

## **Post-Operative Instructions**

### **ACL, MCL, Posterolateral Corner 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.

*You will be contacted by East Coast Orthotics regarding an ice compression unit to be used after surgery. This helps with pain and swelling but typically is not covered by insurance. The cost is \$200-300 for a 2-week rental. Alternatively, ice gel packs with a shoulder or knee sleeve can be provided by the hospital for a minimal charge.*

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

- C. Pain medication as needed every 4-6 hours (refer to pain medication sheet).
- D. Make sure you have a physical therapy post-op appointment scheduled during the first week after surgery.

#### **First Post-Operative Day**

- A. Continue icing
- B. Pain medication as needed.

#### **Second Post-Operative Day Until Return Visit**

- A. Continue ice pack as needed.
- B. Unless otherwise noted, you can bear as much weight on the affected leg as you can tolerate. Most patients use crutches for the first 2-3 weeks.
- 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](http://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.

#### **4 months Post-op**

- A. Please call the number below to schedule a custom knee brace fitting. This functional knee brace shall be worn for 1 year after returning to sports.

East Coast Orthotic & Prosthetic Corp.  
145 E. 32nd Street 4th Floor  
New York, NY 10016  
Phone: (347) 389-1755 or (347) 449-0945  
Fax: 631-918-5776



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Associate Professor Department of Orthopaedic Surgery

## Rehabilitation Guidelines for Knee Multi-ligament Repair/Reconstruction

The knee joint is comprised of an articulation of three bones: the femur (thigh bone), tibia (shin bone), and patella (knee cap). The femur has a medial (inside) and a lateral (outside) condyle that forms a radial or rounded bottom that comes together, forming a trochlear groove for the patella to move. The medial and lateral condyle sit on top of the tibia, which has a flat surface called the tibial plateau.

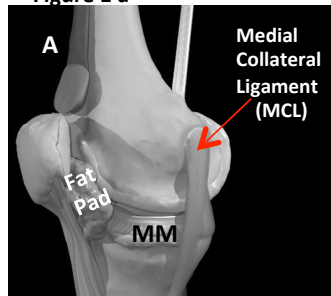
The knee also is comprised of two menisci, which are fibro-cartilaginous structures and each meniscus is thinner towards the center of the knee and thicker toward the periphery of the knee, giving it a wedge shaped appearance.

The medial meniscus forms a “c” shape and is located between the medial femoral condyle and the medial aspect of the tibia. The lateral meniscus forms an oval shape and is located between the lateral femoral condyle and the lateral aspect of the tibia. The menisci act to improve stability between the tibia and the femur secondary to its wedge shape that acts to limit translation.

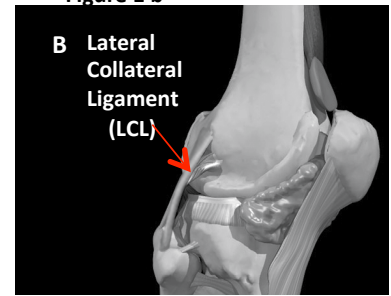
The knee also has four major ligaments, which connect bone to bone and provide stability to the joint. These ligaments are termed the medial collateral ligament (MCL) (Figure 1a), lateral collateral ligament (LCL) (Figure 1b), anterior cruciate ligament (ACL) (Figure 2a), and posterior cruciate ligament (PCL) (Figure 2b). The MCL connects the femur and tibia medially (on the inside) and resists valgus (knee buckling in) knee motion.

A common mechanism of injury to the MCL occurs when a force is applied to the outer knee while the foot is planted, causing the knee to move inward. The LCL connects the femur and the fibula laterally (on the outside) and resists varus (knee buckling out) knee motion.

