

# Horse Bits



**The differences between  
an eggbutt bit, a snaffle bit and  
a curb bit explained**

## *A Note From The Editor*

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Amy Herdy, Managing Editor  
*MyHorse Daily*



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## From explaining your choices to determining your horse's correct bit size, this guide is for you.

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*Adapted from articles by Jayne Wilson,  
Ron Meredith and Suzanne Vlietstra  
Photos by Joshua Polson*

A popular feature of many tack shops is the "Bit Wall." This is usually a rather intimidating array of different types of bit, each with different features designed to work in a slightly different way. Trying to decide which is the right bit for your horse can be confusing, but when you look closely, you'll see that there are only two basic types of bit: the snaffle bit and the curb bit.

Most people assume that because the snaffle is usually a jointed bit and the curb usually is not, the mouthpiece is what determines whether a particular bit is a snaffle or a curb. However, according to veteran horse trainer Jessica Jahiel, the difference between snaffles and curbs has nothing to do with the mouthpiece. The difference between the two types of bit is that the snaffle is a **non-leverage bit** and the curb is a **leverage bit**.

### Snaffle vs. Curb

On a snaffle bit, the rein attaches directly to the mouthpiece. The bit acts with a nutcracker action (provided it is jointed) on the bars of the mouth (the area of gum between the front and back teeth), the corners of the mouth and the tongue. As the rider takes contact on the rein, the horse feels an equal amount of contact on the bit in his mouth.

On a curb bit, the rein attaches to a shank or cheek piece that adds leverage. When the rider takes contact on the

rein, the horse feels a greater amount of contact, depending on the length of the shank. Following the basic physics of leverage, the longer the shank, the greater the leverage. The curb bit works on the bars of the mouth, as well as under the chin (by way of the curb chain, which is attached to the bit) and over the poll.

### Types of Snaffles

The gentlest type of snaffle bit is the eggbutt snaffle. The name comes from the somewhat egg-shaped connection between the mouthpiece and the bit-ring. The mouthpiece of an eggbutt can be made of a variety of materials (as can any bit), including copper and synthetic (either solid or covered). The reason this bit is so gentle is that it doesn't pinch the corners of the mouth.

Another style of snaffle bit is the D-ring snaffle. The name is self-explanatory in that the ring of the bit is in the shape of a "D."

In the loose-ring snaffle, the mouthpiece is attached to a full-round ring and can slide around on it, allowing the bit to lay in the most natural position, regardless of the horse on which it is used.

Some snaffle bits, such as the full-cheek snaffle, have cheek pieces that prevent the bit from being pulled through the mouth.

### Types of Curbs

Curb bits are **leverage bits**. They act

on the horse's mouth, poll and chin in several ways.

The mouthpiece acts as a fulcrum. When contact is taken on the reins, which are attached to the lower end of the shank, the leverage action tightens the bit in the horse's mouth, exerts downward pressure on the crown piece of the bridle over the top of the horse's head and behind the ears, and closes the curb chain under the chin, exerting pressure on the lower jaw.

The severity of the curb bit is partly dependent upon the length of the shanks. The longer the shanks, the greater the pressure exerted on the mouth and poll.

Needless to say, curb bits should only be used by experienced riders with quiet hands. Otherwise they can easily turn into instruments of torture.

A basic Western curb bit has a gently ported mouthpiece and shanks to which the reins attach. As the rider takes a feel of the reins, more leverage is exerted on the horse's mouth and also on the poll (where the bridle goes over the head, behind the ears). By increasing the amount of port on the mouthpiece, pressure is also applied to the roof of the mouth. Since Western horses are ridden on a loose rein, the longer shank allows the rider to utilize the leverage by giving extremely light rein aids and attaining the same result as a rider using a snaffle on firmer contact.

In the English curb bit, the port can also vary in severity. In general, the shanks on English bits are shorter than



on Western bits: four to five inches on an English bit as opposed to up to eight or nine inches on a Western one. The English curb bit is often used in a double bridle. In the double bridle, two bits are actually used. One is the curb, called the Weymouth, and the other is the snaffle, called the bridoon (or bradoon). Both of these bits are used together to refine the aids in the higher levels of dressage competition.

## How Are Bits Named?

It seems as if there's a never-ending list of bit names. But when you know how to break it down, you can often tell quite easily what a bit is, just by studying the components. The names of the various types of bit are taken from the characteristics of the bit in question.

