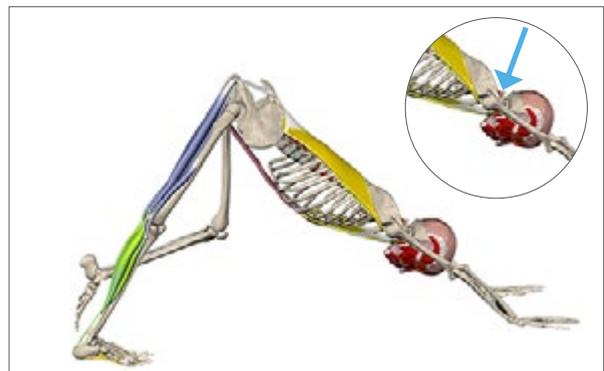


Compression – the Shoulder Joint

The shoulder joint is the joint in which compression is most often experienced. Any stretch in which the arms are overhead, and in particular load bearing, may bring about feelings of compression deep in the joint. Compression here most often occurs between the acromium and the tissues between either the greater or lesser tubercles. A look at the bone photographs below reveals the remarkable variations in bone shape and size, explaining why some are prone to compression while others are not.

If you experience compression in the shoulder, as a first step try to externally rotate the humerus. This creates space under the acromium process. Second, back out of the stretch a little. Sometimes this will alleviate the problem and force your muscles do more work, rather than allow the joint collision to support you in the stretch.

Some stretches in which shoulder compression may occur include the One Leg Dog Pose, the Wheel pose, the BOSU Back Bend, the Latissimus Dorsi, the Triceps, Floor and Seated Side Bend, Lying Bicep and Pectoral stretches. Pilates mat exercises with the shoulders in flexion – like the



Double Leg Stretch, versions of the Teaser, the Neck Pull and Swimming – have the potential to create compression in the shoulder joint.

Acromion



Acromion



Acromion



Humerus

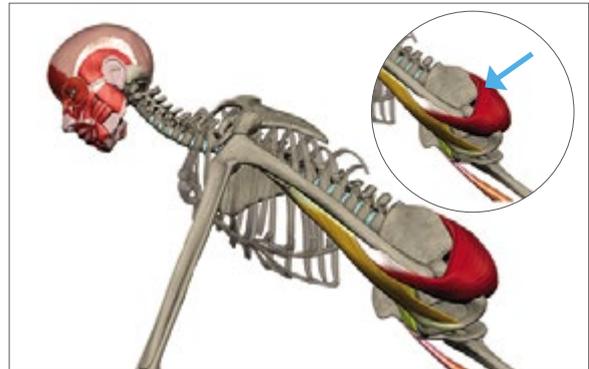


Compression – the Hip Joint

The hip joint is another major joint at which compression can occur. Stretches where the leg bones or femurs are abducted or flexed are most likely to create compression sensations. The compression most often occurs in the tissues between the greater trochanter and the hip joint rim called the acetabulum. A look at the bone photographs reveals the diversity of hip and femur shapes. The head and neck of the femur show extraordinary differences, and the angle of the acetabulum too. You can imagine the different movement potentials caused by such variation. Remember that variations can exist within individuals too, so one hip joint can be markedly different to the other.

If you experience compression while your hip is in flexion, try abducting it a little. If your compression occurs during abduction, like in the side splits, try externally rotating the femur to create more space in the joint.

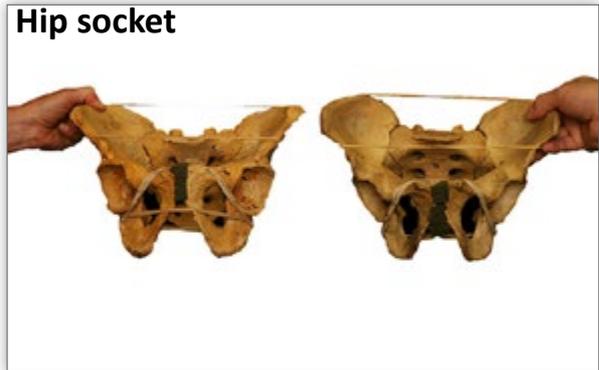
Some stretches in which compression may be a factor include all of the adductor stretches in Chapter Four and the lunge poses in Chapter Three. Pilates mat exercises like the Leg Circle, the Seal and the strong hip flexion they require may subject the hip to compression.



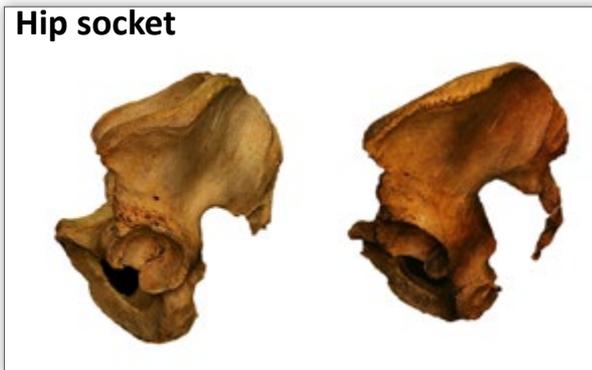
Femur



Hip socket



Hip socket



Femur

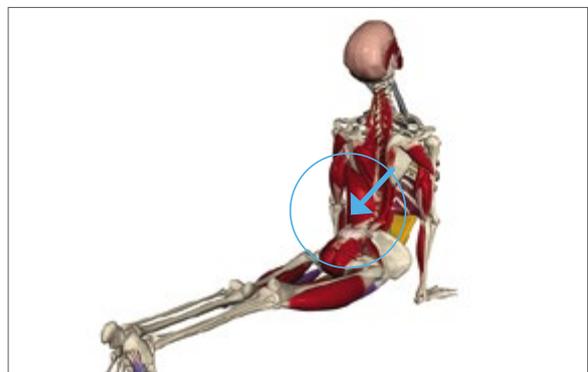


Compression – the Lumbar Spine

The spinous process of the entire spine can be compressed to prevent extension of the spine. In our stretching work it is most often the lumbar spine that is under strong and potentially harmful extension strain. The compression occurs when the spinous processes are jammed together, which can also result in anterior strain on the intervertebral disks.

A look at the bone photograph below reveals that some spines are more capable of extension than others, as the spinous processes have more space between them and permit greater movement. Before attempting a strong back extension exercise like the Wheel Pose pictured at right, it is useful to ascertain the degree of potential mobility of your spine. If compression is a factor, an adaptation may be necessary. In Chapter Six, the Box Wheel is an example in which elevating the feet decreases the degree of lumbar extension. Other exercises, like the Cobra, the BOSU Back Bend and the Latissimus Dorsi stretch may be limited by bony compression.

Pilates mat exercises like Rocking, Swan Dive and the Double Leg Kick may also subject the spine to compression.



Lumbar Vertebra

