



THUASNE

Premier Reliever



## Medical Professional Instruction Guide

This Premier Reliever was fabricated according to your instructions and the order form you completed. A base level of correction was built into the brace during fabrication. To ensure the brace fits and functions properly, we recommend that you review the following instructions for fitting and adjusting the brace. If you have any questions or need technical assistance, please call Townsend Design's Repair Department, 800-432-3466, or ask to speak with a Premier Department Fabrication Manager.

- 1) Ambulate the patient, preferably with the patient wearing shorts or a gown so the leg is visible. As the patient walks, note any changes to leg angulation (thrust, misalignment) when the patient's body weight is fully on the leg you are bracing.
- 2) Seat the patient on the edge of a chair, open all straps, and with the patient's leg bent at approximately 25-40 degrees of flexion, apply the brace to the leg (see fitting illustrations and instructions on the patient information form).
- 3) Because the hinges on Townsend braces are anatomically correct and carefully aligned at knee center during fabrication, it is important during the fitting procedure that the hinges be properly positioned on the leg at knee center. Townsend Design defines knee center at the apex of the lateral condyle. The patient should be instructed to center the joints at or above the middle to upper third of the patella. When the hinges are properly aligned with knee center, the bands and uprights should have full contact with the leg.
- 4) While no specific strapping order is required, we recommend that you teach the patient to begin with the Synergistic Suspension Strap. This is the posterior tibia strap that is closest to the back of the knee. This strap should be tightened securely in the flexion fold behind the knee. This strap is the primary means of suspending the brace. As is the case with all straps, you can shorten this strap as needed by removing the alligator hook tab, cutting the strap to the desired length, and reapplying the hook tab. You may also need to shorten and center the comfort pad that is attached to this strap.
- 5) If the brace you are fitting has a double band tibia shell, skip to step 6. For single tibia band braces, you may need to adjust the anterior tibia strap. There is an important relationship between the Synergistic Suspension Strap and this anterior tibia strap. The primary function of this strap is to ensure that the hinges are not pulled too far anterior or too far posterior. You can tighten and trim this strap (and the strap pad) as needed so that the axis of rotation of the hinges is at midline or just posterior to midline. Once this strap is set, the patient should be instructed to leave it closed, as it is not necessary to loosen this strap to remove the brace from the leg.
- 6) Tighten the remaining straps in any order, making sure the hinges are at knee center and the shells are in full contact with the leg. Remove the alligator tab and cut any strap that is too long.
- 7) Ambulate the patient, noting any change in the thrust or misalignment of the leg. Seek verbal feedback from the patient regarding how the brace feels. Ask the patient if he or she feels the corrective force and if the brace is reducing pain (if the patient routinely has pain when ambulating).
- 8) If you or the patient feel it is necessary to increase the corrective force that was built into the brace, or if you need to adjust the range of motion of the hinges, please follow the steps indicated on the reverse side of this instruction guide.
- 9) Have the patient reapply the brace to his or her own leg to demonstrate his/her understanding of the positioning and strapping of the brace.
- 10) Ambulate the patient again to determine patient satisfaction and comfort with the adjustments. Instruct the patient to initially wear the brace from 2-4 hours a day when doing activities that typically cause the greatest degree of discomfort. Reschedule the patient for a follow-up visit within 30 days, or instruct the patient to call if he or she has any questions or problems with the fit, comfort or function of the brace. NOTE: We generally recommend that increases to corrective force (SEE INSTRUCTIONS ON REVERSE SIDE) should be made by a medical professional, not the patient. Use your judgement in giving the patient instructions on how to adjust his/her own brace.

### Resolving Initial Fitting Issues:

If there is an initial problem with the fit of the brace, the hinge alignment, or the amount of correction, please call Townsend Design's Repair Department (800.432.3466) before the patient leaves your office. If the brace needs to be returned to Townsend Design for adjustments, a new cast, leg tracing or digital leg scan may be required.

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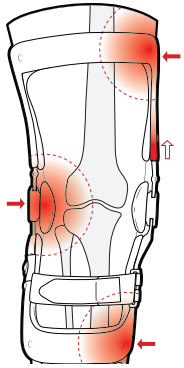


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## Adjusting Corrective Force

A base level of correction is built into this custom brace during fabrication. The rigid superstructure – combined with the initial correction – will generally maintain the leg in a more neutral alignment and help redistribute load away from the damaged compartment. Your decision to increase correction should be based on your assessment of

the initial fit and the patient's need and/or desire for additional correction. Please be cautious about over-correcting the patient, which could apply more pressure than the patient can initially tolerate.

