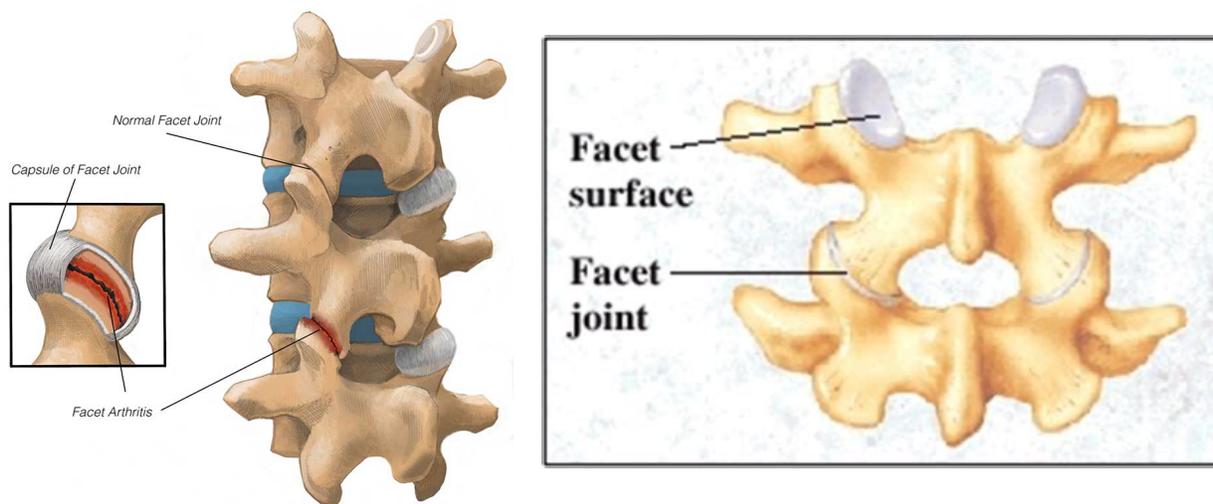


Facet for podcast

As we continue to begin this discussion on back pain, we need to take a look at one of the most common causes of pain: the facet joints.



As you can see from the picture, it is a true joint with capsule and cartilage. The joint is made up from the inferior articular process of the vertebrae above and the superior articular process of the vertebrae below. In the podcast I compare this to a bicycle chain.

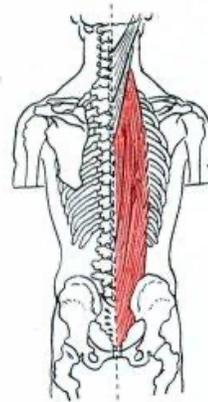
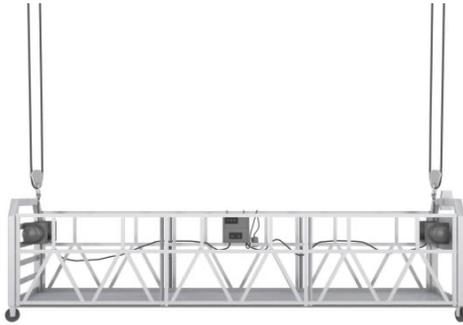
The facet joint limits movement in the low back and distributes the weight from the whole upper body so the facets are partial weight-bearing joints. This is important because non-weight bearing joints will heal when injured, weight-bearing joints will not always heal and develop arthritis earlier. Partial weight-bearing joints at least have a chance of healing after injury. When the facet joint does become injured, muscles will attempt to pull the facet joint apart so that the injured joint is not resting on itself. In the podcast, I discuss an injured elbow where straightening the arm is painful, so as the arm is straightened the biceps muscle will tighten attempting to keep the edges of the joint apart. The same is true in the back, where the facet joint is irritated, the muscles of the back will pull these edges apart. As it pulls the facet apart, it also causes an inhibition of the multifidus muscle, which is one of the primary

stabilizers of the spine and the primary muscle for 'spine neutral'. The multifidus is a stretch receptor muscle, which means that as it stretches it shuts down. It further means that it has a part in proprioception of the pelvis.

The leaning forward that the facet pain causes also leads to weakness in the transverse abdominus, which is one of the 2 muscles that stabilizes the pelvis and provides 'pelvis neutral'.



The spinae erector muscles also pull on the pelvis and together they pull like two ropes on a window washer's platform, keeping the pelvis neutral.



Weakness in 2 of the 3 main muscles of stability causes many problems. These are not muscles that contract and shorten like most muscles. They are more like springs. They allow lengthening and then spring back to their original position. (Think of the arch of the foot) When one loses their 'springs', the body has to stabilize itself in other ways. Muscle tightness, joint capsule tightness, fascia tightness and breath-holding are common compensations. Eventually, this leads to arthritis in the joint as the body finds more permanent ways of stabilizing the joint. One of the ways the body protects the facet joints further is by changing the way the hips move during walking or running. Normally the hips rise with each step to allow the leg to swing. This rising of the hip causes pressure on facet joints and in a person with facet pain, this increases the pain. Therefore, instead of the hips rising, the other side of the hip with drop allowing the leg to swing without putting pressure on the facet joints. (Think of a waddle walk) This, instead, puts pressure on the sacroiliac joint and hip bursa. Thus causing pain in more areas.

When we treat facet joints, we are causing pain relief for a period of time so that we can get this lumbar stability back, improve pelvis motion during walking and stop compensations. To do this we need 2-3 months of pain relief to get through rehab. This is actually how all musculoskeletal injuries are treated. Steroid shots, surgery or other treatment to create pain relief followed by rehab to improve strength and motion. In back pain treatment, current guidelines suggest that because diagnosis is difficult, all procedures must be done without steroids as this could somehow decrease the diagnostic value of the injection. This is not the practice in any other musculoskeletal area of medicine. Research has suggested that while steroid shots without rehab only causes 2-3 months of pain relief, radio frequency ablation of the nerves that go to the facet joints can cause 6 months to 2 years of pain relief without rehab. These studies are made with the assumption that treatment of the back is completed without attempting to treat the weakness and compensations listed above. This also would not take place in any other musculoskeletal specialty. Imagine having hip, knee, shoulder, elbow or foot injections or surgery without rehab afterwards. However, in the pain management field, rehabilitation after treatment is not considered part of usual care. When radio frequency ablation of the facet joints is completed, the nerve burned also affects the multifidus muscle we discussed earlier. Thus, the preferred treatment leads to 3 years of insufficient stability through the spine. This bears repeating. The preferred treatment of facet joint pain causes significant destabilization of the spine. No other joint in the body has this type of nerve burning as the preferred choice of treatment. Imagine having pain in your wrist and the first treatment is to burn the nerves to the joint rather than try to decrease the inflammation in the joint. Not only

does it not actually treat the joint, but instead just deadens it, but the inflammation in the joint remains and prolonged inflammation still leads to continual damage to the joint.

We have several things to accomplish with this blog post and podcast. 1. educate physicians and patients on facet joint pain. 2. Improve understanding of how this pain leads to weakness and other causes of pain 3. Educate on how the current treatment causes problems and how different it is from other musculoskeletal practices.

As we move forward, a better understanding of each of these areas will lead to improved care and outcomes.