NYU Langone Health

**Laith M Jazrawi, MD**
Professor of Orthopedic Surgery
Chief, Division of Sports Medicine
T 646-501-7223

# Post-Operative Instructions
# MPFL Reconstruction

## Day of surgery

**A.** Diet as tolerated

**B.** Icing is important for the first 5-7 days post-op. While the post-op dressing is in place, icing should be done continuously. Once the dressing is removed on the third post-operative day, ice is applied for 20-minute periods 3-4 times per day. Care must be taken with icing to avoid frostbite. Alternatively, Cryocuff or Game-ready ice cuff can be used as per instructions.

**C.** Pain medication as needed every four-six hours (refer to pain medication sheet)

**D.** Make sure you have a physical therapy post-op appointment scheduled to begin ~2 weeks after your surgery, which will be after your first postoperative visit.

*Video instructions for your brace can be found at https://www.youtube.com/watch?v=jyRZkSyFBOQ*

## First Post-Operative Day

**A.** Continue icing

**B.** Pain medication as needed.

## Second Post-Operative Day Until Return Visit

**A.** Continue icing

**B.** Unless otherwise noted, weight-bearing is toe touch only with crutches for the first week after surgery. After 1 week, you can bear as much weight on the affected leg as you can tolerate.

**C.** Call our office @ 646-501-7223 option 4, option 2 to confirm your first postoperative visit, which is usually about 1-2 weeks after surgery if you have not been given a time. If you are experiencing any problems, please call our office or contact us via the internet at www.newyorkortho.com.

## Third Post-Operative Day

A. You may remove surgical bandage and shower this evening. Apply 4x4 (or similar size) waterproof bandage to these wounds prior to showering and when showering is complete apply fresh waterproof bandage. Please ensure that the bandage is large enough to completely cover the incision. You will need to follow this routine for 2 weeks after surgery.


NYU Langone MEDICAL CENTER

**Dr. Laith M. Jazrawi**
Chief, Division of Sports Medicine
Associate Professor Department of Orthopaedic Surgery

# Rehabilitation After Medial Patellofemoral Ligament Repair and Reconstruction

The knee consists of four bones that form three joints. The femur is the large bone in the thigh and attaches by ligaments and a capsule to the tibia, the large bone in the lower leg commonly referred to as the shin bone. Next to the tibia is the fibula, which runs parallel to the tibia on the outside of the leg. The patella, commonly called the knee cap, is embedded in the quadriceps and patellar tendon which articulates with the front of the femur, which forms the patellofemoral joint. The patella acts as a pulley to increase the amount of force that the quadriceps muscle can generate.[1] The patella sits in a groove on the end of the femur called the trochlear groove. This groove varies in depth from person to person. While the knee flexes (bends), the patella travels down the groove and as the knee extends (straightens) the patella moves up the groove. As the patella travels up and down in the trochlear groove, the patella should maintain congruent boney alignment, which is often referred to as normal patellar tracking.

There are several structures that work together to keep the patella aligned and stabilized in the femoral groove to prevent the patella from excessive lateral movement (movement towards the outside of the leg). The lateral aspect of the trochlear groove is normally about 1 centimeter higher than the medial (inside of the leg) aspect of the trochlear groove, which helps keep the patella in the trochlear groove by providing a buttress on the lateral side (Figure 1).[2] This provides the main resistance to lateral patellar translation (which is the most common direction of displacement), especially beyond 20 degrees of knee flexion.[3] People who have a shallow trochlea are more susceptible to patellar instability.

Proper stabilization of the patella is also affected by the soft tissue structures (ligaments and muscles) surrounding the knee. The medial patellofemoral ligament (MPFL) is a continuation of the deep retinaculum and vastus medialis oblique (VMO) muscle fibers (inner portion of the quadriceps muscle) on the inside of the knee. These structures provide a significant force (near 60% total) against lateral displacement of the patella, as their force is directed inward or medially.[2,4] The MPFL is the primary restraint to lateral displacement of the patella during the first 20 to 30 degrees of knee flexion.[3] This ligament is a passive stabilizer and extends from the upper inner side of the patella to the medial aspect of the femur. The patellomeniscal ligament and retinaculum also contribute more than 20% of the restraining force.

These ligaments can be injured and torn with an initial acute traumatic patellar dislocation (knee cap quickly going out of place). The most common mechanism for a patellar dislocation is a forceful inward rotation of the body on a planted foot. The radiograph below is that of a 12 year old boy in the emergency room after such an injury (Figure 2). Often times the patella will go back in to place (or relocate

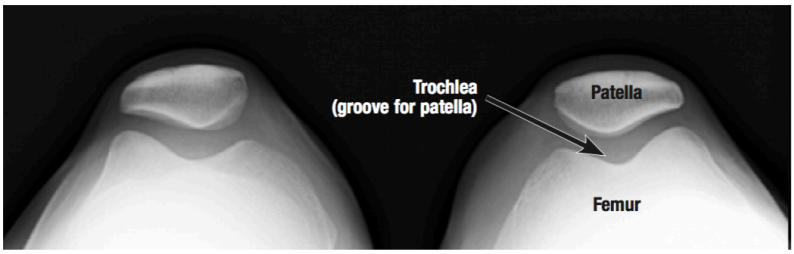



***Figure 1.*** *Radiograph of the patellofemoral joint with the knee in slight flexion. The lateral aspect of the trochlear groove is normally about 1 cm higher than the medial.*

to the groove) as the knee is gently straightened. In this case the patient was unable to straighten his knee in the emergency room and his patella was still dislocated laterally. Note on the radiograph that there is no overlap of the femur and patella.

In studying 26 patients who had an acute patellar dislocation at a mean age of 18 years, Nomura et al. reported evidence of MPFL damage in 96% (26/27) of the knees examined during open surgical exploration). In an acute patellar dislocation, when a tear of the MPFL is identified, surgical repair (fixing the original ligament) of the MPFL may be a good treatment option. In the young athletic population, recurrence rates for patients treated conservatively are high with some studies reporting 40%. In recurrent or chronic patellar dislocations, it may be necessary to perform reconstruction of the MPFL. Reconstruction differs from repair in that graft tissue (such as a hamstring tendon) is used to replace or reinforce the MPFL. In these cases the MPFL reconstruction may also be combined with other patellar stabilization procedures.

A quality post-operative rehabilitation program is essential to having a successful outcome from a MPFL procedure. The goals of rehabilitation will initially focus on protection for healing, mobility and range of motion. After this early phase, strengthening and neuromuscular control is emphasized throughout the entire leg and core. In the final stages of rehabilitation, the focus will be on dynamic lower extremity control during sport specific movements, such as change of direction and rotational movements.

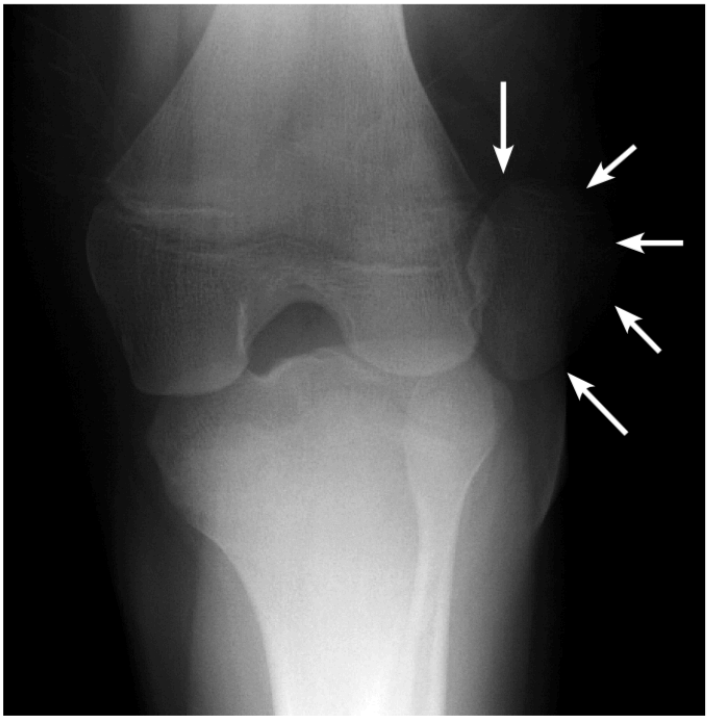


***Figure 2.*** *Radiograph of the knee, arrows show the laterally dislocated patella*

# Rehabilitation After Medial Patellofemoral Ligament Repair and Reconstruction

## Phase I (Surgery to 2 weeks after surgery)

| | |
|---|---|
| Range of Motion Exercises | ○ Post-op day 1<br>  ○ Brace ROM: locked in full extension<br>  ○ Weight bearing/ROM: touch down, weight bearing<br>○ Week 1<br>  ○ Brace ROM: locked in full extension at all times<br>  ○ Weight bearing/ROM: full weight bearing as tolerated |
| Therapeutic Exercises | ○ Post-op day 1<br>  ○ Quad sets<br>  ○ Ankle pumps<br>  ○ Cryotherapy device<br>  ○ Elevation<br>○ Week 1<br>  ○ Heel slides<br>  ○ Seated flexion<br>  ○ Prone flexion<br>  ○ Wear knee brace for at least 6 weeks post-op |

