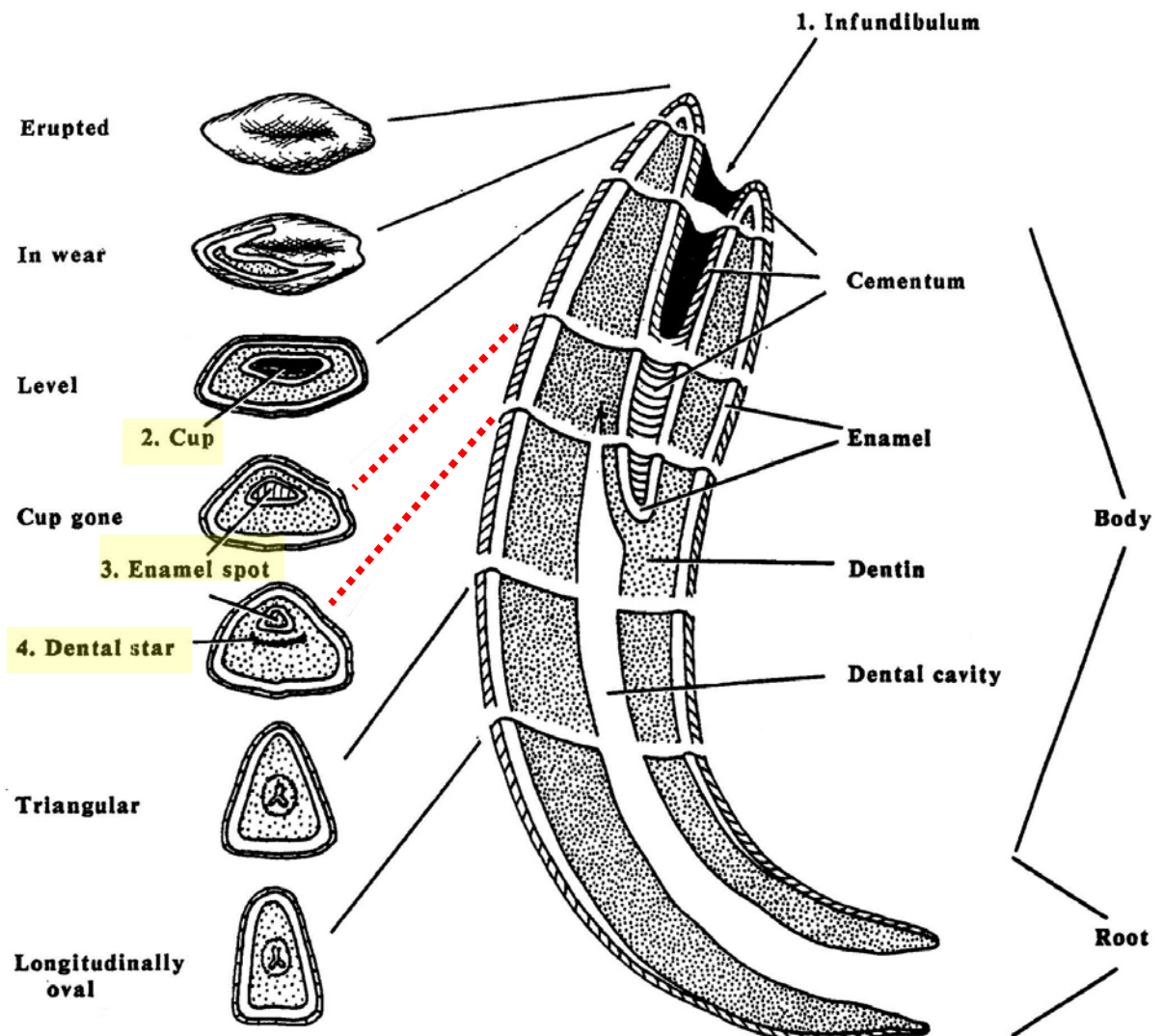
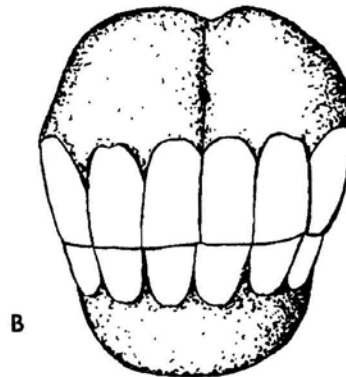
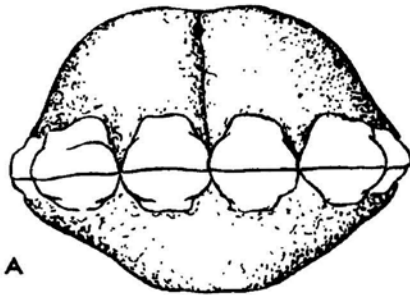