### For braces fabricated with Townsend's Loadshifter relief mechanism

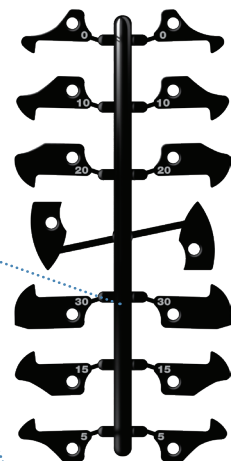
The LOADSHIFTER will allow you to change the angle of the thigh shell, which will apply additional corrective force to the femur and also increase the counter force applied at joint line and at the distal end of the brace. Locate the Allen head screw that secures the thigh shell to the LOADSHIFTER mechanism (this screw will be positioned about one inch above the top of the hinge on the same side of the brace as the affected compartment). Loosen the screw, and at the same time, loosen the two thigh straps to allow the shell to slide up the leg. Slide the thigh shell up, which will "shift" the angle of the femoral section of the brace. At its highest point, the shell will increase about 3/4 of an inch in length with a maximum angle change of approximately eight degrees. Most patients will probably not need this much additional correction, so you may want to start by sliding the shell only part way up the slot. The amount you increase corrective forces depends on patient feedback and your evaluation (soft tissue, severity of OA, leg angulation, etc.). Be cautious about applying too much initial correction as the patient may not be able to comfortably tolerate the maximum adjustment you can make to the brace. Retighten the Allen screw and thigh straps. NOTE: You may need to trim the distal end of the thigh shell pad to the appropriate length.

**You can also increase corrective force by installing a thicker condylar pad (included with the brace) on the hinge opposite the affected compartment.**

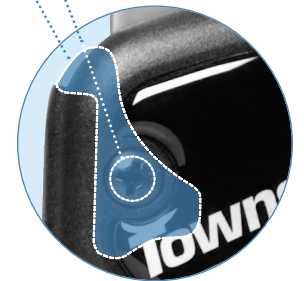
### Extension Stop Instructions (An extension stop kit ships with every brace.)

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.

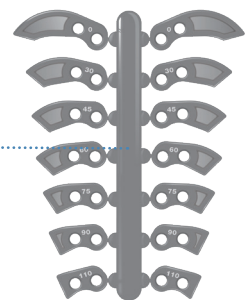


Extension Stop Kit



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

- 1) To limit the degree of flexion, detach the desired stop from the metal tree. Each stop has the degree etched into the surface.
- 2) 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.
- 3) Flex the brace until the upright contacts the stop to ensure it is functioning properly.



Flexion Stop Kit

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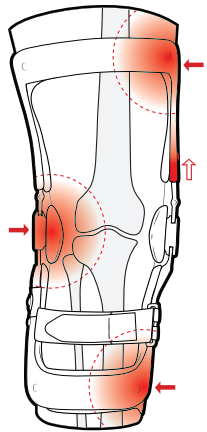
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## Patient Instruction Guide

The medical professional providing your brace will supervise your initial fitting and show you how to put on the brace. Please refer to these illustrations and instructions to help ensure you are putting your brace on properly.



### How the Premier Reliever Works

The Premier Reliever is custom fabricated with rigid graphite shells. The brace is designed to provide a three point pressure system (see picture, left). The corrective force applied to the leg is intended to maintain normal alignment (reduce abnormal angulation) and redistribute weight away from the damaged side of your knee. Relieving the load and maintaining a more neutral alignment of the leg generally relieves knee pain and reduces degeneration of the joint.

#### Patient Benefits

There are two primary benefits to be achieved from wearing your Townsend Premier Reliever. First, you should experience a reduction in pain. This should enable you to participate more freely in normal physical activities. Second, your brace should help slow down the continued degeneration of bones and tissues in your knee joint.

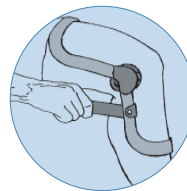
#### Recommendations

Carefully follow your physician's instructions regarding physical activities. Be careful, especially initially, not to overdo things. It may take several weeks to feel comfortable with the brace on your leg. We recommend that you initially wear the brace for only a few hours a day. Some patients feel immediate pain relief. For others, it can take several weeks to notice measurable benefits. You may experience mild aching in your knee joint as your leg muscles and ligamentous tissues stretch to allow the joint to open. If you experience severe pain that is hard to tolerate, develop skin irritations from the straps or pads, experience loss of circulation (tingling or numbness), stop wearing your brace until you see your medical care professional directing your care.

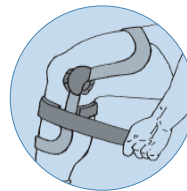
#### Adjusting Correction

During your initial fitting, the medical professional will make necessary adjustments to the base level of correction that was built into your brace. If you need additional correction in the future, we recommend you revisit the medical professional. You should only make your own adjustments to the corrective force if the medical professional in charge of your care has instructed you to do so. Too much correction can cause potential injury to your knee, and Townsend Design cannot be held responsible for problems or injuries resulting from unsupervised adjustments.

