



THUASNE

RelieverOne



## Medical Professional Instruction Guide

Illustrations for fitting RelieverOne braces are included in the Patient Guide provided with each brace. Please instruct the patient to read this guide as it explains fitting instructions and general information about the brace.

- 1) The rigid aircraft aluminum frame on the RelieverOne will allow you to make subtle modifications to the shape of the brace to achieve a customized fit for the patient. Though our braces are fabricated with a durable powder coat finish, bending irons can scratch the finish so some soft interface must be used. Custom fabricated RelieverOne braces may not require adjustments. The hinge is carefully aligned during fabrication and must be positioned at knee center in order for the shells to fit appropriately.
- 2) The RelieverOne comes with a 3/8 inch thick foam condylar pad mounted on the TM6 hinge. Thicker condylar pads are provided that will allow you to increase the amount of corrective force at the joint line. Please see the reverse side of this sheet for instructions on increasing the force provided by the paddle.
- 3) If a strap needs to be shortened, the straps are reinforced and laminated so they can be cut to any length. To shorten any strap, simply remove the Velcro hook tab attached to the end of the strap, cut the strap, and reapply the hook tab. Please be careful not to cut the strap too short. The strap pads may also need to be shortened if a pad is too long and it prevents the strap from completely tightening. You can peel back, cut and center each pad as needed.

### Extension Stop Instructions

Setting Extension Stop: A removable 0 degree extension stop was installed during fabrication. A kit provided with the brace includes 5, 10, 15, or 20 degree extension stops and an Allen wrench. Follow the instructions (below) if you need to reduce extension.



Extension Stop Kit

The stop "tree" provided with the brace will be missing the "0" degree stop that was installed during fabrication. Select and twist off the stop you need (there are numbers on the stops indicating the degrees). **Note: Make sure there is not extra plastic hanging off the stop from where it was connected to the tree.**



Allen Screw

If you need to increase the extension stop, use the Allen wrench provided with the stop kit to remove the screw that is visible on the exterior of the hinge cover. This screw threads through the cover and into the stop inside the hinge to hold it in position. **NOTE: The screw must be completely removed from the hinge cover in order to remove and reinstall a new extension stop.**



Extension Stop Removal

With the brace flexed at 90 degrees, remove the existing 0 degree stop. **Note how it was positioned. Install the larger stop with the hook end at the top and facing forward (anterior). Extend the brace and the upper shell will push the stop into position. If the stop has been installed correctly, the hole in the stop will be aligned with screw hole in the cover. Reinsert and tighten the screw.**



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## Corrective Force Adjustments

The process for increasing corrective force is very simple. We would generally recommend the following procedure:

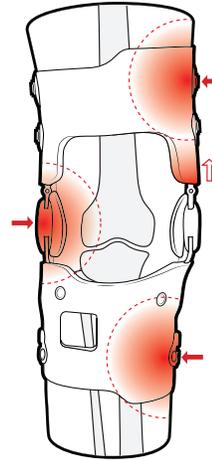


- 1) Step One Apply the brace to the limb. Shorten the straps and strap pads as necessary to ensure the brace is properly positioned and suspending on the limb.
- 2) Step Two Have the patient ambulate in the brace. If stairs are accessible, have the patient go up and down the stairs as well. Ask the patient how the brace feels. Does the patient feel more stability? Does the patient feel less pain? Does the patient feel correction from the brace?
- 3) If the patient indicates he/she is not feeling corrective forces, you can make adjustments to the brace.



- 4) Step Three Adjustments to the corrective force paddle should be made while the brace is on the patient's leg. Ideally, the patient should be sitting with his/her leg flexed when you make adjustments. You will need to loosen the top two straps of the brace before adjusting the position of the paddle.
- 5) Step Four There are two plastic caps located on the center strut that connects the body of the brace to the corrective force paddle. Remove these caps (they will easily lift off without a tool) to expose the adjustment screws. You should loosen all four screws using the tool provided in the adjustment kit.
- 6) Step Five When the lower set of screws are loose, you can move the paddle side-to-side. When the upper set of screws are loose, you can change the angulation of the paddle.

- 7) Step Six To increase corrective force, simply move the paddle in toward the leg so that it fits more intimately and provides more compression to the femur (thigh). After the paddle has been moved inward, you should angle the paddle to be flush against the side of the leg. This is important as you want the load to be dispersed evenly over as much soft tissue as possible.
- 8) Step Seven You, or the patient, can hold the paddle in the desired position while you tighten the four screws.
- 9) Step Eight Have the patient stand and walk. At midstance phase of gait, when the patient's weight is on the affected limb, they should feel the three-point corrective force being applied at the ends of the brace, and from the condylar pad.
- 10) Step Nine To increase correction and/or increase patient comfort, you can also take off the brace and apply a thicker condylar pad that is supplied with the kit.



## Three-Point Corrective Force

The RelieverOne is designed to apply a three-point corrective force to help maintain normal leg alignment and reduce load on the compromised side of the knee. The brace is shipped with the paddle in a neutral position. In some cases, the rigid superstructure of the brace provides adequate correction to keep the leg in a more normal alignment. In most cases, the patient may not feel adequate

correction and will require adjustments to the brace that increase the forces applied to the leg.

