

Canine Physical Examination

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One length in a greyhound race is six hundredths of a second.

- A healthy, fit, greyhound will run within one tenth of a second every time he goes round, (given the same track conditions).
- Time loss of more than 2 or 3 tenths of a second over 500 metres will mean you have a physical, psychological or health problem.
- Time loss of 5 tenths of second or more, will mean this problem is serious.

Take a performance History as you start your examination

- How long since last trial or race? (Too much time will make injury detection hard)
- How did he go? (Compared to expected)
- Did he jump well? (Compared to normal)
- Straight Run: - Did he gallop in a balanced straight line all the way?
- Did he rail well? Run off? Have trouble entering corner?
- Pull up well? And recover well?
- **Build a picture of any abnormalities to assist you in your examination when you consider the galloping action, stamina and recovery.**

Greyhounds are habitual creatures, which rarely change their procedures unless something is wrong!

General Palpation Tips

- You must have a good knowledge of the internal anatomy you are examining and be able to visualise it as you do your examination.
- Flex and extend all joints.
- Palpate the external sheaths of the muscles.
- Take the weight off the muscle and palpate it from origin to insertion.
- Test ligaments and tendons by applying leverage, pressure on attachments, and stretching.

Look for: -

- Changes in muscle tone.
- Trigger points (tight knots) (active, on-active)
- Swelling (fluid or inflammation)
- Bruising
- Sheath tears
- Pain response. (Referral pain?)
- Be aware of acupuncture alarm points.
- Joint swelling, laxity, pain and range of movement abnormalities.
- Ligament pain.

- Tendon pain or thickening.

Physical Examination

Checklist

1. Head

- Check nose, mucous membranes, tonsils, teeth, tongue and throat.
- Lick stain
- Eyes
- Glands

2. Cervical

- Flex, Extend skull (Pain response ?, restriction of movement?)
- Assess muscle tone (Pain?, tension? restriction?)
- Assess cervical motion (Pain?, tension?, restriction?)

3. Thoracic

- Palpate spinal musculature (Sheath tears? Acidosis?)
- Vento-flex (Pain?, restriction of movement?)
- Side-bend spinous process (Pain?, restriction of movement?)
- Look at symmetry of ribs

4. Superficial Shoulder examination. (External Sheaths)

- Palpate Supraspinatus, Infraspinatus, Deltoid and Origen of the Long head of the triceps. (Pain?, Swelling?, Sheath tears?)

5. Thoracolumbar Junction

- Vento-Flex (Pain?, tension? restriction?)
- Palpate spinal musculature (Sheath tears? Acidosis?)

6. Lumbar

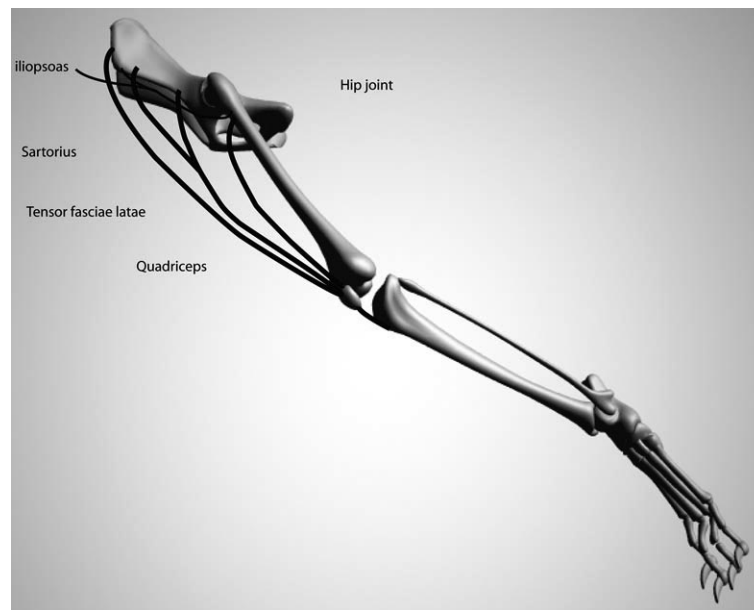
- Palpate spinal musculature (Pain? Muscle tone? Acidosis?)
- Apply pressure to the back of the spinous process's (Pain?)
- Skin tone Pinch test over L3
- Acupuncture Alarm point for Kidneys GB 25 (Pain?)
- Muscular Symmetry (Kidney Problems, Acidosis)

