

Full Shell Series



Medical Professional Instruction Guide

Information to assist the patient has been provided with the brace. We encourage you to review the Patient Fitting Instructions with the patient during the initial fitting, as well as instructions regarding the use and care of the brace.

The Air Townsend custom knee brace is relatively easy for the patient to learn to put on. The most important aspect is the position of the hinges at knee center. On braces made with Townsend's TM5+ Hinges, the axis is not the center of the hinge, it is actually posterior to the center of the hinge. This axis should be positioned just posterior to midline, and aligned with the upper third of the patella. When instructing patients, it is always better to tell them to put the brace on too high than too low.

It is also important to check to see that the mediallateral width between the hinges has been set properly during fabrication. Ideally, for braces made without condylar pads (Original Hinges), the hinges shouldn't be more than 1/16 to 1/8 of an inch from the side of the knee when the leg is in full extension. For braces made with TM5+ Hinges, the condylar pads should be providing contact and slight pressure on both sides of the leg. You can use thicker condylar pads that come with the brace to snug up the M-L pressure as needed.

Any strap or strap pad that is too long should be cut to an appropriate length during the initial fitting. It is best to leave the straps a little long. Over time as the strap fibers begin to wear down, the patient can cut the straps slightly shorter and the hook tab will adhere to fresh fibers.

If the physician has requested any limitation to range of motion, please refer to the instructions below which describe the process for adjusting extension and flexion stops. If the brace was fabricated with Original Hinges, please refer to the instruction card that ships with the brace for adjusting extension and flexion stops.

Extension Stop Instructions (An extension stop kit ships with every brace.)

At the time of fabrication, a zero degree extension stop has been installed in the TM5+ Hinge. To install a different extension stop, follow these instructions:

- 1) Twist off the desired stop from the nylon stop tree....
- 2) Remove the screw located on the side of the hinge.
- **3)** After removing the screw, flex the brace and remove the zero degree stop from the hinge. Note the direction the stop is facing.
- 4) Insert the desired replacement stop, hole end first, with the hook end at the top and facing forward. Straighten the brace to full extension to push the stop down into position. The small hole in the stop must be aligned and visible through the screw hole so the screw will thread into the stop.
- **5)** Reinsert and tighten the screw. Flex and extend the brace several times to ensure the stop is locked into position and functioning properly.

Flexion Stop Instructions (Flexion stops are an optional accessory item.)

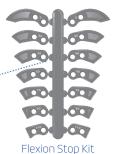
To limit the degree of flexion, detach the desired stop from the metal tree. Each stop has the degree etched into the surface.

- 1) If you are installing the 0, 30, 45, 60, 75, 90 or 110 degree flexion stop, remove both screws from the posterior aspect of the hinge cap and take out the spacer that was installed at the factory. Insert the stop with the flat end facing up and position it so that both holes in the stop are visible through the screw holes in the cap. Thread and tighten the screws through the cap and into both holes in the stop.......
- **2)** Flex the brace until the upright contacts the stop to ensure it is functioning properly.













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Patient Instruction Guide

The medical professional providing your brace will supervise your initial fitting and provide general instructions for how to put on the brace. Please refer to these illustrations each time you put on your brace until you are sure you remember how to properly apply the brace to your leg.

The medical professional fitting your brace is responsible for assessing the initial fit and function of your brace, and will return the brace to Townsend Design if any adjustments are needed. If you experience any skin reactions, loss of circulation, unusual knee pain or other complication you think may be associated with the use of this product, stop wearing the brace and call the medical professional who prescribed and/or fit your brace.

Undersleeve & Protective Cover

Your Townsend brace is designed to be worn directly against the skin. An undersleeve may be ordered to put on or under your brace which may make the brace more comfortable. Wearing an undersleeve can, however, cause sweating, make it harder for you to bend your leg, or cause the brace to slip down your leg. If you intend to wear your brace for contact sports or activities that may expose the brace to objects that could damage the shells, we recommend that you speak with the medical professional who fit your brace about ordering a protective cover that fits over the brace.

Caring For Your Brace

Lubrication: The hinges on your brace may need to be lubricated periodically, especially if your brace has been exposed to water, dirt or sand. Squeeze a couple of drops of a teflon-based lubricant like Tri-Flow (available at hardware stores) into the inner surfaces of the hinge and flex the brace back and forth. Wipe away any excess lubricant.

Cleaning: The lining inside the shells of your brace should be wiped dry after each use. You can also clean the surface with a mild solution of water and a liquid detergent. Wipe off with a clean sponge and let the liner dry (do not use a hair dryer).

Warranty

Under normal use and conditions, the shells and hinges on your brace are covered by a lifetime warranty against defects or breaking. Straps, hinge covers, and other replaceable parts are covered for six months. Free remolding service (to make fitting adjustments) is provided for six months from the date of manufacturing. If you experience a problem with the fit or function of the brace, please call the medical provider who ordered your brace.

Product Disclaimer

This brace is a prescription product that should be used in accordance with the directives of your physician as part of a treatment plan for managing your total health. While this type of brace has proven beneficial to many patients, outcomes will vary based on factors including patient age, general health, and/or lack of compliance with instructions for how to put on and use the product. Because of variations in the health and condition of each patient, Townsend Design also does not make any specific recommendations regarding appropriate activities for the user of this brace. While a Townsend custom functional knee brace may aid in decreasing the risk or degree of injury to the leg for which it is fabricated, Townsend Design cannot and does not guarantee that the brace will restrict all instabilities or prevent injuries — especially as the intensity of physical activity increases. Contact and high velocity sports are inherently dangerous and create a higher risk for injury.

Fitting Instructions



Sit in a chair with your leg bent at a 45 degree angle. Position the brace on your leg so the hinges are centered at the upper third of the patella (knee cap). It is always better to put the brace on too high than too low.



Begin by tightening the Synergistic Suspension StrapTM. This strap, which is closest to the hinges on the lower portion of your brace, should be positioned in the flexion fold behind your knee on top of your calf muscle. Note: The comfort pad on the inner side of this strap MUST be peeled back and cut if it prevents you from tightening the strap securely.



Tighten the bottom calf strap to secure the lower shell to your leg.



Tighten the two thigh straps to finish securing the brace to your leg.

General Positioning Instructions

The Townsend Motion Hinges on your brace mirror the anatomical motion of your knee. It is very important for the hinges to be properly positioned the center of each hinge should line up with the middle to upper third of the knee cap. It is better to put the brace on a little too high than too low. It is also important to make sure the hinges are set approximately in the center of the side of your leg.