## HORSE INCISORS



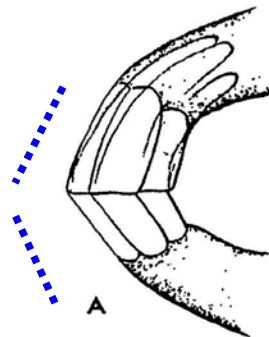
1st incisor - sagittal section  
& occlusal surface

## INCISORS

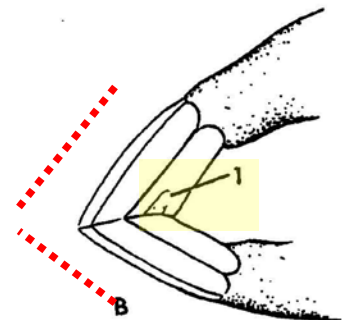


Incisors, rostral view

- A. Two year old, deciduous incisors
- B. Five year old, permanent incisors



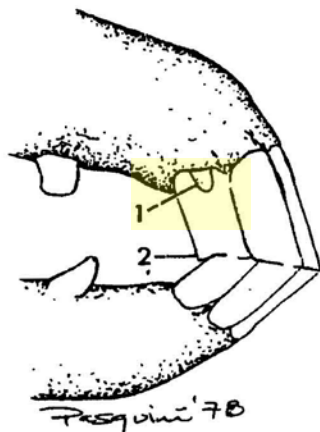
5 years old



25 years old

Incisors, lateral view

- A. Five year old
- B. Twenty five year old
- 1. Galvayne's groove



Incisors of eleven year old, lateral view

- 1. Galvayne's groove
- 2. Incisive hook

## AGING TEETH

**AGING THE HORSE BY THE LOWER INCISORS:** The most definitive age of a horse is its birthday. If unknown, you can use eruption and wear of the lower incisors to estimate its age. The lower incisors are used because of accessibility (the upper incisors only increase difficulty without increasing accuracy). Due to individual variation and feed types, you must avoid being definitive. Thus, a horse should be said "to have the teeth of a horse of a certain age", not that the horse is so many years old.

**ERUPTION TIME:** The tooth breaking through the gum to become visible is the most accurate estimate of age. You can determine eruption by spreading the horse's lips. First determine if the teeth are permanent or deciduous (deciduous incisors are small and have a distinct neck). If no permanent incisors have erupted, the horse has the teeth of a horse under 2 1/2 yrs. old.

### NO PERMANENT INCISORS - UNDER 2 1/2

Newly erupted permanent incisors will be covered by yellow cementum and lack a neck. The lower permanent incisors, I1, I2, and I3 erupt at 2 1/2, 3 1/2 and 4 1/2 yrs. respectively.

### ERUPTION - PERMANENT

I1 - 2 1/2 years  
I2 - 3 1/2 years  
I3 - 4 1/2 years

Once the teeth are in wear, the mouth must be gently opened to view the occlusal surface. Hold the lower lip and jaw and place a finger in the space behind the incisors (interdental space).

**IN WEAR:** occlusal surfaces are in contact; occurs approximately 6 mos. after eruption. If all the lower incisors are erupted and I3 is in wear (dentin seen on its occlusal surface), the horse has the mouth of a 5 yr. old. If all lower incisors are not erupted, then add 6 mos. to the eruption times of those present.

**IN WEAR - I3 - 5 yrs.**

**LEVEL:** I1, I2 and I3 become level at 5, 6, and 7 yrs. respectively. The enamel rings are hard to visualize on a "moving" horse, so although they are less reliable, the disappearance of cups is used next.

