

TOWNSEND Custom Bracing from Casts, Scans, Traces and Measurements

More than 90% of the custom braces Townsend fabricates are made from a cast mold of the patient's leg. We individually seal and fill the cast to create a positive impression of the patient's leg. We hand modify the patient model based on information provided to us about the patient (height, weight, age, medical condition, physical activities/goals). This allows us to make a genuine custom brace that fits like a glove and functions better than other more "generic" custom braces. In recent years, Townsend Design has responded to market demand for alternatives to casting. To satisfy medical professionals' needs for faster, less expensive methodologies, many of our custom products can now be ordered from a leg tracing or digital leg scan. Custom aluminum frame knee braces can be ordered using the Townsend Measurement Device. The information, below, describes our casting protocols. There are also summary descriptions of alternatives you may choose to use when ordering certain bracing products from Townsend Design. Our goal is to offer you tools and processes that best meet your needs and the needs of your patients.

Detailed casting instructions can be downloaded from Townsend's web site, or can be sent by email or fax to your office. Please go to www.TownsendDesign.com or call 800.840.2722 for assistance.

KO Casting Summary

Cast non-weight bearing with the patient's leg in full extension. Cast length must exceed the length of the brace you are ordering by a minimum of one inch at each end. Apply stockinette and place a cutting strip or tubing down the posterior aspect of the leg. Mark all landmarks with indelible pencil. Use elastic plaster for the first wrap as it captures the contour of the limb. An additional three layers of standard rigid plaster should follow. If you use synthetic casting material, the cast should be wrapped at least two layers thick. Lightly compress the M-L dimensions of the patient's leg. Cut cast off from the posterior aspect of the leg to avoid interference with the brace trim lines. Write the patient's name and your office phone number on the cast. Let the cast dry adequately and use packing material to avoid distortion or damage during shipping. Note: Townsend grades each cast. Cast that receive a "D" or "F" rating may be rejected to avoid fabrication of a brace that will not fit and/or function properly.

Custom Elbow Brace Casting Summary

Cast with the arm in a natural hanging position at the side of the body, which places the elbow in about 25 degrees of flexion. The forearm should be parallel to the side of the leg. The cast should extend from just proximal to the wrist up to the arm pit -- or at least 6 inches above and below the elbow joint. The cutting strip should run down the anterior of the arm through the cubital fold. The following landmarks should be outlined in indelible ink: Olecranon, medial and lateral Humeral Epicondyles, Cubital Fold and proximal and distal margins of the brace.

KO With Distal Lateral Extension Casting Summary

If you are ordering a functional or OA knee brace with a single strut extension and heel cup for suspension or rotation control, please refer to the KAFO casting instructions.

KAFO & AFO Casting Summary

(KAFO) Apply stockinette from the groin to the foot, making sure there is coverage one inch above the length of the thigh shell you are ordering. Be sure the stockinette is wide enough to avoid any "sausaging" of the leg. Place a piece of latex tubing under the stockinette down the anterolateral aspect of the leg, beginning at the proximal thigh and extending onto the dorsum of the foot. Outline bony landmarks on the stockinette. Use

SYNTHETIC CASTING MATERIAL ONLY. The cast should be wrapped at least three layers thick. Take a weight bearing cast and apply posting. The foot and ankle complex, at least, must be casted under weight bearing conditions so that the foot spreads adequately, and the subtalar joint assumes its proper weight bearing attitude. If a heel or forefoot post is desired, the leg must be casted with the appropriate post attached to the cast. Cut the cast off along the tube and remove it from the leg without distorting the shape, and tape or staple it back together. Write the patient's name and your office phone number on the cast. Let the cast dry adequately use packing material to avoid distortion or damage during shipping. Note: Townsend grades each cast. A cast that receives a "D" or "F" rating may be rejected to avoid fabrication of a brace that will not fit and/or function properly. **(AFO)** Follow the same basic instructions as indicated for KAFOs (cast below knee only). Make sure the weight-bearing cast exceeds the requested footplate length and tibia shell height, and that required posting is accomplished at the time of casting. Use **SYNTHETIC CASTING MATERIAL ONLY.**



Tracing Device

The Townsend Tracing Device can be used to order Premier, Premier Reliever, RebelPro, Rebel Reliever and RelieverOne custom knee braces. Technicians create a patient model from metal shells that is used to fabricate the brace (see picture, left). For additional information, speak with your Townsend representatives or call 800.840.2722.



Digital Leg Scans

Townsend has a Medico carver and can accept digital AOP files for KOs, and OP3 files for KAFOs and AFOs. If you have a device that allows you to scan a leg, please call us for instructions on how to submit a digital file by email to Escan@townsenddesign.com



Townsend Measurement Device

For detailed information about this new measurement device that can be used to order Townsend's custom aluminum frame braces (RebelPro, RebelLite, Rebel Reliever and RelieverOne), please contact your Townsend representative or call 800.840.2722.