http://www.vetmed.wsu.edu/courses_vm568_97/sam.html#Physical%20Examination

Physical Examination

Tools - Stethoscope, penlight, pleximeter, hemostat, otoscope, ophthalmoscope, glove.

A thorough exam requires concentration and consistency in performance. Try to always use the same order of examination so as not to forget a component of the exam.

Inspection from a distance:

- Observe gait as animal enters room
- Demeanor: shy, assertive, etc.
- Mental status
- Conformation and symmetry
- Nutritional status
- Neurological deficits
- Visual deficits present
- Head tilt
- Weakness

Close inspection

- Socialize first
- Proceed slowly, using least restraint necessary

Can use a systems approach, or start at head and work toward tail. May need to address obvious problem first; i.e., that which owner came in for, to put client at ease

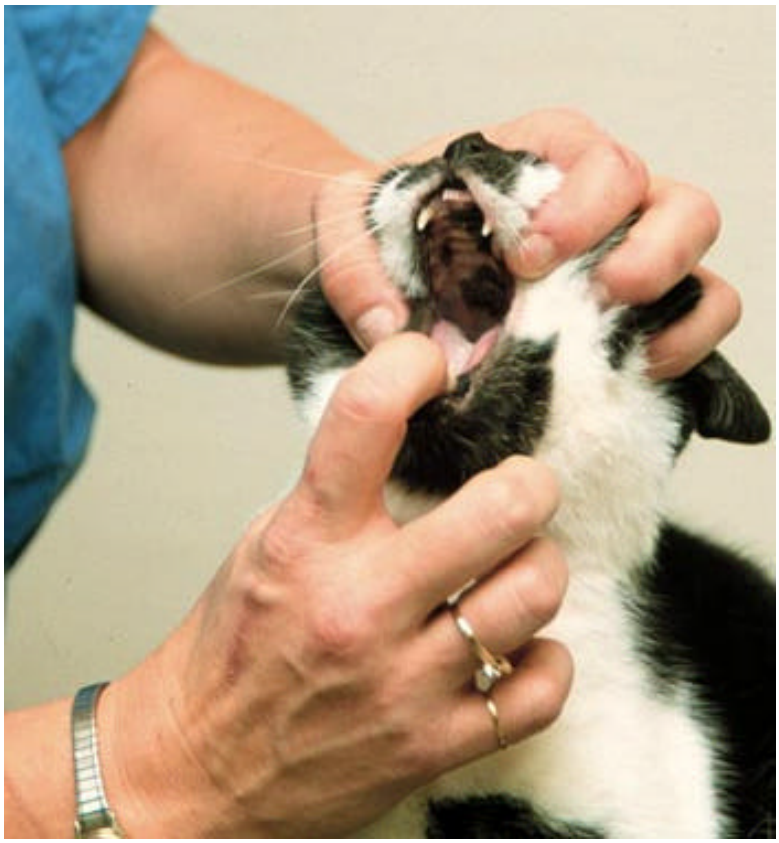
General appearance

- Body and coat condition
- Demeanor

Oral cavity

The outer surface of the teeth and gingiva are examined by lifting the lips.

The inner surface of the teeth, palette, tongue and throat are examined by opening the mouth. Light pressure on the roof of the mouth with the dog's lip between teeth and your thumb will reduce the chance of being bitten.



A cat's mouth is opened by holding the head by the zygomatic arches and pulling down on the lower jaw, keeping your finger on the midline, over the incisors, rather off center near the canine teeth. You can use the middle finger of the hand on the lower jaw to push up in the inter-mandibular space which will elevate the tongue allowing a view of the underside of the tongue...a site which string foreign bodies may be located.

- Hold head gently but firmly
- Eyes, air movement through nostrils, face, philtrum.
- Check labial surface of teeth, mm, CRT, condition of gums and teeth. Open mouth - examine occlusal and lingual surfaces of teeth, gums, tongue, hard and soft palate; pressure on base of tongue to check tonsils of dog (cat tonsils not normally visible)
- Check breath (not everyone can detect these smells)

  foul
  uremic (NH3)
  sweet (acetone)

- Check underside of tongue for string FB, especially in vomiting animals

Eyes

- Check vision (menace) and pupillary light reflexes
- Check for exophthalmos; enophthalmos
- Check upper, lower, third eyelids for symmetry, ectropion, entropion, mucus membrane color, discharge
- Corneas should be clean, glistening

Ears

- Check for inflammation, exudate-shine penlight down vertical ear canal
- Smell for yeast (fruity) or bacterial odors
- Check pinnae for alopecia, scaling, self-trauma
- Thorough otoscopic exam if abnormalities noted
- Remember cats have normal preauricular alopecia

Lymph nodes

- Mandibular, prescapular and popliteal lymph nodes normally palpable in large dogs, prescapular and popliteal nodes are often not palpable in smaller patients
- Don't confuse mandibular lymph nodes and mandibular salivary glands