**CUP GONE:** disappearance of the cup formed by

the infundibulum. It is unreliable due to variability in depth. The cups are said to disappear from lower I1, I2, and I3 at 6, 7, and 8 years, respectively. I3 is very unreliable. Because of the ease of seeing the cup gone (no black decayed material in it), it is used instead of leveling times (seeing the 2 enamel rings).

**CUP GONE** I1 - 6 yrs.  
I2 - 7 yrs.  
I3 - 8 yrs.

Eruption, in wear, and cup gone times are the most accurate indicators of age, in that order. Other wear data are less accurate and should be disregarded if they conflict with these times.

**DENTAL STAR:** The dental star is unreliable, and said to appear in the lower incisors I1, I2, and I3 at 8, 9, and 10 yrs. of age respectively. However, a dental star (or what appears to be a dental star) may appear at any age, so instead, use the rounding of the occlusal surface for these ages.

**ROUND:** refers to the shape of the occlusal surface, which actually appears triangular. "Round" means the transverse diameter equals the longitudinal diameter. These diameters become equal at 9 yrs. and 10 yrs. for I1 and I2 respectively.

**ROUND** I1 - 9 yrs.  
I2 - 10 yrs.

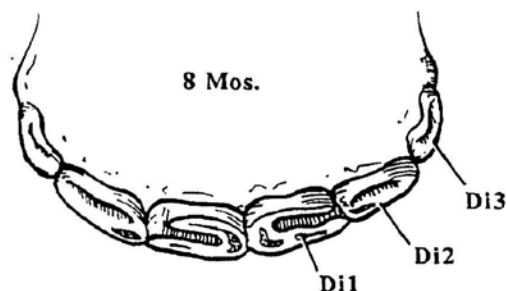
**CUP GONE - UPPER INCISORS:** If detecting a round occlusal surface proves to be confusing, disappearance of the cup from the upper incisors can be used for these ages. They disappear from I1, I2 and I3 at 9, 10 and 11 yrs. respectively.

**TRIANGULAR:** when the longitudinal dimension becomes greater than the transverse dimension of the occlusal surface (unreliable). This occurs at 16 and 17 yrs. for I1 and I2 respectively. (I3 is very unreliable).

**TRIANGULAR** I1 - 16 yrs.  
I2 - 17 yrs.

**ENAMEL SPOT:** supposed to disappear from the lower incisors between 13 and 16 yrs. (unreliable).

## DECIDUOUS INCISORS



Horse - Deciduous incisors  
- occlusal surface

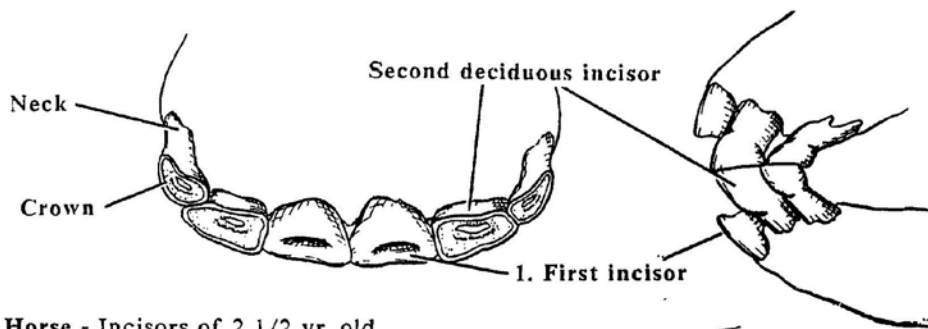
DECIDUOUS INCISORS			
	Di <sub>1</sub> (central)	Di <sub>2</sub> (intermediate)	Di <sub>3</sub> (corner)
Erupts	8 days	8 weeks	8 months
In Wear	1 year	1 year	2 years

**AGE OF THE NEWBORN HORSE:** The deciduous incisors, smaller than permanent incisors, have a definite neck (low crowned - brachyodont teeth). A horse with deciduous incisors is less than 2 1/2 years of age. For

