

# Winterize your horse!

**Dr. Caitlin Eaton**

**Dr. Jen Cassano**

**Renee Gregoire**

**EquidDoc Veterinary Services, L.L.C.**

**[www.equiddocvet.com](http://www.equiddocvet.com)**

**[office@equiddocvet.com](mailto:office@equiddocvet.com)**

**Like us on Facebook!!**



## Our evening...

- **Common winter-time questions & answers**
- **Common winter-time ailments and emergencies**
- **Routine winter care**



# Common Client Questions & Concerns

- **W** for Water – why isn't my horse drinking
- **I** for Ice – how can I improve traction in my turnout
- **N** for Nutrition – what should I feed during an extended cold snap
- **T** for Thermoregulation – should I blanket my horse
- **E** for Enlargement - why does my gelding have a swollen sheath
- **R** for Red Snow – Is my horse urinating blood



# Water

- ESSENTIAL Nutritional REQUIREMENT
  - Cold, dry air of winter > respiratory evaporation
  - Average horse at rest  
7-12 gallons/day for normal hydration & promote intestinal motility



# Water

- Why some horses stop drinking:
  - Age related dental issues

Erupting teeth/Fractured teeth/EOTRH

NORMAL



# Water

- More reasons why some horses stop drinking
  - Improperly installed water heaters
  - Taste



# Water Solutions



# Ice

How to improve traction for your horse

- What is NOT safe to use in your paddock





# Ice

How to improve traction for your horse

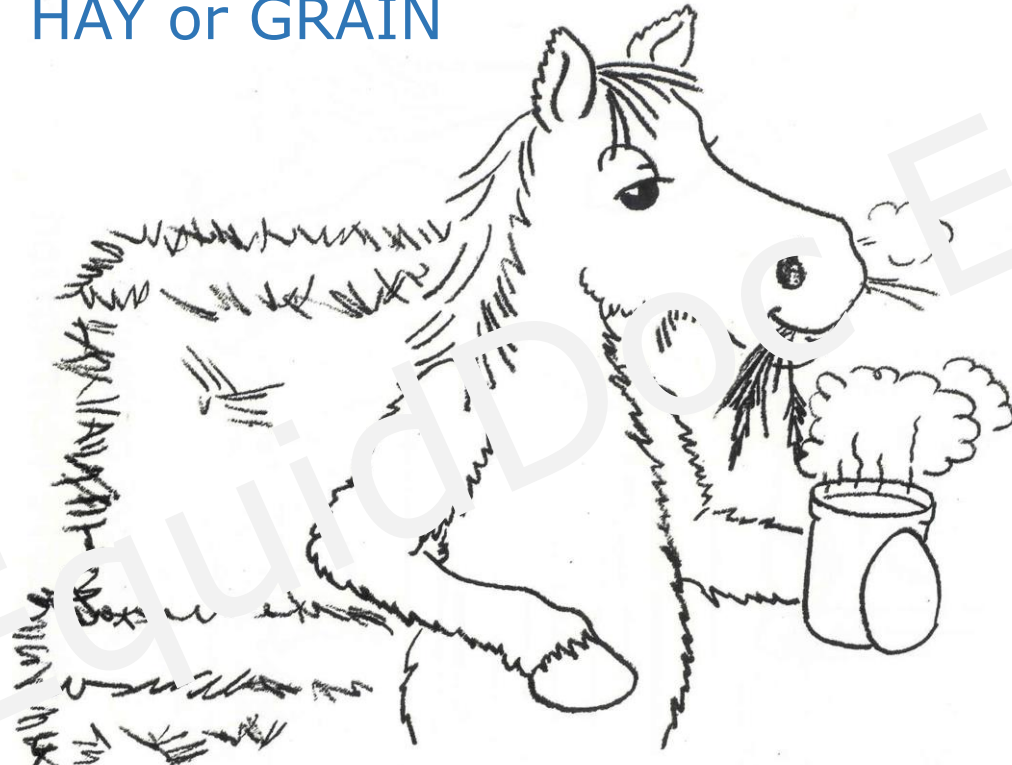
- What is safe to use in your paddock





# Nutrition

- Which of the following creates the best heat for your horse:  
HAY or GRAIN



# Nutrition

- Which of the following creates the best heat for your horse:

**HAY**



# Nutrition



# Blanketing Problems

How's that blanket working for ya?



# Thermoregulation

Should I blanket my horse? Did you know horses do better in cold environments than they do in warm? Why is that?

- Body Mass and Thermoregulation (Iowa U)
- Piloerection
- Naturally occurring oil in coat