## Phase II (2 weeks to 6 weeks following surgery)

| | |
|---|---|
| Range of Motion Exercises | ○ Brace ROM: locked in full extension at all times<br>○ Weight bearing/ROM: full weight bearing as tolerated |
| Therapeutic Exercises | ○ Weeks 2-3<br>  ○ Straight-leg raises with no weight<br>○ Weeks 4-5<br>  ○ Straight-leg raises with 1-lb weight<br>  ○ Should have 90 degrees of flexion |

## Phase III (6 weeks to 24 weeks following surgery)

| | |
|---|---|
| Range of Motion Exercises | ○ Weeks 6-12<br>○ Brace ROM: Discontinue brace when quadriceps strengthening allows; neoprene sleeve with altered buttress optional<br>○ Weight bearing/ROM: full; should have normal ROM<br>○ Months 3-6<br>○ Brace ROM: Full; no brace<br>○ Weight bearing/ROM: full |
| Therapeutic Exercises | ○ Weeks 6-12<br>○ Continue stationary bike<br>○ Start shuttle jumps at week 12<br>○ Treadmill<br>○ Isotonic leg presses<br>○ Toe press<br>○ Leg curl<br>○ Stool scooter<br>○ Months 3-6<br>○ Initiate progressive jogging program<br>○ Advance to cutting and sport-specific drills<br>○ Return to regular sports if cleared by MD |

## References


1. Fisher B, Nyland J, Brand E, Curtin B. Medial patellofemoral ligament reconstruction for recurrent patellar dislocation: a systematic review including rehabilitation and return-to-sports efficacy. *Arthroscopy.* 2010 Oct;26(10):1384-94.
2. Neuman DA. *Kinesiology of the Musculoskeletal System: Foundations for Physical Rehabilitation. 1st ed.* St. Louis, MO: Mosby; 2002.
3. Minkowitz R, Inzerillo C, Sherman OH. Patella Instability. *Bull NYU Hosp Jt Dis.* 2007;65(4):280-93.
4. E. Nomura, Y. Horiuchi and M. Inoue, Correlation of MR imaging findings and open exploration of medial patellofemoral ligament injuries in acute patellar dislocations, *Knee 9* (2002), pp. 139,Äì143.
5. Andrish J. The Management of Recurrent Patellar Dislocation. *Ortho Clinics North Am.* 2008;39(3):43-55.
6. Arendt EA, Fithian DC, Cohen E. Current concepts of lateral patella dislocation. *Clinics Sports Med.* 2002;21(3):499-519.
7. Arendt EA, Moeller A, Agel J. Clinical outcomes of medial patellofemoral ligament repair in recurrent (chronic) lateral patella dislocations. *Knee Surg Sports Traumatol Arthrosc.* 2011 Apr 30.

NYU Langone Health

**Laith M Jazrawi, MD**
Professor of Orthopedic Surgery
Chief, Division of Sports Medicine
T 646-501-7223

# Rehabilitation Protocol: Medial Patellofemoral Ligament (MPFL) Reconstruction

**Name:** _____ **Date:** _____

**Diagnosis:** _____ **Date of Surgery:** _____

☐ **Phase I**

- **Post-op Day 1**
  - **Brace ROM**: locked in full extension
  - **Weightbearing/ROM:** touch down, weight bearing
  - **Exercises**
    - Quad sets
    - Ankle pumps
    - Cryotherapy device
    - Elevation
- **Week 1**
  - **Brace ROM:** locked in full extension at all times
  - **Weightbearing/ROM:** full weight bearing as tolerated
  - **Exercises:**
    - Heel slides
    - Seated flexion
    - Prone flexion
    - Wear knee brace for at least six weeks post-op

☐ **Phase II**

- **Week 2-5**
  - **Brace ROM**: locked in full extension at all times
  - **Weightbearing/ROM:** full weightbearing as tolerated
  - **Exercises (Weeks 2-3)**
    - Straight-leg raises with no weight
  - **Exercises (Weeks 4-5)**
    - Straight-leg raises with 1-lb weight
    - Should have 90 degrees of flexion

☐ **Phase III**

- **Week 6-12**
  - **Brace ROM**: Discontinue brace when quadriceps strengthening allows; neoprene sleeve with alteral buttress optional
  - **Weightbearing/ROM:** full; should have normal ROM
  - **Exercises (Weeks 6-7)**
    - Start stationary bike
  - **Exercises (Weeks 8-12)**
    - Continue stationary bike
    - Start shuttle jumps at week 12
    - Treadmill
    - Isotonic leg presses

Laith M Jazrawi, MD
Professor of Orthopedic Surgery
Chief, Division of Sports Medicine
T 646-501-7223

- Toe press
- Leg curl
- Stool scooter

- **Months 3-6**

  - **Brace ROM**: full; no brace
  - **Weightbearing:** full
  - **Exercises**
    - Initiate progressive jogging program
    - Advance to cutting and sport-specific drills
    - Return to regular sports if cleared by MD

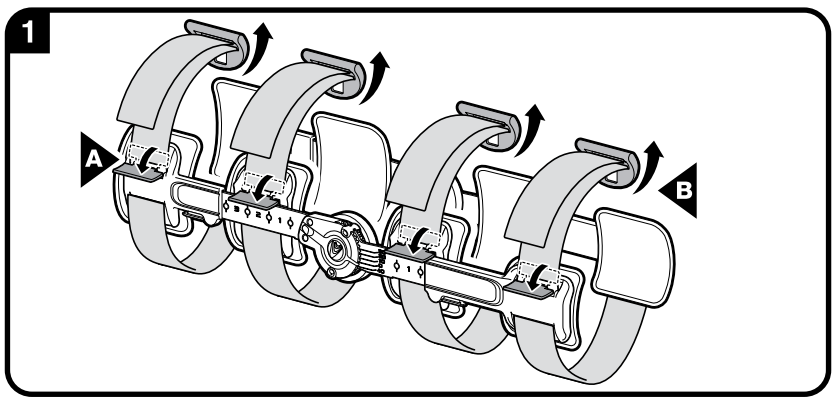
**** If a patient is not progressing please call the office for recommendations**