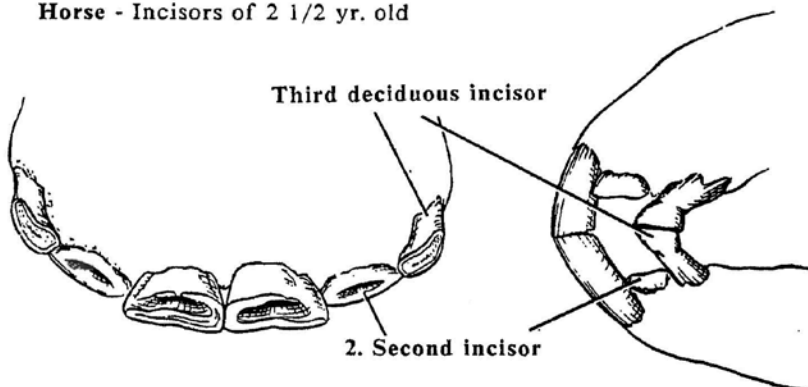
easy recall, 8 days, 8 weeks, and 8 months can be used for eruption of Di1, Di2 and Di3 respectively (1 week, 1 month and 8 months is more correct). At 1 year, Di1 and Di2 come into wear. At 2 years, Di3 is in wear.



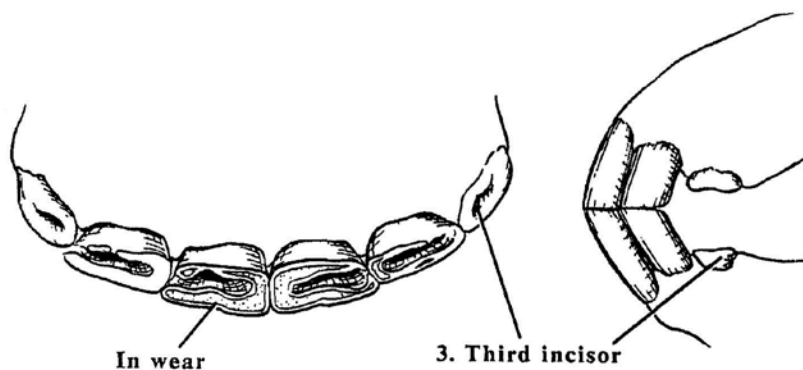
## ERUPTION - INCISORS



Horse - Incisors of 2 1/2 yr. old



Horse - Incisors of 3 1/2 yr. old



Horse - Incisors of 4 1/2 yr. old

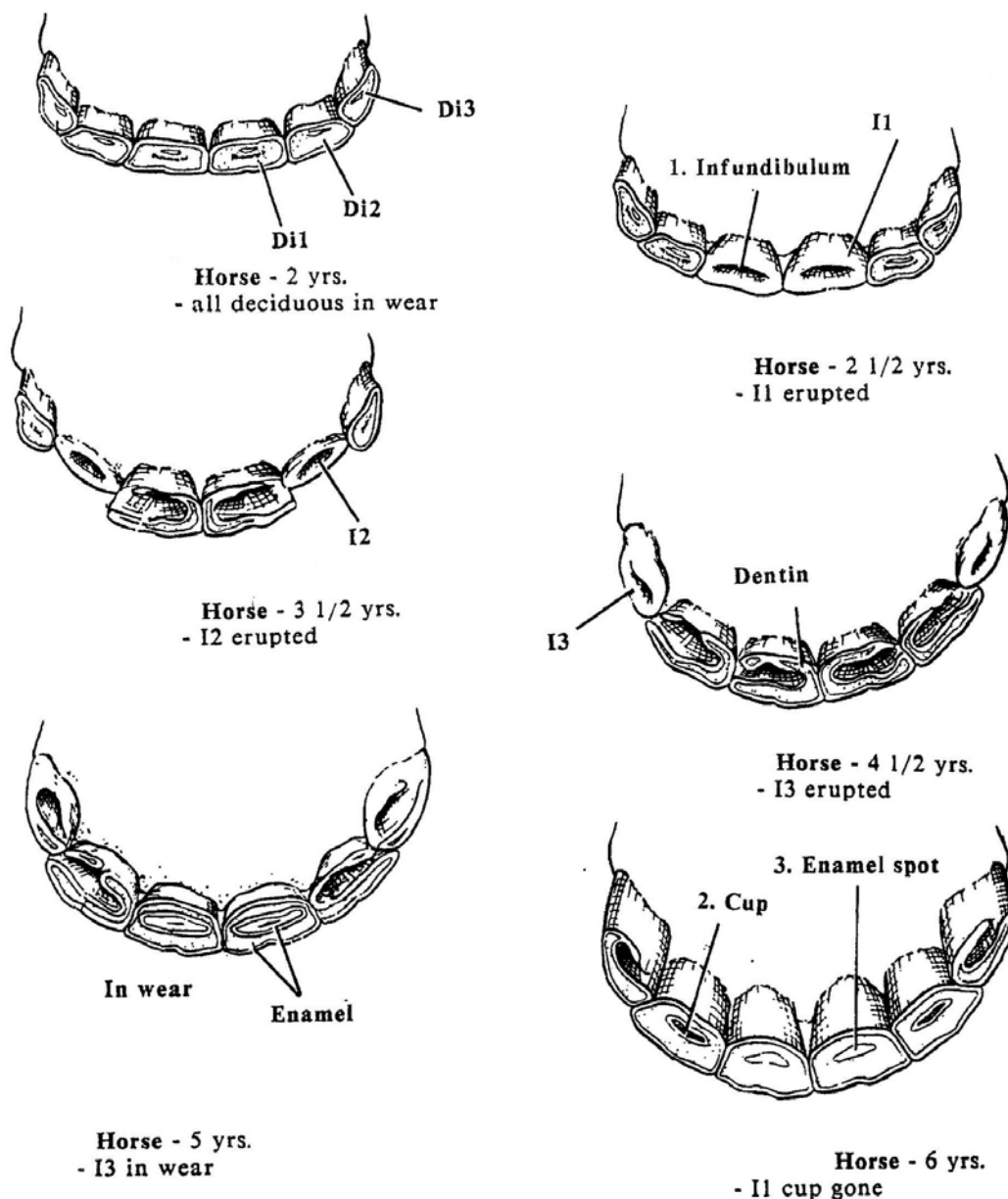
**RECTANGULAR** (longitudinally oval): at 18 yrs., the shape of the occlusal surface lengthens in the longitudinal direction. (I3 doesn't follow this pattern.) When all the enamel spots are gone