# Thermoregulation

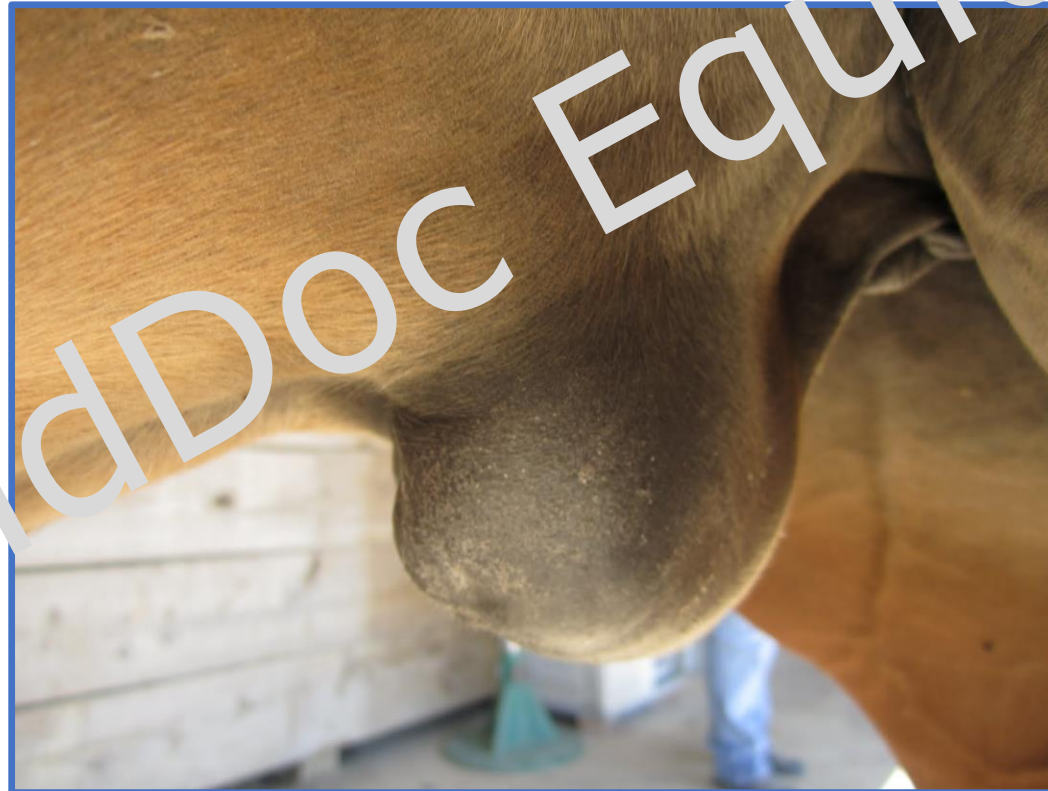
- How you can help





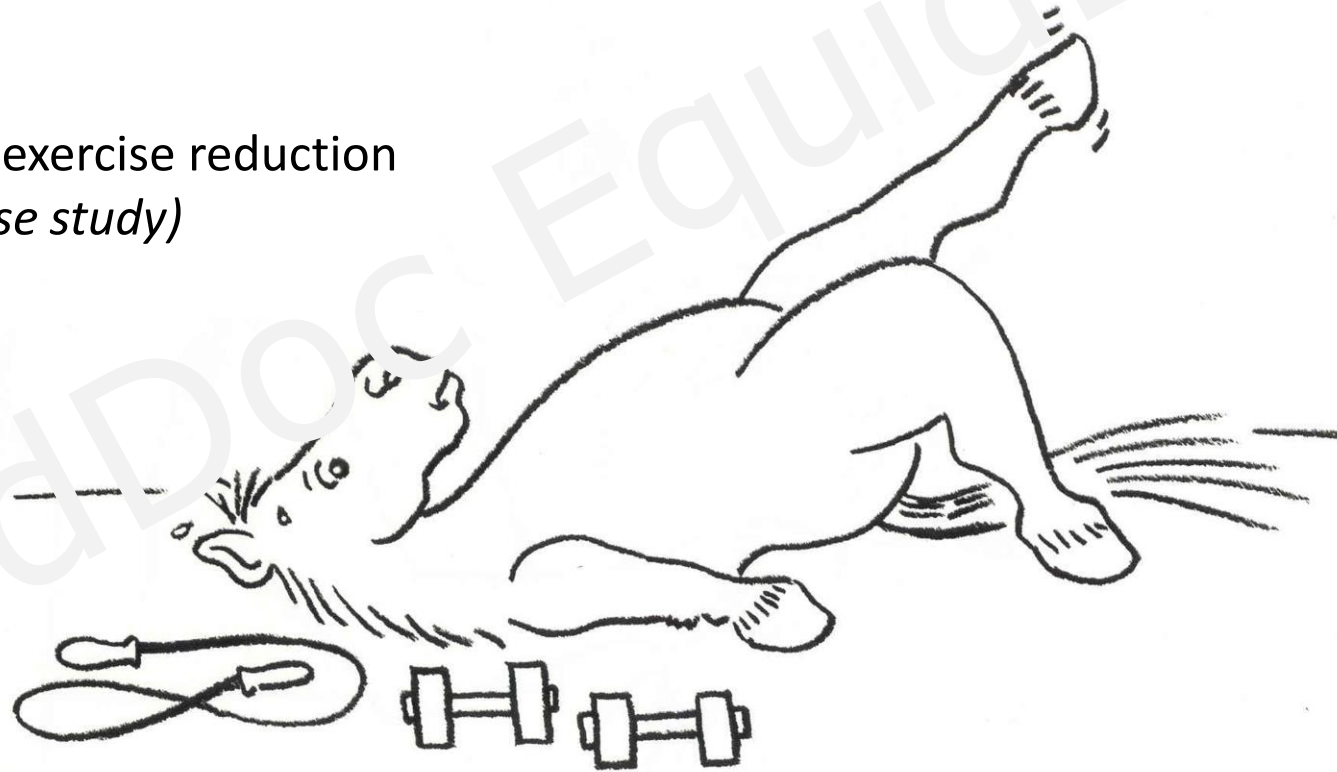
# Enlargement

- The swollen sheath conundrum (as well as stocked up legs)



# Exercise Solutions

Bad footing equals exercise reduction  
(*Pony forced exercise study*)



# Enlargement

- Decreased exercise (who trail rides in winter?)
  - Ground Driving
  - Hand Walking
  - Create snowshoe maze to multiple Nibble Nets
- Bad footing equals exercise reduction
  - Pony forced exercise study



# Red Snow?

- Proteins in urine called pyrocathecines
- Oxidation causes color change



Credit Elkhorn Veterinary Clinic

Dashing through the snow - We  
are horses full of HAY!!



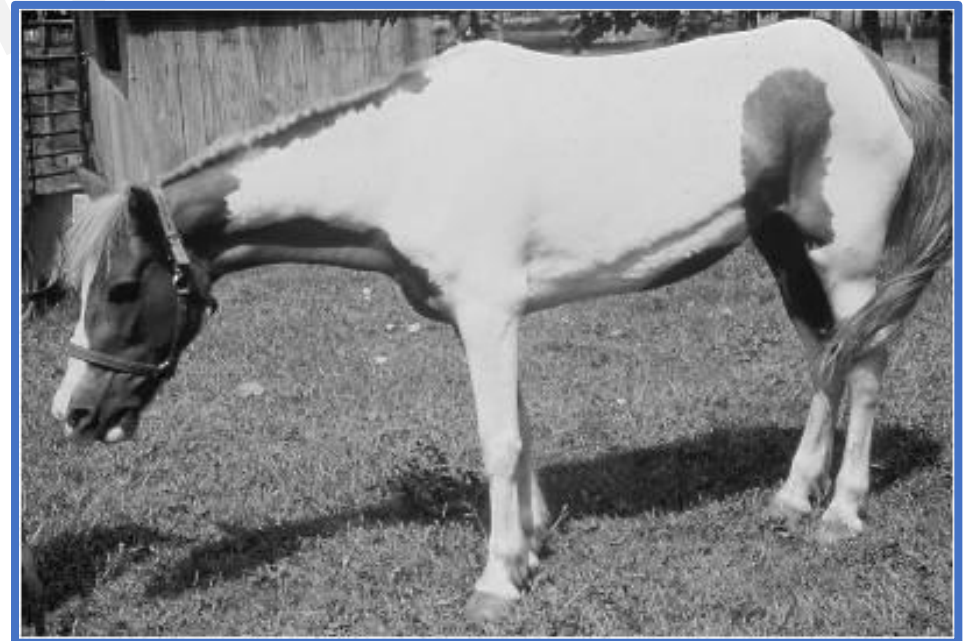
# Common Winter Ailments and Emergencies

