## **Pre-Op:**

## 1. Patient positioning:

- 1. Left hip towel bump to roll the patient slightly and keep the left leg from externally rotating
- 2. Black foam ramp pad to elevate the operative site above heart level and to minimize venous bleeding
- 3. Padded thigh level tourniquet
- 4. TED hose and sequential compression device on the non-operative leg to minimize the chance of deep venous thrombosis (DVT)
- 5. Foam pad under the non-operative leg to minimize pressure on the heel, malleolus, and proximally where the peroneal nerve is near the fibular head

## Pre-op plan:

Evaluate quality of soft tissue for flaps and coverage.

Transmetatarsal Amputation can be performed with bone cuts from the level of the metatarsal (MT) heads all the way proximally to the MT cuneiform and cuboid joints. The critical decision is where exactly to cut the MT bones 1 through 5 for this particular individual. While several factors must be taken into consideration in choosing where to cut the bone, the number one factor is the quality of the available soft tissue to cover, pad and close over the amputation site.

- 1. Soft tissue is the primary determinate for MT length. It is far better to have very short MTs and better padding than longer MT length and scarred, thin, or damaged tissue coverage.
- 2. One should cut the MT bones in a way that provides the partial foot a similar contour and shape to MT heads in a non-amputated foot.
- 3. Typically, the 2 nd MT is cut first, perpendicular to its axis in the ML plane, and beveled slightly to remove more bone on the plantar surface than dorsally.
- 4. The 1 st MT is cut to match the length of the 2 nd. However, it is beveled away from the second with more bone removed medially than laterally, and more plantarly than dorsally.
- 5. MTs 3, 4 and 5 are cut on a line that starts at the length of the 2 nd MT but slopes proximally so that MTs 3, 4, and 5 are progressively shorter than the 2 nd MT. All are cut to remove more bone laterally than medially, and more plantarly than dorsally.

©Prosthetics Research Study