

THE PERILS OF HIGH HEELS

High heels look pretty fancy, but from a functional and injury prevention perspective, they are not. Prolonged use along with postural and genetic predispositions can lead to injury, muscle imbalance and a host of other biomechanical and postural problems.

Let us understand the effect of having short tight calves from excessive high heel usage.

We will do this by breaking it down body segment by body segment.

The first thing that tight calves do is to pronate the feet (falling in). This can lead to foot problems and a greater likelihood of spraining ankles.

The knees also become hyper extended leading to excessive stress on the patella-femoral joint of the knee.

The pelvis falls forward, creating a stretch on the lower and deep abdominals contributing to weakness here. On the opposite side of the body the lower back goes into excessive extension putting stress on the discs and facet joints in the lower back.

The hips (femurs) come forward into flexion tightening the hip flexors (attached to the lower back, pelvis and the top medial aspect of the femur). This also brings the quadriceps into play more putting excess pressure on the knees as they continue to be under stress in hyperextension. The attachment of the hip flexors to the lower back, and the associated hip flexor tightness, further contributes to the curvature and stress in the lower back.

Because of the anterior (forward tilting of the pelvis) the abdominals and gluts (bum) are not able to function properly because of their poor mechanical position. This further adds to the instability above and below this point. In addition, because the gluts aren't able to perform their function as well as an extensor of the legs, the hamstrings and lower back take over this function further contributing to lower back extension and hamstring tightening. This affects our ability to walk, run and lift efficiently and effectively.

To counteract the instabilities below the rest of the trunk compensates to maintain the body's centre of gravity. A compensation for the excessive lower back curvature is to increase the upper back curvature. This alone can further lead to a multitude of dysfunctions including upper back pain, neck pain, shoulder impingement problems. As the head moves forward of its centre line it also enhances the above problems.

As has been shown one imbalance can create so many other compensatory imbalances and problems throughout the body. The body in its correct postural alignment is an efficient movement machine. However, when it has imbalances muscle and joints are constantly fighting gravity and creating dysfunction. Be aware that we have only looked at how short calves and wearing of high heels can create dysfunction. There are many others.

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