

OAK™

ORTHOSIS

by Fillauer LLC

US Patent: No. 6,540,709.B1
European Patent: No. 1115356
Swedish Patent: No. 99952861.5
German Patent: No. DE699131790



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THE OAK™ ORTHOSIS

Feel the free-glide difference with the new OAK Orthotic Knee Joint from Fillauer. The OAK (Osteo-Arthritis Knee) polycentric orthotic knee joint has been engineered to provide motion that better approximates normal physiologic knee movement for use in a custom Osteoarthritic Knee Orthosis. Unlike simple pivot knee joints, the polycentric action of the OAK provides inherent stability at full extension and easy gliding during swing phase. This allows the patient to feel the “glide flex” stability during the first 5° of flexion.

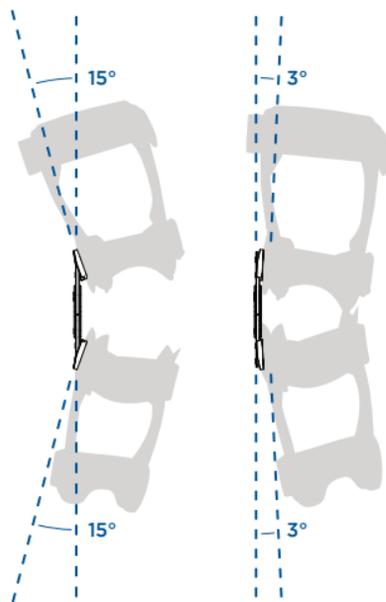
The laterally mounted OAK joint also incorporates proximal and distal mounting plates with an adjustable range of 6° of genu varum to 30° of genu valgum. This allows the orthotist to fine-tune the amount of medial compartment unloading, to help relieve pain in the knee joint.



OAK features a full range of knee flexion from 12°-150° with a 15° extension stop and 90° flexion stop. The Scandinavian inspired OAK provides function in a thin, cosmetic, and streamlined package and is constructed of special high strength aluminum and stainless steel. You will feel the difference.

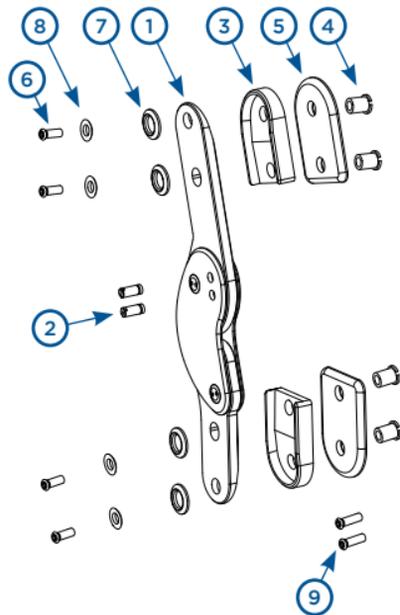
The anterior proximal thigh and distal calf cuffs of the OAK brace have been designed with additional anatomic geometry to optimize comfort and rotation control. The use of the OAK polycentric knee mechanism better approximates the normal physiologic motion in the sagittal as well as the transverse plane. Many designs simply use a unicentric hinge joint that rotates anterior to find the position of the instantaneous center, whereas the polycentric joint remains in position throughout flexion.

The Comfil® TFC version uses a lightweight thermoformable carbon composite material that is easily remolded using a heat gun. The Kydex® and ABS versions use a lightweight impact resistant material and is also easily remolded using a heat gun.



CONTENTS

OAK Orthotic Knee Joint Kit (Right)	023990
OAK Orthotic Knee Joint Kit (Left)	023991
1 OAK Joint (Right)	023900
OAK Joint (Left)	023901
2 (2) Flex/Ext Stop Pins	023979
Hex Key 1/8"	885345
Mounting Kit (Includes following)	023980
3 (2) External Alignment Block	023985
4 (4) Mounting Nut	023987
5 (2) Internal Mounting Plate	023984
6 (4) Mounting Screw 5/8"	885901
7 (4) Alignment Washer	023982
8 (4) Spherical Washer	023981
9 (2) Mounting Screw 3/4"	885903