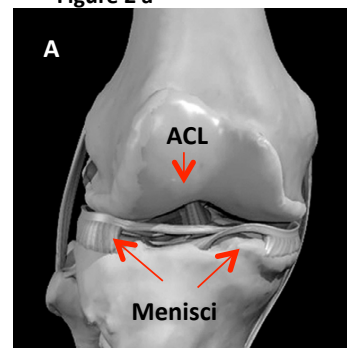
**Figure 1 a**



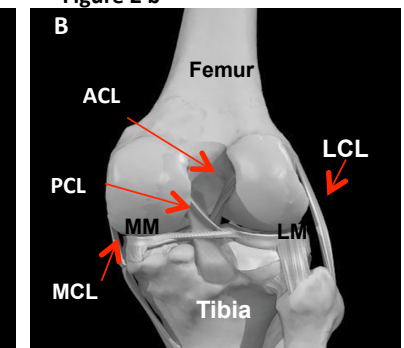
**Figure 1 b**



**Figure 2 a**

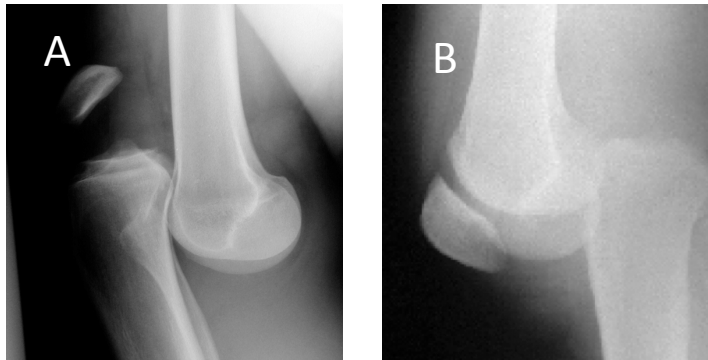


**Figure 2 b**



**Figure 1 a:** Medial or inner view of the knee showing the medial collateral ligament, **b:** Lateral or outer view of the knee showing the lateral collateral ligament. **Figure 2 a:** Anterior or front view of the knee showing the anterior cruciate ligament (ACL), **b:** Posterior or back view of the knee showing the posterior cruciate (PCL)

## Rehabilitation Guidelines for Knee Multi-ligament Repair/Reconstruction



**Figure 3 – a:** Radiograph showing an example of anterior knee dislocation, **b:** Radiograph showing an example of posterior knee dislocation

A common mechanism of injury to the LCL occurs when a force is applied to the inner knee while the foot is planted, causing the knee to move outward. The ACL and PCL attach the tibia and femur deep inside the knee joint and cross one another like guide wires. The ACL restrains the tibia from moving forward and rotating excessively on the femur. Most ACL injuries occur without contact, most commonly when an individual plants their foot and changes direction while participating in sports. The PCL resists the tibia from moving back excessively on the femur. PCL injuries most commonly occur when an anterior force is applied on the tibia such as when the lower leg hits the dashboard of a car during a car accident or landing on the knee with the knee flexed approximately 90 degrees.

Ligamentous injuries are termed sprains and are graded based on the severity of the injury. A grade 1 ligament sprain is a minimal injury with little to no increase in laxity to the ligament whereas a grade 3 sprain is a complete rupture to the ligament. Knee injuries that involve one of the four ligaments are somewhat common. Injuring two or more of the four major knee ligaments is uncommon and usually occurs as a result of a high energy trauma such as an automobile accident, fall or a significant sports injury. When two or more of the ligaments are ruptured the tibia and

the femur may lose contact from one another and spontaneously come apart or dislocate. A knee dislocation between the femur and the tibia is named by the direction the tibia is orientated from the femur in a dislocated position. Secondary injuries such as nerve damage and or vascular injury are common following a knee dislocation. (1) Often the vascular or nerve injuries require emergency attention to save the limb or possibly the individual's life. Once the knee is evaluated and secondary injuries, if any, are repaired, the initial treatment of the multi-ligament injuries includes immobilization, which is followed by continued evaluation and diagnostic testing to determine the extent of the ligament damage. Treatment options include surgical and non-surgical approaches to care. Treatment decisions often are made based on each individual's pre-injury function and the extent of the ligament damage. Recent studies have suggested patients receiving operative treatment have improved functional outcomes when compared with non-operative treatment. (2) The timing of surgery is critical with evidence that shows if surgery is done immediately following the injury.

following the injury, an individual may experience increased post-operative stiffness and scarring. (3) Research has shown that outcomes of multi-ligament reconstruction are best when the surgery is done within 3 weeks from injury after the patient can reduce the swelling from the initial injury. Surgery will vary depending on the extent of the ligament damage and the specific ligament(s) involved. If the ligament is avulsed from the bone (pulled off the bone) then the surgeon may be able to perform a primary repair of attaching the ligament back to the bone. When a ligament is ruptured it often has to be reconstructed, which means replacing the ligament with other tissue. This can be done by using an autograft (donor tissue from an injured person) or an allograft (donor tissue from a cadaver).

Rehabilitation following multi-ligament reconstruction is vital to regaining motion, strength and function. Initially after surgery the knee is braced and individuals use crutches with minimal to no weight bearing for the first 6 weeks. Gradually more weight bearing and mobility is allowed to prevent stiffness post-operatively. The rehabilitation will slowly progress into strengthening, gait and balancing activities. The UW Health sports rehabilitation guidelines are presented in a criterion based progression. General time frames refer to the usual pace of rehabilitation. However, individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions and precautions may also be given to enhance wound healing and to protect the surgical repair/reconstruction.

