Patient Preparation
Prepare wound site. Clean and apply dressing to wound. Identify and palpate for the fibula notch (perineal nerve lies superficially)
*NOTE: Ensure cast does not cover or apply pressure to this area.*
Identify and palpate medial and lateral malleolus bony prominences. Identify and palpate for tibial tuberosity to ensure proximal anterior aspect of cast is applied one finger breath distal to the tibial tuberosity.
Roll up and apply Terry-Net Stockinette leaving 2” proximal beyond tibial tuberosity and 2” distal past toes.
Pull stockinette back off of toes and apply 2x2 padding (or Cutimed® Sorbact ribbon between toes.) Replace stockinette beyond toes ensuring dressing has not wrinkled up causing possible pressure points. Fold up to 1”-1½” of excess stockinette over dorsal aspect of toes without hyperextending toes.

Padding Application
Ensure ankle is dorsi-flexed to 90° prior to applying adhesive felt and remove remaining wrinkles within stockinette.
Apply pre-cut adhesive felt to tibial crest ensuring capture of excess stockinette to keep in place without hyperextending toes.
Apply pre-cut pads for medial and lateral malleolus. Ensure pads do not overlap on tibial crest adhesive felt causing pressure points.
Apply Perforated Adhesive Foam to toes forming equal halves. Pinch sides forming to natural contour of foot. Remove excess foam from the sides cutting proximal to distal along contour of foot.
Apply one layer of padding on perforated foam to allow for easy cast removal.
Apply two layers overlapping by 50% distal to proximal end to popliteal fossa.
*NOTE: Extra padding (2-4 layers) is placed above the proximal tibial tuberosity and popliteal fossa to ensure well-padded proximal ends.*

Casting Application
Before Applying Cast Rolls
Ensure patient’s ankle is positioned at 90°. Re-identify landmarks (fibula notch and tibial tuberosity). You want to identify and palpate for tibial tuberosity to ensure proximal anterior aspect of cast is applied 1-2 fingers breath distal to the tibial tuberosity.
Proximal posterior aspect of cast should be placed 2”-3” from the popliteal fossa
*NOTE: Ensure shorter patients can bend knee 90° for comfort after completion.*
Applying Cast Rolls

Apply 1st roll (3” cast roll) starting on medial or lateral aspect of foot enclosing toes and heel with two full revolutions ensuring cast tape has contoured natural appearance of foot.

• After two full revolutions, cover dorsal aspect of toes and opposite plantar aspect with two revolutions and work cast tape proximal to 3”-4” above ankle while maintaining the 90˚ (neutral position) at the ankle.

• Upon first cast roll completion, fully laminate the applied cast tape for 10-15 seconds to ensure greater strength and contoured shape to foot and ankle.

Apply 2nd roll (4” cast roll) starting distal to metatarsal heads with two revolutions around the anterior and posterior aspect metatarsal pads working cast tape up proximally to and stopping cast to one finger breath distal to the tibial tuberosity.

• Laminate cast tape rubbing in a vigorous fashion for 10-15 seconds.

• After application of 2nd cast roll (4” cast roll) smooth out any wrinkles and apply surface board to metatarsal pads and heel. Ensure impression from surface board leaves a flattened appearance to ensure proper offloading to plantar aspect. Remember to maintain the position at 90˚.

• Maintain patient in neutral position of 90˚. Roll down 1” of stockinette from proximal end and lay over end of cast, cut and remove excess.

Apply 3rd roll (4” cast roll) starting at the metatarsal heads. Laminate and apply board ensuring complete contact with heel and metatarsal heads. While maintaining board on plantar aspect allow the patient to stand (feet shoulder width apart) with 5 to 10˚ of flexion at knees for 30-45 sec.

• Continue to laminate cast in a vigorous fashion throughout cast to ensure greater strength.

Finished cast should not allow flexibility or be semi-rigid on plantar aspect after 3rd roll. If it is, apply another roll for more rigidity.

Upon completion of final roll cast plantar aspect should have a flattened appearance.

Fit patient with “rocker bottom” cast shoe equaling the length of entire foot. Patient should be able to immediately ambulate.

Cast Removal

Begin cutting in a proximal to distal direction with a lateral cut midline to anterior (frontal part) of the malleolus. Start a new cut toward toes while intersecting where you left off with previous cut.

Continue to front of foot stopping at the 5th distal phalanx (small toe).

Begin cutting in proximal to distal direction with a medial cut midline to posterior (back part) of the malleolus. Start a new cut toward toes while intersecting where you left off with previous cut.

Continue to front of foot stopping at the 1st distal phalanx (large toe).

Intersect lateral cut then going distal toward toes while cutting slightly beneath toes. Finish cut intersecting prior medial cut.

Cut anterior stockinette embedded on distal end.

Remove anterior shell and cut stockinette and padding beneath.

Fully expose anterior lower leg and toes and remove extremity from remaining cast.