- **Respiratory Disease**
- **Down Horse**
- **Impaction Colic**



# Respiratory Disease

- Respiratory distress
  - Elevated respiratory rate (greater than 40 breathes per minute)
    - Normal respiratory rate is 8-16 bpm
  - Increased respiratory effort
    - Nostril flaring
    - Abdominal effort
    - Outstretched head and neck



<http://www.threepksveterinary.com/respiratory-distress/>

# Respiratory Disease

- Respiratory distress
  - What to Do:
    - Remain calm and call your vet (us)
    - Remove allergen exposure
    - Administer medications if directed:
      - ***Inhaler***
      - ***Steroids***
      - ***Anti-inflammatories***



[http://www.bevet.com/news\\_and\\_articles/respiratory\\_disease\\_-\\_inhalant\\_therapy/](http://www.bevet.com/news_and_articles/respiratory_disease_-_inhalant_therapy/)

- While respiratory distress is life threatening, most cases are self-limiting



# Respiratory Disease

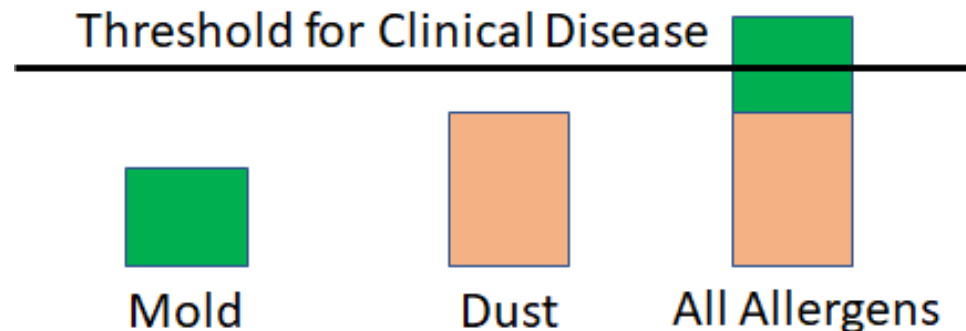
- Cold Weather
  - Inside the barn windows are shut
    - → Poor air quality
  - Horses spend more time inside
    - → More time in poor air quality



<http://shanniedenney.blogspot.com/2012/08/dusty-barn.html>

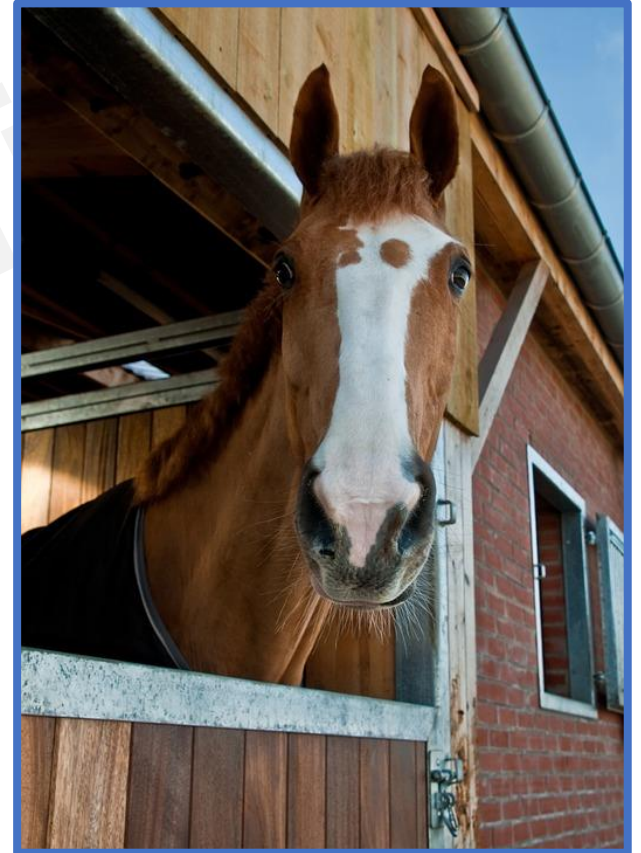
# Respiratory Disease

- Poor air quality
  - Higher concentration of mold and allergens
    - Irritants can overload respiratory tract natural defenses
    - Allergens can reach threshold of clinical disease



# Respiratory Disease

- Prevention:
  - Minimize irritant concentration
    - →open a window
  - Minimize irritant exposure
    - →clean stalls while horses are turned out
  - Minimize irritant build up
    - →select less dusty bedding options
    - →maximize ventilation following stall cleaning



<https://pixabay.com/en/horse-window-to-watch-stable-2094191/>

# Windows open? Blanket Management



<http://flyonovereq.com/how-to-survive-the-barn-in-the-bitter-cold/>

# Windows open? Blanket Management

- Most horses do not need a blanket
  - If your horse is:
    - Adult
    - Good body condition
    - Allowed to slowly adapt to cold
  - Then He/She will grow a fluffy coat and be fine!!!

# Down Horse

- Horse unable to rise despite reasonable encouragement



<https://skiebear.deviantart.com/art/Horse-Lying-Down-3-190602696>

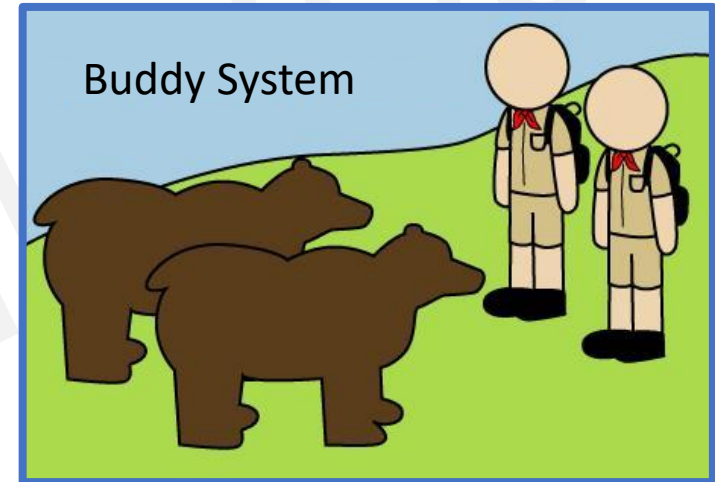
# Down Horse

- What to do:
  - Remain calm and call us
    - Often unknown how long horse has been down
    - Further veterinary assessment is needed



