About the Brace

The Dynamic Reliever is a semi-rigid, single hinge decompressive off-loading knee brace for the treatment of moderate to severe Medial Compartment OA. This is a prescription product that should be fit by a qualified provider. This brace is not intended for contact sports, extreme sports or other activities that pose a risk of injury to the user or damage to the brace. Disclaimers, use and care instructions and warranty information are provided in the Patient Instruction Guide.

The Dynamic Reliever features patented technology (telescoping Townsend Motion Hinge, adjustable tibia bolster and tool-less interchangeable shells) and a lightweight 15 oz. structural design intended to prevent brace migration and optimize patient comfort and compliance. Similar to Townsend’s other Reliever Series OA knee braces, the Dynamic Reliever utilizes an adjustable three-point pressure system to provide alignment support and off-loading of the affected compartment. Adjustment of the correct force easily accomplished by turning the dial positioned right above the hinge.

Indications

• Moderate to severe medial osteoarthritis of the knee.
• Pathology of the medial compartment of the knee requiring off-loading.
• Post-operative offloading of the medial compartment of the knee (e.g. articular or meniscus cartilage defect repair, osteochondral defect repair).

Contra-Indications

• Do not place the product directly in contact with damaged skin.
• Patients with severe arterial insufficiency.
• Patients with severe varicose veins preventing the regular use of an offloading brace.
• Allergy to one of the components.
• Severe cognitive and/or psychiatric disability.

Adverse effects

There are no known adverse effects when the product is used correctly.

Fitter Responsibilities

• Determining if the patient is an appropriate candidate for the brace. Patients who have a prior history of skin sensitivity or rashes, peripheral vascular disease or neuropathy may not be suitable candidates or should be cautioned to discontinue use of the brace if they experience any issues.
• Assemble the upper and the lower shell of the brace and place the plastic cover on the lower shell to prevent access to the disassembling mechanism.
• Assessing and/or confirming the thigh and tibia shell fit intimately on the leg. The self-conforming semi-rigid shells simplify this process.
• Adjusting the position of the tibia shell bolster to help prevent the brace from rotating on the leg. The tool-less blue latch can be released to allow you to move the bolster to fill the void between the shell and flatter medial side of the tibia. Closing the latch locks the bolster in position.
• Adjusting the length of the posterior straps and setting the tension of the two anterior straps.
• Adjusting the corrective force to optimize comfort and pain relief. The correction can be adjusted by using the dial positioned right above the hinge. This tool-less adjustment can increase correction by changing the hinge angle up to 20º.
• A thicker condylar pad can be installed.
• Teaching the patient how to correctly position the brace on the leg, and how to attach and modify the tension of the straps to secure the brace and prevent migration. The Speed Klip buckles and adjustable strap ends make this easier for you and the patient.

Disclaimer

Because the manufacturer has no role in patient selection, fitting and adjusting the brace, instructing the patient, and/or monitoring patient use and compliance, there can be no guarantee that every patient will experience the same results and benefits. For reasons of hygiene and performance, do not reuse the product for another patient.
Fitting and adjustment (instructions for braces ordered unassembled)

Please review and follow the patient instruction guide to fit the brace. The additional fitting instructions, below, will help you adjust the brace during the initial procedure.

1. Assemble the product

Facilities that maintain an inventory of unassembled components can measure the patient, and without any tools, connect the appropriate size thigh and tibia shell to the hinge to fit the patient with a “custom assembled” brace.

* Take measurements of the patient’s leg, six inches above and below the knee, and refer to the sizing chart to select the appropriate size and leg (left or right) for the thigh and tibia shells. The Dynamic Reliever is only meant to offload the medial compartment of the knee, and the hinge must be on the lateral side the leg.

<table>
<thead>
<tr>
<th>Size</th>
<th>Thigh Circumference 6” Above Mid Patella</th>
<th>Calf Circumference 6” Below Mid Patella</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14 – 18 inch</td>
<td>11 – 14 inch</td>
</tr>
<tr>
<td>2</td>
<td>18 – 24 inch</td>
<td>14 – 17 inch</td>
</tr>
<tr>
<td>3</td>
<td>23 ½ – 28 inch</td>
<td>17 – 19 inch</td>
</tr>
</tbody>
</table>

* Slide the tibia shell onto the lower end of the hinge assembly. The shell will “click” and lock into place (see Figure 1).
* Place the grey plastic cover that came with the lower shell onto the area where you can access the latch to remove the lower shell. First place the lower end of the cover into the lower open square of the shell. Then push the upper end into place until you hear a click. This plastic cover will prevent the patient from disassembling the brace (see Figure 2).

