

Differential Diagnoses for the Cervico-Thoracic-Shoulder Region

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Cervical spine

<i>Lesion</i>	<i>Clinical signs</i>	<i>Test</i>
Facet joint dysfunction	<ul style="list-style-type: none"> • Decreased active motion • May yelp or resist certain ranges of motion 	Joint glides -discomfort to test -asymmetric motion from side to side (stiffness) Tenderness on palpation
Disc lesion A) Herniation or extrusion	<ul style="list-style-type: none"> • May have neurologic signs, rear legs are affected first with spinal cord involvement • May have nerve root signature stance if lateralized • Positive for severe neck pain, (screaming in small dogs) • Head down posture • Neck muscle spasm/ guarding 	Joint glides -Much pain and resistance to glides, -animal may even collapse Severe tenderness on palpation
Disc lesion B) Degeneration C) Ligamentous hyperplasia D) Ligamentous hypermobility	<ul style="list-style-type: none"> • May have neurologic signs, rear legs are affected first • May have nerve root signature stance if lateralized • Positive for neck pain • Resistance to glides • Head down posture • Neck muscle spasm/ guarding 	Joint glides -stiffness and pain Often tenderness on palpation (but not always) - tenderness not as tender as the acute disc herniation/extrusion
Fibrocartilaginous embolism	<ul style="list-style-type: none"> • May have UMNL neurologic signs, affecting rear legs are first if the CORD is compromised • May have nerve root signature stance or LMNL signs if the dorsal horn &/or nerve roots are affected at that segmental level 	Joint glides - No stiffness No tenderness or minimal tenderness on palpation.
Neural impingement A)Osteophytes B)Nerve root foramen narrowing C)Facet OA D)Lateralized IVDD, DDD, FCE...	<ul style="list-style-type: none"> • May have lameness • May have nerve root signature stance or LMNL signs • Certain head movements or activities can result in lameness, root signature stance, yelping &/or PWB in stance 	Joint glides that 'close down' the affected side (extension of the facet joint) may cause pain, exacerbate lameness, cause immediate licking or chewing of the distal limb or cause a root signature stance. Nerve stretches may result in any/all s/s mentioned above May or may not have pain on palpation

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Thoracic Spine and Ribs

<i>Lesion</i>	<i>Clinical signs</i>	<i>Test</i>
Dysfunction (facet joints or ribs)	<ul style="list-style-type: none"> • Subtle off-loading of limb(s) • Rib issues may show gross/ subtle lameness and pain on palpation • Lesions in the cranial thoracic spine and the 1st three ribs may mimic shoulder lameness 	Joint glides -restricted, painful, asymmetric motion Pain on palpation (mild to severe)
Disc lesion	<ul style="list-style-type: none"> • Can look like degenerative myelopathy, except for pain on deep palpation 	+PAIN on dorso-ventral pressures for facet joints – more so with lateral spinous process pressures Pain and spasm with deep palpation of epaxial muscles Pain on palpation of the adjacent ribs bilaterally. Pain with disc test

Shoulder

<i>Lesion</i>	<i>Clinical signs</i>	<i>Test</i>
Tendonopathies	<ul style="list-style-type: none"> • Commonly occur in biceps, supraspinatous and/or infraspinatous tendons • Lameness or off loading of a limb 	Tenderness on palpation Discomfort to stretch (Pain on resisted contraction)
Muscle strain / Myofascial Trigger points	<ul style="list-style-type: none"> • Commonly occurs in teres major, latissimus dorsi and/or long head of triceps 	Tenderness on palpation Discomfort to stretch
Medial instability (With involvement of medial glenohumeral ligaments and possibly the subscapularis tendon as well)	<ul style="list-style-type: none"> • Forelimb may be abducted and externally rotated • May show lameness • May suffer from other soft tissue shoulder injuries 	Excessive abduction Tenderness to palpate & stretch the subscapularis muscle Pain with end range extension ROM May have biceps tendon involvement
Hypermobility	<ul style="list-style-type: none"> • May show lameness • May show a head-bob/lameness when transitioning between walk & trot • May suffer from other soft tissue shoulder injuries 	Medial – Lateral glides Cranial - Caudal glides -hypermobility -may click/clunk with testing May have biceps tendon involvement
OCD/OA	<ul style="list-style-type: none"> • Lameness or stilted gait • OCD may show an on/off lameness or lameness just after a turn 	Joint glides -may be restricted or painful Pain on joint compressions without pain on distraction Range of motion -pain to fully flex and on end range extension May have biceps tendon involvement
Panosteitis and osteosarcoma	<ul style="list-style-type: none"> • Lameness 	Palpation with deep digital pressure to the affected portion of the humerus

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