7. Abdominal muscles

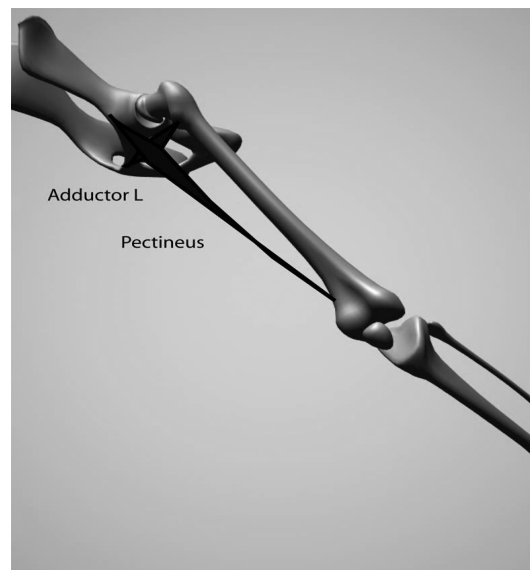
- Superficial Palpation anterior to posterior. (tears in external abdominal oblique? Tears in rectus abdominus?)

8. Hind legs

- Stretch straight back to extend hip and stretch extensors of the anterior thigh. (Pain?, restriction of movement?)

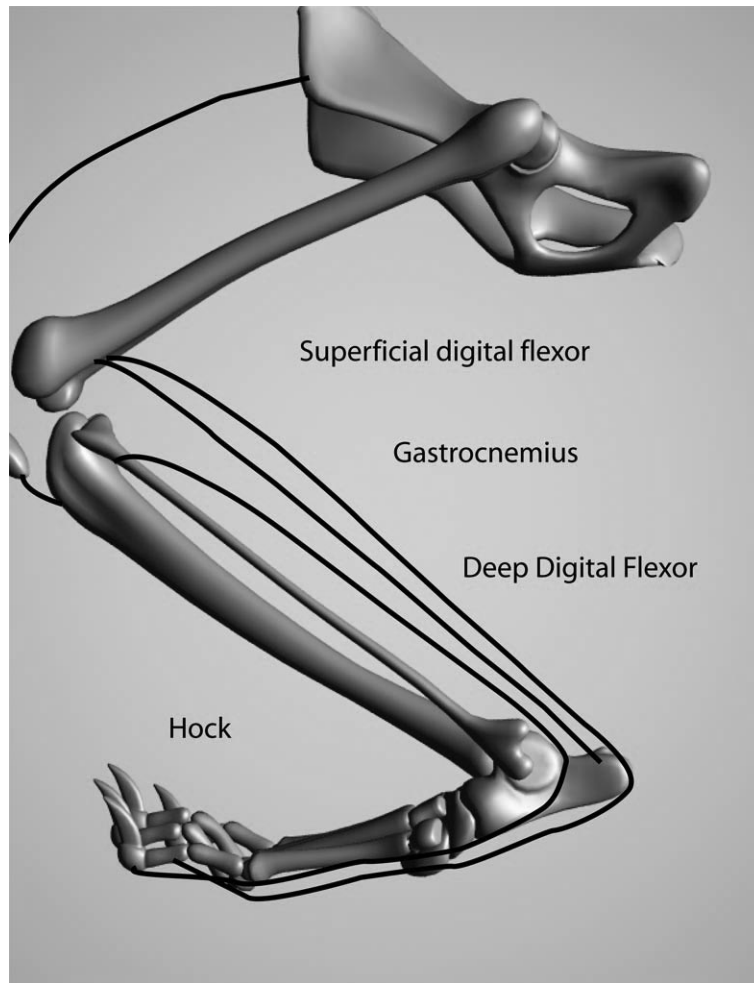


- Rotate the extended leg out to stretch groin and further assess hip stretching pectineus and adductor longus.

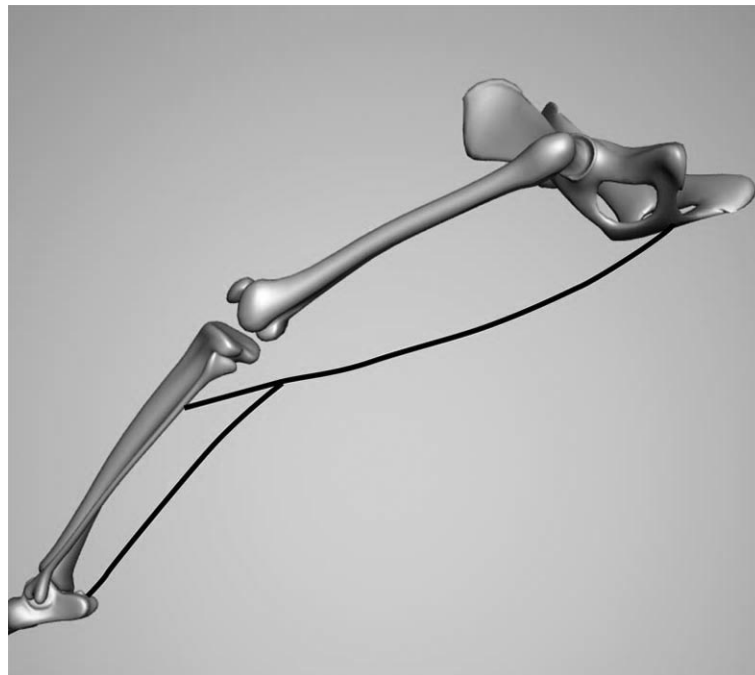


Push down on the top of the ileum to assess sacro-iliac joint.