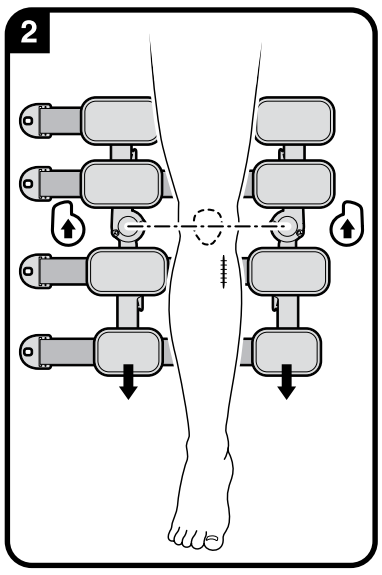
**Protocol Modifications:**

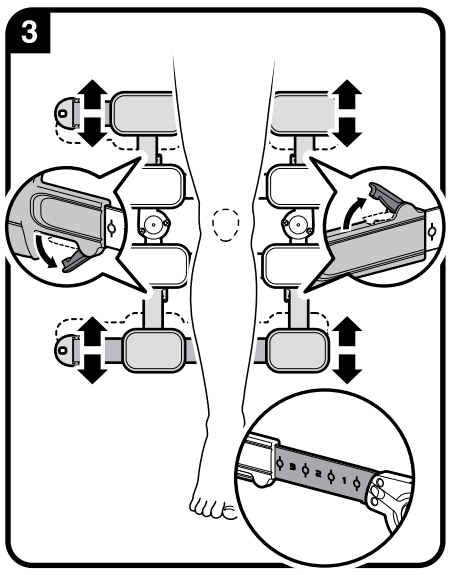
**Comments:**

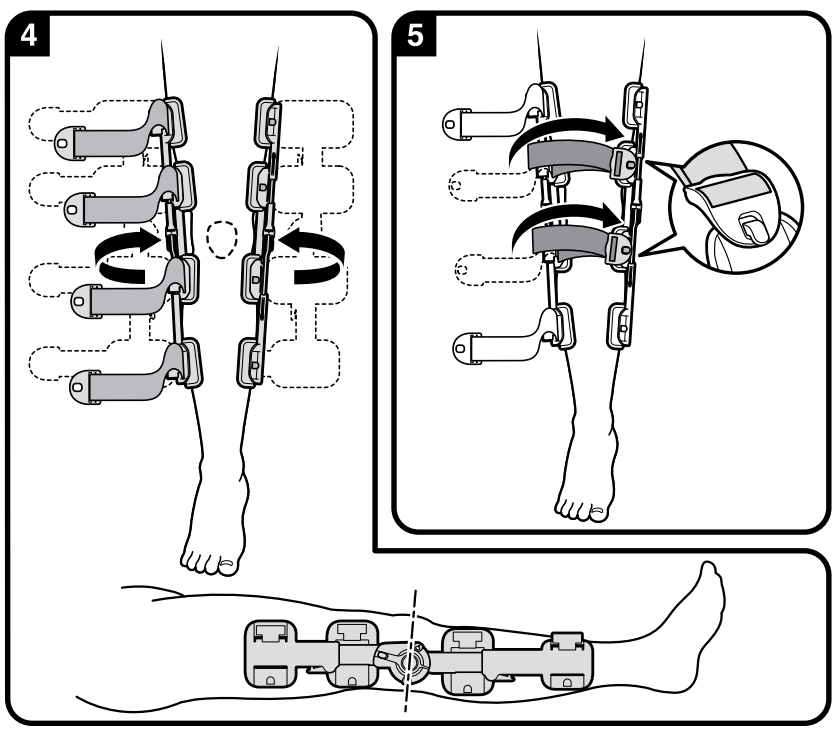
**Frequency: _____ times per week** **Duration: _____ weeks**

**Signature: _____** **Date: _____**



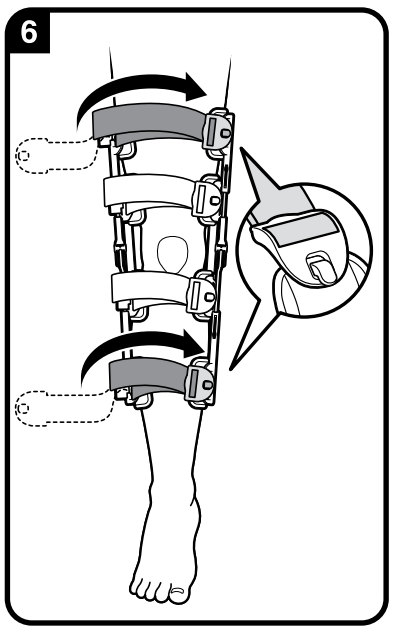



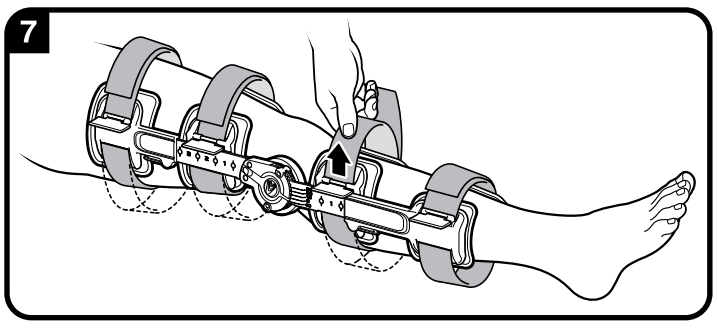



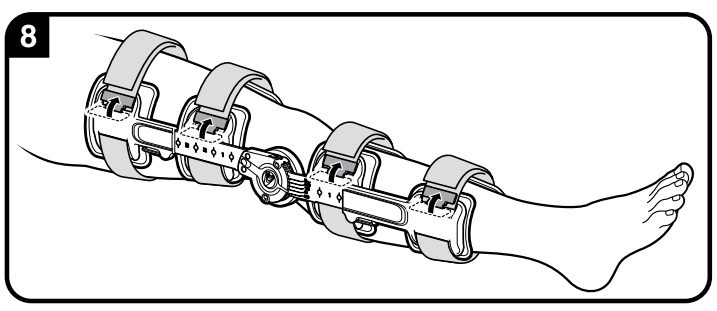



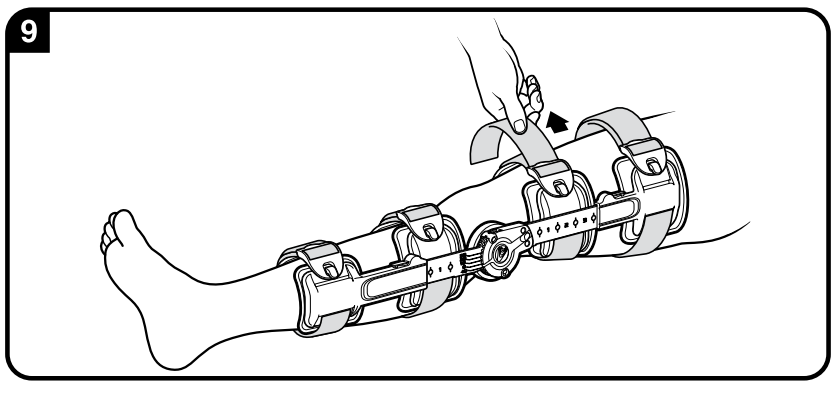


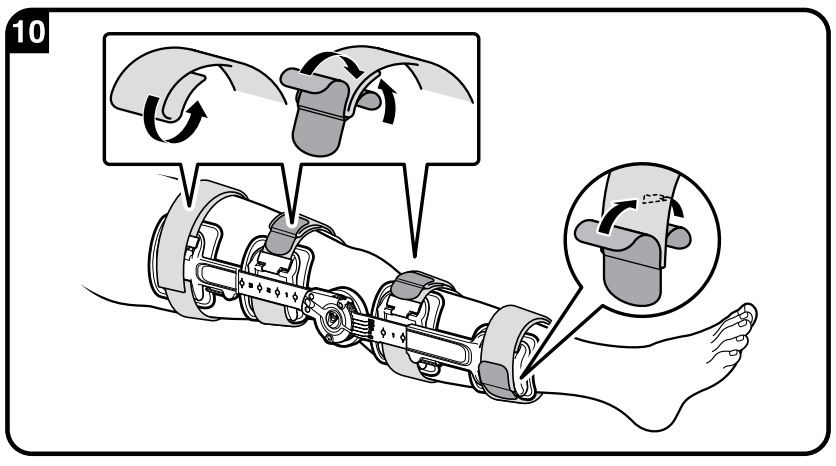





# T Scope® Premier

## Post-Op Brace Fitting Instructions

**Anleitung zum Anlegen der Schiene nach der Operation**
**Istruzioni per l'adattamento post-operatorio del tutore**
**Mise en place de l'orthèse postopératoire**
**Instrucciones de colocación de la rodillera postoperativa**