## Rehabilitation Guidelines for Knee Multi-ligament Repair/Reconstruction

### Phase I (Post-op Day 1 to 1 week after surgery)

|                           |                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions               | Brace ROM: locked in full extension<br>Weight bearing/ROM:<br>touch down, weight bearing                                                                              |
| Range of Motion Exercises | Weight bearing/ROM:<br>Touch down, weight bearing then proceed to as tolerated by patient                                                                             |
| Therapeutic Exercises     | Quad Sets<br>Ankle pumps<br>Cryotherapy device<br>Elevation<br>Heel slides<br>Seated flexion<br>Prone flexion<br>Wear knee brace for at least six weeks after post op |

### Phase II (2 week to 5 week after surgery)

|                           |                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions               | Brace ROM: locked in full extension<br>Weight bearing/ROM:<br>touch down, weight bearing                                                  |
| Range of Motion Exercises | Weight bearing/ROM:<br>Touch down, weight bearing then proceed to as tolerated by patient                                                 |
| Therapeutic Exercises     | Week 2-3 : straight leg raises with no weight<br>Week 4-5: straight leg raises with 1 lbs. of weight<br>Should have 90 degrees of flexion |

### Phase III (6 week to 12 week after surgery)

|                           |                                                                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions               | Brace ROM: discontinue brace when quadriceps strengthening allows, neoprene sleeve with alteral buttress optional                                                                      |
| Range of Motion Exercises | Weight bearing/ROM:<br>full;; should have normal ROM                                                                                                                                   |
| Therapeutic Exercises     | Week 6-7: start stationary bike<br>Weeks 8-12: continue stationary bike<br>Start shuttle jumps at week 12<br>Treadmill<br>Isotonic leg press<br>Toe press<br>Leg curl<br>Stool scooter |

## Rehabilitation Guidelines for Knee Multi-ligament Repair/Reconstruction

### Phase IV ( 3 moths to 6 months following surgery)

|                           |                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Range of Motion Exercises | Brace ROM: Full; no brace<br>Weight bearing: full                                                                                 |
| Therapeutic Exercises     | Initiate progressive jogging program<br>Advance to cutting and sport-specific drills<br>Return to regular sports if cleared by MD |

## References

1. Rihn, Groff, Harner, Cha. The acutelydislocated knee: Evaluation and Management. J Am Acad Orthop Surg 2004; 334-346.
2. Levy et. Al. Decision Making in the Multiligament-Injured Knee: Evidence- based Systematic Review Jour of Arthroscopic and Related Surgery April 2009 430-38.
3. Jari, shelbourne. Nonoperative or delayed surgical treatment of combined cruciate ligaments and medial side knee injuries Sports Med Arthrosc Rev 2001:185-192.

## Rehabilitation Protocol: ACL, MCL and PLC (Posterolateral Corner) Reconstruction

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

Date of Surgery: \_\_\_\_\_

- ☐
- EARLY PHASE (Weeks 0-4)**
- **Weight Bearing and Range of Motion**
    - 0-6 weeks: toe-touch weight bearing w/ crutches
    - ROM: A/AAROM 0-90° as tolerated
  - **Brace Use:**
    - Locked in full extension at all times other than PT
  - **Therapeutic Elements:**
    - Modalities as needed
    - Patella Mob; SLR's with electric stim.; co-contractions, prone hangs
    - Estim; Cocontractions
    - ***No abduction of hip or leg at any time.***
    - ***No prone hangs if PCL reconstruction!!***
  - **Goals:**
    - a/aa/ROM: 0-0-90
    - Control pain/swelling
    - Quad control

**RECOVERY PHASE (Weeks 5-8)**

- **Weight Bearing and Range of Motion:**
  - Discontinue crutches at week 6
- **Brace Use:**
  - At all times, open to AROM; discontinue at week 8
- **Therapeutic Elements:**
  - Continue above
  - Gentle hip abduction with no resistance below knee
  - Wall-sits 0-45
  - Mini-squats with support 0-45
  - Carpet drags (not with PCL reconstruction!!)
  - Pool therapy
  - Treadmill walking by 8 weeks
- **Goals:**
  - a/aa/ROM: 0-0-110 by 6 weeks and free by 8 weeks
  - SLR x 30
  - No effusion