and I1 and I2 are longitudinally oval, they are the teeth of a horse over 18 yrs.

**RECTANGULAR** - over 18 yrs.

## AGING - INCISORS

Head-253



**SUMMARY:** First check if the lower incisors are deciduous or permanent. If deciduous, they are the teeth of a horse under 2 1/2 yrs. If permanent, count 2 1/2, 3 1/2, 4 1/2 for the permanent incisors erupted. If 4 1/2 yrs. or older, check I3 for wear: in wear, 5 yrs. No cups on I1,

I2, I3 yields an age of 6, 7, 8 yrs.

If I1 and I2 are round, say 9 and 10 yrs. respectively. If I1 and I2 are triangular, say 16 and 17 yrs. respectively. If I1 and I2 are rectangular, say the horse has the teeth of an animal over 18 yrs. old.

## AGING - INCISORS



Horse - 7 yrs.  
- I2 cup gone



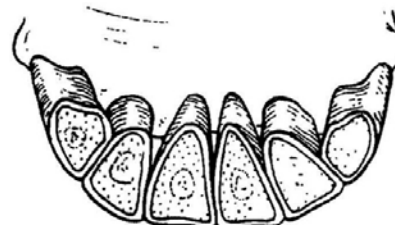
Horse - 9 yrs.  
I1 round



Horse - 10-11 yrs.  
- I2 round



Horse - 16 yrs.  
- I1 triangular



Horse - 18 yrs. - rectangular

### The Age Of A Horse

To tell the age of any horse,  
Inspect the lower jaw, of course;  
The six front teeth the tale will tell,  
And every doubt and fear dispel.

Two middle nippers you behold  
Before the foal is eight days old;  
Before eight weeks, two more will come.  
Eight months the corners cut the gum.

The outside enamel will disappear  
From the middle two in just one year;  
Also one year for the second pair -  
In two years corners too will wear.

At two and a half the middle nippers drop;  
At three and a half the second pair can't stop;  
When four and a half the third pair goes,  
At five a new worn set he shows.

The deep black spots will pass from view  
At six years, from the middle two;  
The second pair at seven years,  
At eight the spot each corner clears.

From middle nippers upper jaw,  
At nine the black spots will withdraw;  
The second pair at ten are bright,  
Eleven finds the corners light.

