

## WHAT IS AN ENDOSCOPE?

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An endoscope is an instrument used in either human or veterinary medicine designed specifically to look inside the body. Originally these were straight, rigid affairs which had limited practical application in veterinary medicine where the animals all come in curves. In the early 1970s both human and veterinary medicine saw flexible endoscopes become available. These instruments utilized the then new fiber optic technologies which allowed light to be passed down a reflective coated glass fiber about the size of a human hair. Put together a whole bundle of these glass fibers and you can take a lot of light around corners and as far into the body as the scope can reach. Put a second set of fibers with the ones carrying light and you can see down them to what has been illuminated **inside** the animal. If the endoscope is placed in the horse's nose, you can see the turbinates and any nasal lesion. If it's in the horse's throat the larynx can be seen. In mares, the same technology can be used to look directly into the uterus with minimal discomfort, and in stallions and mares to see directly into the urinary bladder.

Pilchuck recently acquired a nine foot long endoscope. So what? This is the longest endoscope in western Washington. Many practitioners have a standard three or four foot endoscope, which allows visualization of many of the common problem areas in the horse, but not all. The longer endoscope allows us to actually see the lining of a horse's distal esophagus and stomach, even in large warmblood horses. This can be an important consideration in horses with recurrent colic and in skinny horses who lose weight or fail to gain weight.

The equine stomach can be a difficult organ for veterinarians to investigate because it is tucked so deeply into the horse's body. Radiography of the stomach is not possible in the adult horse, as it is in people, because the abdomen is so thick. With ultrasound, the stomach is barely visible. In part this is because of overlying organs, but with an extra long endoscope a veterinarian can actually see into the stomach. It enables the vet to see a tumor or an ulcer within the stomach, and based on a definitive diagnosis, perform the most appropriate treatment. Up until now, when we were suspicious of a possible stomach lesion, we would have to treat for the problem regardless of whether the actual problem existed. In the case of gastric ulcers this might mean treating the horse for three to four weeks and then stopping treatment. We would have to wait even longer after medication was discontinued to see if the problem had simply been abated or actually cured. If the problem did recur we would then be faced with trying to determine if the treatment was unsuccessful because the medication didn't work, or because it was the wrong diagnosis. Now we can look and actually see the problem. This translates into better medicine and more comfort for the horse, and less treatment and expense for the owner.

The endoscope will be used on Pilchuck cases when needed, but more importantly it becomes part of the support services offered to all horse people in Washington through their referring veterinarians.