An adjustment kit is supplied with the RelieverOne. This kit includes condylar pads that can be substituted for the pad that is mounted on the hinge during fabrication. The kit also includes a tool for adjusting the position of the corrective force paddle. This paddle allows you to optimize compartment unloading and patient comfort. Increasing the corrective force applied to the femur will also increase the pressure applied by the condylar pad and at the distal end of the brace.



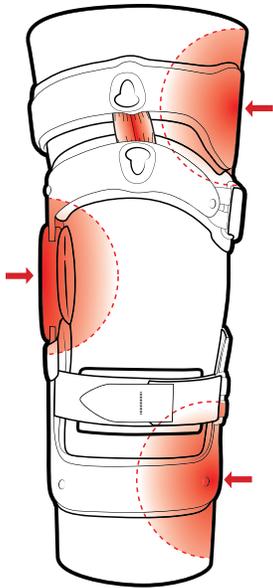
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## Patient Instruction Guide

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.



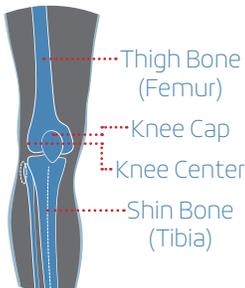
### How the RelieverOne Works

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### General Positioning Instructions

Position the brace on the leg so that the foam condyle pad, attached to the inside of the hinge, presses against the side of the knee. The middle of the pad should line up with the center to upper third of your knee cap. It is better to put the brace on a little high than too low. It is also important to make sure the condyle pad is set approximately in the center of the side of your knee when it is bent and not too far back (posterior) on the leg. When you fully straighten your leg, the pad will move further back on the leg (approximately 2/3 back from the front of your knee).

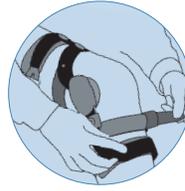


### Fitting Instructions

To start: RelieverOne braces should be applied sitting in a chair with your leg bent at approximately 45 degrees of flexion.



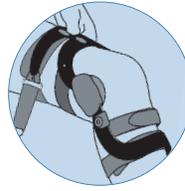
1) While keeping the hinge and condylar pad centered on the side of your knee, tighten the synergistic suspension strap. It should be positioned in the flexion fold on the back side of your knee, on the top of your calf muscle. **Note: The rubber padding on this strap can be peeled back and cut shorter if it prevents you from tightening the strap securely. This is the most important strap for keeping the brace secure on your leg and preventing it from slipping down.**



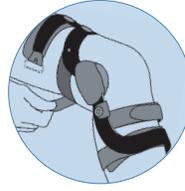
2) Next, tighten the anterior (front) shin strap. Be certain that the brace hinge remains in the proper position in the center of the side of your leg and does not move too far forward as you tighten the strap. **NOTE: Because this strap sits on the front of the leg, you do not have to open this strap each time you apply or take off your brace. Following the initial application, it should be left closed to aid in positioning the brace.**



3) Tighten the distal (bottom) calf strap to secure the lower tibial band to the leg.



4) Next, tighten the two thigh straps to secure the brace to the leg.



5) As a final step, the lower thigh strap should be retightened with your leg in full extension (straight) to achieve maximum control.



6) The straps on your RelieverOne brace can be cut to any length. Be especially careful not to cut any strap too short. If you do, it may have to be replaced. Strap pads can also be cut shorter if they prevent the strap from being tightened.





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## Patient Benefits & Physical Activity

There are two primary benefits to be achieved from wearing the Townsend RelieverOne. First, you should experience a reduction in pain. This should allow you to increase your physical activities. Second, the brace will help slow down the degeneration of your knee joint.

The pain relief you experience may make you feel like walking farther and doing more physically strenuous 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. 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, skin irritation or numbness, you should stop wearing your brace and contact the medical care professional directing your care.

Carefully follow your physician's instructions regarding physical activities. If you are provided the tool for increasing the angulation of the corrective force paddle, please do not move the paddle too much -- as too much force could cause other tissues in your knee to be stretched and injured. Contact the medical professional who fit your brace if you have any questions or experience any problems.

## Care & Maintenance

**Hinge** – The hinge on your brace is pre-lubricated. If sand, dirt or water get inside the hinge, it may require periodic lubrication. If you notice the hinge is not gliding smoothly, two drops of a synthetic lubricant is sufficient. You can typically purchase this type of lubricant at a hardware store. Apply the lubricant and move the hinges back and forth.

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

**Pads** – Soft synthetic nylon pads inside the shells act as a comfortable interface between your leg and the brace. Do not remove the pads from the brace. You should wipe off any moisture (water or sweat) on the pads after each use and let the pads air dry (do not wash pads in a machine or dry with a blow dryer).

## Parts & Service

Comfort pads, foam condylar pads, straps and strap pads may need to be replaced periodically based on use and wear. Charges may be waived for parts under warranty. For any repairs or replacement parts please contact the professional who assisted you in ordering and fitting your brace.

## Warranty Information

The superstructure (aircraft aluminum frame) and hinge on your RelieverOne brace are covered by a one year limited warranty against defects in craftsmanship. This warranty provides repairs of non-cosmetic damage to the brace that occurs under normal use and conditions. A protective cover should be worn over the brace for sports and activities that could damage the finish of the brace. Straps, comfort pads and other replacement items are covered by a six month limited warranty. If you experience a problem, you should 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 unicompartment 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.