PATELLA

FEMUR

TIBIA

GASTROCNEMIUS MUSCLE

SOLEUS MUSCLE

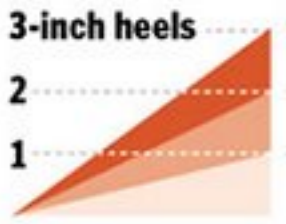
The knee
The altered posture of walking in high heels places excess force on the inside of the knee — a common site of osteoarthritis among women. One study found that knee joint pressure increased by as much as 26 percent when a woman wears heels.

CORRECT

Posture ▶
High heels push the center of mass in the body forward, taking the hips and spine out of alignment.

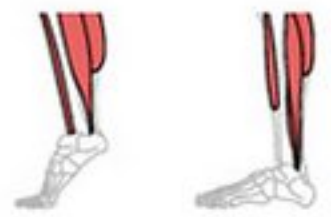
Pressure
High heels may make legs look longer, but as the heel height goes up, so does the pressure on the forefoot.

Pressure increases on forefoot when wearing:



ALTERED

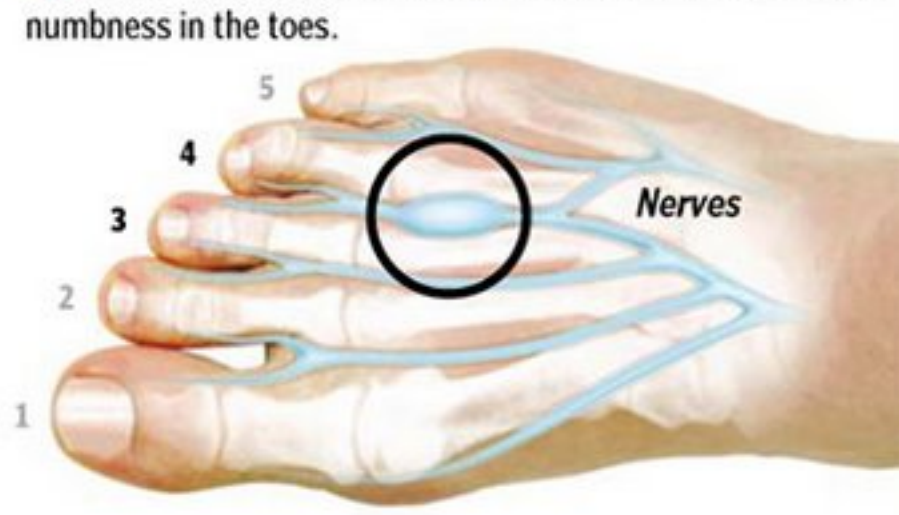
The calf
Calf muscles contract and adjust to the angle of the high heels. Muscles may shorten and tighten.



TIGHTENED RELAXED

Morton's neuroma

Heel height and a narrow toebox can create a thickening of tissue around a nerve between the third and fourth toes, which can lead to pain and numbness in the toes.



Achilles tendon
When the front of the foot moves down in relation to the heel, the Achilles tendon tightens up.

TIGHTENED

The higher the heel, the shorter the tendon becomes, creating heel pain.

RELAXED

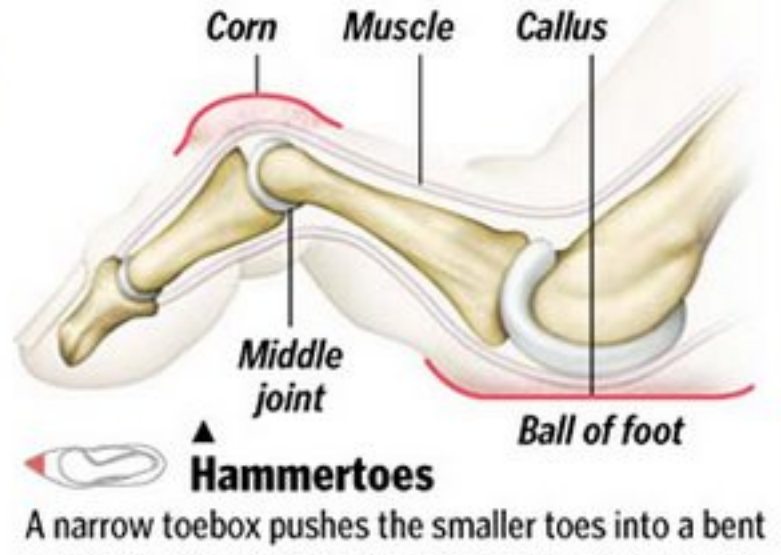
Bunions

Tight-fitting shoes can cause a bony growth on the joint at the base of the big toe, which forces the big toe to angle in toward the other toes, resulting in pain.

Pump bump
The rigid backs or straps of high heels can irritate the heel, creating a bony enlargement also known as Haglund's deformity.

Ankle injuries
High heels impair balance; a wearer is at a greater risk of falling, which could lead to a sprained or broken ankle.

Metatarsalgia
High heels force the body's weight to be redistributed. Prolonged wear can lead to joint pain in the ball of the foot.



Hammertoes
A narrow toebox pushes the smaller toes into a bent position at the middle joint. Eventually, the muscles in the second, third and fourth toes become unable to straighten, even when there is no confining shoe.

SOURCES: American Academy of Orthopaedic Surgeons, American Apparel & Footwear Association, American Orthopaedic Foot & Ankle Society, Mayo Clinic, Society of Chiropodists and Podiatrists, "Women's Shoes and Knee Osteoarthritis," by D. Casey Kerrigan, Jennifer L. Lelas, Mark E. Karvosky, The Lancet 2001: 357: 1097-1098
GRAPHIC: Reporting by Brenna Maloney, The Washington Post