- Flex the hock (Pain? Lameness after test?)



- Stretch forward to assess the adductors and stifle flexors. (pain?, gracillus tear results in stifle extending to 180 degrees.)



- Look at the symmetry of the rear of the animal . (splits in biceps femoris sheath?, muscle wastage, achilles swelling, fibula fractures, track legs, swelling or bruising?.

9. Sacrum

- Ventro-flex (pain?)
- Test sacro-tuberous ligament

10. Tail

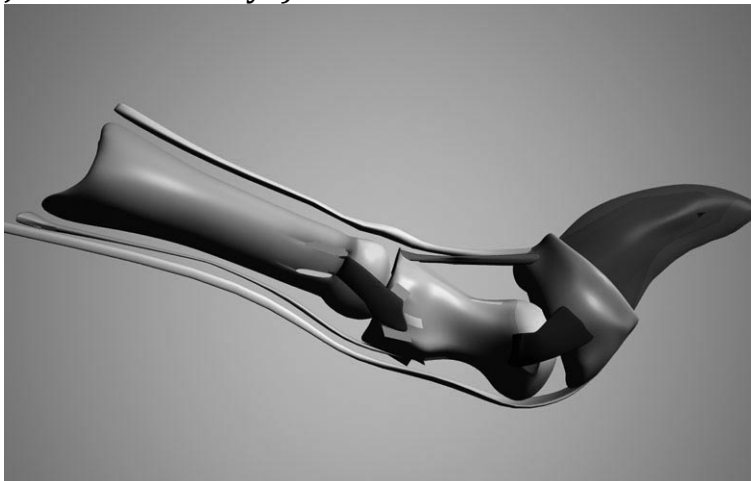
- Test mobility (Pain?)

11. Foot

- Check pads and pad wear (Punctures?, lacerations? Uneven wear?)
- Examine nail (length?, splits?, health?)
- Quicks (Paronychia?, loss of hair?)
- Flex P3/P2 joint and side bend using the nail as a lever. (pain?, Joint instability?)



- Fully extend P2/P1 joint and side bend both sides and rotate. (pain?, Joint instability?)





- Fully flex P1/Metatarsal joint, side bend and rotate. (pain?, Joint instability?, sesamoid pain? or restrictive callous?)

12. Metatarsals

- Lightly palpate the anterior surfaces (swelling?, Callous formation?, Periosteal inflammation?)
- Heavy palpation of suspect areas and proximal ligament attachments.

13. Hock

- Heavy palpation over anterior of tarsal bones and ligament attachments. Use the meaty part of your thumb and press hard. (pain?, swelling, callous formation?)
- Flex, extend, side bend and rotate. (pain?)

14. Tibia

- Tibial shaft (pain?, swelling?, “track leg”, callous formation?)
- Tibial crest (young dogs)

15. Fibula

- Palpate from stifle to hock. (pain?, callous formation?)

16. Calf and achilles

- Palpate from origen to calcaneus. (pain?, swelling?, tone?, tears?)

17. Stifle

- Extend, side bend and flex. (pain?, laxity?)
- Anterior draw (pain?, laxity?)

18. Anterior Thigh

- Sartorius (cranial) from origin to insertion. (pain?, swelling?, tone?, tears?)
- Tensor fasciae latae. Heavy palpation on origin, continue through muscle body to insertion. (pain?, swelling?, tone?, tears?)
- Middle Gluteal. Compress into pelvis going from origin on the border of the ileum and compressing heavily all the way to the insertion on the top of the femur. (pain?, swelling?, tone?, tears?)
- Quadriceps (medial, intermedius , lateral vastus and rectus femoris)
Palpate the group from origin to insertion remember the origin of the rectus femoris is on the ventral pelvis, anterior to the hip joint and other muscles in the group originate on the femur.
(pain?, tone?,)

19. Adductors

- Pectineus . Palpate origin, body and tendon. (pain?, bruising, sheath tears and complete ruptures.)
- Gracillus. Tests its integrity with the forward stretch. Look for swelling, bruising, and knots in the muscle indicative of chronic tying up, or cramping. . (pain?, bruising, sheath tears and complete ruptures.)
- Adductor. Palpate the origin and the body. Note it will be sensitive where the obturator nerve courses across its surface. (Pain?)

