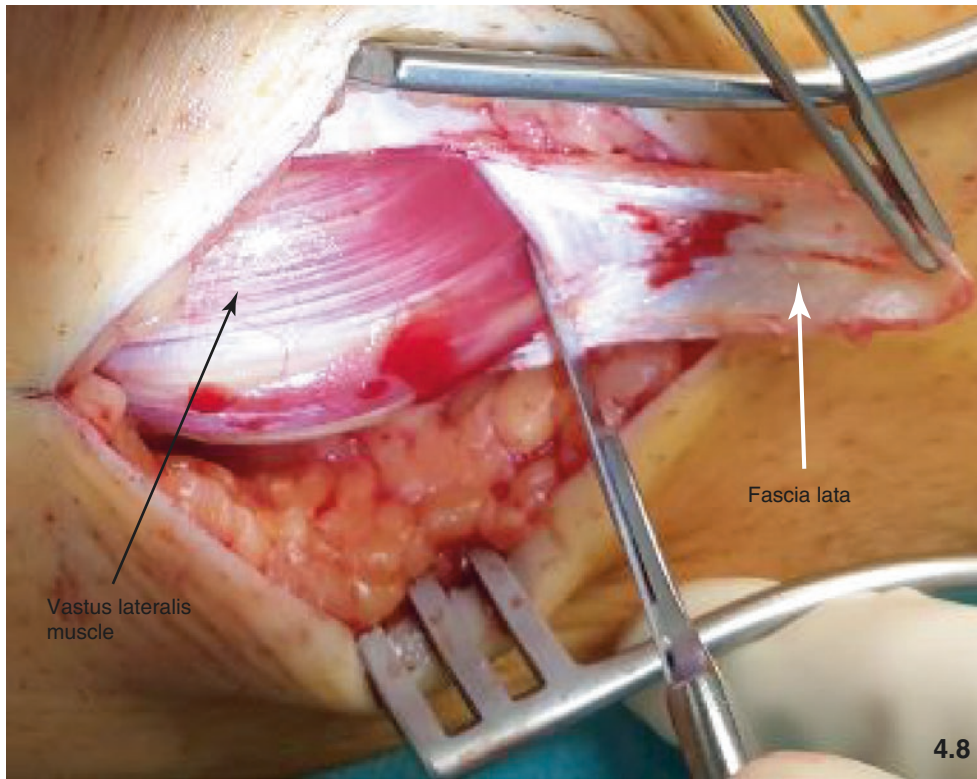
For much bigger graft, a longer 'S'-shaped incision is preferred. The skin, subcutaneous tissue, and fat are cut and separated above and below using a small sponge on a long forceps (Fig. 4.5).



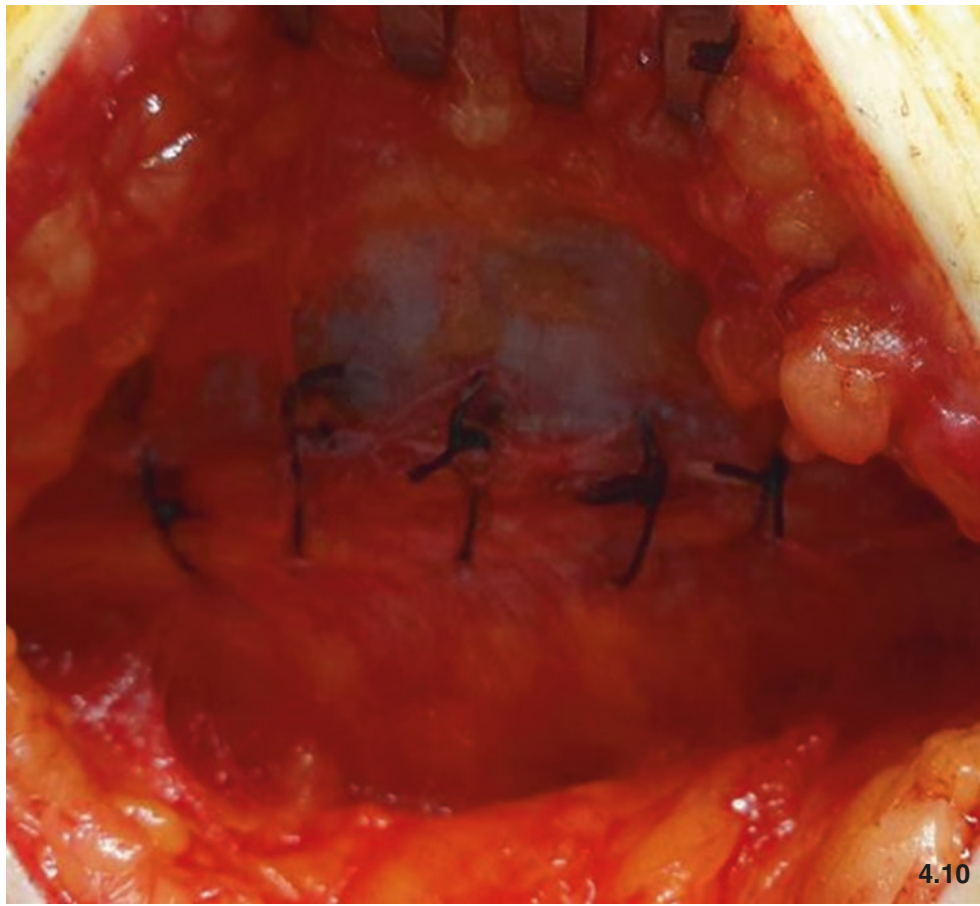












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### 4.2.2 Potential Problems