# Down Horse

- What to do:
  - Stay safe
    - Horse may be panicked and unpredictable
    - You cannot catch them or lift them
    - If horse is cast in the stall the safest thing to do is stay out of the stall until further help arrives
    - If it is safe to do so remove any objects in the way



<http://www.jesterjournal.com/BuddySystem.htm>



# Down Horse

- What to do:
  - Keep comfortable
    - Comforting voice
    - Provide access to water and hay
    - Can place a blanket/towel under head
    - Administer medications if directed:
      - Anti-inflammatories (bute or banamine)



# Down Horse

- What to do:
  - If the down horse stands
    - They may go down again, stay safe
    - If they are stable enough to walk
      - ***Get them out of the stall***
      - ***Move them to a paddock, ring, or soft flat area***

# Down Horse

- What to do:
  - Remain calm and call your vet (us)
  - Stay safe
  - Keep comfortable
  - If they stand, get them out of the stall and to a safe area, as they may go down again



# Down Horse

- Treatment with your vet
  - Assessment of injuries
  - Pain medication
  - Fluid resuscitation
- Assist to stand with head rope, tail rope, external equipment



<http://www.washingtonsart.org/blog/rescues>

# Down Horse

- Winter risk factors:
  - Poor footing
- Animal risk factors:
  - Old
  - Poor muscle condition
  - Arthritis

Difficulty  
Getting Up and Down



# Down Horse

- Prevention
  - Footing
    - Controlling the terrain
      - Evaluating footing before turnout
      - Sectioning off flat paddock areas for winter
      - Water sources turning to ice



<https://rejnol.deviantart.com/art/Horse-in-ice-skates-424553515>

# Down Horse

- Prevention
  - Footing
  - Supporting muscle condition
    - Management of metabolic issues (PPID/Cushings)
    - Vitamin E supplementation



# Down Horse

- Prevention
  - Footing
  - Supporting muscle condition
  - Nutrition
    - Maintaining appropriate body condition
    - Providing appropriate feed sources
    - Maintaining dentition





# Down Horse

- Prevention
  - Footing
  - Supporting muscle condition
  - Nutrition
  - Pain control
    - Joint supplements, anti-inflammatories



# Impaction Colic

- Mild to moderate colic signs
  - Inappetence
  - Getting up and down
  - Flank watching
  - Rolling
  - Circling
- Decreased manure output
  - Colic signs may proceed decreased output
- May have a history of decreased water intake



<http://www.horseandhound.co.uk/horse-care/vet-advice/spasmodic-colic-in-horses-139892>

# Impaction Colic

- What to do:

- Remove feed

- Take for a brisk walk

- Place in an area where you can monitor manure output and water intake

- If colic signs are persistent call your vet and make a plan for further evaluation



<http://www.shemovedtotexas.com/adventures-in-hand-walking/>

# Impaction Colic

- Treatment
  - Rectal for palpable impaction
  - Nasogastric intubation with water and electrolytes
  - Anti-inflammatory/pain medication
  - Continue to hold off feed

# Impaction Colic

- Prevention
  - Increase water intake
    - Ensure tepid water is available
      - Heated and/or insulated water buckets
      - Confirming automatic waterers are functioning properly



# Impaction Colic

- Prevention
  - Increase water intake
    - Ensure tepid water is available
    - Providing a **second** flavored bucket
      - Sweet tea (handful of sweet feed in bucket)
      - Apple juice flavored
      - Electrolyte supplement



<http://www.horsenation.com/2013/04/12/weekly-watering-hole-presented-by-horse-quencher/>

# Impaction Colic

- Prevention
  - Increase water intake
    - Ensure tepid water is available
    - Providing a second flavored bucket
    - Dosing with oral electrolytes
      - During any big temperature changes or stressful events



# Impaction Colic

- Prevention
  - Increase water intake
  - Monitor manure output and water intake
  - Providing appropriate dental care







Let's take a  
quick break...

"I told you we should remove his wolf teeth!"