☐ **STRENGTHEN PHASE (Weeks 8-12)**

- **Weight Bearing and Range of Motion:**
  - Full
- **Therapeutic Elements:**

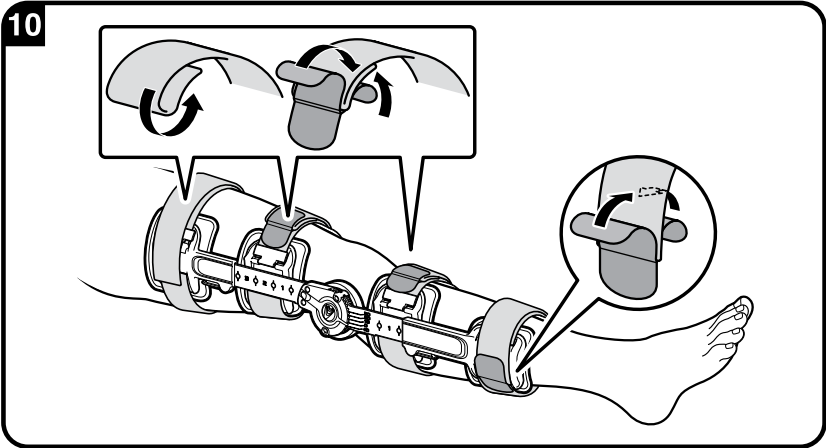
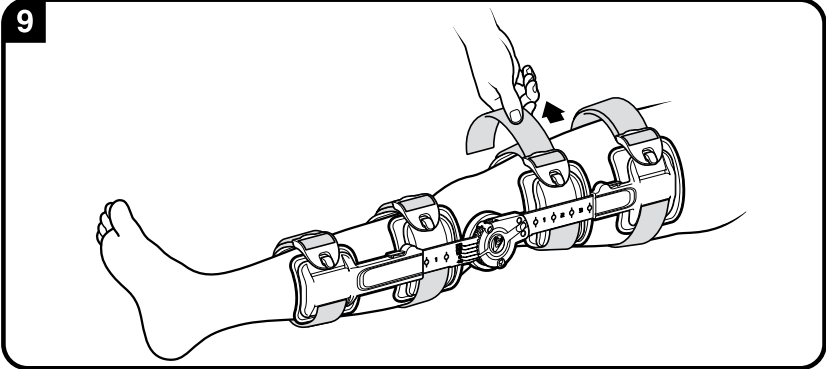
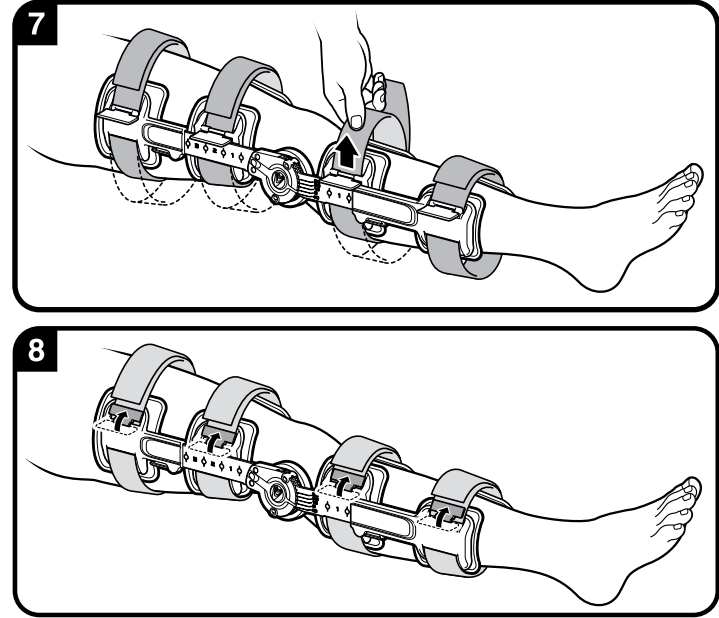
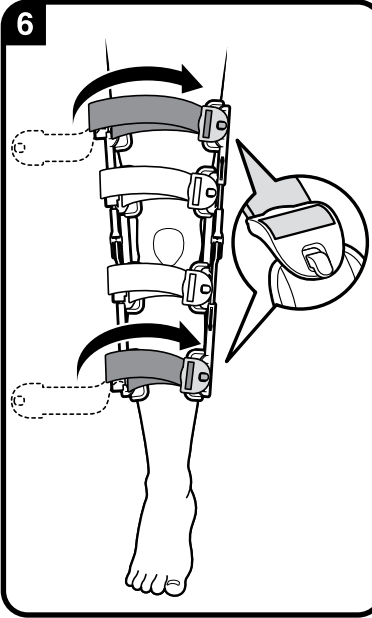
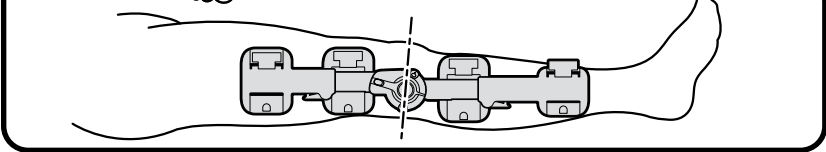
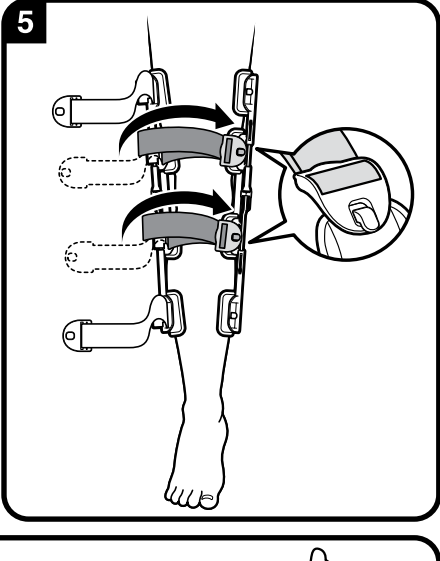