20. Flexors of the Hind leg

- Semitendinosus and Semimembranosus. Palpate from origin to insertion. (Pain? Tone? Trigger points?)

21. Forelegs : Examination of the Foot and Metacarpals is as for Hindleg.

22. Carpus

- Flex, extend, side bend. (Pain?, swelling?)
- Palpate anterior surface of carpal bones, distal radius and ulna. (Pain?, swelling?)
- Test Flexor carpi ulnaris insertion on the top of the accessory carpal bone. (Pain?, swelling?)
- Palpate distal accessory carpal ligaments. (Pain?, swelling?)

23. Forearm

- Palpate shafts of the radius and ulna. (Pain?, swelling? Callousing?)
- Stress fractures can occur in distal ulna and occasionally mid shaft of radius.
- Ligament damage can occur on the proximal ulna at the insertion of the lateral collateral ligament.

24. Elbow

- Flex and extend (Pain?)
- Palpate over coronoid process. (Pain?)

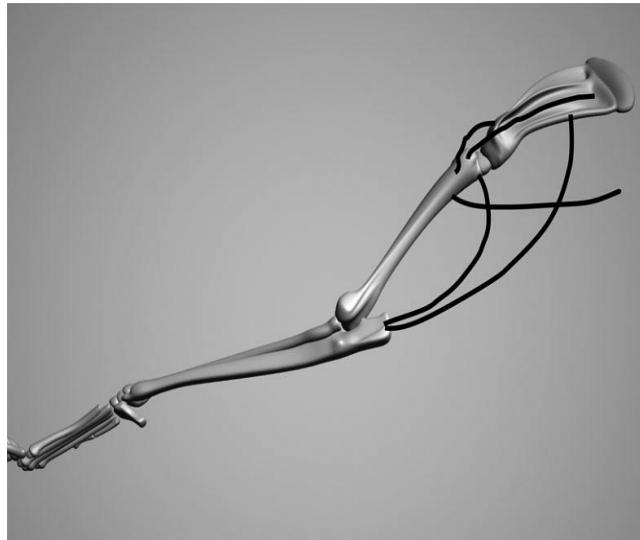
- Check lateral epicondyle of the humerus for striking. (left)
- (swelling?)

25. Shoulder Adductors

- Check deep and superficial pectorals on the opposite side. Palpate from origin to insertion (pain?, swelling?, tone?, tears?)

26. Shoulder Flexors

- Palpate the triceps group from the origin on the bottom of the scapula to the insertion on the elbow. Start with the long head then the middle head and finally the lateral head. (pain?, tone?, trigger points?, swelling or bruising?)
- Lift up and palpate the latissimus dorsi. (pain?, tears just posterior to the triceps.)
Compress In swelling?, fraspinatus onto the blade. (pain?, swelling?)



27. Shoulder Extensors

- Compress Deltoid onto scapula (Pain?, Trigger points?)
- Compress supraspinatus onto the scapula. (pain?,trigger points?)
- Palpate the scapula spine from acromium dorsally. (pain?, callous formation?)

Muscular treatment

1. Complete and partial rupture of muscle and or sheath.

- Objectives are to minimise scar tissue. Fibrosis that does occur should happen with the animal actively exercising so fibrous strands are aligned and stretched.
Commonly affected muscles.
- Origen of long head of triceps, pectineus, tensor faciae lata, deep pectoral, external abdominal oblique. Inject with 0.5 ml of Voren Depot with Prilocaine, Ice therapy. Normal walking until bruising has subsided. 2 weeks in small yard (10-20m) then 2 weeks in long run (50-80m). Continue yard exercise even if there is further bruising or swelling.
- Gracillus , rectus abdominus. (healing is slower). Same treatment as above but 4-6 weeks in the long run.
- Calf muscle (gastrocnemius, sup digital flexor), achilles(partial).
4-6 weeks small run then 6 weeks in a long run.

2. Small external sheath tears

- Physiotherapy (Ultrasound) 1week then 1 week free galloping.

3. Pain, but no sign of tissue disruption at the origin or insertion of muscles, tendons ligaments.

- Inject sclerosing agent and Prilocaine. Follow with physiotherapy and counter-irritants. (1 week lead only then 1 week of free galloping.)

4. Torn connective tissue including tendons, fascia, ligaments on toes.

- Healing is by fibrosis which may benefit from stimulus with a sclerosing agent. Good strength is achieved after 6 weeks and maximum strength at 12 weeks.

5. Tight knots (trigger points) in muscles.

Therapy options

- Physiotherapy (ultrasound and laser) plus linament and massage.
- Needle (1ml Traumeel plus 1ml Tripart plus *0.3 Prilocaine*)
- Deep tissue massage. Ischeamic pressure. (Dogs resent)
- Recovery time 3-7 days.