C-Brace® - Technical Information

Negative Fiberglass cast

Materials

• Plaster Parting Agent Cream	640Z5	
• Stocking	99B25	
• Fiberglass Cast Tape	699G30	

Tools

• Knee Pivot Gauge	743A8	
• Foot Casting Aid	743A9	
• Pivot Point Adjustment Aid	743A7	or
• Orthotic Alignement Aid	743A6	
• Orthotic Joint Alignment Set	743R6	

Additional Equipment

- cut-off Strip
- sliding Caliper
- meter Stick
- blue Pencil
- scissor
- LASAR Posture 743L100

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1.

2.

3.

- Recommended is the 3-stage casting technique
  - particular consideration of the foot bed and foot to shank positioning
  - corrective positions can be made for each segment separately

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- 1. : Foot
- Define effective heel height and adjust foot casting aid
- Adjust forefoot wedge to the proper position for rollover edge and toe pitch (rollover edge parallel to knee axis)
- Apply stocking and cut strip to foot and leg, and form foot bed using 2 or 3 inch fiberlass cast tape doubling back around heel so anterior ankle is not too thick.
- Position the foot on the foot casting device in the corrected/support position.
- Make corrections to the foot fiberglass negative if necessary, mark first and fifth metatarsal heads with blue pencil
- Position foot on the foot casting device

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2.

- : Shank

- Secure the foot bed to the foot with fiberglass bandages making sure to minimize thickness over cut strip and incorporate plantar heel to key in foot bed to calf section.
- Continue with the fiberglass bandages in the area of the foot and lower leg and position the leg in a 90°angle to the foot
- Adjust for anatomic external rotation of the foot and align the lower leg in the sagittal/frontal plane

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3.

- : Thigh

- Once the lower leg plaster has set, bring the patient into a reclining position
- Position the knee joint in the physiological 0-4° flexion and continue with the fiberglass cast
- To achieve good stability in the fiberglass cast start at mid calf lateral to the cut strip to minimize thickness over cut strip.
- Loosly wrap up the thigh with minimal overlap and then wrap back down the thigh ending at the same place on the calf that you started.

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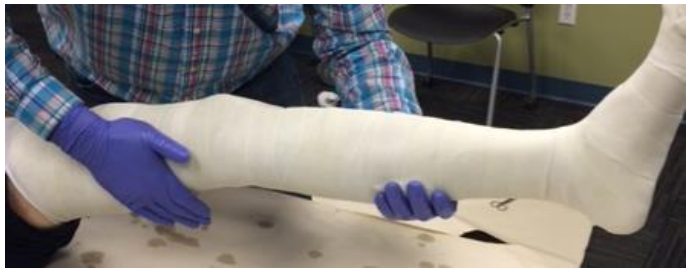

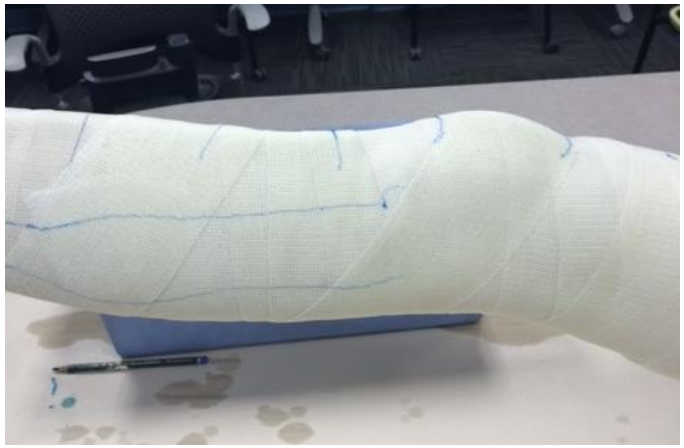

3.

- : Thigh

- Reduce all deformities in all 3 planes as much as possible
- Observe a physiological sagittal knee position for the patient and prepare for an additional molding grip, if needed (e.g. medial supracondylar support)
- Secure the knee joint until the plaster has set
- Make crosswise markings on the fiberglass as well as lengthwise markings at ankle and knee where fiberglass sections meet. Remove the cutting aid, grease the plaster cast scissors if needed and carefully cut open the fiberglass cast.
- Carefully open the fiberglass cast and lift out the leg

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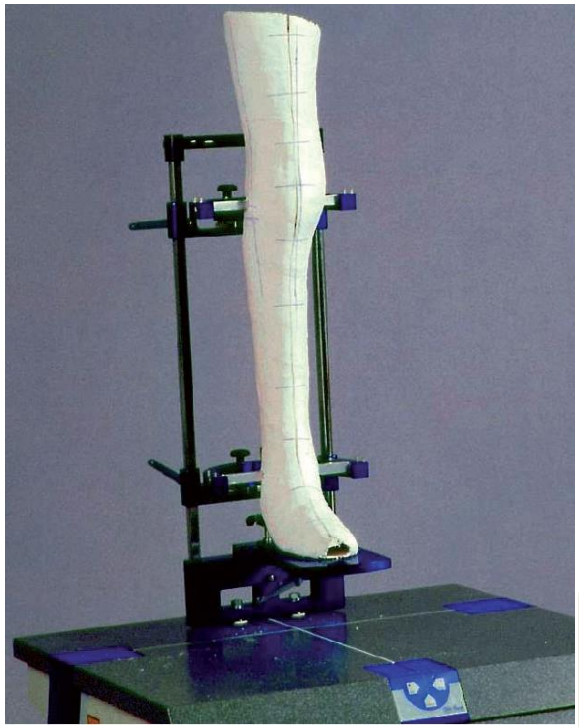
Negative plaster cast



- We recommend the orthotic alignment aid 743A6 to align and position the joint axis
- Determine the pivot points according to the measurements taken
- As joint adapters the **743Y55** Alignment Axis of the **743R6** Joint Alignment Fixture for orthosis joints should be used

Advice: Pay attention to the effective heel height and wall thickness of the plaster cast while transferring measurements to the alignment aid!