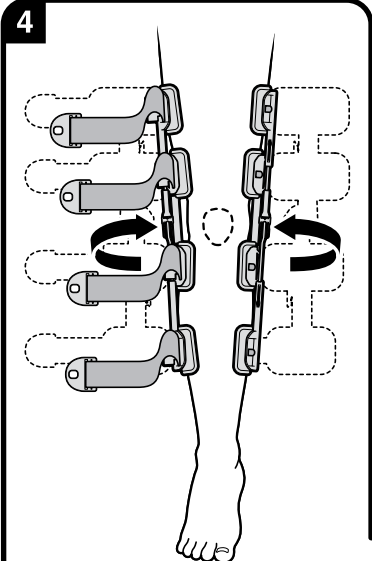
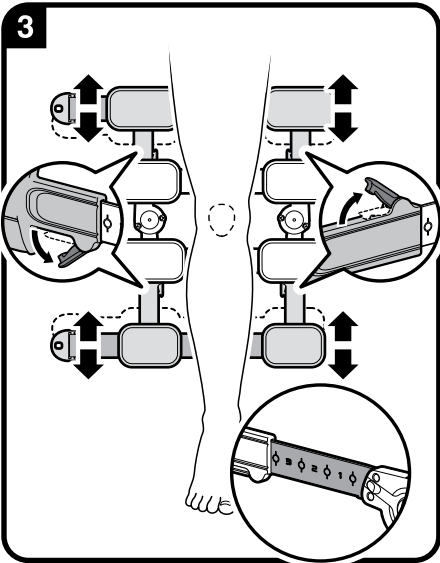
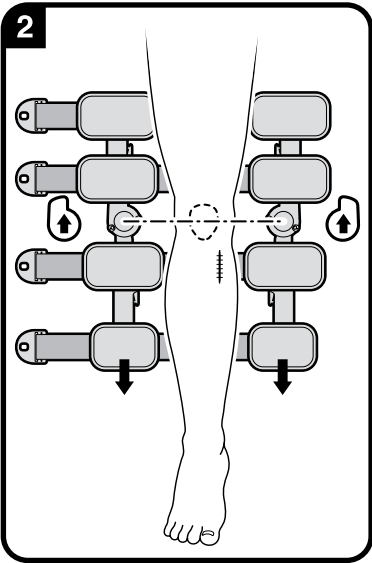
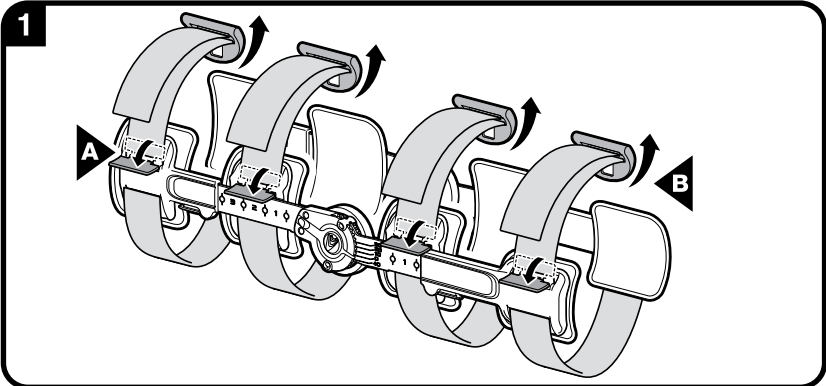
- Continue above with increased resistance
  - Step-downs
  - Treadmill
  - Stretching
  - Begin prone hangs and HSL (if PCL reconstruction)
- **Goals:**
  - Walk 1-2 miles at 15 min/mile pace

