

Signs of Injuries to Specific Structures

All may produce a decreased ROM and poor QOM with reduced power around the injury.

Structure	Signs and expected results on testing
Joint	Reduced ROM, poor QOM Pain on any movement, certain movement, compression or traction Locking, crepitus or grinding Erratic movement
Muscle	Pain on Active (including initiation) and ARMT . No pain on Passive except end of range Bruise Hypertonic muscle - possibly ischaemic Pain initially sharp, burning then dull ache
Tendon	Pain on Active and ARMT No pain on Passive except end of range With palpation on passive movement, any fibrosis will move under fingers
Tendon Sheath	Pain on Active No pain on ARMT Palpable lump, Possible noise I vibration /crepitus felt Locking if sheath loses viscosity or becomes thicker With palpation on passive movement, any fibrosis will not move
Ligament	No pain on ARMT Pain on Passive (only at end of range) Can be pain on Active, especially at end of range when being stretched Instability of joint involved If severe, bleeding and large swelling
Bursa	Spongy feel and swelling Pain when overlying muscles contracted (Active and ARMT) May be pain on a stretch of an overlying muscle
Capsule	Pain on active mvt on many ranges when stretched No pain on ARMT unless capsule swollen Pain on passive stretch
Meniscus	Locking, catching, giving way Pain on active and passive Pain on ARMT if compression traps meniscus
Nerve	Spastic, flaccid or wasting of muscle Pain over course of nerve (often burning) Altered sensations and reflexes Referred pain

ARMT = Active Resisted Muscle Testing = Loading
Mvt = Movement
QOM = Quality of movement