Knee Disarticulation Amputation

Closure:

Irrigation
Use saline irrigation solution to remove debris and hematoma, and to minimize bacterial contamination.

Myodesis
The medial gastroc muscle is mobilized up over the femoral condyles to provide distal padding and myodesis of the muscle to the anterior joint capsule. The muscle is centered over the femoral condyles.

Suction hemovac drain
Place the deep hemovac drain just lateral to the femoral condyle. The drain is brought out the lateral side and not the medial in order to avoid damage to the saphenous vein. Cut the drain between holes.

MYODESIS

Begin the myodesis of the medial gastroc muscle centrally on the femur. The first suture sews the fascia of the gastroc muscle to the anterior capsule of the knee and centers the muscle over the femoral condyles. Sewing the fascial layers and not the muscle holds the muscle in place, but minimizes the creation of avascular muscle.

Medial suture
A medial suture helps to center the medial side to the muscle.

Lateral suture
A lateral suture helps to center the lateral one-half of the muscle flap.

Further sutures
Further sutures to fully secure the muscle closure over the distal femur and securely close the deep layer. The myodesis securely closes the fascia of the medial gastroc muscle across the capsule of the knee to perform a deep, secure closure.

Close the corners
Close the medial and lateral most corners of the muscle flap and the articular space with a deep fascial stitch. Since this is an articular joint, without a tight closure the joint fluid that is still created between the patella the femur could leak and create synovial fistula and ongoing drainage in the post-operative period.

Trial positioning
The trial positioning of the posterior fasciocutaneous flap and the redundant skin to be removed from the lateral side of the flap.

Center the flap
Secure the flap in position and inset the flap by placing the all important first stitch to center the flap in the desired position.

Medial closure
Close the fascial layer of the medial side of the flap.

Remove medial “dog ear”
Identify the extra skin at the medial corner. Use the forceps to place traction on the skin where it wants to fold and create a new corner without a dog-ear appearance by removing the two corners of skin.

Align medial corner
Place a subcutaneous suture to align and close the medial corner.

Lateral closure
Move laterally to close the fascia. Identify the best inset for the lateral closure with the large area of extra skin to be removed.

Excise excess tissue

Examine the lateral skin and mark out the incision. Sharply excise the excess skin and create a smooth, symmetric closure.

Subcutaneous closure
The subcutaneous closure continues to the lateral corner.

Remove lateral “dog ear”
Identify the extra skin at the lateral corner. Use the forceps to place traction on the skin where it wants to fold and create a new corner without a dog-ear appearance by removing the two corners of skin.

Close dermal layer
Use horizontal dermal sutures to accurately align the skin edges, and to close the subcutaneous space. This closure is performed with absorbable suture.

The subcutaneous and dermal closure continues around the entire flap.

Nylon skin closure
Use nylon sutures for the final skin closure.

Steri-strips
Apply skin prep and then apply steri-strip skin tapes to lessen the tension from the sutures and seal the area between sutures.