PRODUCT DISASSEMBLY: If you need to remove the lower shell once the product is assembled, you can remove the plastic cover by pinching the locking mechanism below the pad and the strap. Then, you need to push down the triangle-shaped lock on the shell at the same time you are pulling the hinge.

2. Evaluation of initial pain

Assess the level of pain felt by the patient in order to assess the efficacy of the knee brace once it is fitted.

3. Placing the brace on the knee

Loosen all the straps of the knee brace by pressing on the centre of the blue buckles and loosening the hook and loop tabs. Have the patient sit on the edge of a chair and then place the knee brace on the naked leg with the knee flexed at approximately 30-60°. Ensure that the device size is appropriate by checking that the femoral (thigh) and tibial shells fit snugly to the patient’s morphology. If this is not the case, repeat the measurements and select the appropriate size (see size chart above).
4. **Fitting the knee brace**

   - Adjust the position of the tibia shell bolster to prevent the rotation of the knee brace on the leg. Open the blue latch, arrange the tibia shell bolster to fill the space between the shell and the flat part of the tibia and when it is correctly positioned, close the blue latch (see Figure 1).
   - Clip the suspension strap (A) and then tighten it so that it is placed above the calf muscle just below the crease in the back of the knee. It is sometimes necessary to press on both sides of the tibia shell to help tighten the suspension strap.
   - Next fasten the anterior tibia strap (B). Do not over-tighten it. This strap helps to position the hinge and condylar pad at midline of the side of the knee, or just posterior to midline. It is important for the condylar pad to be fully contacting the side of the knee. The position of the hinge can be modulated by adjusting straps A & B (see Figure 2).
   - Clip and then tighten the lower strap C, then the two straps that tighten around the back of the thigh (D and E). Finish by fastening the anterior thigh strap (F) (see Figure 3).
   - The knee brace straps are the appropriate size to adjust to the patient’s morphology and are not meant to be cut. If one of the knee brace straps is too short or too long, the universal strap supplied in the box may be substituted. This universal strap has defined areas where it can be cut to the appropriate length.

5. **Check the fitting and initial corrective force**

   The Dynamic Reliever knee brace is pre-adjusted at the factory to apply an initial level of corrective force. This is accomplished by a slight bend to the upper portion of the hinge bar. Have the patient walking normally and look straight ahead. Ask the patient to compare the pain level wearing the brace with the patient’s pain level before fitting.

6. **Modification to the corrective force**

   If the patient does not feel there is enough corrective force, the level of correction can be modified in three ways, two of which can only be done by a medical professional:

   - By turning the self-dosing-dial situated right above the hinge, you can add up to 20° of additional correction. Turning the dial to the left (clockwise) increases the correction. Turning the dial to the right (counter clockwise) decreases the correction. During the adjustment procedure, the buckles for the thigh straps need to be detached.
   - Use the thicker condylar pad supplied with the knee brace. The brace must be removed from the leg to install the thicker pad.
   - Refit the knee brace; ask the patient to walk as before and assess his/her pain level. Repeat the operation of increasing or decreasing the correction until it is satisfactory and optimal for the patient.
Flexion / extension control

The Dynamic Reliever knee brace is pre-set during fabrication to limit the knee extension to 0°. To modify this adjustment, alternative extension stops are supplied on a plastic tree in the box (See Figure 1). Some braces are also ordered with alternative flexion stops, which are optional.

Extension stops: 0°, 5°, 10°, 15°, 20°, 30°
Flexion stops: 0°, 30°, 45°, 60°, 75°, 90°, 110°

Adjustment of the extension stop

1. Select the desired extension stop from the plastic tree.
2. Remove the screw located on the front side of the hinge that passed through the stop.
3. Flex the hinge slightly and remove the existing extension stop. Take care to note the direction this stop is facing.
4. Insert the new extension stop, hole end first with the hook end at the top and facing forward. Straighten the hinge to full extension to ensure the extension stop is in the correct position. The hole in the extension stop must be aligned and visible through the screw hole.
5. Reinsert and tighten the screw. Flex and extend the brace several times to ensure the stop is locked and functioning properly.

Adjustment of the flexion stop

1. Select the desired flexion stop from the plastic tree.
2. Remove the 2 screws from the back of the hinge and remove the spacer installed at the factory. Insert the stop with the flat part facing up and position it so that its two holes are visible through the screw holes in the cap. Thread the screws through the cap and into the two holes in the stop and tighten them.
3. Flex and extend the brace several times to ensure the stop is locked at the desired angle.
**Patient Instruction Guide**

The medical professional who performed the initial fitting of your knee brace should make all the necessary adjustments. This may include adjusting the condylar pad, modifying the length of the straps, and positioning the tibial shell boister. The fitter should also explain how to put on your brace. While the process is relatively simple, you are encouraged to refer to the instructions below to adjust the correction of the brace and ensure you are putting the brace on correctly.