The most basic names are taken from either the bit rings, as in eggbutt snaffle, D-ring snaffle or loose ring snaffle; or the mouthpiece, as in mullen-mouth snaffle, French-link snaffle or Dr. Bristol.

To give a more accurate description, the full name of the bit may be taken from both the rings and the mouthpiece. This makes for some long names sometimes, but by breaking the name down, you can tell what characteristics it has. Conversely, you can look at a bit's characteristics and come up with a name for it!

For example, we'll take the full-cheek snaffle, named for the cheek extensions on either side. Combine that with the eggbutt connection and you've got a full-cheeked eggbutt snaffle.

Or add in a description of the mouthpiece, such as slow twist, and you get a full-cheeked snaffle with a slow twist.

Other combinations might be Dr. Bristol eggbutt snaffle, or full-cheeked French-link snaffle — you get the idea!

Speaking of snaffles...

A three-ring snaffle, sometimes called an "American gag," is a loose-ring bit with distinct sidepieces composed, despite its name, of four rings. You attach the cheek piece to the tiny top ring; then you can attach the rein to the big snaffle ring (the one that's connected to the mouthpiece) for minimal effect, the second (small) ring for moderate effect, or the third (bottom) ring for maximum effect. (Some riders attach a rein to the

function like the shanks of a full-cheek snaffle, helping to steer the horse by pressing against the outside of his face in a turn.

Some use a three-ring snaffle on bigger, stronger horses because it helps keep them lighter in hand so they rebalance quickly and turn better, enabling them to go faster. Furthermore, it's almost like three bits in one.

A bit with a similar action and much

less potential for trouble is the loose-ring "loop" snaffle. You attach the cheek piece to an inward-facing loop at 12 o'clock and the rein to another loop at 5 o'clock. By fixing the cheek piece and rein in place relative to each other, you achieve the lift and leverage of the three-ring snaffle—but without its severity.

Remember, though, you always want to work toward a "snaffle-mouth" level of training and response.

## Choosing a Snaffle That Fits

Depending upon your horse's facial conformation, you'll need to choose the correct width of bit to fit him comfortably.

Bits range from the smallest pony-sized bits (approximately 3 ½ inches wide) to draft-horse-sized bits (5 ½ inches and up). Horses with slender muzzles, such as Arabians, will require a narrower bit than a Quarter Horse.

Single-jointed snaffles should be fitted to allow about ¼ inch clearance between the bit ring and the horse's lips. If the bit is too narrow, it will pinch the lips as contact is taken on the reins. Bits that are too wide will slide from side to side and may bruise the lips and/or bars of the mouth.

Another factor to take into consideration is the height of the bit in the horse's mouth. This can be adjusted by



snaffle ring and another to the bottom ring, as on a Pelham; some prefer a single rein because it is easier to use.)

The bit works by providing:

**Leverage.** When you pull back on one of the lower rings with the rein, the top ring levers forward and pulls the cheek piece down, which applies pressure to the horse's poll and encourages him to lower his head.

**Lift.** As you pull on the reins, the mouthpiece rides up the snaffle ring in an elevating action. When combined with a strong leg pushing the horse forward into the bridle, it helps to balance him off his forehead. (This effect can be increased by the style of mouthpiece; it's normally smooth but can be a stronger slow-twist or even a custom design.)

**Turning power.** The sidepieces

tightening or loosening the cheek pieces of the bridle. Ideally, a correctly adjusted bit will make one or two small wrinkles in the corner of the horse's mouth. Lower than this, and the bit may clank on his teeth, causing him discomfort. Higher, and the bit will pinch.

## Choosing the Right Bit for Your Horse

Bits are one of the most misunderstood pieces of horse equipment man has ever invented. The things that people think they're supposed to do with a bit in a horse's mouth are unbelievable.

All too often, the human take on the situation is that a horse is a big animal, and that therefore, the pressures needed to control it must be big and strong. That's a myth. A rocket engine is controlled by tiny bits of information being fed one at a time by a computer. Each of those bits is either a "zero" or a "one." The bits flow in a pattern called a program that the rocket understands. Same thing with a horse. All it needs are tiny bits of information fed to it with the right timing to get with the program.

There are very few surfaces where the bit can apply pressure. So it takes some pretty complex applications of pressure to those few points to create complex communication. The bit must be shaped in such a way and fit properly within the mouth so that the horse is able to understand the communication. Therefore, a bit must be both directional and horse-logical. It must not cause any injury which will result in temporary numbness.