**REINTEGRATION PHASE (Months 3-5)**

- **Weight Bearing and Range of Motion:**
  - Full
- **Brace Use:**
  - None
  - If return to sport, fitting for custom brace by 5 months
  - **Can start jogging/running at 6 months**
- **Therapeutic Elements:**
  - Slide boards
  - Begin agility drills
  - Figure 8's
  - Gentle loops
  - Large zig-zags
  - Swimming
  - Begin plyometrics at 4 months
- **Goals:**
  - Treadmill (walk 1-2 miles at 10-12 min/mile pace)
  - Return to competitive activities

**Comments:****Frequency:** \_\_\_\_ times per week**Duration:** \_\_\_\_ weeks**Signature:** \_\_\_\_\_**Date:** \_\_\_\_\_





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## Post-Op Brace Fitting Instructions

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Instrucciones de colocación de la rodillera postoperatoria



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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 GEFÄHRLOSEN 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 KNEE BEI GEWICHTSBELASTUNG ZU STABILISIEREN UND NICHT ALS ERSATZ FÜR EINE GEHILFE. BEACHTEN SIE DIE ÄRZTLICHEN ANWEISUNGEN IM HINBLICK AUF BELASTUNG UND VERWENDEN SIE STETS EINE PASSENDE GEHILFE 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 SÙ 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 DEAMBULATORIO.

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'ORTHÈSE 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 APPROPRIEE 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 MARCHÉ. 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 AMERICAIN 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

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ADVERTENCIA: NO SE quite la rodillera T Scope a menos que lo indique el profesional médico que le proporcione el 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.

