

## **Bitting for Comfort and Control.**

In the world of competition and sports horses, the type of horse being used today has changed dramatically from that of even 10 years ago.

Sports horses now, may be anything from a pony cross to a large draught cross and almost any mix of breed in between.

Bitting for the diverse conformation differences in the heads of these mixed breeds has given rise to a need for the production of a wide range of bits with multiple choices of mouthpiece, cheek, width and thickness. So how do you choose which bit is most suitable for your particular horse.

To do this you need specific information, both to horses in general and personal to your own animal.

Firstly, how does a mouth work?

- Lower mouth ----- Lips, gather and hold the grass  
Incisors, cut the grass  
Front/ lower part of tongue, collects the grass and forms it into a ball.
- Central mouth ----- Central tongue pushes grass into a bolus and presses it against the palate.
- Upper mouth ----- Premolars and molars, crush and pulverize the food in a rotational direction before swallowing it.

This is important in the fitting of bits because these are instinctive operations of the mouth, and too low a bit will always cause a horse to fiddle as if collecting food. Too high a bit will cause a horse to grind on the bit as if it were food.

Bits need to be placed in the area where the tongue presses the food against the palate, but there are no teeth (that interdental space called the bars).

Conformation of the mouth: Every horse has a different mouth conformation. In other words they have different dimensions and sizes of front/incisor teeth, lips, bars, tongue, roof of mouth and palate, curb groove and length of nose.

These different shapes and sizes effect the fit of the bit.

Traditional practice encouraged the fit of bits to show 1 to 1 1/2 wrinkles at each side of the lips, but as we have become more scientific in our fitting of bits we began to realize that this applies only if horses have moderate conformation in all areas.

Short or fat lips, long bars or lower eruption of the premolars all effect this wrinkle law and make it not a feasible rule for horses with untypical types of conformation. For instance, short lipped horses may have to have 2 wrinkles in order to have the tongue feel the bit in the correct area. But this may be too high in some circumstances, because the horse also has fat lips, thus causing rubbing and then a sore at the corners, then the design of the bit needs to be changed to allow for a higher sitting pressure but less lip stress.

These problems are more frequently seen in the cross bred animals of today as a horse

may inherit some genetics from one breed and another set from the other. (sharp bars of the Thoroughbred and fleshy lips of the Warmblood).

Good Lorrinary collections offer help in these areas, advise and discuss problems and different solutions and supply different bit types with an explanations of their uses with the customer.

Conformation problems:

Horses with large tongues, this type of problem is anatomically the most common form of mouth discomfort, causing the horse to poke the tongue to the side or hold it between the front teeth—thus not giving a relaxed jaw muscle, or even playing with the tongue, including getting it over the bit, rolling it back or bunching it to the side of the mouth. To see if your horse has a large tongue, check the mouth at rest and relaxed without a bit in, gently pull back the lips and see if the tongue fills or over flows the mouth. If it does poke out between the bars then you will have a biting problem without the right choice of bit.

Lampus --- this is another form of discomfort, a soft swelling of the roof of the mouth. This may be caused by a low or flat palate, excessive flesh and ridging over the palate, or by the bit pressing excessively into this area ( the wrong mouth piece chosen). Again bit design is the key, as reducing pressure on the palate will relieve discomfort and help the horse relax. Low palates also create problems of space in the mouth, Arabs especially and Arab X's, due to the dip in shape of the nasal cavity suffer from this. Mouthpieces need to be high, with bits lying straighter across the mouth and be double jointed so the up/down pressure on the tongue is limited.

Fat or fleshy lips, this again can cause great discomfort if the bit continuously traps the inner edge of the lip between itself and the bars of the horse, causing bruising on the inside of the lip and to the bar. Bit design again becomes important here, where the rider needs to find a design that allows room for the lip whilst still giving the control and conversation required with the horse. A problem associated with Draught and Driving breeds or their crosses. Arched or Demi Anky arms will help with this type of problem.

Short bars, this means that the space from the last corner incisor to the first premolar is extremely short. This occurs in pony and pony crosses. The new German Sports ponies and small sports horses are very susceptible to this problem. It means that the limited space in the bit area cannot accommodate a normal sized bit and special pony varieties are needed.

Short lips, (or long bars), this occurs when the lips and bars end anatomically in a very different area of the mouth, so in order to have a bit in the correct tongue area, the lips are pulled up too high. TbX's are very susceptible to this problem. Again good bit design is the answer, with the bit not sitting too far down the mouth, choose a mouthpiece that will be held high on the tongue.

Damage to the mouth:

Sharp teeth can cause excessive damage to lips and cheeks, and also the tongue, so regular dental care by a qualified Equine dentist is a must today. In the past 20 years our feeding processes have changed dramatically. Today we have choices never even thought of 20 years ago. Genetic engineering of grasses and foods have changed the palatability of feed and the digestibility of it also, giving grasses a higher protein level and less lignin content. Lignin is the indigestible fibre in grass and hay that wears horse teeth down and keeps the mouths level, as we have improved the digestibility of our foods we have lost the need to grind it so much in the mastication process and so teeth need more dental care as a result (there is always a draw back to progress).

Poorly fitting Bits or use of a bit which is too thick in a small mouth can cause undue pressure and then discomfort, this leads to swelling and sore spots. The horse then will not relax and accept contact easily, and if this persists will develop evasions and even habit related issues after the biting has been resolved.

Bitting with a bit that is too narrow is as bad as fitting one that is too wide, too narrow does not allow the bit to sit and move in the mouth, so a horse has no control over the comfort of the feel. It causes pressure on the lips, bars and the tongue. Too wide and the bit moves too much from side to side, and can trap the lips and bruise them, the sliding also causes bruising of the bars, this may also allow the bit to hit the teeth at the premolars.

Using a bit that is not the correct shape for the conformation of the mouth can also cause damage to the palate. If the roof of the mouth is low or the jaw is narrow a single jointed bit may be too harsh, damage is caused by using a single jointed snaffle that hits the roof when the jaw is narrow or pinches the lips and bars of horses like this.

Horses with sharp, thin bars can be bruised if the bit is too thin in diameter, while horses with fleshy bars feel very little with bits that are too fat.

In conclusion, it is important to assess the mouth of your horse to understand the conformation and therefore the biting requirements of each individual animal, this will develop a better communication and “COMFORT IN BITTING AND CONTROL”.

Next time we can discuss the different bits themselves and how they work for you in the horse's mouth, if you have any questions about biting I can be found at [info@hastilowusa.com](mailto:info@hastilowusa.com)

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