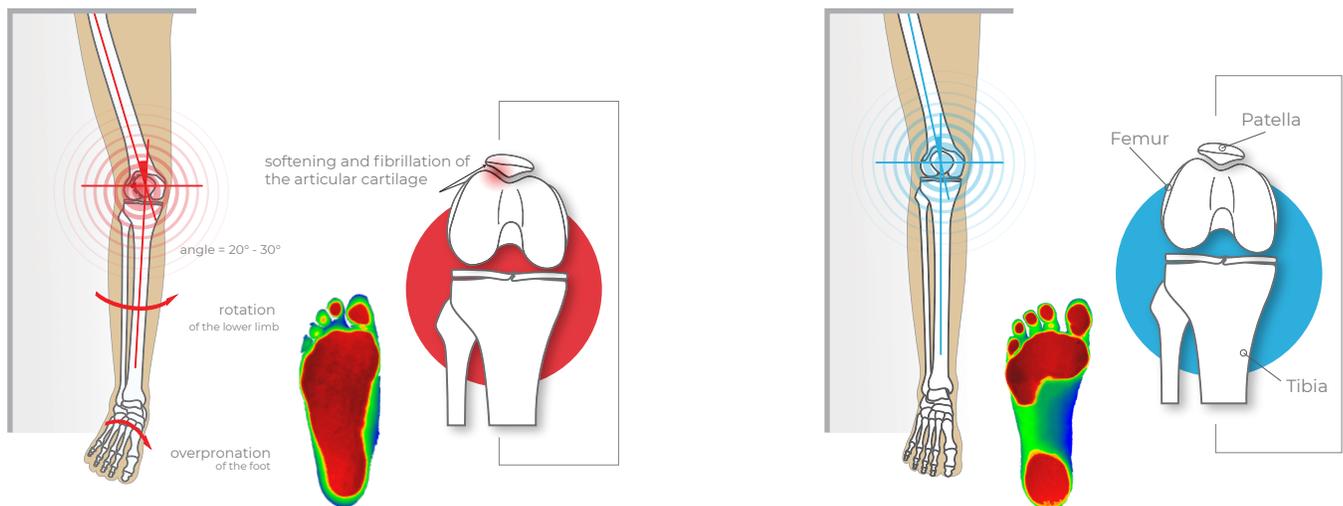


Knee Pain & Over-Pronation

The foot and ankle influence movement and function throughout the entire skeletal structure. If there are subtle differences in function and flexibility from one foot to the other, those differences are translated superiorly through the knees, into the hips, pelvis and spine.

The most common influential factor of the feet is bilateral, asymmetrical excessive pronation. The dropping of the navicular bone and internal rotation of the foot/ankle complex slightly twists the knee – because the ankle bone is connected to the knee bone. **Here are factors to consider:**



OVERPRONATED FOOT VS. OPTIMAL FOOT

HEEL STRIKE

At heel strike, the knee is **typically between full extension and 20 degrees of flexion**. The forces transmitted from the foot into the knee are high. When either extension or slight flexion is combined with internal rotation of the tibia in relation to the femur, **knee injuries become more common**.

Q-ANGLE

The slight internal rotation of the tibia correlates with an increase in the Q angle. An increased Q angle has been associated with **increased incidents of ACL injuries**.

OrthopedicNotes

ASYMMETRICAL STRESS

Asymmetrical stress to the cartilage is compounded by the fact that there is a neuromuscular inhibition of the quadriceps femoris muscle with **excessive pronation further contributing** to the asymmetrical stresses on the knee.

ADDRESSING MICROTRAUMA

When harmful biomechanical stresses are managed efficiently, the result is a reduction in microtrauma. This means that there is **less inflammation, scar tissue and joint space degradation**. Addressing the foundation is fundamental to preserving optimal joint function in the presence of an imbalanced foundation.

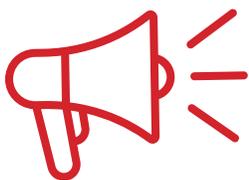
SOLUTION

The most basic form of prevention comes from individually designed **stabilizing orthotics** to block the biomechanical differences in the feet that are transferred up the kinetic chain. Creating a **symmetrical foundation** at the feet with flexible orthotics allows the joints above the feet to function more symmetrically.



TREATMENTS

- A digital **foot scan** to determine severity of over-pronation
- Evaluate **gait and posture** for abnormal patterns
- Investigate **foot biomechanics**
- Well-designed **shoes**



Don't forget about **multiple pair savings**.

TAKE2 = Buy 1 pair at full price, additional pairs **\$99**