

## WHEN LIGAMENTS ARE DAMAGED

Undamaged ligaments are the prerequisite for a perfect functioning knee joint. Ligaments support the rolling and sliding motions of the joint and ensure the necessary stability. Injuries to the ligaments can be caused by direct or indirect trauma:

### Direct traumas:

- The direct trauma may result from a lateral force impacting the knee while the foot is fixed on the ground. This may lead to injuries to the anterior cruciate ligament, medial collateral ligament, and the meniscus (so called "unhappy triad")

### Indirect traumas:

- Injuries caused by valgus-outward rotation of the knee
- Injuries caused by varus-inward rotation of the knee
- Hyperextension
- Abrupt contraction of the quadriceps while the knee is in flexed position

In particular ligament ruptures are some of the most frequent injuries, especially due to traumas sustained during sporting activities. But falls and stumbling may also cause damage to the ligaments. Injuries to the anterior cruciate, medial and lateral collateral ligaments are very frequently diagnosed. Injuries to the posterior cruciate ligament are, in contrast, considerably more rare. The treatment is either operative with subsequent rehabilitation and physical therapy or conservative.

## APPLICATION AND EFFECTIVENESS OF THE BRACE

The **Pluspoint 4** is designed for use when individual ligaments are damaged (instabilities and ruptures) but may also be used for combined ligament instabilities. It can be used both before and after an operation. The brace is also effective to support conservative therapy.

The basic principle of the Pluspoint 4 is the so called 4-point of stabilization, that compensates for ligament sprains.

The flexion and extension may be adjusted gradually as required to ensure that the brace can be adapted precisely to the needs of the patient in every stage of therapy or rehabilitation.

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## pluspoint 4

Functional knee brace

REF. 33040

Size	S	M	L	XL	XXL
Thigh circ. taken 15 cm above mid-patella cm	39/47	47/53	53/60	60/67	67/75
Length	40	40	40	40	40

Colour: black · specify right or left

### INDICATIONS

- Instabilities and ruptures of ACL, MCL, LCL, PCL or combined instabilities
- Complex instabilities of the knee joint, traumatic or degenerative
- Pre/Post-operative therapy, rehabilitative or conservative, of the aforementioned injuries
- Protection of the ligaments when doing sports

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## RELIEF AND NATURAL STABILISATION OF THE KNEE JOINT

**Pluspoint 4** is a light, functional knee brace with a thin polycentric joint which works according to the 4-point support principle. It provides effective relief and complete, natural stabilisation of the knee joint. The ergonomic construction, a new design and the use of an ultra-light aluminium alloy all ensure stability whilst providing a high level of comfort. Both flexion and extension can be set gradually in multiple stages. This makes **Pluspoint 4** ideal for post-operative rehabilitation, support of conservative therapy as well as for use in sports.



### ANATOMICALLY FORMED CONDYLE PAD

A medial, anatomically formed condyle pad ensures optimum fixation. The form of the pad enables it to very gently mould itself to the joint.

The scope of delivery contains two sets of replaceable condyle pads of different thicknesses which enable simple fitting and adaptation (for example, after the swelling of the knee joint has been reduced).

## THE NEW PLUSPOINT 4

Light and comfortable just as stable and effective.



### CLICKCLACK: the new super-fast and screwdriver-free extension and flexion adjustment system

**Pluspoint 4** features the new extension and flexion adjustment system. Just open the hinge by sliding the two covers to the side, remove the stops holding the wedges in place and replace these wedges to provide the degree of flexion or extension prescribed by the physician. Then just secure the wedges with the stops and slide the covers back into place until they "click."



### NEW DESIGN – ESPECIALLY LIGHT AND STABLE

The frame of the **Pluspoint 4** is made of a special aluminium alloy with an extremely modern and technically complex frame reinforcement. In the thigh region, the frame is rounded. The interior pads are a little bit larger than the frame and also increase comfort. The soft matt, reflection-free paint coat guarantees a subtle appearance.



### NEW CLOSURE SYSTEM FOR PERFECT SEATING

The closure system has been developed using modern materials. The strap buckles are made from a special, flexible plastic and are thus easier to use. The joints have trapezoidal brackets with an anti-rotation system. These innovations ensure that the threading and securing of the straps is much easier enabling the dynamic motions of the musculature to be dampened gently and pleasantly.



### NEW: TWO-PIECE CLOSURE STRAPS

All closure straps have a front and rear strap with Velcro® closure. These are secured independently and can be removed individually. The MTP foam padding on the inside are seam-free and without adhesive points, with soft velour on the outside in order to have a soft and pleasant touch.



### RELIABLE BRACE WITH SPECIAL FLAT PROFILE

The **Pluspoint 4** joint we have developed has already proved its worth thousands of times in our braces. The polycentric joint with the modern dynamic design is ultra-flat. It can easily be opened ensuring a new setting can be made within short time.

#### Variable settings using wedges

Extension restriction:

0°, 10°, 20°, 30°, 40°

Flexion restriction:

45°, 60°, 75°, 90°

Immobilisation possible at:

0°, 10°, 20°, 30°



### QUICK TO PUT ON AND ADAPT

Thanks to the open frame structure and two-piece closure straps, the brace is very easy to adapt. Flexible buckles make threading the straps easier.



### NEW: THE END OF SLIPPING PADS

The interior pads of the frame are secured with flat snaps. As a result, there are no more glued Velcro® on the aluminum frame, that results in optimum hold. This technical innovation, for example, also makes removing and cleaning the pads as easy as it gets. The skin-friendly Multi-Grip coating also has an additional non-slip effect.

