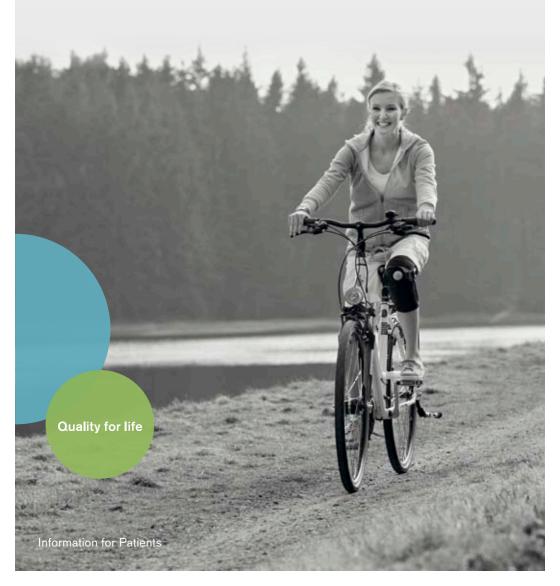
#### ottobock.

### Get Moving Again

Patella Pro for anterior knee pain



"I still have many plans for my life. So I need to be mobile."



### The innovative concept of Patella Pro

Anterior knee pain is one of the most frequent reasons for consulting an orthopaedist. Treatment is usually protracted. Pain and inflammation in the anterior knee joint can easily lead to a vicious circle pain causes patients to reduce muscle activity and adopt compensatory posture. This damages patellar tracking even more. Pain brought on by movement continues to increase.

Scientists, practicing orthopaedists, orthopaedic technicians and therapists have therefore worked with Ottobock to develop a new technology for the treatment of anterior knee pain.

The result is the Patella Pro orthosis. Its special feature: Thanks to dynamic patella re-alignment, the patella is tracked to the correct extent every time the knee is flexed.

Patella Pro thus allows movement without pain. Prescribed by your orthopaedist; fitted by your orthopaedic technician.



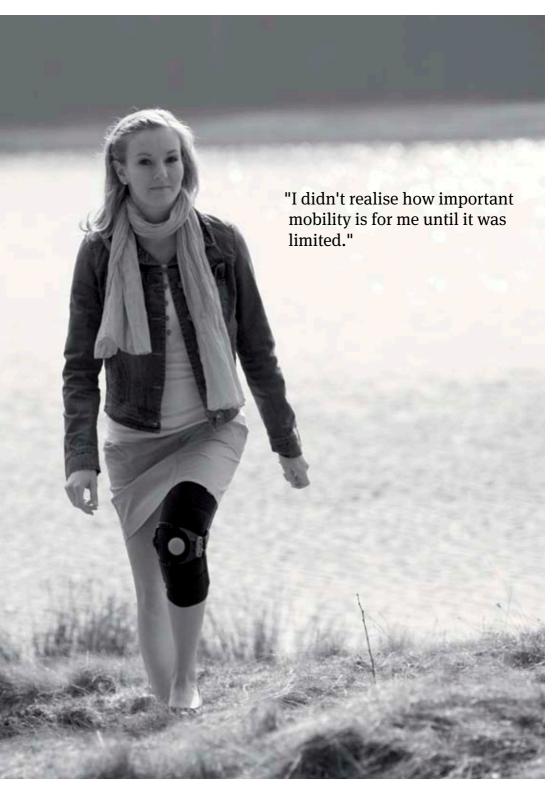
# What is anterior knee pain?

You have pain at the front of your knee joint. Your physician has diagnosed "patellofemoral pain syndrome" and means pain in the front of the knee – in short, anterior knee pain.

This is one of the most frequent clinical pictures in orthopaedics. Every fourth knee problem is anterior knee pain. Incidentally, women are affected more often than men.

This condition can have a variety of causes.





### When tracking is absent

### Trigger for pain

Stress to the patellofemoral joint is often thought to trigger anterior knee pain.

Normally, the kneecap (patella) glides along the thigh bone as if on a track. In anterior knee pain, the patella is often displaced. It slips outwards and causes pain.

The patella can become displaced especially during knee flexion from 10° to 30° because tracking is comparatively weak in this range. With greater flexion (>30°), the patella is firmly seated in its "holder". The risk of maltracking is then low.

To avoid anterior knee pain, you must ensure that the patella is guided precisely in slight flexion, but not subjected to additional pressure when flexion is greater, which would force it into a rigid position.