- 024200** OAK Orthosis, Comfil® TFC, Small, Right
- 024201** OAK Orthosis, Comfil® TFC, Small, Left
- 024202** OAK Orthosis, Comfil® TFC, Medium, Right
- 024203** OAK Orthosis, Comfil® TFC, Medium, Left
- 024204** OAK Orthosis, Comfil® TFC, Large, Right
- 024205** OAK Orthosis, Comfil® TFC, Large, Left
- 024206** OAK Orthosis, Comfil® TFC, X-Large, Right
- 024207** OAK Orthosis, Comfil® TFC, X-Large, Left
- 024198** OAK Orthosis, Comfil® TFC, Custom Cuff Selection



- 024208** OAK Orthosis, Kydex®, Small, Right
- 024209** OAK Orthosis, Kydex®, Small, Left
- 024210** OAK Orthosis, Kydex®, Medium, Right
- 024211** OAK Orthosis, Kydex®, Medium, Left
- 024212** OAK Orthosis, Kydex®, Large, Right
- 024213** OAK Orthosis, Kydex®, Large, Left
- 024214** OAK Orthosis, Kydex®, X-Large, Right
- 024215** OAK Orthosis, Kydex®, X-Large, Left
- 024199** OAK Orthosis, Kydex®, Custom Cuff Selection



- 024216** OAK Orthosis, ABS, Small, Right
- 024217** OAK Orthosis, ABS, Small, Left
- 024218** OAK Orthosis, ABS, Medium, Right
- 024219** OAK Orthosis, ABS, Medium, Left
- 024220** OAK Orthosis, ABS, Large, Right
- 024221** OAK Orthosis, ABS, Large, Left
- 024222** OAK Orthosis, ABS, X-Large, Right
- 024223** OAK Orthosis, ABS, X-Large, Left
- 024196** OAK Orthosis, ABS, Custom Cuff Selection



- 024224** OAK Short Orthosis, ABS, Small, Right
- 024225** OAK Short Orthosis, ABS, Small, Left
- 024226** OAK Short Orthosis, ABS, Medium, Right
- 024227** OAK Short Orthosis, ABS, Medium, Left
- 024228** OAK Short Orthosis, ABS, Large, Right
- 024229** OAK Short Orthosis, ABS, Large, Left
- 024197** OAK Short Orthosis, ABS, Custom Cuff Selection

CUSTOM ORTHOSIS

Custom fabricated orthosis made to measurements for CAD model or patient cast

- 503170** OAK Orthosis, Comfil® TFC, Custom with Joint Included
- 503180** OAK Orthosis, Kydex®, Custom with Joint Included
- 503200** OAK Orthosis, ABS, Custom with Joint Included
- 503190** OAK Short Orthosis, ABS, Custom with Joint Included

ACCESSORIES



Optional accessory to aid in suspension and comfort

024300BLK Silicone Strap Pad, Black

- 024400** OAK Brace Padding Kit, Small, Right
- 024402** OAK Brace Padding Kit, Small, Left
- 024404** OAK Brace Padding Kit, Medium, Right
- 024406** OAK Brace Padding Kit, Medium, Left
- 024408** OAK Brace Padding Kit, Large, Right
- 024410** OAK Brace Padding Kit, Large, Left
- 024412** OAK Brace Padding Kit, X-Large, Right
- 024414** OAK Brace Padding Kit, X-Large, Left

Padding Kit includes upper pad, lower pad, and (16) adhesive hook dots

- 024416** OAK Short Brace Padding Kit, Small, Right
- 024418** OAK Short Brace Padding Kit, Small, Left
- 024420** OAK Short Brace Padding Kit, Medium, Right
- 024422** OAK Short Brace Padding Kit, Medium, Left
- 024424** OAK Short Brace Padding Kit, Large, Right
- 024426** OAK Short Brace Padding Kit, Large, Left