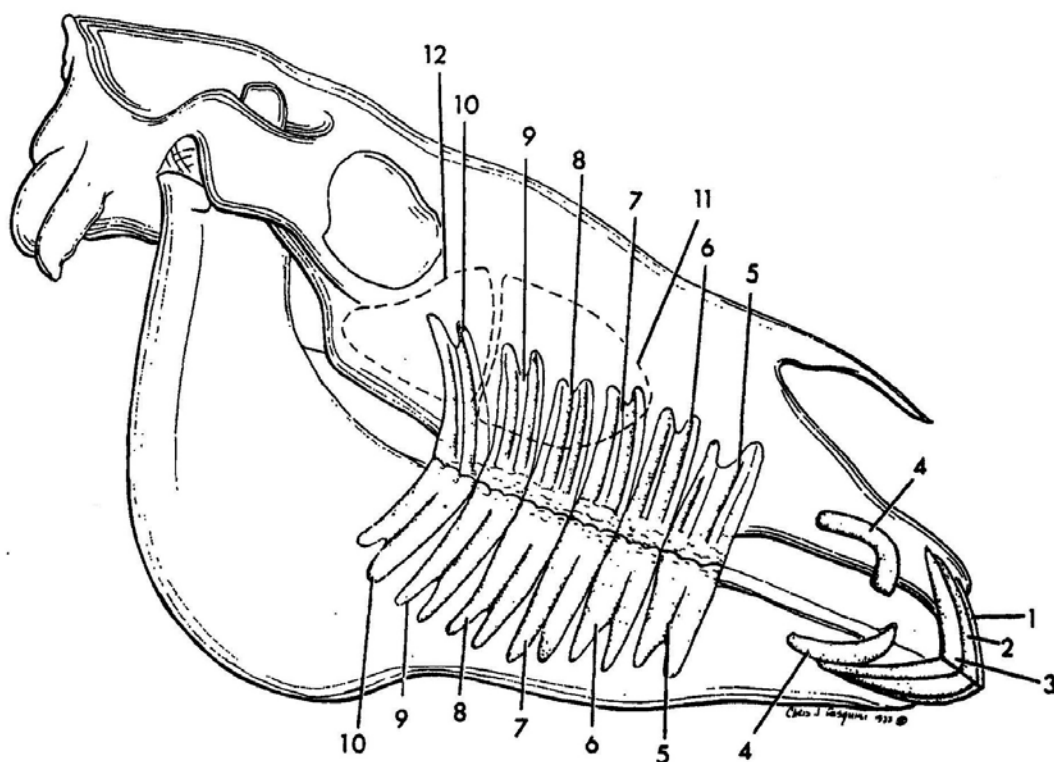
As time goes on the horsemen know  
The oval teeth three-sided grow;  
They longer get, project before,  
Till twenty - when we know no more.

ANONYMOUS (modified)

### AGING HORSE INCISORS

Permanent (Adult)	Center Incisor	Middle Incisor	Corner Incisor
Eruption	2.5	3.5	4.5
In wear	3.0	4.0	5.0
Level	5.0	6.0	7.0
Cup gone	6.0	7.0	8.0
Dental star	8.0	9.0	10-11
Round	9.0	10.0	11-12
Disappearance of entire enamel spot	13-16		
Triangular	16.0	17.0	16-17
Rectangular	18.0	19.0	20-21