As noted earlier, the area in the horse's mouth where a bit communicates our pressures most effectively is called the bars. These gaps between the front teeth and the back teeth on either side of the jaw consist of tissue-covered, pressure-sensitive cartilage. The bit lays across the bars and presses against the horse's tongue. Depending on its shape and adjustment, a bit can also put pressure on the horse's lips and on the roof of its

## Snaffle bits

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twisted wire D-ring snaffle



eggbutt snaffle



hard rubber  
full-cheeked snaffle



copper eggbutt snaffle





## == Curb Bits ==



mouth. Pressures on the lips are the least effective because the lips are an unstable surface and easily injured.

The first thing to look at on any device you put in the horse's mouth is the size of its contact area, which is the area that actually touches the horse and transmits pressure or feel. When trainers talk about "pounds of pressure" on a bit, they are really talking about pounds per square inch of pressure over this contact area. The thinner the bit, the less contact area it has and the greater the pounds-per-square-inch of pressure. The thicker the bit, the greater the contact area and the lower the pounds-per-square-inch of pressure.

Put another way, the thinner the bit, the more noticeable any pressure on the bars will be. With a thicker bit, the same amount of rein pressure will be less noticeable. So the effective size of the mouthpiece is the first thing to look at, because it will determine how noticeable the pressure you apply will be. Rough bit surfaces such as twists reduce the area where pressure is felt, much like rough tread reduces a tire's surface area where it meets the road.

The second thing to look at is whether the mouthpiece is straight or shaped so that it relieves the pressure on the tongue. If the bit is straight, the horse's tongue absorbs some of the pressure and the horse will feel less pressure on the bars. The bars are the only places in the mouth we can use to communicate an understandable directional pressure. If the mouthpiece is



hinged or grooved so it relieves pressure on the tongue, the bit is more noticeable on the bars of the mouth and gives more directional guidance.

A tongue groove and a port are not the same thing. A tongue groove is a shallow, raised indentation in the center of the mouthpiece only high enough to relieve tongue pressure. It allows the bit's pressures to be felt on the bars. A port is a raised groove or attached spoon so tall that it puts pressure on the roof of the mouth when the shanks of the bit are rotated by pulling on the reins. If you could park a little boat in it, it's a port. A port is severe and non-directional and cannot teach the horse anything.

The third thing to look at is whether the bit has leverage. The way to measure leverage is to compare the distance from the mouthpiece to where the reins attach to the distance from the mouthpiece to the curb chain (or strap). Most curb bits have a 3:1 leverage ratio. That means if you put 10 pounds of pull on the reins, the horse will feel 30 pounds of pressure squeezing his mouth.

Leverage decreases the amount of time it takes for the horse to feel bit pressure. If you have a bit with 3:1 leverage, the horse feels 10 pounds of pressure three times faster than he would if you applied 10 pounds of pressure with a non-leverage bit like a snaffle. To make this kind of bit pressure understandable and horse-logical, you would have to soften the pressure to reward the horse three times as quickly as you would with

a non-leverage bit. Because of this exaggerated pressure and release, curb bits impede true feel and understanding between you and your horse.

Curbs are also non-directional. Their pressure is felt as a clamping between the horse's chin and the bars of his mouth, and therefore can convey minimal direction to the horse. If you use a chain, the pressure is more noticeable underneath the chin. If you use a thick leather strap, the pressure is more noticeable on the bars of the mouth. In most cases, curb bits are used as a signaling device rather than as a training device to help the horse learn to shape himself correctly.

One of the biggest mistakes people make is picturing the bit by itself. The bit is only part of the overall corridor of aids you use to create the shapes you want the horse to take. You do not want the bit to be louder

**The bit is only part of the overall corridor of aids you use to create the shapes you want the horse to take. You do not want the bit to be louder than your legs or seat.**

than your legs or seat. You don't need a big bit to get the horse's attention and you don't need a big bit to get the horse stopped. You just need to know how to use a bit to make it understandable and directional to the horse.

Whenever you see a horse fighting the bit, he has lost feeling for the rest of the aids. It is just like two people who speak different languages raising their voices louder and louder in an effort to be understood. Rhythm, relaxation and repetition are the cornerstones of good training.

## What Are Bits Made Of?

While history tells us that bits used to be made of bone or wood, nowadays bits are available in a variety of materials.

Probably the most inexpensive (and least desirable) material is nickel plate. With wear, the plating can flake off, revealing the core metal underneath and leaving rough patches that can injure the horse's lips and tongue. These bits also tend to rust.