Padding Kit includes upper pad, lower pad, and (16) adhesive hook dots

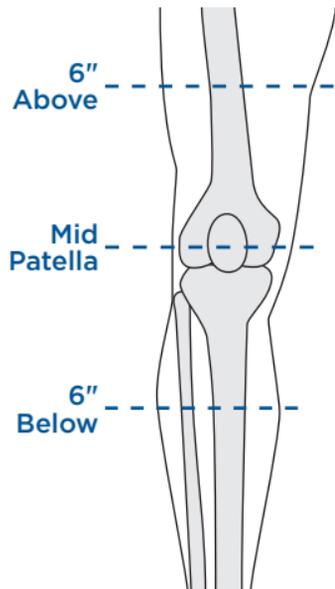
- 024600** OAK Brace Strapping Kit, Small, Right
- 024602** OAK Brace Strapping Kit, Small, Left
- 024604** OAK Brace Strapping Kit, Medium, Right
- 024606** OAK Brace Strapping Kit, Medium, Left
- 024608** OAK Brace Strapping Kit, Large, Right
- 024610** OAK Brace Strapping Kit, Large, Left
- 024612** OAK Brace Strapping Kit, X-Large, Right
- 024614** OAK Brace Strapping Kit, X-Large, Left

Strapping Kit includes (4) straps, (4) chafes, and (8) rivets

SIZING

Measurements taken six inches above and six inches below mid-patella with knee fully extended

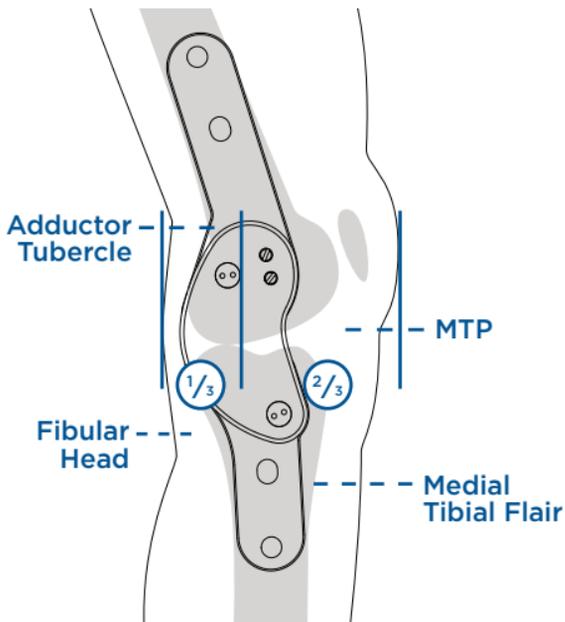
	6" Above	6" Below
Small	15-18" (38-46 cm)	12-15" (30-38 cm)
Medium	18-22" (46-56 cm)	15-17" (38-43 cm)
Large	22-25" (56-63 cm)	17-19" (43-48 cm)
X-Large	25-29" (63-74 cm)	17-19" (43-48 cm)



INSTRUCTIONS

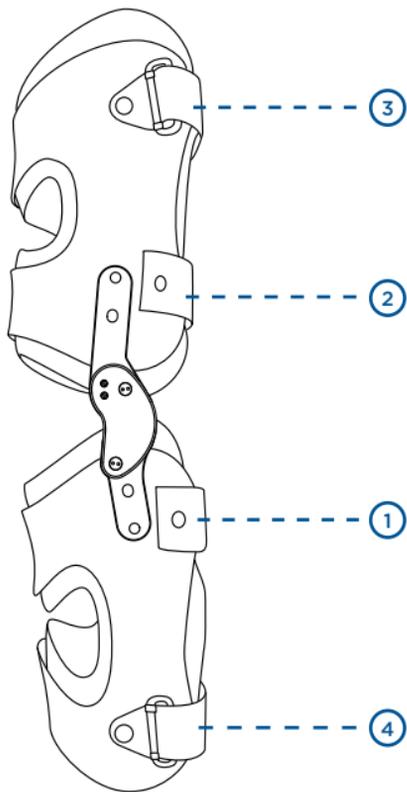
DONNING

- Unfasten all straps and fully extend the knee orthosis.
- In the seated position, flex knee slightly (approximately 30°), slide brace onto limb so that proximal portion of knee joint aligns with mid-patella level. This will adequately place the functional knee joint center with the anatomic knee center.