breg.com/TS


**Breg, Inc.**
2885 Loker Ave. East
Carlsbad, CA 92010 U.S.A.
P: 800-321-0607
F: 800-329-2734
www.breg.com



AW-1.00495 REV A 0113


CE
EC | REP


E/U authorized representative
MDSS GmbH
Schiffgraben 41
D-30175 Hannover
Germany


### ⚠ W A R N I N G S

**WARNING:** CAREFULLY READ USE/CARE INSTRUCTIONS AND WARNINGS PRIOR TO USE.
**WARNING:** DO NOT REMOVE T SCOPE BRACE UNLESS INSTRUCTED BY YOUR MEDICAL TREATMENT PROFESSIONAL. DO NOT CHANGE RANGE OF MOTION HINGE SETTINGS WITHOUT SUPERVISION BY A MEDICAL PROFESSIONAL.
**WARNING:** THIS DEVICE WILL NOT PREVENT OR REDUCE ALL INJURIES. PROPER REHABILITATION AND ACTIVITY MODIFICATION ARE ALSO AN ESSENTIAL PART OF A SAFE TREATMENT PROGRAM. CONSULT WITH YOUR MEDICAL TREATMENT PROFESSIONAL REGARDING SAFE AND APPROPRIATE ACTIVITY LEVEL WHILE WEARING THIS DEVICE.
**WARNING:** IF YOU EXPERIENCE INCREASED PAIN, SWELLING, SKIN IRRITATION, OR ANY ADVERSE REACTIONS WHILE USING THIS PRODUCT, IMMEDIATELY CONSULT YOUR MEDICAL PROFESSIONAL.
**WARNING:** THE HINGE ON THIS BRACE IS DESIGNED TO LIMIT AND/OR CONTROL RANGE OF MOTION. IT IS NOT DESIGNED TO STABILIZE YOUR KNEE WHEN YOU ARE WEIGHT-BEARING OR TAKE THE PLACE OF A WALKING AID. FOLLOW YOUR PHYSICIAN'S ADVICE REGARDING WEIGHT-BEARING AND ALWAYS USE A PROPER ASSISTANCE DEVICE, SUCH AS CRUTCHES OR A WALKER.
**CAUTION:** FEDERAL LAW RESTRICTS THIS DEVICE TO SALE BY OR ON THE ORDER OF A LICENSED HEALTH CARE PRACTITIONER.
**CAUTION:** FOR SINGLE PATIENT USE ONLY.

### ⚠ W A R N U N G S

**WARNUNG:** VOR GEBRAUCH BITTE SORGFÄLTIG ALLE ANWEISUNGEN ZUM GEBRAUCH UND ZUR PFLEGE SOWIE DIE WARNUNGEN DURCHLESEN.
**WARNUNG:** DIE T SCOPE-SCHIENE NUR AUF ÄRZTLICHE ANWEISUNG ENTFERNEN. DIE BEWEGUNGSSPIELRAUMEINSTELLUNG DES SCHARNIERS NUR UNTER AUFSICHT EINER MEDIZINISCHEN FACHKRAFT ÄNDERN.
**WARNUNG:** DIESES GERÄT KANN NICHT ALLE VERLETZUNGEN VERHINDERN ODER LINDERN. ANGEMESSENE REHABILITATION UND MODIFIZIERUNG DER AKTIVITÄTEN SIND EIN UNERLÄSSLICHER BESTANDTEIL EINES SICHEREN BEHANDLUNGSPROGRAMMS. SPRECHEN SIE MIT IHREM MEDIZINISCHEN PFLEGEPERSONAL ÜBER DEN GEFAHRLOSEN UND ANGEMESSENEN AKTIVITÄTSGRAD WÄHREND DES TRAGENS DIESER SCHIENE.
**WARNUNG:** WENN BEI DER VERWENDUNG ERHÖHTE SCHMERZEN, SCHWELLUNGEN, HAUTREIZUNG ODER ANDERE NEBENWIRKUNGEN AUFTRETEN, KONSULTIEREN SIE BITTE SOFORT IHREN ARZT.
**WARNUNG:** DAS SCHARNIER AN DIESER SCHIENE IST ZUR EINSCHRÄNKUNG BZW. KONTROLLE DES BEWEGUNGSSPIELRAUMS KONZIPIERT. ES IST NICHT DAFÜR VORGESEHEN, DAS KNIE BEI GEWICHTSBELASTUNG ZU STABILISIEREN UND DIENT NICHT ALS ERSATZ FÜR EINE GEHHILFE. BEACHTEN SIE DIE ÄRZTLICHEN ANWEISUNGEN IM HINBLICK AUF BELASTUNG UND VERWENDEN SIE STETS EINE PASSENDE GEHHILFE WIE KRÜCKEN ODER EINEN WALKER.
**ACHTUNG:** LAUT GESETZ DARF DIESES PRODUKT NUR VON ZUGELASSENEM MEDIZINISCHEM FACHPERSONAL ODER AUF DESSEN ANWEISUNG VERKAUFT WERDEN.
**ACHTUNG:** NUR ZUM GEBRAUCH FÜR EINEN EINZELNEN PATIENTEN VORGESEHEN.

### ⚠ A V V E R T E N Z E

**AVVERTENZA -** PRIMA DI UTILIZZARE IL DISPOSITIVO, LEGGERE ATTENTAMENTE LE ISTRUZIONI E LE AVVERTENZE RELATIVE ALL'USO E ALLA MANUTENZIONE.
**AVVERTENZA -** NON TOGLIERSI IL TUTORE T SCOPE SE NON DIETRO ORDINE DELL'OPERATORE SANITARIO. NON CAMBIARE IL RAGGIO DI MOVIMENTO DELLE CERNIERE SENZA LA SUPERVISIONE DI UN OPERATORE SANITARIO.
**AVVERTENZA -** QUESTO DISPOSITIVO NON PREVIENE NÉ RIDUCE ALCUNA LESIONE. PARTE ESSENZIALE DI UN PROGRAMMA TERAPEUTICO COMPLETO SONO ANCHE UNA RIABILITAZIONE ADEGUATA E LA MODIFICA DELLE ATTIVITÀ SVOLTE. CONSULTARE L'OPERATORE SANITARIO SUL LIVELLO DI ATTIVITÀ SICURO E APPROPRIATO MENTRE SI INDOSSA QUESTO DISPOSITIVO.
**AVVERTENZA -** SE DURANTE L'USO SI ACCUSANO AUMENTO DI DOLORE, GONFIORE, IRRITAZIONE CUTANEA O QUALUNQUE ALTRA REAZIONE AVVERSA, CONSULTARE IMMEDIATAMENTE IL PROPRIO OPERATORE SANITARIO.
**AVVERTENZA -** LA CERNIERA DI QUESTO TUTORE È CONCEPITA PER LIMITARE E/O REGOLARE IL RAGGIO DI MOVIMENTO; NON È PREVISTA PER LA STABILIZZAZIONE DEL GINOCCHIO QUANDO SI SPOSTA IL PESO SU QUELLA GAMBA, NÉ PER SOSTITUIRE UN AUSILIO DI DEAMBULAZIONE. SEGUIRE I CONSIGLI DEL MEDICO IN RELAZIONE ALL'APPOGGIO DEL PESO E USARE SEMPRE UN APPROPRIATO DISPOSITIVO DI AUSILIO ALLA DEAMBULAZIONE, COME DELLE STAMPELLE O UN DEAMBULATORE.
**ATTENZIONE -** VENDITA CONSENTITA SOLO AGLI OPERATORI SANITARI ABILITATI O DIETRO AUTORIZZAZIONE DEGLI STESSI.
**ATTENZIONE -** ESCLUSIVAMENTE PER UN SINGOLO PAZIENTE.

### ⚠ A V E R T I S S E M E N T S

**AVERTISSEMENT :** VEUILLEZ LIRE ATTENTIVEMENT LE MODE D'EMPLOI ET LES AVERTISSEMENTS AVANT USAGE.
**AVERTISSEMENT :** NE RETIREZ PAS L'ORTHESE T SCOPE, SAUF SUR RECOMMANDATION SPECIFIQUE DE VOTRE PRATICIEN. NE MODIFIEZ PAS LE REGLAGE DE LA MOBILITE ARTICULAIRE SANS LA SUPERVISION D'UN PRATICIEN.
**AVERTISSEMENT :** CE DISPOSITIF N'EST PAS DESTINE A PREVENIR OU A REDUIRE TOUTES LES LESIONS. UNE REEDUCATION APPROPRIEE ET UN CHANGEMENT D'ACTIVITE FONT EGALEMENT PARTIE DES ELEMENTS ESSENTIELS A UN PROGRAMME DE TRAITEMENT REUSSI. ADRESSEZ-VOUS A VOTRE PRATICIEN POUR TOUTE QUESTION AU SUJET DU NIVEAU D'ACTIVITE APPROPRIE ET SUR L'EMPLOI SANS DANGER DE CE DISPOSITIF.
**AVERTISSEMENT :** EN CAS D'AUGMENTATION DE LA DOULEUR, D'ENFLURE, D'IRRITATION DE LA PEAU OU D'AUTRES REACTIONS INDESIRABLES LORS DE L'USAGE DE CE PRODUIT, CONSULTEZ IMMEDIATEMENT VOTRE PRATICIEN.
**AVERTISSEMENT :** L'ARTICULATION DE CET ORTHESE EST CONÇUE POUR LIMITER ET/OU CONTROLER LA MOBILITE ARTICULAIRE. ELLE N'EST PAS DESTINEE A STABILISER VOTRE GENOU LORSQUE VOUS APPUYEZ DESSUS ET ELLE NE REMPLACE PAS UN DISPOSITIF D'AIDE A LA MARCHE. SUIVEZ LES RECOMMANDATIONS DE VOTRE MEDECIN EN CE QUI CONCERNE LA MISE EN APPUI ET UTILISEZ TOUJOURS UN DISPOSITIF D'ASSISTANCE CORRECT TEL DES BEQUILLES OU UN DEAMBULATEUR.
**ATTENTION :** LA LOI FEDERALE AMERICAINE N'AUTORISE LA VENTE DE CE DISPOSITIF QUE PAR UN PRATICIEN AGREE OU SUR SON ORDONNANCE.
**ATTENTION :** USAGE RESERVE A UN SEUL PATIENT.