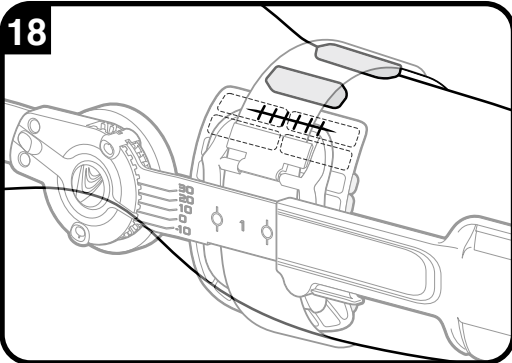
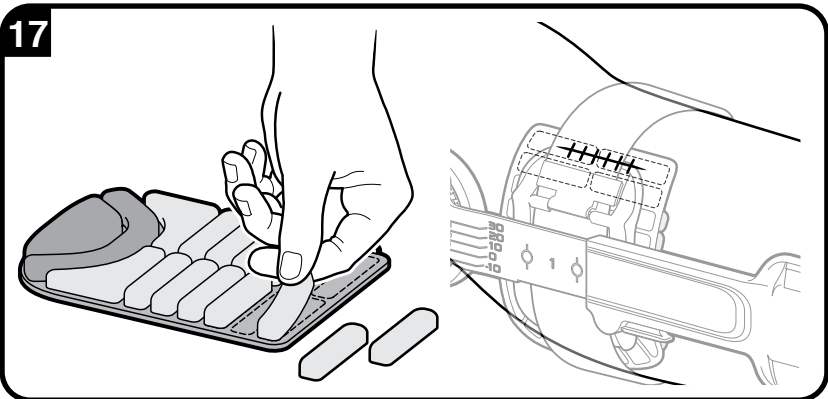
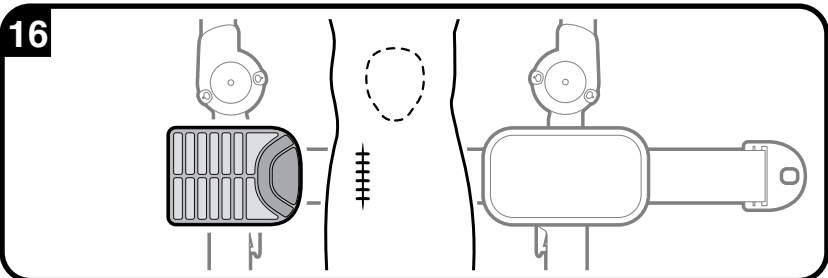
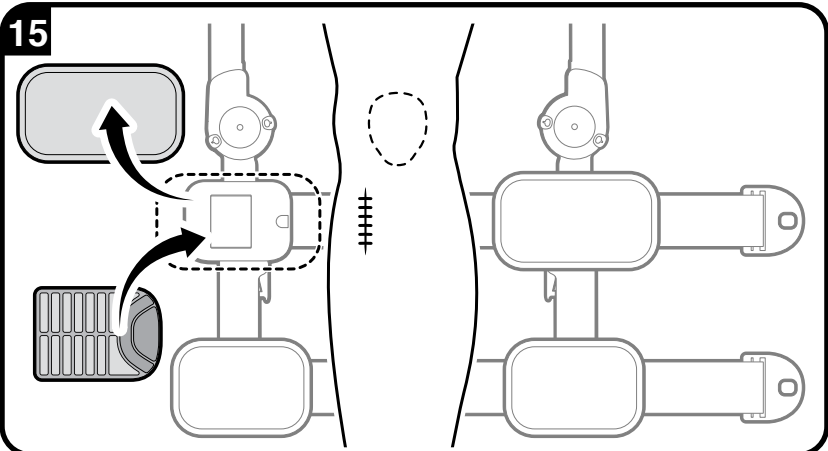
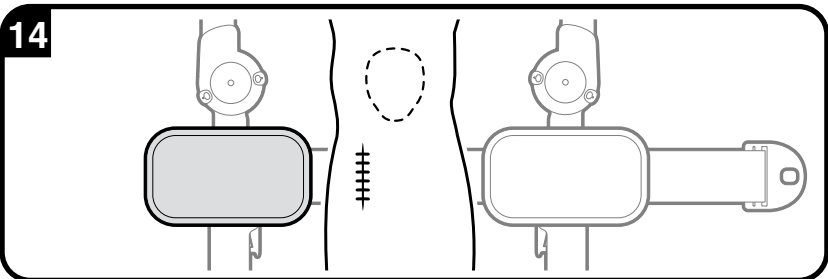
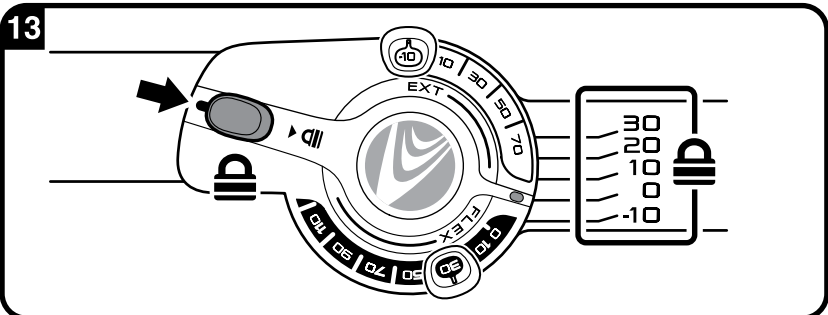
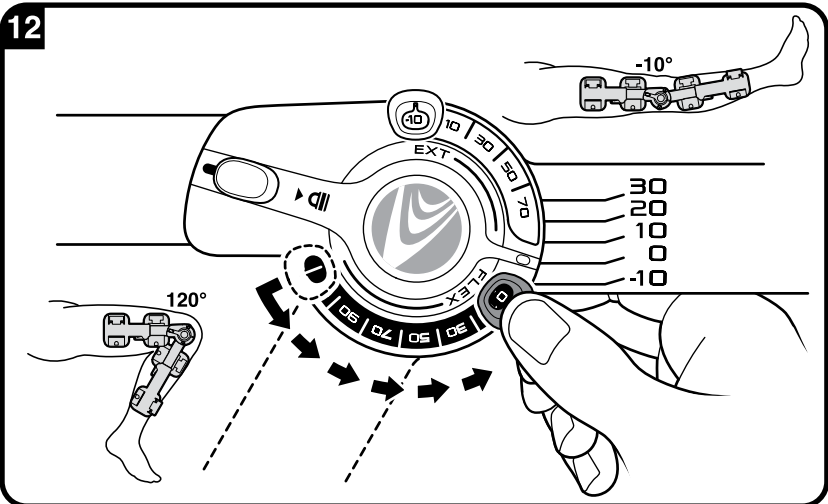
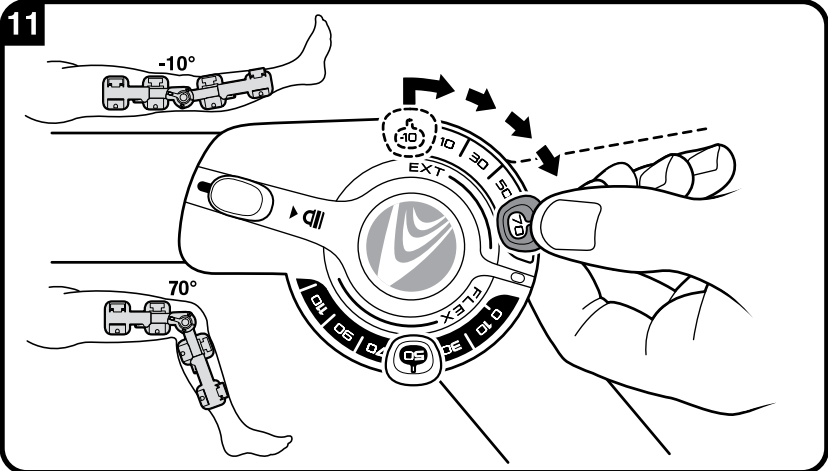
### USE AND CARE OF YOUR T SCOPE BRACE:

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.





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

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

- 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 reemplazar uno de los acolchados existentes cuando use el acolchado de incisión BridgeTech.
- Para reemplazar 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.
- 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.
- Para crear un efecto de puente en el punto de incisión, retire individualmente las secciones que se desprenden según sea necesario.
- 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.

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

- Verschlussclips der Gurte (A) lösen und Schnallen (B) aushaken.
- 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.**
- 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.
- Scharnierstangen mit dem mittleren Scharnier am Kniegelenk lateral und medial zum Bein positionieren.
- Beide knienahen Gurte locker schließen.
- Restliche 2 Gurte locker schließen.
- Gurte so fest anziehen, dass sich kein Spielraum hinter dem Bein befindet. Sicherstellen, dass sich die Scharnierstangen nicht seitlich oder mittig verschieben.
- Clips an den Gurten schließen.
- Gurte fest durch die Schnallen ziehen. Sicherstellen, dass sich die Scharnierstangen nicht seitlich oder mittig verschieben.
- 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):

- Die Streckgrenze kann zwischen -10 Grad (Überstreckung) und 70 Grad eingestellt werden, indem die Lasche herausgezogen und in die gewünschte Position gebracht wird.
- Die Beugegrenze kann zwischen -10 und 120 Grad (letzte Markierung auf der Skala) eingestellt werden.
- 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:

- 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.
- 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.
- 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.
- Zur Überbrückung einer Inzisionsstelle werden die einzelnen perforierten Bereiche nach Bedarf entfernt.
- 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!

- Aprire i fermagli dei cinturini (A) e sganciare le fibbie (B).
- 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.**
- Allentare i fermagli antislittamento sulle barre telescopiche. Per un adattamento ottimale, far scivolare le barre telescopiche superiore e inferiore delle cerniere per adattare 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.
- Posizionare le barre delle cerniere lateralmente e medialmente rispetto alla gamba, centrando le cerniere a livello dell'articolazione del ginocchio.
- Fissare senza stringerli i 2 cinturini più vicini al ginocchio.
- Chiudere senza stringerli i restanti 2 cinturini.
- Tendere bene i cinturini per eliminare il lasso dietro la gamba. Fare attenzione a mantenere le posizioni laterale e mediale delle barre delle cerniere.
- Chiudere i fermagli di bloccaggio dei cinturini.
- Stringere bene i cinturini attraverso le fibbie. Fare attenzione a mantenere le posizioni laterale e mediale delle barre delle cerniere.
- 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

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

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

- Deverrouillez les brides de la sangle (A), puis ouvrez les boucles (B).
- 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.**
- 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.
- 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.
- Attachez sans les serrer les 2 sangles les plus proches du genou.
- Attachez sans serrer les 2 sangles restantes.
- 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.
- Fermez les brides de verrouillage des sangles.
- Tirez les sangles à fond à travers les boucles. Veillez à maintenir les positions latérales et médiales des barres d'articulation.
- 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 :

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

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

- Abra los clips de fijación de la tira (A), desenganche las hebillas (B).
- 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.**
- 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.
- Coloque las barras de bisagra lateral y medialmente con respecto a la pierna, y centre la bisagra en la articulación de la rodilla.
- Enganche, sin apretar, las 2 tiras más próximas a la rodilla.
- Enganche, sin apretar, las 2 tiras restantes.
- 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.
- Cierre los clips de fijación de las tiras.
- 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.
- 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 introducir las lengüetas en Y.