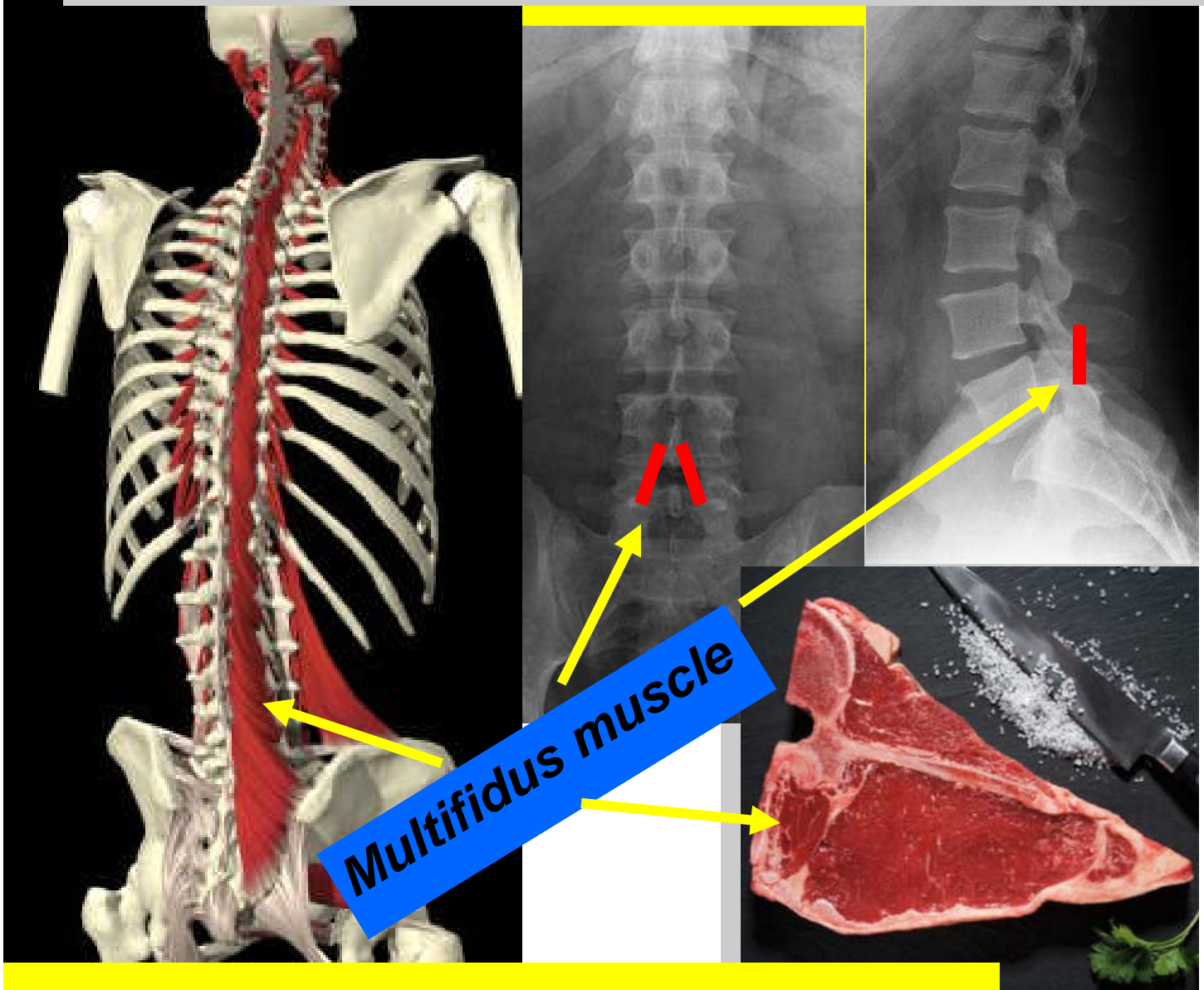
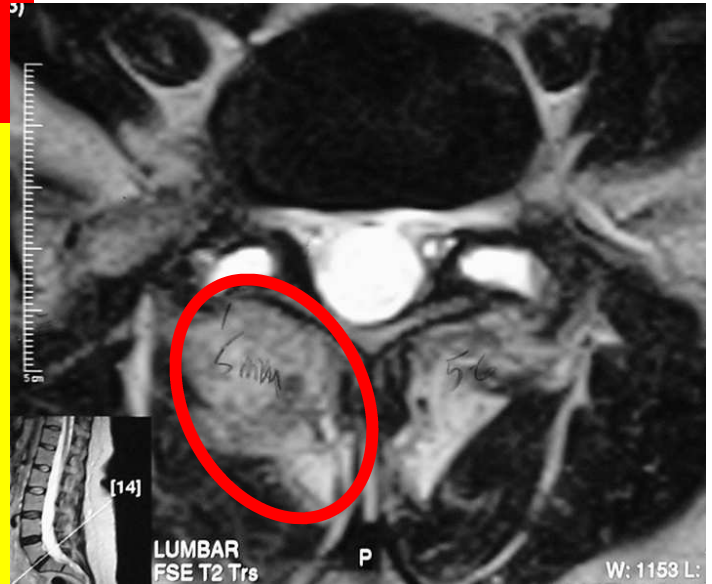
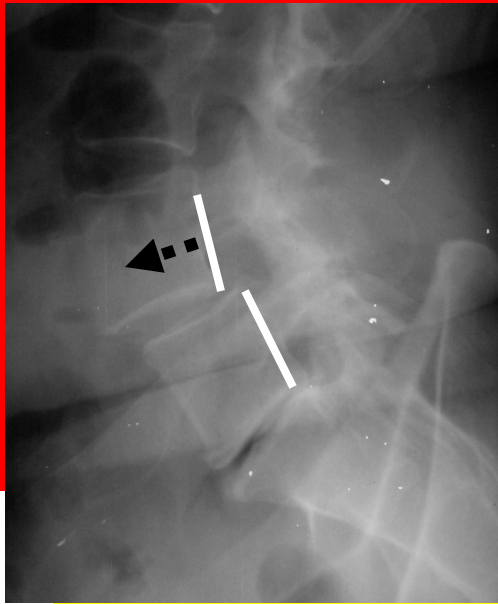


**Function of muscles, bones and joints of the spine are reliant on each other. If the muscles do not contract with adequate strength and in proper order, then the joints are vulnerable to injury. Repeated joint injury leads to recurrent back pain episodes and probably arthritis of the joints of the spine.**



## **Anatomy of back pain**



# Anatomy of back pain : Pathology

**Multifidus Muscle weakens. Atrophy and fatty replacement. Muscle cannot contract and hold vertebrae steady. Greater pressures and strain on joints. Leads to recurrent lower back pain. Can lead to spinal instability with one vertebrae moving too much upon another.**



Grade 0 (none)

Grade 1 (slight)

Grade 2 (severe)

# Anatomy of back pain : Treatment

Along with spinal manipulation to influence joint motion and neurologic reflexes of the spine. Multifidus Muscle rehabilitation requires active exercises. Spinal muscles are constantly contracting to hold us up. Otherwise we would be in a heap on the floor. Steady contractions or static postures are used to train/retrain the deep spinal muscles. Bird Dogs, Planks, Side planks are the primary exercises that contract these muscles and work the “core”.



**Bird Dog**



**Plank**

**Side plank**

**Curl up**