**Fitting Instructions**

1. Disconnect the 4 straps at the back of the knee brace by pressing on the center of the blue buckles.
2. Sit on the edge of a chair and bend your leg slightly (30° to 60°).
3. Place the knee brace on your leg so that the condylar pad attached to the inside of the hinge presses snugly against the side of your knee. The middle of the pad should be slightly higher than the middle of the knee cap.
4. Insert the blue buckle to fasten the 2 straps at the back of the calf (A and C) starting with the upper strap (A), then fasten the 2 straps at the back of the thigh (D and E) starting with the lower strap (D). You can then retighten these straps individually with the help of the hook and loop tabs.
5. You can also tighten the thigh strap (F) on the front of the leg to increase the corrective force. Note: You should not need to adjust the front tibia strap (B), as this strap should have been adjusted by the fitter. If this front tibia strap (B) is too loose or too tight, you can adjust it.

**Removing the knee brace:** Release the 4 straps that go around the back of the leg by pressing on the center of the blue buckles. We recommend that you close these buckles when you store the product. You do not need to release the front straps to take off the brace.

**Initial Use Of The Brace:**

Carefully follow your physician’s instructions regarding your physical activity. 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.

**Adjusting The Correction**

During your initial fitting, the fitter should have made adjustments to obtain a base level of corrective force. If you need to adjust the correction in the future, you can use the dial above the hinge.

- Turning the dial to the left (clockwise) increases the correction.
- Turning the dial to the right (counter clockwise) decreases the correction.

If this adjustment is not sufficient, please refer to the Medical Professional who fitted the brace for additional adjustments.

**Precautions**

- Follow the recommendations of the healthcare professional who prescribed or supplied the product. In case of discomfort or hindrance, or any unusual reaction during the use of the product, remove the knee brace and consult your healthcare provider.
- Restrict yourself to physical activities authorized by the doctor based on your physical condition.
- Store your brace at room temperature. Do not leave the brace in the trunk of your car or other high temperature areas. Townsend Design cannot be held responsible for problems or injuries resulting from any unsupervised adjustments.

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Care and warranty

Care Of The Knee Brace

- The shells, buckles, straps, comfort pads and condylar pads may be washed with a mild soap, rinsed with water and air dried (do not use a tumble dryer). Do not remove the comfort pads that are attached to the inside shells of the brace.
- If necessary, you can lubricate the hinge with a synthetic lubricant.
- Do not allow the knee brace to be exposed to salt water. If this happens, wash the brace thoroughly with fresh water as soon as possible.

Parts and Service

Comfort pads, condylar pads, the hinge cap, straps and other parts of the brace may need to be repaired or replaced due to normal wear and tear. If this is the case, you should contact the professional who assisted you in ordering and fitting your brace. Certain parts are covered by a limited warranty (see information below).

Warranty

Under normal use and conditions, the shells, buckles and hinge of the knee brace are covered by a one-year warranty against defects or breaking. Straps, comfort pads and condylar pads are covered for six months. If you experience a problem with the function of the brace or if a part appears worn or damaged, please call the medical provider who fit your brace.

Product Disclaimer

This knee brace is a product prescribed by a physician and should be used in accordance with his or her instructions, as part of a treatment plan for global health. While this brace is designed to provide support, improve leg alignment, and reduce loading forces on the medial compartment of the knee, results and benefits vary by patient and are often dependent on the fit, adjustment, and proper application and use of the brace — which are factors the manufacturer does not control. Due to variations in age, health and physical condition, Townsend Design does not make any specific recommendations regarding appropriate activities for the user of this knee brace. As the manufacturer, Townsend Design has no role in patient selection, or fitting and adjusting the knee brace, or any role in instructing the patient and/or monitoring the use of the knee brace. As such, Townsend Design cannot guarantee for the results arising from the use of the Dynamic Reliever knee brace. If you have skin sensitivity, peripheral vascular disease, circulatory issues or a prior history of neuropathy, please make sure you have discussed these issues with your physician before wearing this product. When using the brace, if you experience abnormal skin issues, circulation issues (numbness or tingling sensation in your leg or foot), or significant discomfort, immediately discontinue use of the product and consult your physician or the person who fit your brace.