### ⚠ A D V E R T E N C I A S

**ADVERTENCIA:** LEA DETENIDAMENTE LAS INSTRUCCIONES DE USO/CUIDADO Y LAS ADVERTENCIAS ANTES DE USAR ESTE PRODUCTO.
**ADVERTENCIA:** NO SE QUITE LA RODILLERA T SCOPE A MENOS QUE LO INDIQUE EL PROFESIONAL MÉDICO QUE LE PROPORCIONA TRATAMIENTO. NO CAMBIE LAS POSICIONES DE LA BISAGRA DE CONTROL DEL RANGO DE MOVIMIENTO SIN LA SUPERVISIÓN DE UN PROFESIONAL MÉDICO.
**ADVERTENCIA:** ESTE APARATO NO PREVIENE NI REDUCE TODAS LAS LESIONES. LA ADECUADA REHABILITACIÓN Y MODIFICACIÓN DE LA ACTIVIDAD SON TAMBIÉN PARTE ESENCIAL DE UN PROGRAMA SEGURO DE TRATAMIENTO. CONSULTE CON EL PROFESIONAL MÉDICO QUE LE PROPORCIONA TRATAMIENTO ACERCA DEL NIVEL SEGURO Y APROPIADO DE ACTIVIDAD MIENTRAS LLEVA ESTE DISPOSITIVO.
**ADVERTENCIA:** SI EXPERIMENTA AUMENTO DEL DOLOR, HINCHAZÓN, IRRITACIÓN DE LA PIEL O CUALQUIER REACCIÓN ADVERSA AL USAR ESTE PRODUCTO, CONSULTE INMEDIATAMENTE A SU PROFESIONAL MÉDICO.
**ADVERTENCIA:** LA BISAGRA EN ESTA RODILLERA HA SIDO DISEÑADA PARA LIMITAR Y/O CONTROLAR EL RANGO DE MOVIMIENTO. NO HA SIDO DISEÑADA PARA ESTABILIZAR LA RODILLA CUANDO ESTÉ APOYANDO EL PESO EN ELLA, NI PARA SUSTITUIR A UN MEDIO DE AYUDA PARA CAMINAR. SIGA LOS CONSEJOS DE SU MÉDICO SOBRE EL APOYO DEL PESO Y UTILICE SIEMPRE UN MEDIO DE AYUDA ADECUADO, COMO MULETAS O UN ANDADOR.
**PRECAUCIÓN:** LA LEY FEDERAL RESTRINGE LA VENTA DE ESTE APARATO A LOS CASOS DE VENTA POR O BAJO LA ORDEN DE UN PROFESIONAL MÉDICO LICENCIADO.
**PRECAUCIÓN:** PARA USO ÚNICO EN UN PACIENTE SOLAMENTE.

### INITIAL APPLICATION BY A MEDICAL PROFESSIONAL ONLY!

1. Unlock strap clips (A), Unclip buckles (B).
2. Spread hinge bars apart, lay brace out flat, position device with knee centered between hinges. Orient the brace so the hinges are facing in the direction indicated and the small calf pads are towards the feet.
   **Example: right leg.**
3. Loosen friction clips on the telescoping bars. For proper fit, slide upper and lower telescoping hinge bars to accommodate leg length. Lock friction clips. Hinge bar length indicators assist in verifying the consistent length selection on thigh and calf.
4. Position hinge bars laterally and medially to the leg, center hinge at the knee joint.
5. Loosely fasten the 2 straps closest to the knee.
6. Loosely fasten the remaining 2 straps.
7. Pull straps tight to remove slack behind the leg. Be careful to maintain the lateral and medial positions of the hinge bars.
8. Lock strap lock clips.
9. Pull straps tight through the buckles. Be careful to maintain the lateral and medial positions of the hinge bars.
10. Secure strap ends, use hook and loop Y-tabs at strap ends to affix straps. It may be necessary to shorten straps by folding them over before attaching Y-tabs.

### ROM (RANGE-OF-MOTION) HINGE ADJUSTMENTS:

11. Extension limit settings may be selected between -10° (Hyperextension) and 70° by pulling the tab out and sliding it to desired position.
12. Flexion limit settings may be selected between -10° and 120° (represented as last tick mark on scale).
13. The hinge may be locked by sliding the quick lock button into the locked position at any one of 5 positions: -10° (hyperextension), 0° (Neutral), 10°, 20°, 30° of flexion.

### BRIDGETECH INCISION PAD APPLICATION AND ADJUSTMENTS:

14. The BridgeTech Incision Pad can be added to the T Scope Premier to alleviate pressure around the incision site. You will need to replace one of the existing pads when using the BridgeTech Incision Pad.
15. To replace one of the existing pads, remove the existing pad from the cuff. Make sure the incision pad will be placed on the appropriate cuff, so it is on same side as the incision. The piece of double sided hook may be attached to the back of this pad or could remain on the strap. If it is on the pad, remove and affix to the middle of the strap that is attached to the cuff.
16. Apply the BridgeTech Incision Pad to the cuff with the flat side down, making sure the tear-away sections point away from the medial (middle) side of the brace. The tear-away sections will be in the proper location once the brace is applied.
17. To bridge an incision point, remove individual tear-away sections as needed.
18. To provide additional support and pressure relief, affix the tear-away sections of the BridgeTech Incision Pad to the strap that is below the knee on either side of the tibia.

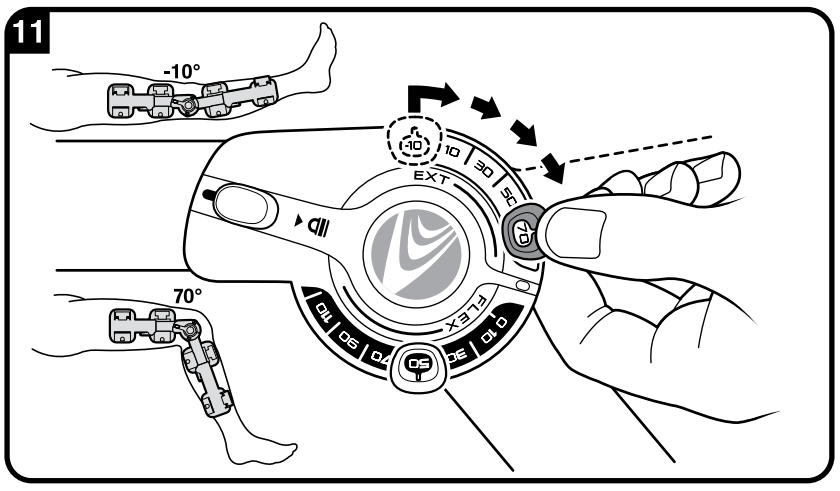
### USE AND CARE OF YOUR T SCOPE BRACE:

After initial application, the T Scope may be removed and reapplied by unclipping the buckles only.

