

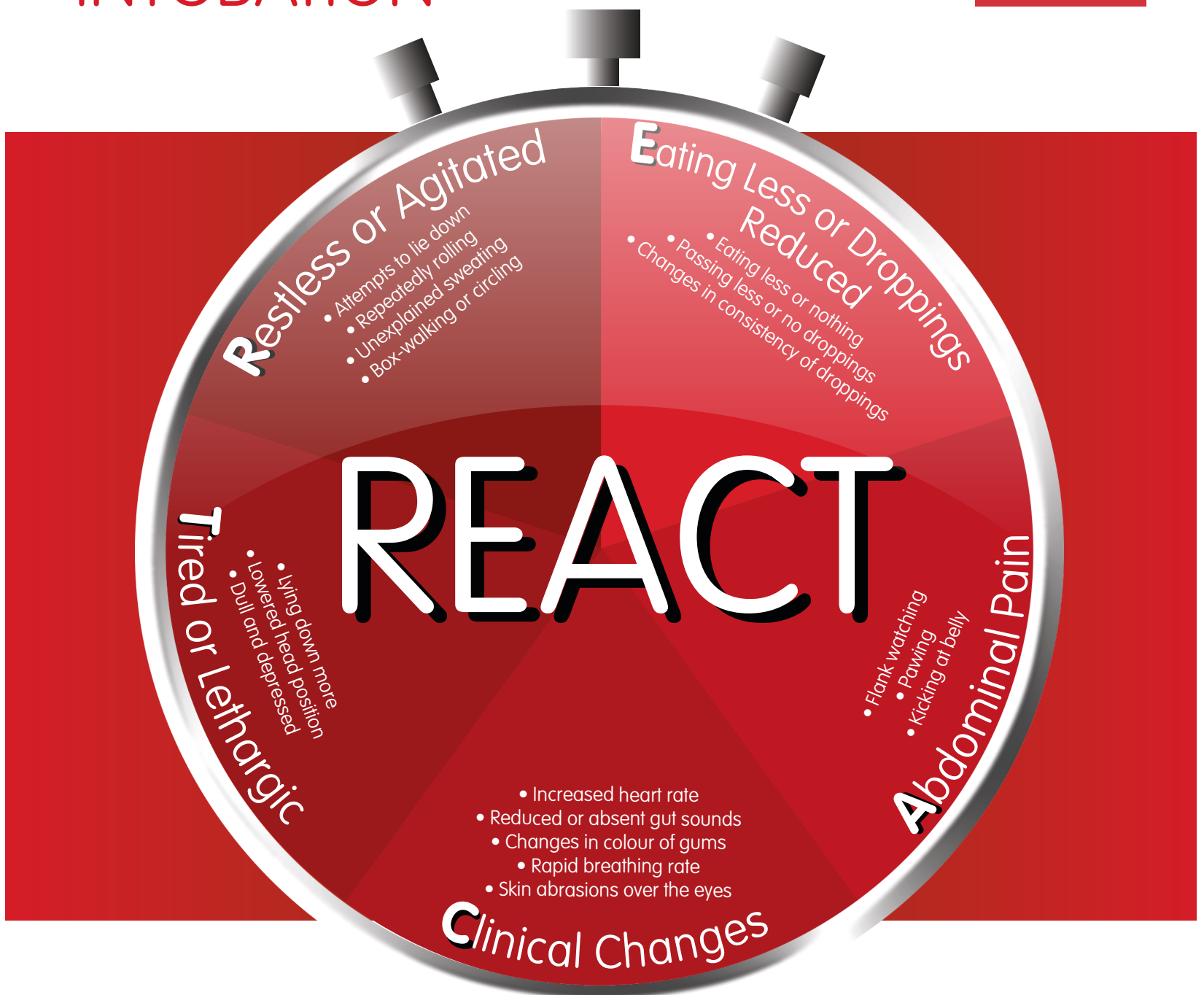
NASOGASTRIC INTUBATION



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

The
British
Horse
Society



What is Nasogastric Intubation?