STRAPPING

- With the knee orthosis on the limb, fasten the superior calf strap. The strap should be snug, but not cause discomfort.
- Repeat the procedure moving proximally up the orthosis, and fasten the two thigh straps. Once the thigh straps are in place, fasten the inferior calf strap.
- After 15 minutes of activity the straps may need to be readjusted. This is normal due to the soft tissue of the limb accommodating to the forces applied by the orthosis.
- To remove the orthosis simply unfasten the straps and remove the brace from the limb.



CLEANING AND MAINTENANCE

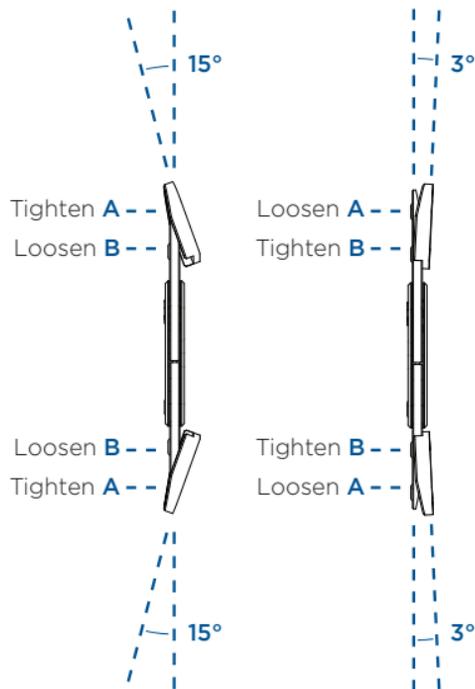
- Regular cleaning of the straps and orthosis lining is required. Frequency of cleaning is dependent on activity level and individual body types
- Straps and lining are hand washable in cold water with mild detergent. Rinse straps and lining thoroughly after washing then air dry
- The OAK Joint is self lubricating and does not require additional lubricants to maintain normal operation

REFORMING

- DO NOT exceed 250°F/120°C for Comfil® TFC material
- DO NOT exceed 375°F/190°C for Kydex® and ABS materials
- When reforming the brace, the padding should be removed
- Hold heat gun approximately 1" to 2" from area to be reformed and begin to heat the outside of the material. Avoid focusing heat in one area for too long. Progress to the inside of brace and continue to heat material in this manner until it becomes pliable. Overheating Comfil® TFC material could result in delamination. Use heat resistant gloves to handle and reform hot material.

OAK JOINT ADJUSTMENTS

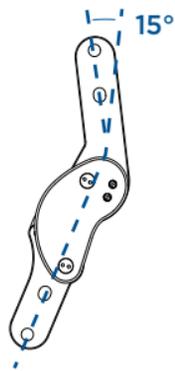
- The OAK Joint allows for up to 30° of genu valgum and 6° of genu varum to help relieve pain and discomfort in medial compartment of knee
- The OAK Joint features a fine tune adjustment for genu valgum/varum after the joint has been mounted on the brace. Adjust for genu valgum/varum with the 4 adjustment screws. The range of motion is from 30° genu valgum to 6° genu varum. Tightening the **A** screws and loosening **B** screws will result in greater genu valgum. Conversely, tightening the **B** screws and loosening the **A** screws will result in greater genu varum. In the case of extreme genu valgum adjustment, the **B** screws may need to be replaced with the longer mounting screws (included in package).



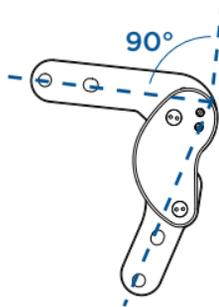
- The OAK Joint incorporates two stops, one extension stop at 15° and one flexion stop at 90° . Threaded pins are inserted into the knee joint from the lateral side. A small amount of thread locker should be applied to prevent pins from backing out.



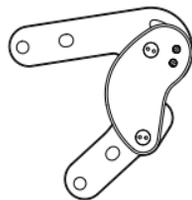
Full Extension



Extension Stop



Flexion Stop



Full Flexion



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