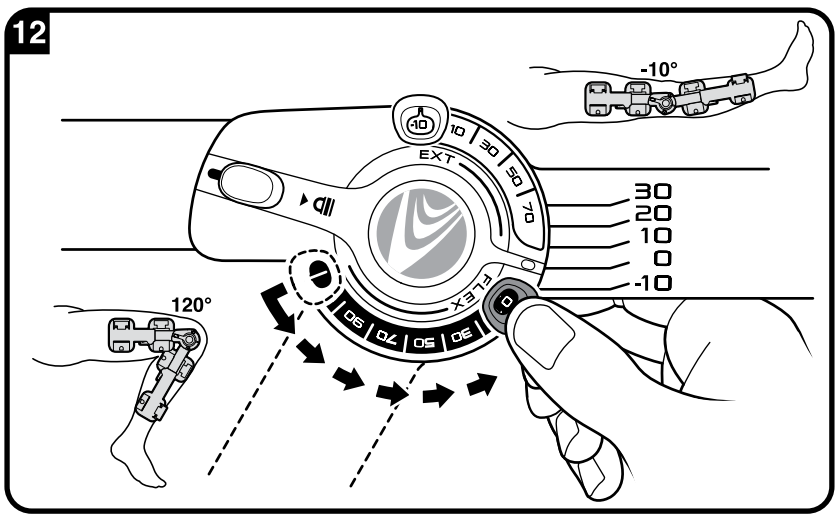
Hand wash the foam pads and straps with mild soap and air dry. Do not place pads or straps into a mechanical dryer.

Extra foam pads are available from Customer Care: (800) 321-0607. The BridgeTech Incision Pad is available as an accessory for an additional charge.

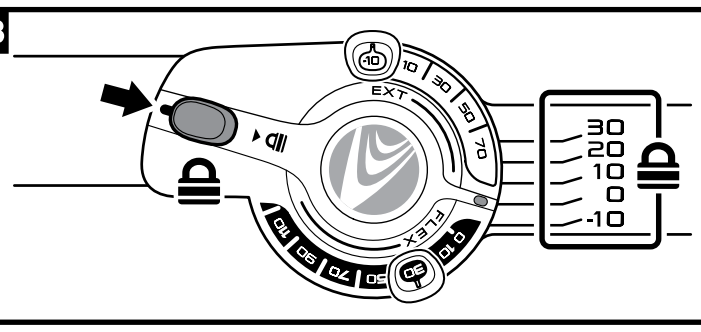
11



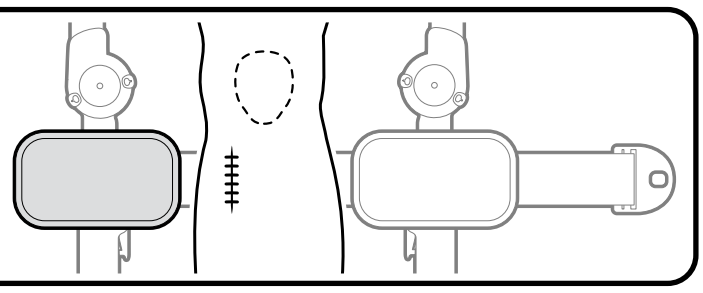

12



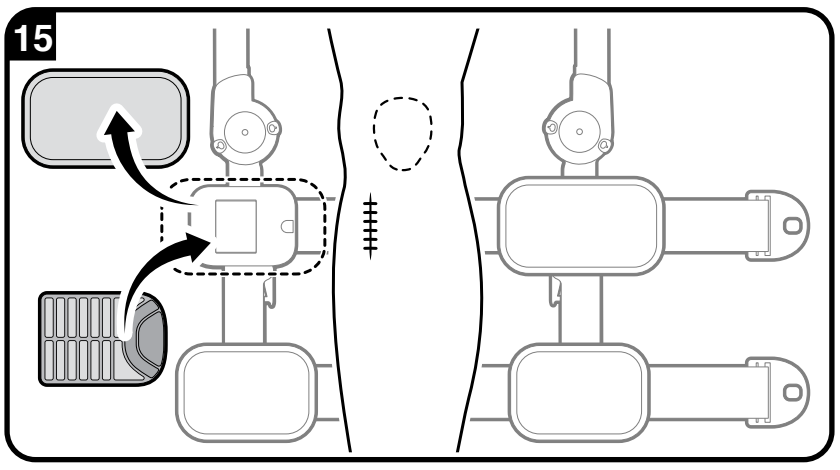

13



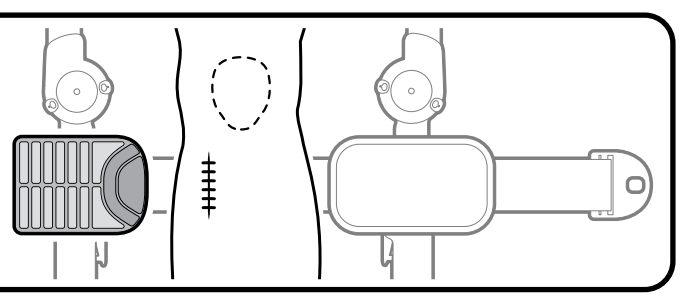

14



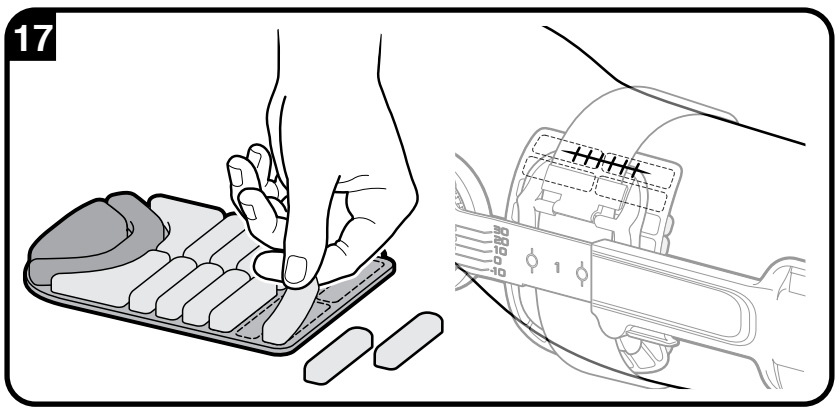
15



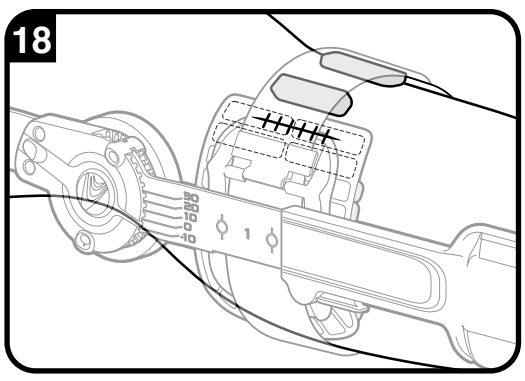
16



17



18



**DAS ERSTMALIGE ANLEGEN DARF NUR VON EINEM ARZT ODER VON QUALIFIZIERTEM PFLEGEPERSONAL AUSGEFÜHRT WERDEN!**

**1** Verschlussclips der Gurte (A) lösen und Schnallen (B) aushaken.

**2** Scharnierstangen auseinanderziehen, Schiene auseinandergebreitet hinlegen und Vorrichtung so positionieren, dass das Knie zwischen Scharnieren zentriert ist. Schiene so ausrichten, dass die Scharniere in die angezeigte Richtung und die kleinen Wadenpolster in Fußrichtung zeigen.
**Beispiel: rechtes Bein.**

**3** Reibschlussclips an den Teleskopstangen lockern. Obere und untere Teleskop-Scharnierstangen je nach Beinlänge verschieben, damit sie ordnungsgemäß sitzen. Reibschlussclips verriegeln. Die richtige Länge an Schenkel und Wade wird anhand der Markierungen an den Scharnierstangen überprüft.

**4** Scharnierstangen mit dem mittleren Scharnier am Kniegelenk lateral und medial zum Bein positionieren.

**5** Beide knienahen Gurte locker schließen.

**6** Restliche 2 Gurte locker schließen.

**7** Gurte so fest anziehen, dass sich kein Spielraum hinter dem Bein befindet. Sicherstellen, dass sich die Scharnierstangen nicht seitlich oder mittig verschieben.

**8** Clips an den Gurten schließen.

**9** Gurte fest durch die Schnallen ziehen. Sicherstellen, dass sich die Scharnierstangen nicht seitlich oder mittig verschieben.

**10** Gurtenden sichern und Gurte mit den Klettverschluss-Laschen an den Gurtenden befestigen. Die Gurte können vor Befestigung der Laschen ggf. umgefaltet und gekürzt werden.