Nasogastric intubation, more commonly known as stomach tubing, involves passing a hollow tube up the horse's nose, down the oesophagus (gullet) into the horse's stomach. It is used by a vet to identify if there are any abnormal contents in the horse's stomach, and to administer fluids and some treatments directly into the stomach. It is the second most commonly used test to help diagnose horses with colic (rectal examination being the most common). Horses may resent this action being undertaken, but it can be an essential procedure to perform in some cases.

Why is it performed?

The anatomy of the horse's gastrointestinal tract means that in theory, horses are unable to vomit¹. Therefore, any blockages resulting in a build-up of food and fluid within the stomach or small intestine can't be relieved. Instead the stomach becomes more and more distended (swollen), causing severe pain. If this distension is not relieved, the stomach can rupture with fatal consequences. This is rare and only occurs with certain types of colic, but it is an important reason why a vet may want to use a stomach tube.

Nasogastric intubation is also the only method of giving fluids directly into the intestinal tract. Fluids are used to relieve conditions such as impactions, to provide electrolytes and administer other treatments as required². This can be an important part of treatment as horses with colic are often reluctant to eat or drink.

Limitations and possible complications

There are some potential complications of nasogastric intubation; the most common resulting in the horse having a nose bleed. There is a highly vascular (lots of blood vessels) structure called the ethmoturbinates at the back of the horse's nasal cavity which the stomach tube passes next to. As a result it is not uncommon for this to bleed during or after intubation.

Nose bleeds in a horse can look quite dramatic; it can look like a large amount of blood, even though it is a small proportion of their total blood volume (for example, an average 500kg horse has over 50 litres of blood in its body). The sensation of a nosebleed will also make the horse blow out through their nose, spreading the blood over their surrounding area. Although nose bleeds in the horse can look dramatic, they are not painful to the horse, and should stop without any problems given enough time.

In some horses it can be difficult to pass the tube into the oesophagus and repeated attempts may be required. Horses that are sedated or are very sick may have a reduced swallow response making it harder to pass the tube. It is very important that the tube is passed into the oesophagus and not the airway and therefore your vet will take extra time to check the position of the tube.

Nasogastric intubation of a horse with colic is a veterinary procedure, and should only be performed by a veterinary surgeon.

Nasogastric intubation is an important part of assessing a horse with colic, and in a horse with severe distension of the stomach it may be a life-saving intervention. If you have any concerns or queries about the procedure, you should discuss these with your vet.

1. Curtis, L., et al., Veterinary practitioners' selection of diagnostic tests for the primary evaluation of colic in the horse. *Vet Rec Open*, 2015. 2(2): p. e000145.

2. Dyce, K.M., W.O. Sack, and C.J.G. Wensing, *Textbook of Veterinary Anatomy*. 2002: Saunders.

3. Hallowell, G.D., Retrospective study assessing efficacy of treatment of large colonic impactions. *Equine Veterinary Journal*, 2008. 40(4): p. 411-3.

Photo: Redwings Horse Sanctuary

What happens during nasogastric intubation?

The tubes that are used are made of hollow plastic with a large hole in the end to allow the fluids to pass through. The sensation of having this passed through their nasal passage is unpleasant and most horses will resent it. They often require firm restraint for this procedure, which may include the use of a twitch and/or sedation. Once the tube has been passed up the nose, most horses will become more settled. The vet will check the placement of the tube as it is passed, as the openings to the airway and oesophagus are next to each other. Correct placement requires the horse to swallow to help the tube pass into the oesophagus. The procedure can be more difficult in some horses, and may require repeated attempts. Once the tube has passed down the oesophagus into the stomach, the vet will check for the presence of gas and fluid before administering any treatment, if needed.



Nasogastric Intubation

For more information
please visit: bhs.org.uk/colic