# Winter Wellness

- **Dentistry**
- **Deworming**
- **Vaccinations**

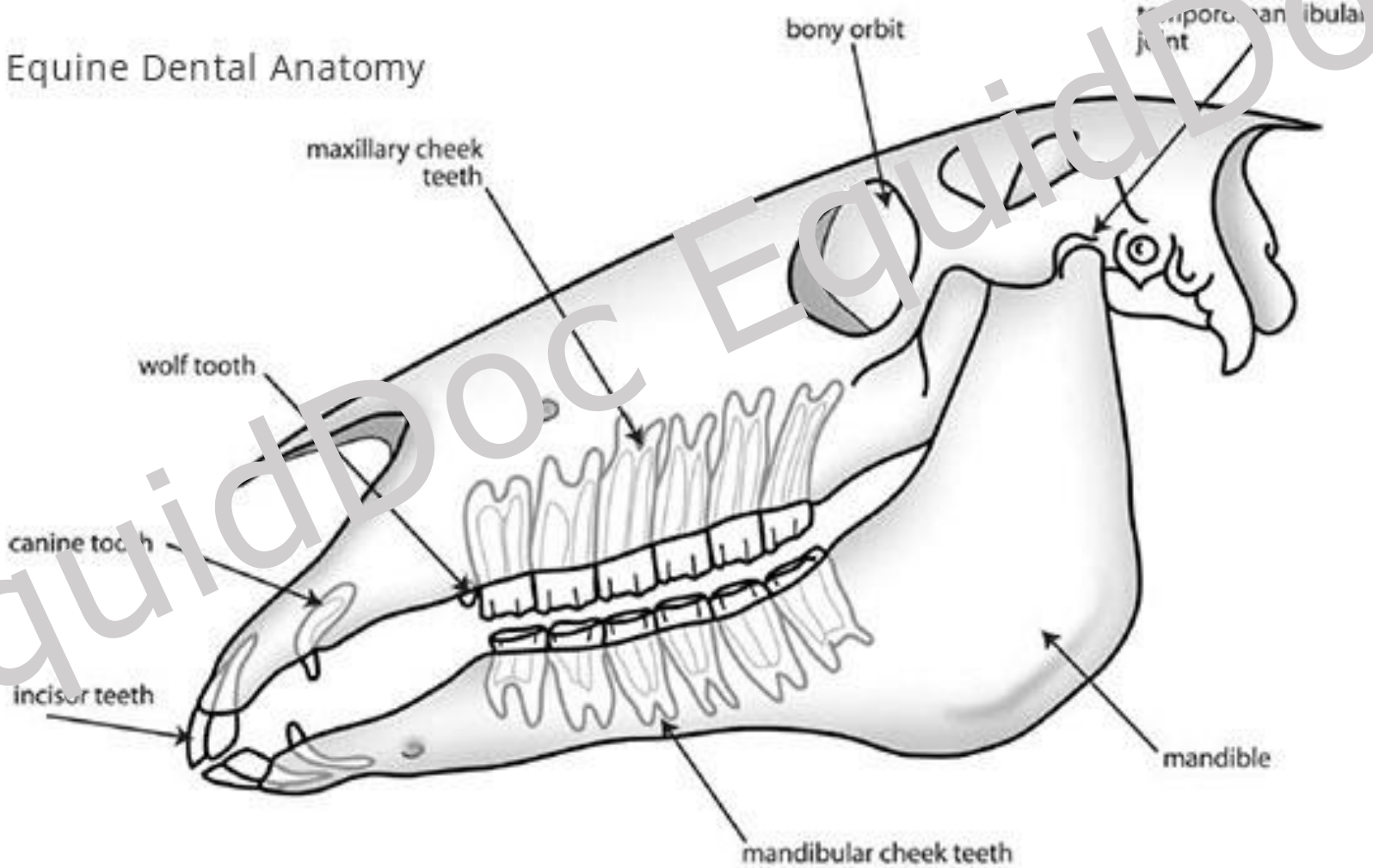
# Equine Dentistry

- Wild horses no more...
  - Modified horse's diet, eating pattern
  - Performance demands
  - Selective breeding
- Why?
  - Improve mastication (chewing)
  - Provide pain relief
  - Promote general health, productivity & longevity



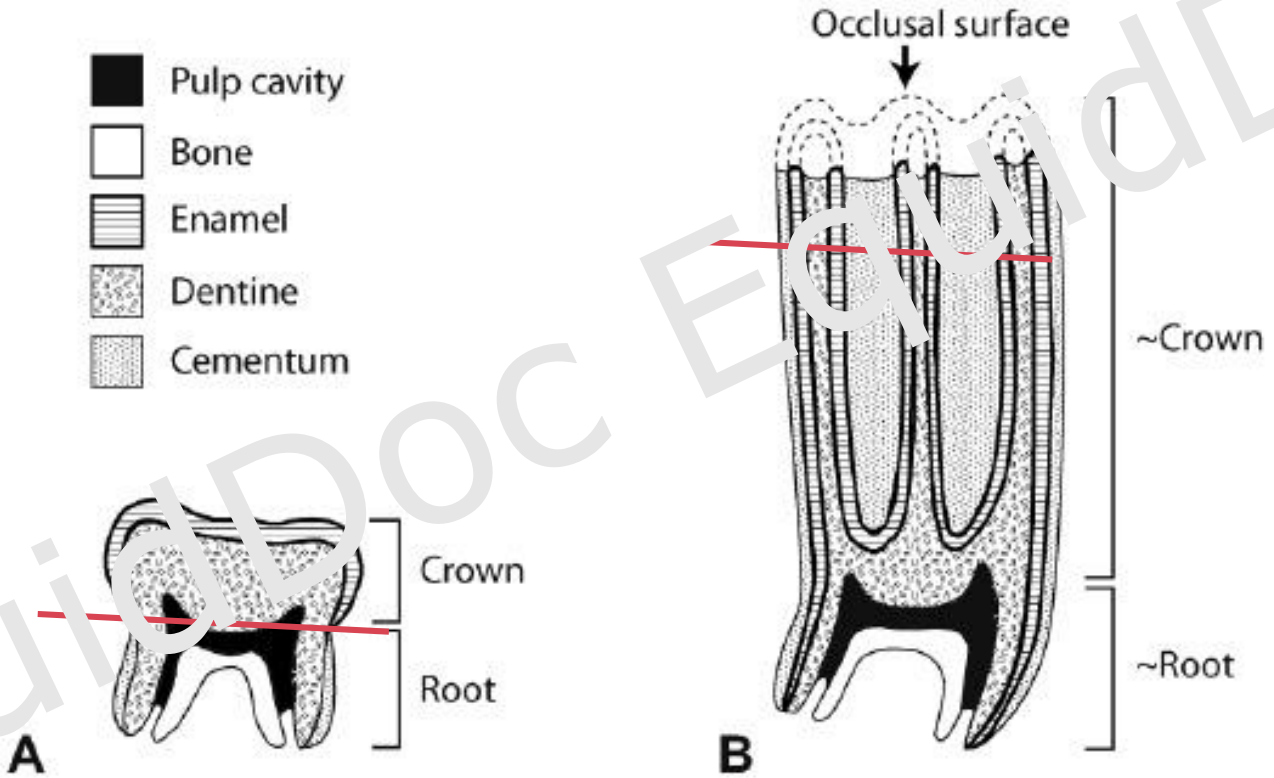
# Normal dental anatomy

Equine Dental Anatomy



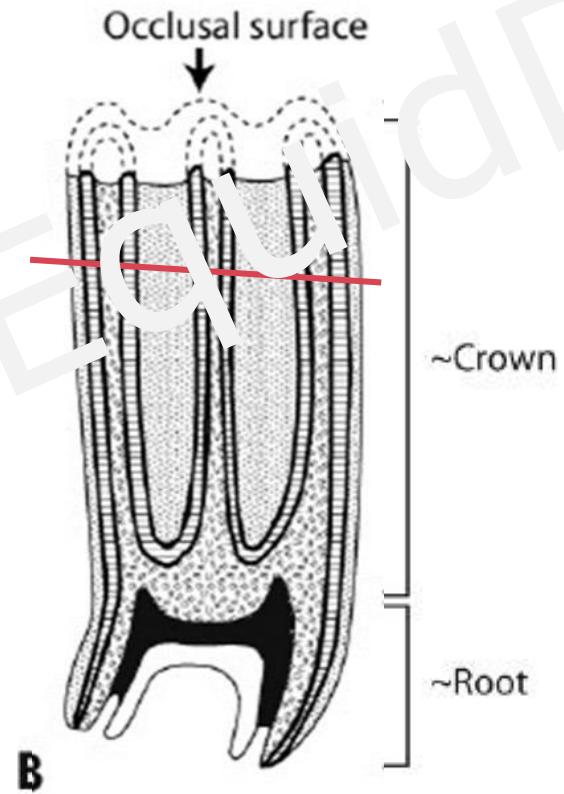
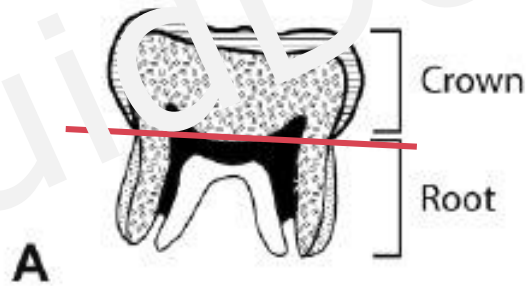
# Hypsodont tooth

