

If you have a normal arch, you're likely a normal pronator, meaning you'll do best in a stability shoe that offers moderate pronation control. Runners with flat feet normally overpronate, so they do well in a motion-control shoe that controls pronation. High-arched runners typically underpronate, so they do best in a neutral-cushioned shoe that encourages a more natural foot motion.

Normal Pronation

The outside part of the heel makes initial contact with the ground. The foot "rolls" inward about five percent, comes in complete contact with the ground, and can support your body weight without any problem. The rolling in of the foot optimally distributes the forces of impact. This movement is called "pronation," and it's critical to proper shock absorption. At the end of the gait cycle, you push off evenly from the front of the foot.



Overpronation

As with the "normal pronation" sequence, the outside of the heel makes the initial ground contact. However, the foot rolls inward more than the ideal five percent, which is called "overpronation." This means the foot and ankle have problems stabilizing the body, and shock isn't absorbed as efficiently. At the end of the gait cycle, the front of the foot pushes off the ground using mainly the big toe and second toe, which then must do all the work.



Underpronation

Again, the outside of the heel makes initial contact with the ground. But the inward movement of the foot occurs at less than four percent (i.e., there is less rolling in than for those with normal or flat feet). Consequently, forces of impact are concentrated on a smaller area of the foot (the outside part), and are not distributed as efficiently. In the push-off phase, most of the work is done by the smaller toes on the outside of the foot.

