

Skin Incisions and Flaps:

The skin incisions are drawn out based on the proposed level of the tibial bone cut. Measure the anterior to posterior diameter of the limb, at the level of the tibial bone cut. The skin of the flap needs to rotate all the way from the posterior aspect of the limb up and over the distal end, to join the anterior skin in a tension free closure. This flap has an axis of rotation that is just posterior to the limb, not at the mid-limb as is still shown in some older texts. Therefore, the length of the flap needs to be equal to the AP diameter of the limb, plus an additional cm to allow for the curvature of the tissue around the end of the limb.

1. Anterior incision – down approx half diameter of limb. Medially this extends down to an inflection at the edge of gastrocnemius muscle. Laterally, this extends down to the posterior edge of fibula. The incisions curve very slightly from distal to proximal as it moves from anterior to posterior.
2. The medial and lateral extensions are straight distally, and do not drift posteriorly. The length of the extensions is equal to the AP diameter of the limb at the proposed level of the tibial bone cut, plus one additional cm.
3. Posterior incision is drawn straight around the back of the leg, connecting the ends of the medial and lateral incisions.

The skin incision should be made in a decisive fashion to provide a clean and pure incision through skin, subcutaneous tissue, down to fascia. One should avoid feathered or beveled edges, and avoid irregular cut surface that can lead to devitalized tissue may be a focus for non-healing area or infection.

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