- Pulp cavity
- Bone
- ▨ Enamel
- ▤ Dentine
- ▥ Cementum



# Eruption

- Pulp cavity
- Bone
- ▨ Enamel
- ▩ Dentine
- ▧ Cementum



2-3mm/year

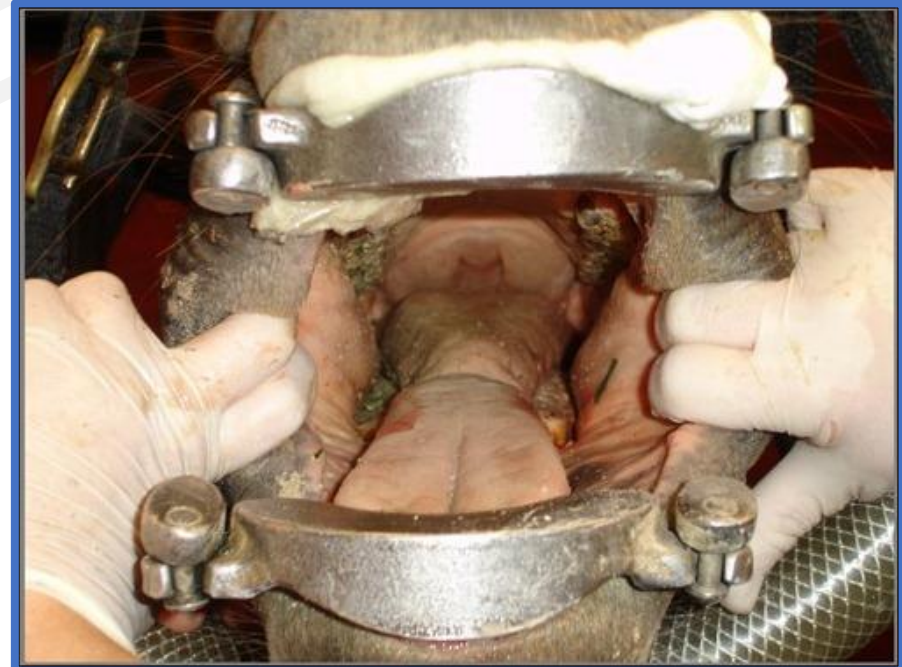
# The importance of an oral exam...

- **Examine → Diagnose → Treat**
- Diagnose prior to major issues
  - Dental disease
  - Oral cancers
  - Affects whole body



# What's involved in an oral exam...

- Assess exterior of head
  - Muscle atrophy/hypertrophy
  - Neurological problems
  - Boney enlargement
  - Skull deformity
  - Soft tissue swelling/edema/masses
- Assess the **whole** mouth
  - Oral cavity
    - Lips, gums, cheeks, palate, tongue
  - Teeth
  - Associated structures
    - Sinuses



Credit Jon M. Gieche, DVM



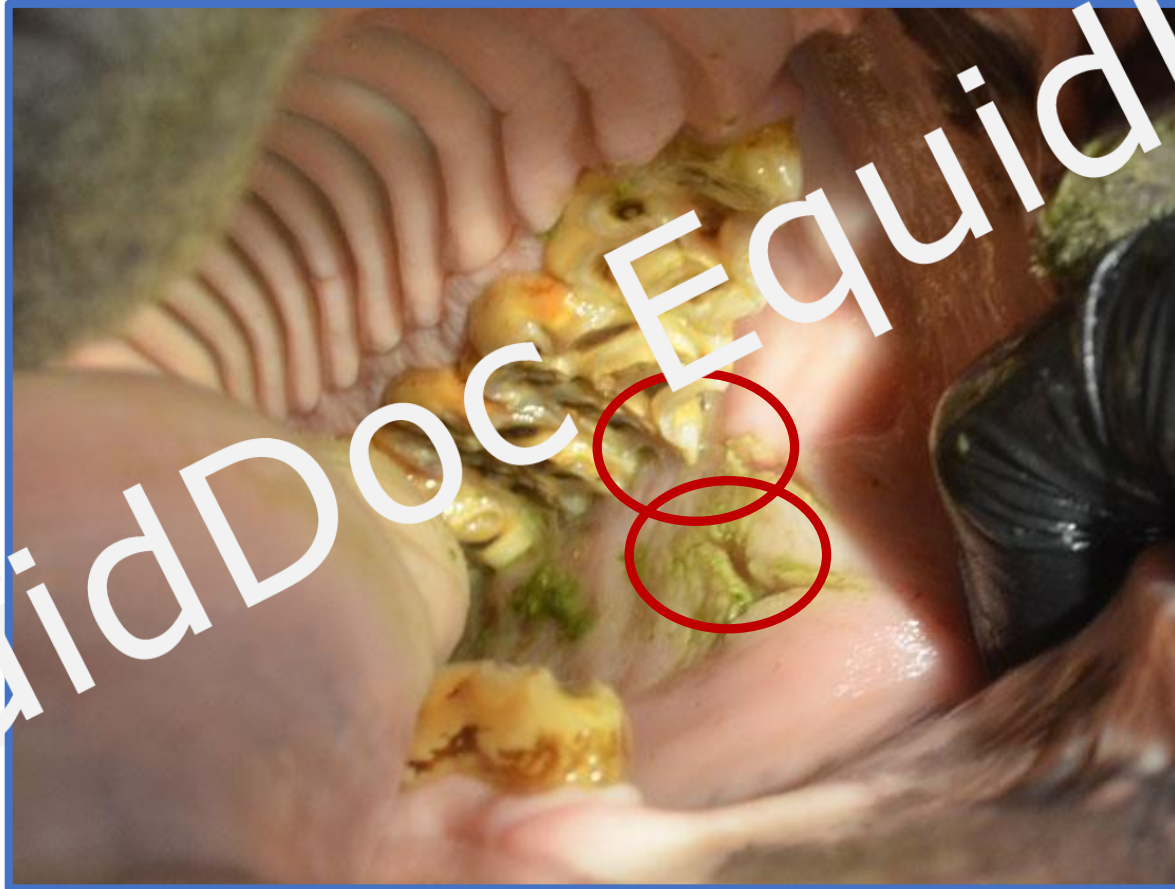
# How often should my horse be examined?