Stainless steel is a much better option. It doesn't flake or rust. Stainless steel is probably the most common material for bits these days.

Some bits come with mouthpieces made of a different material. Vulcanized rubber is a hard rubber coating that is baked on to the mouthpiece. This baking process makes the rubber stronger and less prone to flaking than non-vulcanized rubber. Rubber



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Bit mouthpieces come in different materials, such as A) stainless steel or steel combined with other metals; B) vulcanized rubber; C) copper or copper combined with other metals; and D) Happy Mouth plastic.

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mouthpieces are warmer on the bars of the mouth and the tongue, and some horses prefer the softer feel that they give.

Copper is another popular choice for mouthpieces, with either the complete mouthpiece being made of rubber, or with copper inserts or rollers incorporated into it. Copper helps some dry-mouthed horses salivate and become more responsive to the bit. It does tend to "pit," though, so care should be taken to make sure there aren't any sharp edges to hurt the horse's mouth.

"Happy Mouth" bits are made of high-tech plastics. They are soft and flexible, and come with an apple scent to encourage the most bit-shy of horses to accept them.

Another material that encourages horses to salivate and become softer and more responsive in the mouth is the "sweet iron" mouthpiece. Whether they actually taste sweet to the horse is unknown.

Sometimes, finding the right material for your horse is a matter of trial and error. What works on one horse may not work on another.



## Proper Bit Sizing

Is your snaffle bit the right width for your horse?

Whether you're looking for a bit for a green horse or a veteran campaigner, you want to be sure you're selecting the right size for your horse's mouth. If your snaffle bit's mouthpiece is too wide or too narrow for your horse's mouth, the bit can't do its job effectively. Here's how to make a tool to measure the width of your horse's mouth—and how to use it as a guide to proper bit fit.

(Note: The measurement you get from this method isn't absolute; it's simply a guide to help you pick the correct mouthpiece for your horse. Standard width is 5 inches. Generally, horses with small muzzles and jaws wear a 4 ½-inch mouthpiece, as a 5-inch model may look sloppy. Horses with larger muzzles and jaws are usually more comfortable in 5 ½- or 6-inch mouthpieces, so the bit won't pinch the corners of their mouths.)

### You'll Need:

An 8-inch section of ½-inch hose; a ruler; a pocketknife or leather punch; two rolls of different-colored, ½-inch-wide electrical tape (we'll use red and yellow for ease of description); two split key rings; a lightweight headstall; and two swivel snaps (optional).

### Making the Measuring Tool

1. Using the ruler, mark points ½, 1, and 1 ½ inches from each hose end. (The space between the two 1 ½-inch marks should be 5 inches.)

2. Wrap a strip of red tape between the ½- and 1-inch marks at each end. Then wrap a strip of yellow tape between the 1- and 1 ½-inch marks. Looking at the hose from left to right, you'll see ½ inch of bare hose, then a red piece of tape, then a yellow piece, then 5 inches of bare hose, followed by yellow tape, red tape and ½ inch of bare hose.

3. Using a pocketknife or leather punch, pierce a small hole in the hose end about ¼ inch from each end. Then

**If your snaffle bit's mouthpiece is too wide or too narrow for your horse's mouth, the bit can't do its job effectively.**

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thread a split key ring through each hole.

4. Secure the rings to your headstall's cheek pieces, as though you're putting on a bit. Or fasten swivel snaps to your headstall's cheek pieces. Then clasp the snaps to the key rings. (The latter is a bit faster.)

### Mouth Measuring

1. To measure the width of your horse's mouth, bridle him with the measuring tool attached to the headstall, placing the hose in his mouth just like a bit.

(Note: adjust your headstall so that the

hose lies flat in your horse's mouth.)

2. The colored tape markers will tell you at a glance what size mouthpiece your horse needs. If the corners of his mouth are within the standard 5-inch width (the corners of his mouth are within the bare-hose area) a 5-inch mouthpiece may be fine. However, when it comes to snaffle mouthpieces, wider is often better. Try a 5 ½-inch mouthpiece; you may find him more comfortable and responsive.

3. If there's a gap of 1 inch or more between the corners of his mouth and the edge of the yellow tape marker, try a 4 ½-inch or 5-inch mouthpiece.

4. On the other hand, if the corners of his mouth spread onto the yellow tape marker, opt for a 5 ½-inch mouthpiece.

5. If his mouth spreads onto the red (or farthest) tape marker, a 6-inch mouthpiece may be best.

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