**NNM-SCHARNIEREINSTELLUNGEN (NEUTRAL-NULL-METHODE):**

**11** Die Streckgrenze kann zwischen -10 Grad (Überstreckung) und 70 Grad eingestellt werden, indem die Lasche herausgezogen und in die gewünschte Position gebracht wird.

**12** Die Beugegrenze kann zwischen -10 und 120 Grad (letzte Markierung auf der Skala) eingestellt werden.

**13** Schnellverschlussknopf in einer der 5 Positionen arretieren, um das Scharnier zu sperren: -10 (Überstreckung), 0 Grad (neutral), 10 Grad, 20 Grad, 30 Grad Beugung.

**ANLEGEN UND EINSTELLEN DES BRIDGETECH-INZISIONSPOLSTERS:**

**14** Das BridgeTech-Inzisionspolster kann zur T-Scope-Premier-Schiene hinzugefügt werden, um den Druck um die Inzisionsstelle herum zu reduzieren. Bei Verwendung des BridgeTech-Inzisionspolsters muss eines der vorhandenen Polster ausgewechselt werden.

**15** Dazu ein vorhandenes Polster aus der Manschette entfernen. Sicherstellen, dass das Inzisionspolster an der richtigen Manschette positioniert wird, damit es sich auf derselben Seite wie die Inzision befindet. Der doppelseitige Klettverschluss kann an der Rückseite dieses Polsters befestigt werden oder am Gurt verbleiben. Befindet er sich am Polster, wird er entfernt und mittig auf dem Gurt an der Manschette befestigt.

**16** BridgeTech-Inzisionspolster mit der flachen Seite nach unten auf der Manschette anbringen. Sicherstellen, dass die perforierten Bereiche von der Mitte der Schiene weg zeigen. Die perforierten Bereiche werden sich an der richtigen Stelle befinden, wenn die Schiene angelegt ist.

**17** Zur Überbrückung einer Inzisionsstelle werden die einzelnen perforierten Bereiche nach Bedarf entfernt.

**18** Für zusätzliche Stütze und Druckentlastung können die perforierten Bereiche des BridgeTech-Inzisionspolsters an dem Gurt befestigt werden, der sich unterhalb des Knies links oder rechts des Schienbeins befindet.

**GEBRAUCH UND PFLEGE DER T-SCOPE-SCHIENE:**

Nach dem ersten Anlegen brauchen nur die Schnallen geöffnet zu werden, um die T-Scope-Schiene zu entfernen und wieder anzulegen.

Schaumstoffpolster und Gurte mit einem milden Waschmittel von Hand reinigen und an der Luft trocknen lassen. Die Polster und Gurte nicht in einem Wäschetrockner trocknen.

Zusätzliche Schaumstoffpolster sind beim Kundendienst erhältlich: (800) 321-0607. Das BridgeTech-Inzisionspolster ist als Zubehör gegen Aufpreis erhältlich.

---

**L'APPLICAZIONE INIZIALE DEVE ESSERE ESEGUITA ESCLUSIVAMENTE DA UN OPERATORE SANITARIO!**

**1** Aprire i fermagli dei cinturini (A) e sganciare le fibbie (B).

**2** Allargare le barre delle cerniere, distendere il tutore in piano e posizionare il dispositivo con il ginocchio centrato fra le cerniere. Orientare il tutore in modo che le cerniere siano rivolte nella direzione indicata e che i piccoli cuscinetti del polpaccio siano rivolti verso i piedi.
**Esempio: gamba destra.**

**3** Allentare i fermagli antislittamento sulle barre telescopiche. Per un adattamento ottimale, far scivolare le barre telescopiche superiore e inferiore delle cerniere per adattarle alla lunghezza della gamba. Bloccare i fermagli antislittamento. Gli indicatori della lunghezza delle barre delle cerniere aiutano a verificare la scelta di una lunghezza omogenea su coscia e polpaccio.

**4** Posizionare le barre delle cerniere lateralmente e medialmente rispetto alla gamba, centrando le cerniere a livello dell'articolazione del ginocchio.

**5** Fissare senza stringerli i 2 cinturini più vicini al ginocchio.

**6** Chiudere senza stringerli i restanti 2 cinturini.

**7** Tendere bene i cinturini per eliminare il lasco dietro la gamba. Fare attenzione a mantenere le posizioni laterale e mediale delle barre delle cerniere.

**8** Chiudere i fermagli di bloccaggio dei cinturini.

**9** Stringere bene i cinturini attraverso le fibbie. Fare attenzione a mantenere le posizioni laterale e mediale delle barre delle cerniere.

**10** Fissare le estremità dei cinturini usando le linguette a Y a uncini e asole situate ai capi dei cinturini stessi. Potrebbe essere necessario accorciare i cinturini ripiegandoli su sé stessi prima di fissare le linguette a Y.

**REGOLAZIONI DEL RAGGIO DI MOVIMENTO DELLE CERNIERE**

**11** Le impostazioni del limite di estensione possono essere selezionate fra -10° (iperestensione) e 70°, tirando in fuori la linguetta e facendola scorrere sulla posizione desiderata.

**12** Le impostazioni del limite di flessione possono essere selezionate fra -10° e 120° (l'ultimo segno sulla scala rappresenta i 120°).

**13** Si può fermare la cerniera facendo scorrere il pulsante di bloccaggio rapido in una qualsiasi delle 5 posizioni di arresto disponibili: -10° (iperestensione), 0° (posizione neutra), 10°, 20°, 30° di flessione.

**APPLICAZIONE E REGOLAZIONI DEL CUSCINETTO PER INCISIONI BRIDGETECH**

**14** Al tutore T Scope Premier è possibile aggiungere il cuscinetto per incisioni BridgeTech per alleviare la pressione attorno al sito dell'incisione. Quando si usa il cuscinetto per incisioni BridgeTech, è necessario sostituire uno dei cuscinetti esistenti.

**15** Per sostituire uno dei cuscinetti esistenti, rimuoverlo dal manicotto. Assicurarsi che il cuscinetto per incisioni sia sistemato sul manicotto appropriato, in modo che si trovi sullo stesso lato dell'incisione. Il pezzo di materiale a doppia faccia con uncini potrebbe rimanere fissato alla parte posteriore di questo cuscinetto, oppure potrebbe restare sul cinturino. Se si trova sul cuscinetto, rimuoverlo e fissarlo sulla parte mediana del cinturino collegato al manicotto.

**16** Applicare il cuscinetto per incisioni BridgeTech sul manicotto, con il lato piatto rivolto verso il basso, assicurandosi che le sezioni staccabili siano rivolte in direzione opposta rispetto al lato mediale (centrale) del tutore. Le sezioni staccabili si troveranno nell'ubicazione corretta una volta applicato il tutore.

**17** Per formare un ponte protettivo sopra un punto di incisione, rimuovere secondo la necessità le singole sezioni staccabili.

**18** Per fornire ulteriore supporto e sollievo dalla pressione, collocare le sezioni staccabili del cuscinetto per incisioni BridgeTech sul cinturino che si trova al di sotto del ginocchio, su entrambi i lati della tibia.

**USO E MANUTENZIONE DEL TUTORE T SCOPE**

Dopo l'applicazione iniziale, è possibile rimuovere il tutore T Scope e riapplicarlo semplicemente sganciando le fibbie.

Lavare a mano i cuscinetti in espanso e i cinturini con un detersivo neutro, e farli asciugare all'aria. Non mettere i cuscinetti né i cinturini in asciugatrice.

I cuscinetti in espanso di ricambio sono disponibili presso il reparto di Assistenza alla clientela: 800 321 0607. Il cuscinetto per incisioni BridgeTech è disponibile come accessorio acquistabile separatamente.

---

**LA MISE EN PLACE INITIALE NE PEUT ETRE EFFECTUEE QUE PAR UN PRATICIEN !**

**1** Déverrouillez les brides de la sangle (A), puis ouvrez les boucles (B).

**2** Ecartez les barres des articulations, étendez l'orthèse à plat, puis placez le dispositif avec le genou centré entre les articulations. Orientez l'orthèse de manière à ce que les articulations soient dirigées dans la direction indiquée et que les petits coussinets de mollet soient tournés vers le pied.
**Exemple : jambe droite.**

**3** Desserrez les brides à friction sur les barres coulissantes. Pour une bonne mise en place, faites glisser les barres d'articulation coulissantes supérieure et inférieure de manière à les ajuster à la longueur de la jambe. Verrouillez les brides à friction. Les indicateurs de longueur de barres d'articulation permettent de s'assurer que la sélection de longueur est constante sur la cuisse et le mollet.