1. Tensor fascia lata muscle will be entered by a proximal incision while a more medial incision might miss the fascia entirely.
2. Various complications have been mentioned, namely local pain, joint problem, injury to lateral cutaneous nerve of the thigh, reduction of muscle power, muscle herniation, and cosmetic concern.

### 4.2.3 Suggested Solutions

1. A distal incision on the lateral aspect of the thigh is the optimal site of harvesting the fascia lata.
2. Use of small incision and Crawford stripper for a bigger graft used to reduce the long-standing complication in most patients.

### References to Operative Procedure

1. Drever JM (1972) A simple method for obtaining fascia lata grafts. *Plast Reconstr Surg* 50:196–197
2. Wheatcroft SM, Vardy SJ, Tyers AG (1997) Complication of fascia lata harvesting for ptosis surgery. *Br J Ophthalmol* 81:581–583
3. Amir A, Gatot A, Zucker G, Sagi A, Fliss DM (2000) Harvesting large fascia lata sheaths: a rational approach. *Skull Base Surgery* 10: 29–34
4. Bleyen I, Hardy I, Codere F (2009) Muscle prolapse after harvesting autogenous fascia lata used for frontalis suspension in children. *Ophthalmic Plast Reconstr Surg* 25:359–360

### 4.3 Sural Nerve Graft

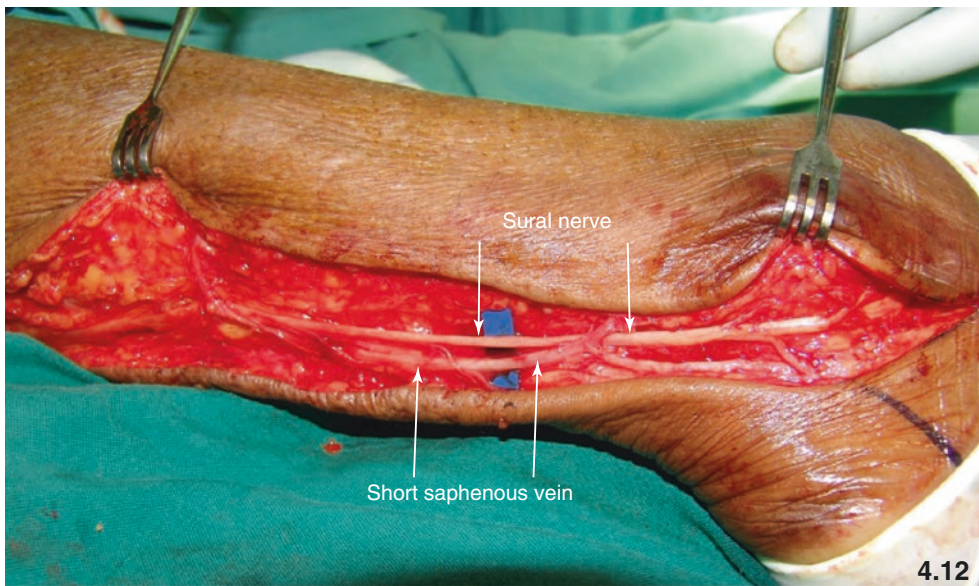
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#### 4.3.1 Operative Steps

1. A vertical incision marking is made out approximately 1 cm posterior and 1 cm superior to the lateral malleolus. The incision marking is extended in either direction for a
2. The skin is incised to the subcutaneous tissue. The sural nerve is identified medial to the short saphenous vein within the subcutaneous tissue. The nerve is isolated from the surrounding tissues (Fig. 4.12).
3. Measure the required length of the nerve graft and transect the nerve inferiorly and superiorly (Fig. 4.13). Caudally, the nerve divides into branches which may be included in the graft according to necessity.

variable distance depending on the required length of the nerve graft (Fig. 4.11).





### 4.3.2 Potential Problems

1. Nerve injury

### 4.3.3 Suggested Solutions

1. Avoid excessive stretching during isolation of the nerve.

### References to Operative Procedure

1. Ducic Y (2000) A new technique of sural nerve harvest. *J Otolaryngol* 29:386–388
2. Hill HL, Vasconez LO, Jerkiewicz MJ (1978) Method of obtaining sural nerve graft. *Plast Reconstr Surg* 61:177–179