- **EXAMINE ... BASED ON AGE**

- **Juvenile** (<5 yr) horses – Day 1, every 6 months
- **Mature** horses (5-17 yr) – at least once per year
  - Maintain correct dental alignment
  - Diagnose dental problems early
- **Senior** horses (17yrs +) – at least once per year with nutritional consultation
  - Increased risk of periodontal disease
  - Excessively worn tooth
    - ***Impaction, choke, poor nutrient absorption***



## How do we address it?



Credit Jon M. Gieche, DVM

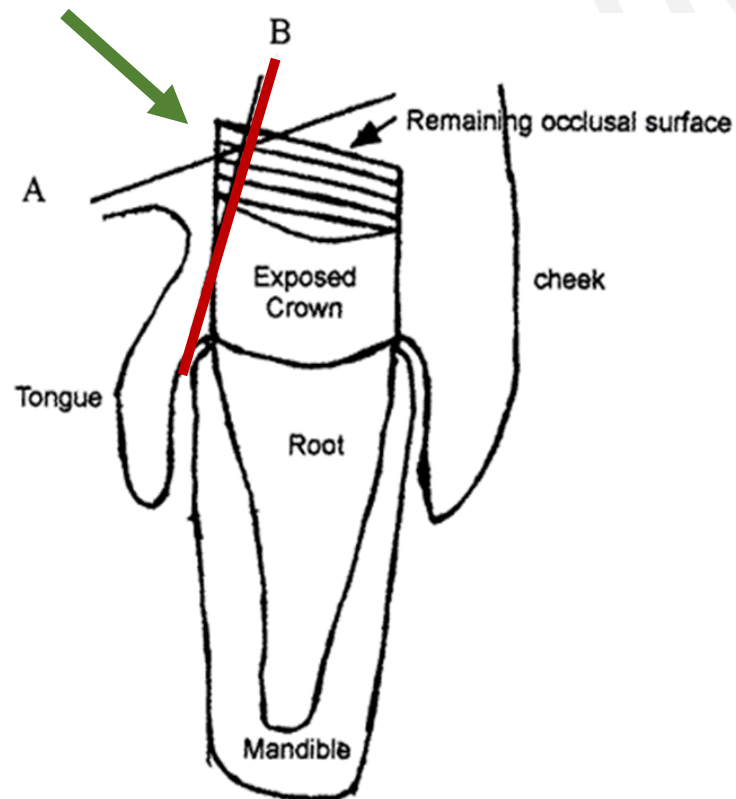
# Treating common dental abnormalities...

- *Floating* is grinding of the tooth to equilibrate OR **Treat** of dental abnormalities

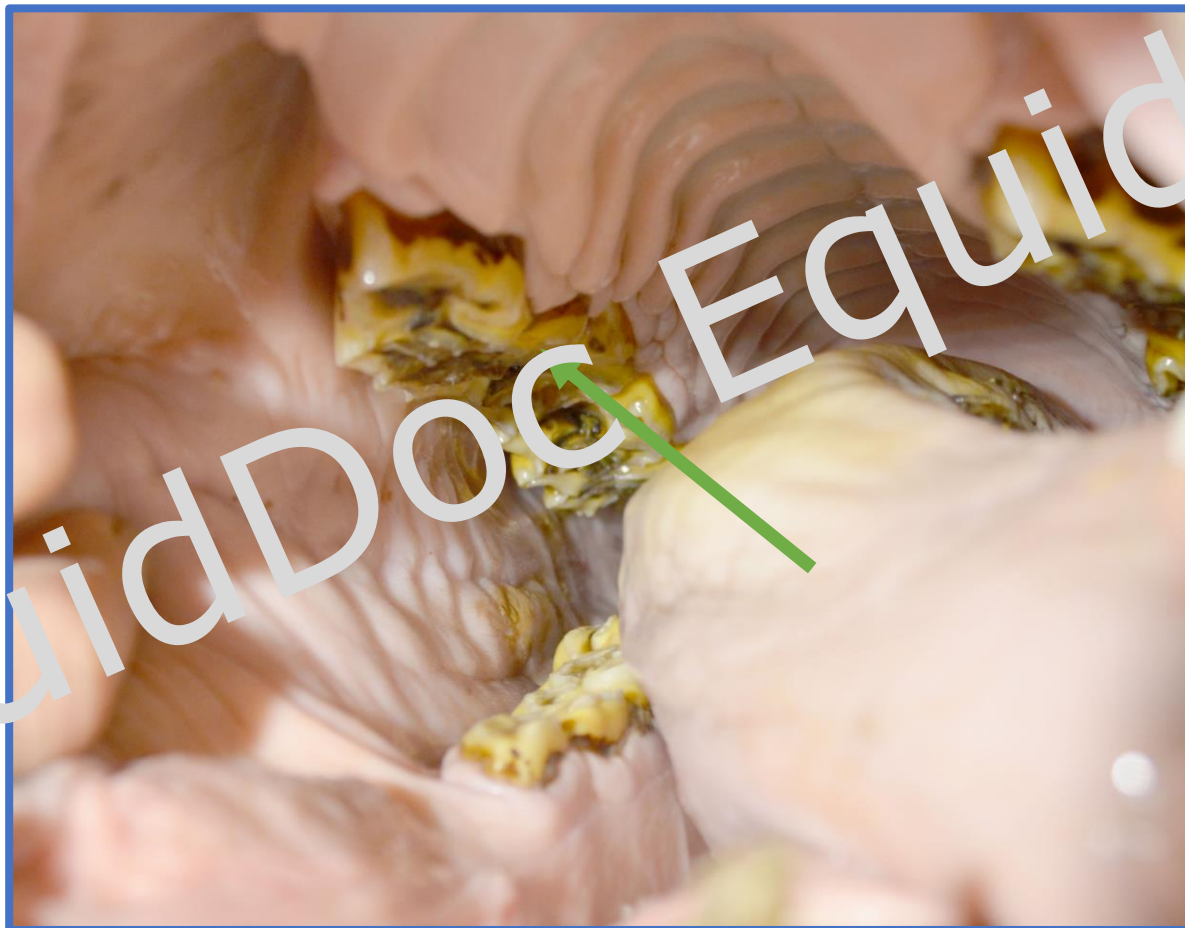
Figure 2.