Respiratory system

- Check respiratory rate, evidence of dyspnea, abdominal breathing
- Palpate larynx and trachea. Gentle palpation should not elicit a cough. Palpate ribs to check for pain or fractures. Can assess obesity at this time. In normally conditioned animal you should feel, but not see ribs.
- Auscult thorax
- Cat thorax should be compressible with gentle pressure between thumb and fingers
- Purring cat - should get it to stop (various ways)

Cardiovascular system

- Check for jugular distension,
- PMI of heart
- femoral pulses
- Ascertain HR and rhythm

Urogenital system

- Check mammary glands for nodules, cysts, pain
- Check for mastitis in lactating bitch/queen - milk expressed from each nipple
- check vulva for discharge or swelling
- Check prepuce, penis, testes
- Rectal examination to evaluate prostate

Check anus and perineum for neoplasia or anal sac disease

Musculoskeletal system

- Gait abnormalities, lameness - assessed on general appearance
- Muscle swellings/atrophy
- Check joints/bones for swelling, pain or crepitus if indicated

Integument

- Much of the integument examination is performed during other parts of the physical examination

Nervous system

- A complete neurological examination is not routinely performed, however may be indicated from history or other physical examination findings.

Abdominal Palpation - Use application of light finger pressure to the body surface to determine consistency of parts underneath. Trace structures, don't grab them.

Terms to describe organs/masses

- Is it firm or compressible?
- Does it feel fluctuant (fluid filled)?
- Is the organ/mass movable or fixed relative to adjacent structures?
- Is the surface smooth or irregular?

Trace location, shape, site of organs or masses

Be gentle. You may want to postpone palpation until midway through exam when animal is more relaxed.

You can manipulate the animal to better delineate certain structures; e.g., elevate forequarters to better feel liver, spleen, anterior intestinal structures. You can push upward on the caudal abdomen to move the prostate into the pelvic canal to palpate per rectum.

Techniques

- Cats and smaller dogs - one hand
- Larger dogs - both hands
- Gently push hands dorsally and then draw hands ventrally, letting viscera slip between

Organs - Cannot usually feel liver, stomach, right kidney. Left kidney may be palpable. Ability to palpate bladder is dependent upon degree of distension.

Auscultation

- Primarily used for evaluation of the cardiovascular and respiratory systems. Can also auscult gastro-intestinal system.
- Bell for low-pitched sounds-heart
- Diaphragm for high-pitched sounds-airways
- Ensure stethoscope is comfortable and fits snugly. Have quiet surroundings and minimal distractions. Concentrate and hold stethoscope head firmly against the animals coat to reduce extraneous noise production.

Auscultation of respiratory system

- Includes thorax, sinuses, larynx, trachea. Sounds can radiate from upper airway to lower, so need to differentiate from pulmonary disease.
- Normal sounds

  Bronchial (tubular) - blowing, like air through straw. Created by air moving through larger airways (sinuses, larynx, trachea, major bronchi)

  Loudest over larynx, trachea, decrease in intensity as move away from hilus of lung

  Can be heard farther peripherally (where you expect to hear only vesicular sounds), when lung contains less air than normal; e.g., with consolidation

- Vesicular sounds - thought to originate in part from separation and distention of alveoli by in-rushing air.

  Increased vesicular sounds occur with intensified respirations (physiologic), increased respiratory excursions (e.g., from fever), emphysema (are harsh), developing bronchitis.

  Decreased sounds secondary to decreased expansion of a lung, pleuritis, consolidation, neoplasia, pneumothorax

- Abnormal sounds = adventitial sounds

  Rales - most prominent on inspiration but can be heard in both phases. Produced by exudate within air passages. May vary in intensity, temporarily relieved by coughing.

    Moist - fluid of low viscosity. Can be coarse, medium or fine

    Dry - vibration of sticky, tenacious mucus within large bronchi; in chronic respiratory conditions. May be hissing, squeaking or whistling

Pleural friction rubs - between parietal and visceral pleura. Develop following chronic pleuritis when pleura is thick and dry. Not altered by coughing and best heard at periphery of lung fields.

Cardiac auscultation - Detect presence of murmurs, other abnormal heart sounds, arrhythmias

- 1st heart sound - AV valve closure - louder, longer, lower pitched- "lub"
- 2nd heart sound - semilunar valve closure - softer, shorter - "dub"
- Interval between 1st and 2nd (systole) is shorter than between 2nd and 1st (diastole)
- point of maximal intensity (PMI) of valves should ausculted on left (pulmonic, aortic, LAV) and right (RAV). Auscult thoracic inlet.
- Murmurs - characterize as to location, intensity, systole/diastole. Use bell and diaphragm as murmurs will differ in pitch.
- Muffled heart sounds - associated with hydrothorax, pneumonia, masses, hernia, effusions, cardiac paresis, obesity.
- Note the strength of the femoral pulse in both legs. Auscult the heart and simultaneously palpate the pulse to detect pulse deficit (heart beat not associated with a pulse).

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