## DENTITION

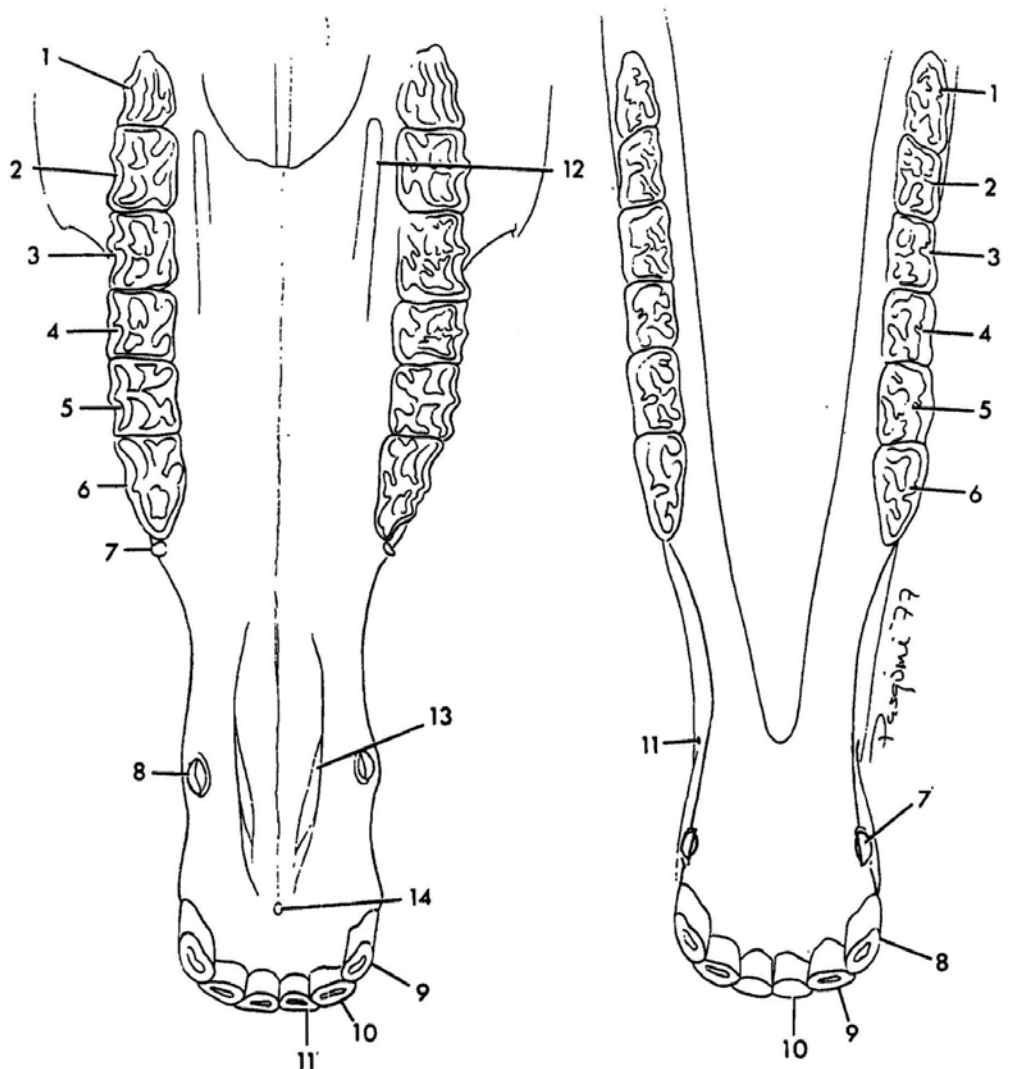


Skull of adult stallion showing dentition, lateral view

- |                    |  |
|--------------------|--|
| 1. First incisor   | 8. First molar                             |
| 2. Second incisor  | 9. Second molar                            |
| 3. Third incisor   | 10. Third molar                            |
| 4. Canine          | 11. Rostral compartment of maxillary sinus |
| 5. Second premolar | 12. Caudal compartment of maxillary sinus  |
| 6. Third premolar  |  |
| 7. Fourth premolar |  |



## DENTAL ARCADES



Upper dental arcade

of a five-year-old stallion

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| 1. Third molar                   | 12. Major palatine foramen and groove |
| 2. Second molar                  | 13. Palatine fissure                  |
| 3. First molar                   | 14. Incisive canal                    |
| 4. Fourth premolar               |                                       |
| 5. Third premolar                |                                       |
| 6. Second premolar               |                                       |
| 7. First premolar ("wolf tooth") |                                       |
| 8. Canine                        |                                       |
| 9. Third incisor                 |                                       |
| 10. Second incisor               |                                       |
| 11. First incisor                |                                       |

Lower dental arcade

of a five-year-old stallion

- |                    |
|--------------------|
| 1. Third molar     |
| 2. Second molar    |
| 3. First molar     |
| 4. Fourth premolar |
| 5. Third premolar  |
| 6. Second premolar |
| 7. Canine          |
| 8. Third incisor   |
| 9. Second incisor  |
| 10. First incisor  |
| 11. Mental foramen |