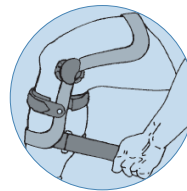
#### Fitting Instructions



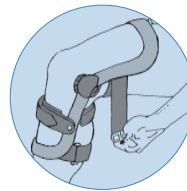
1) Tighten the Synergistic Suspension Strap while maintaining the hinges in the appropriate position. The strap should fit in the flexion fold behind your knee.



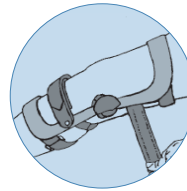
2) Tighten the front shin strap. Make sure the hinges remain at knee center and not too far forward or back on the side of your knee. **NOTE: Following the initial application, the front shin strap does not have to be undone each time you put on or take off the brace. Also, braces made with a double band tibia shell do not have this strap.**



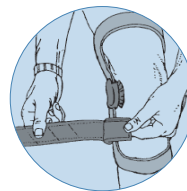
3) Tighten the bottom strap to secure the lower shell of the brace to your leg.



4) Next, tighten the two thigh straps on the upper portion of the brace.



5) Straighten your leg and retighten the lower thigh strap. Finally, stand and check to see the brace is properly positioned at knee center and the straps are all securely in place.



#### Shortening Straps & Pads

The straps on your brace can be cut to any length. During your initial fitting, you may need to trim any strap that is too long. Simply remove the Velcro hook tab at the end of the strap, cut the strap to the desired length, and reposition the hook tab. Be careful not to cut any strap too short.

Additionally, any comfort pads attached to the inside of the straps must be lifted off and cut shorter if they interfere with your ability to completely tighten the strap.

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## Care & Maintenance

**Hinge** – The hinges on your brace are pre-lubricated. If sand, dirt or water get inside the hinges, they may require periodic lubrication. If you notice the hinges not gliding smoothly, a few drops of a synthetic lubricant can be applied. You can purchase this type of lubricant at a hardware store.

**Straps** – The straps on your brace are nonelastic for maximum control. After considerable use, if the fibers on your strap do not adhere as well to the Velcro “hook” tab, if possible, cut the strap shorter so the Velcro hook tab adheres to a section of the strap that has fresher fibers. Otherwise the straps may need to be replaced.

**Pads** – Your brace is lined with padding that provides a comfortable interface between your leg and the shells. Certain straps may also have pads. Do not remove the pads from the brace or straps. Wipe the pads after each use to remove any moisture and let the pads air dry. You can also clean the pads with a mild anti-bacteria soap and rinse them off with fresh water. DO NOT wash pads in a machine or dry them with a blow dryer.

## Parts & Service

Comfort pads, condylar pads, hinge covers, straps and other parts on your brace may need to be repaired or replaced due to normal wear and tear. If your brace requires repairs or replacement parts, you should contact the professional who assisted you in ordering and fitting your brace. Certain parts are covered by a limited warranty.

## Undersleeves & Protective Covers

This brace is designed to be worn directly against the skin. Neoprene or cotton undersleeves may be ordered if you prefer to wear a sleeve under your brace. Wearing an undersleeve may enhance comfort, however, a sleeve can potentially cause the brace to slip down your leg. If you intend to wear your brace for high intensity sports (football, soccer, baseball, etc.) Or activities that may expose the brace to objects that could damage the painted shells, we strongly recommend that you speak with the medical professional who fit your brace about ordering a protective cover. A cover is also often required for team sports.

## Warranty Information

Under normal use and conditions, the shells and hinges on your brace are covered by a lifetime warranty against defects in craftsmanship and breaking. Straps, hinge covers, comfort pads and other replaceable parts are backed by a six month warranty. Free remolding service (to make fitting adjustments to your brace) is also provided for six months from the date of purchase. If you experience a problem, please call the medical provider that supplied you with the brace.

## Product Disclaimer

This OA 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 OA brace has proven beneficial to many patients with unicompart ment osteoarthritis, outcomes will vary based on factors including patient age, general health, severity of OA, and/or lack of compliance with instructions for how to put on and use the product. Townsend Design is a manufacturer, not a provider of patient care services. Townsend Design fabricated your brace based on the information provided to our company by the medical professional treating your condition. Since Townsend Design was not involved in your assessment, fitting or education, we cannot make specific guarantees this product will reduce your knee pain or joint degeneration. 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. Additionally, while a Townsend OA 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 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. If you experience any skin reactions, loss of circulation, unusual knee pain or any 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.

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