## Patellar maltracking is considered the main trigger of anterior knee pain Slight flexion of the knee joint (10°-30°) Poor mechanical tracking of the patella Patellar maltracking Patellofemoral joint stress Anterior knee pain

### Stop the pain Treatment options

Just as varied as the causes of anterior knee pain are the treatment approaches. Treatment is primarily conservative. "Conservative" means that no surgery is required. Conservative therapy specifically targets the symptoms.

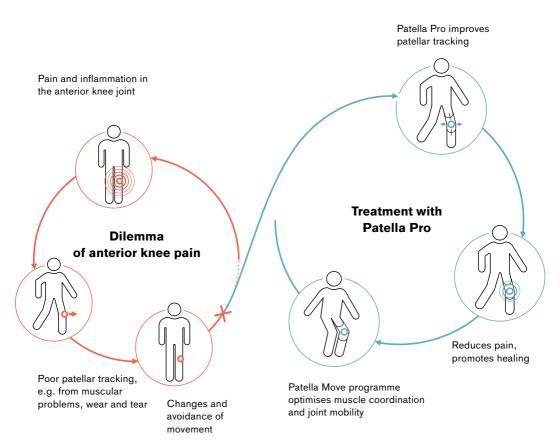
In order to counter the actual cause, you will be given a therapy concept individually coordinated to you and your needs. Medication is used to fight acute pain. The focus is often on physical therapy, which in most cases is used to strengthen muscles and tendons so they can track the patella better. Simultaneously, abnormal positions and compensatory posture should be corrected.

However, before you can move without pain, the patella must be tracked securely; this is what orthoses such as the Patella Pro are for.

Surgical options should be considered only for patients for whom several months of conservative therapy have not yielded improvement.

#### Stop the vicious circle

The treatment concept behind Patella Pro



### Good tracking

#### How the Patella Pro works

For patients with anterior knee pain, slight flexion is especially critical; the patella can be shifted outwards, causing excessive stress to the joint.

Patella Pro relieves pain with its dynamic realignment mechanism. It tracks the patella precisely in the middle, meaning it centres or aligns it. The articular cartilage is no longer excessively stressed.

"Dynamic" means that the tracking is always as strong as the patella needs. At the beginning of flexion, when the patella is not yet sufficiently guided in its "bony track", the orthosis tracks it specifically, thus supporting the overstrained muscles. As the knee joint is flexed further, the patella glides into the "track" of the femur and Patella Pro does not exert any additional force.

Patella Pro is the only orthosis with this mechanism. Ask your physician or medical supplies store.

#### C Tested

Institute for Biomechanics and Orthopaedics/Cologne

**Biomechanical Efficacy** and Effectiveness

#### Flexion 10°-30°

High risk of patellar maltracking (shifting outward)

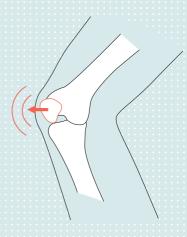


Precise tracking of the patella by Patella Pro



#### Flexion >30°

Lower risk of patellar maltracking



Continued optimal tracking without overcorrection







"Figure roller skating was and is my passion. But movement is important for me in everyday activities, too. I only feel really good when I'm active."

#### Ensure sustained success

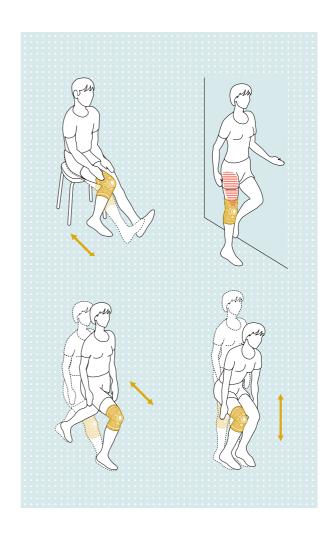
#### Patella Move Programme

Problems such as "anterior knee pain" have numerous causes and are often associated with weak muscles. Muscle coordination is also frequently impaired.

Specific exercises of the Patella Move programme support treatment with Patella Pro and ensure sustained rehabilitation.

#### Four training units

- Pain Reduction
- Activation
- Balance and Coordination
- Strengthening



Select exercises with your physician or therapist that promote sustained, pain-free mobility. We hope you get well soon!

#### O Note

If no exercise programme is shown here please contact us at www.ottobock.de