**4** Placez les barres d'articulation en position latérale et médiale par rapport à la jambe, puis centrez l'articulation au niveau de l'articulation du genou.

**5** Attachez sans les serrer les 2 sangles les plus proches du genou.

**6** Attachez sans serrer les 2 sangles restantes.

**7** Tirez à fond sur les sangles de manière à supprimer le jeu derrière la jambe. Veillez à maintenir les positions latérales et médiales des barres d'articulation.

**8** Fermez les brides de verrouillage des sangles.

**9** Tirez les sangles à fond à travers les boucles. Veillez à maintenir les positions latérales et médiales des barres d'articulation.

**10** Attachez les extrémités des sangles et utilisez les pattes en « Y » à fermeture auto-adhésive pour fixer les sangles. Il sera peut-être nécessaire de raccourcir les sangles en les repliant avant d'attacher les pattes en « Y ».

**REGLAGE DES ARTICULATIONS POUR LA MOBILITE ARTICULAIRE :**

**11** Les réglages de limites d'extension peuvent être effectués entre -10° (hyperextension) et 70°, en tirant sur la patte pour la faire sortir et en la faisant glisser à la position souhaitée.

**12** Les réglages de limites de flexion peuvent être effectués entre -10° et 120° (représenté par la dernière petite ligne droite sur l'échelle).

**13** L'articulation peut être verrouillée en faisant glisser le bouton à verrouillage rapide en position verrouillée sur l'une des 5 positions suivantes : -10° (hyperextension), 0° (neutre), 10°, 20° et 30° de flexion.

**MISE EN PLACE ET REGLAGES DU COUSSINET D'INCISION BRIDGETECH :**

**14** Le coussinet d'incision BridgeTech peut être ajouté à l'orthèse T Scope Premier pour relâcher la pression autour du site d'incision. Lorsque vous utilisez le coussinet d'incision BridgeTech, vous devrez remplacer l'un des coussinets présents.

**15** Pour remplacer l'un des coussinets présents, retirez le coussinet en question de la bande. Assurez-vous que le coussinet d'incision est placé sur la bande appropriée, de manière à ce qu'il se trouve sur le même côté que l'incision. Le morceau de fermeture crochets recto-verso peut être attaché sur l'arrière de ce coussinet ou il peut rester sur la sangle. S'il se trouve sur le coussinet, retirez-le et fixez-le sur le milieu de la sangle qui est attachée sur la bande.

**16** Appliquez le coussinet d'incision BridgeTech sur la bande avec le côté plat tourné vers le bas, en vous assurant que les sections détachables ne sont pas dirigées vers le côté médial (milieu) de l'orthèse. Les sections détachables seront au bon emplacement une fois l'orthèse mise en place.

**17** Pour éviter de toucher un point d'incision, retirez les sections détachables individuelles selon les besoins.

**18** Pour fournir un support supplémentaire et relâcher la pression, fixez les sections détachables du coussinet d'incision BridgeTech sur la sangle qui se trouve sous le genou des deux côtés du tibia.

**UTILISATION ET ENTRETIEN DE VOTRE ORTHESE T SCOPE :**

Une fois réglée et mise en place, l'orthèse T Scope s'enlève et se remet en défaisant tout simplement les boucles.

Lavez les coussinets en mousse et les sangles à la main avec un savon doux, puis laissez-les sécher à l'air. Ne mettez pas les coussinets ou les sangles dans un sèche-linge mécanique.

Vous pouvez commander des coussinets en mousse supplémentaires en appelant le service à la clientèle au : (800) 321-0607. Le coussinet d'incision BridgeTech est un accessoire qui s'achète séparément.

---

**¡SOLAMENTE UN PROFESIONAL MÉDICO DEBE EFECTUAR LA APLICACIÓN INICIAL!**

**1** Abra los clips de fijación de la tira (A), desenganche las hebillas (B).

**2** Separe las barras de bisagra, extienda la rodillera, coloque el dispositivo con la rodilla centrada entre las bisagras. Oriente la rodillera de manera que las bisagras queden mirando en la dirección indicada y los acolchados de la pantorrilla, más pequeños, hacia los pies.
**Ejemplo: pierna derecha.**

**3** Afloje los clips de fricción de las barras telescópicas. Para lograr un ajuste correcto, deslice las barras telescópicas de bisagra superiores e inferiores a fin de acomodar la pierna en toda su longitud. Cierre los clips de fricción. Los indicadores de longitud de las barras de bisagra permiten verificar la concordancia de las longitudes seleccionadas en el muslo y en la pantorrilla.

**4** Coloque las barras de bisagra lateral y medialmente con respecto a la pierna, y centre la bisagra en la articulación de la rodilla.

**5** Enganche, sin apretar, las 2 tiras más próximas a la rodilla.

**6** Enganche, sin apretar, las 2 tiras restantes.

**7** Tire de las tiras para apretarlas hasta que no quede ninguna holgura detrás de la pierna. Tenga cuidado de conservar las posiciones lateral y medial de las barras de bisagra.

**8** Cierre los clips de fijación de las tiras.

**9** Tire de las tiras para apretarlas a través de las hebillas. Tenga cuidado de conservar las posiciones lateral y medial de las barras de bisagra.

**10** Sujete los extremos de las tiras, utilice las lengüetas en Y de gancho y lazo en los extremos de las tiras para fijarlas. Puede que tenga que doblar las tiras para acortarlas, antes de introducirlas en las lengüetas en Y.

**AJUSTES DE LA BISAGRA DE CONTROL DEL RANGO DE MOVIMIENTO:**

**11** Los valores de los límites de extensión pueden seleccionarse entre -10° (hiperextensión) y 70° tirando de la lengüeta hacia fuera y deslizándola a la posición deseada.

**12** Los valores de los límites de flexión pueden seleccionarse entre -10° y 120° (representada como la última marca indicadora en la escala).

**13** La bisagra puede fijarse en una posición deslizando el botón de fijación rápida a la posición de bloqueo en cualquiera de las 5 posiciones: -10° (hiperextensión), 0° (Neutra), 10°, 20°, 30° de flexión.

**APLICACIÓN Y AJUSTES DEL ACOLCHADO DE INCISIÓN BRIDGETECH:**

**14** El acolchado de incisión BridgeTech se puede agregar a la rodillera T Scope Premier para aliviar la presión alrededor del área de la incisión. Deberá remplazar uno de los acolchados existentes cuando use el acolchado de incisión BridgeTech.

**15** Para remplazar uno de los acolchados existentes, retire el acolchado existente en la pieza rígida. Asegúrese de que el acolchado de incisión se coloque en la pieza rígida adecuada de manera que se encuentre en el mismo lado de la incisión. La pieza de doble cara de gancho se puede colocar en la parte trasera de este acolchado o permanecer en la tira. Si se coloca en el acolchado, retírela y fíjela en el medio de la tira que se sujeta a la pieza rígida.

**16** Coloque el acolchado de incisión BridgeTech en la pieza rígida con el lado aplanado hacia abajo. Asegúrese de que las secciones que se desprenden apunten hacia afuera del lado medial (el centro) de la rodillera. Las secciones que se desprenden quedarán en la posición correcta cuando se aplique la rodillera.

**17** Para crear un efecto de puente en el punto de incisión, retire individualmente las secciones que se desprenden según sea necesario.

**18** Para ofrecer más apoyo y alivio de la presión, fije las secciones que se desprenden del acolchado de incisión BridgeTech a la tira debajo de la rodilla en cualquier lado de la tibia.

**USO Y CUIDADO DE LA RODILLERA T SCOPE:**

Después de la aplicación inicial, la rodillera T Scope puede quitarse y volverse a colocar con sólo desenganchar las hebillas.

Lave a mano los acolchados de espuma y las tiras con jabón suave, y seque al aire. No seque los acolchados ni las tiras en una secadora.

Puede obtener acolchados de espuma adicionales del Departamento de Atención al Cliente: (800) 321-0607. El acolchado de incisión BridgeTech se ofrece como un accesorio por un cargo adicional.