

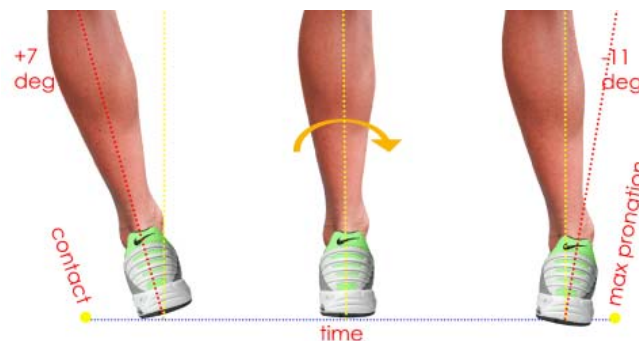
WHAT IS PRONATION?

When you run each time your foot strikes the ground a **pressure equal to 3** times your body weight goes through each leg.

Pronation is the bodies **natural** cushioning mechanism and works to reduce the impact stress on your body. It is the inward rolling of the foot just after the foot hits the ground.

Pronation reduces the impact of running and is therefore a beneficial action.

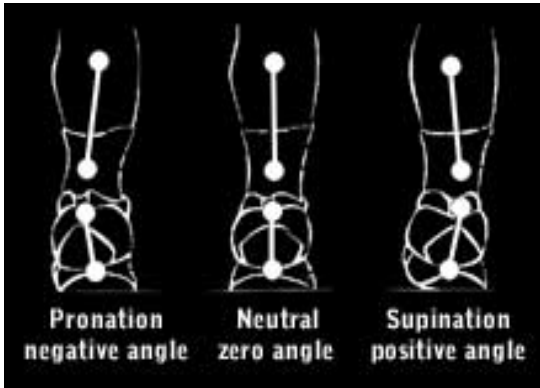
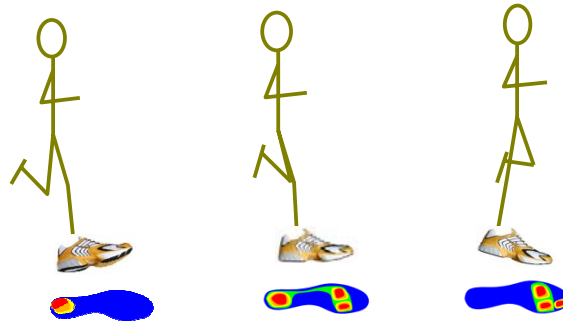
Problems only usually occur if you Overpronate (roll in too much) or Supinate (don't roll in enough) and are wearing the **wrong** shoes.



HOW DOES THE BODY REDUCE IMPACT?

Clearly the stress on the body and lower limbs when running must be **reduced**. The body lessens the impact of running in a number of ways. During the contact of the foot to the ground the forces involved cause the foot to roll in and the arch to flatten.

Pronation acts as an **active cushioning** mechanism using the muscles, ligaments, tendons and joints in the lower limbs to absorb the impact.



The foot must be allowed to **naturally** pronate to a certain degree but should be prevented from over-pronating (rolling in too much) or Supinating (not rolling in enough).

Pronation sets off a very important series of events so

the body can **absorb impact**. First the foot rolls in. This inward rolling of the foot causes the shin bone to internally rotate. This in turn facilitates bending of the knee joint. The knee bending allows the thigh muscles (largest muscle group in the body) to stretch absorbing the impact force.