A. Floating angle used to narrow the tops of the tall teeth in the wave.

B. Floating angle used to remove enamel points on lingual side.



# WAVE



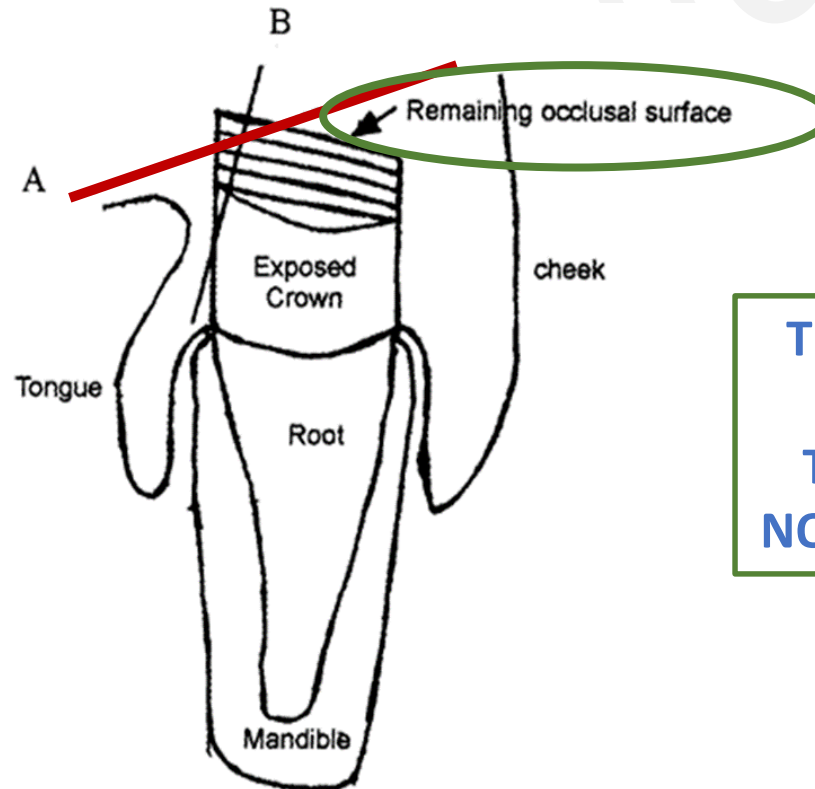
EquidDoc EquidDoc

# Reducing a *wave* dental abnormality...

Figure 2.

A. Floating angle used to narrow the tops of the tall teeth in the wave.

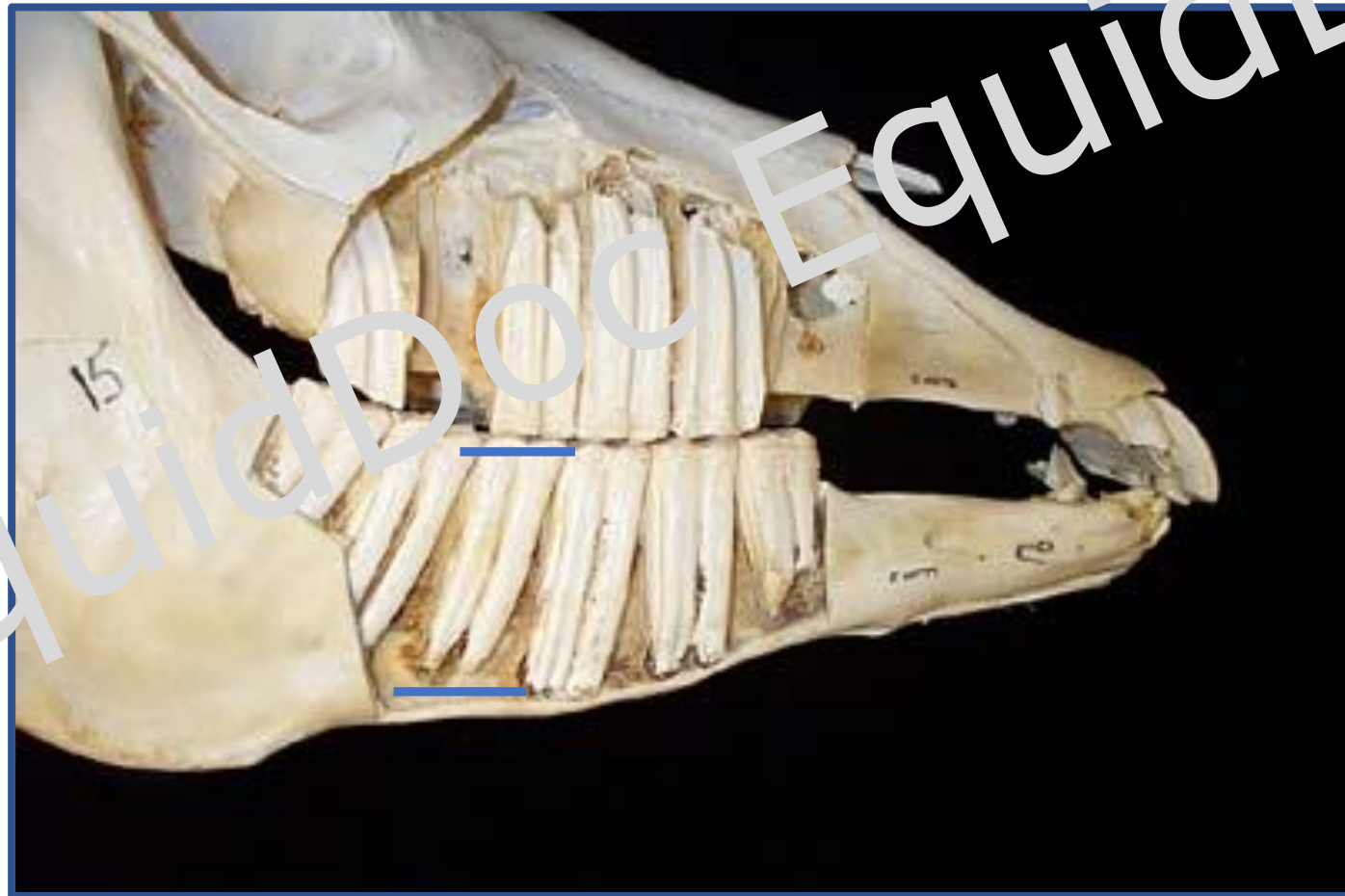
B. Floating angle used to remove enamel points on lingual side.



**TEETH NEED TO  
GRIND!!!  
THEY SHOULD  
NOT BE SMOOTH!**

# Diastema

Shape of tooth



# Abnormal dental anatomy



Food stasis in periodontal pockets and widened interproximal space (diastema). Credit Jon M. Gieche, DVM