



## Colic Surgery Complications

Complication	Details	Management
Post-operative ileus (POI)	<p>This is where the intestine fails to function normally and it is common in horses, particularly following surgery of the small intestine</p> <p>It most commonly occurs 24-48 hours following surgery and can occur for a variety of reasons e.g. inflammation of the intestine</p>	<p>Nil by mouth (intravenous fluids), lidocaine intravenous therapy and frequent (every 2-4 hours) removal of fluid that builds up in the stomach.</p> <p>In many horses this is transient and may only last a few hours or days; where prolonged ileus occurs or it is suspected to be secondary to certain complications (e.g. blockage at the anastomosis site), repeat surgery (re-laparotomy) may be considered</p>
Post-operative colic	<p>This is a common complication following colic surgery and can occur days to months following surgery. In a study performed at the hospital 32% of horses had one or more episodes of colic following surgery. However, less than 5% had 3 or more episodes.</p> <p>In many horses, signs of colic that occur following surgery are one-off, short-lived episodes and can be treated with analgesics (painkillers). We become more concerned where repeated episodes of colic occur which become more severe in nature and in some cases, repeat surgery (or euthanasia) may be needed.</p>	<p>Frequent colic checks to assess gut motility and no feed until there is good evidence that gut motility (movement) has returned. Once gut motility is present, food is introduced very slowly with grass fed in hand first. Small quantities of forage will be re-introduced with aim of getting the horse back onto full feed around 4-5 days post operatively in uncomplicated cases. However, all management routines are tailored to each patient depending on the type of surgery they have had and any problems encountered following surgery.</p>
Incisional (wound) infection	<p>This is a relatively common complication following colic surgery and has been reported to occur in anywhere between 7-40% of horses</p>	<p>Antibiotics are given before and following surgery and the surgery site is protected during recovery from anaesthesia and once the horse is back in the stable with an abdominal (belly) bandage for the first few</p>



	<p>following colic surgery from different hospitals worldwide.</p> <p>Fortunately, infection is not usually severe and will resolve (clear up) over the following days-weeks. However, this complication delays horses recovery following surgery and adds to treatment costs</p> <p>Unfortunately, horses that develop this complication are at greater risk of developing and incisional hernia (see below)</p>	<p>days, until the skin incision has sealed.</p> <p>Where infection does occur, all infections are swabbed as part of routine hospital infection monitoring and surveillance and on-going treatment is based on the type of bacteria present and the severity of infection. In many cases, frequent cleaning of the incision and removal of the skin sutures (stitches) is sufficient but in some cases, antibiotics will be required.</p>
Incisional hernia formation	<p>This is relatively uncommon following colic surgery but can occur in horses that have had a severe incisional infection (see above) and for other reasons e.g. where the horse is not kept rested for long enough following surgery.</p> <p>This is where the body muscles fail to heal ('knit together') completely. The size of the hernia can vary from a few cm to the whole length of the original skin incision (surgery site) and can vary in how much it bulges below the abdominal contour.</p>	<p>Box-rest may have to be extended and a belly-band may be required for several weeks-months to try to reduce the size of the hernia.</p> <p>Many hernias are not obvious to see and do not cause the horse any problems. However, if the hernia is very large and bulges a long way below the abdominal outline, surgery may be required 4-5 months later.</p>
Jugular thrombosis	<p>This is where the jugular vein (the vein running down the horses neck) becomes blocked and sometimes severe infection can develop at the site</p> <p>Unfortunately, this is more common in horses that are sick (suffering from signs of severe</p>	<p>Early referral for surgery is essential to prevent severe endotoxic shock developing</p> <p>All intravenous catheters are placed in a sterile (clean) fashion and are monitored very carefully during the post-operative period.</p> <p>In some horses where the jugular vein becomes blocked on one side,</p>



	<p>endotoxic shock) at the time of surgery and if the veins on both sides of the neck become completely blocked, it can be life threatening</p>	<p>catheters are placed at other locations e.g. on the side of the horse's chest</p>
<p>Diarrhoea</p>	<p>Severe diarrhoea is fortunately relatively uncommon in horses following colic surgery. However, certain types of horses are more likely to develop this (e.g. sand impactions) and severe diarrhoea can be life-threatening.</p> <p>Rarely diarrhoea may develop as a result of infection by the bacteria Salmonella or <i>Clostridium difficile</i> (the same as in humans). In these cases, great care is taken to ensure that affected horses are treated appropriately and to ensure that infection is not spread to humans or other horses.</p>	<p>Horses with severe diarrhoea are kept on intravenous fluids, analgesics (painkillers) and may receive certain types of antibiotics. They are also monitored very carefully during this time to check their progress and to identify the development of any other complications associated with diarrhoea</p> <p>Where we are suspicious that this may be potentially infectious in nature, affected horses are placed in isolation where strict nursing care is provided to prevent spread of infection to other horses and to humans</p>
<p>Laminitis</p>	<p>Fortunately this is relatively uncommon in horses recovering following colic surgery in the UK.</p> <p>Horses who have suffered from severe endotoxaemia (toxic shock) before or following surgery are at greater risk and are monitored very carefully for signs that laminitis may be developing</p>	<p>High risk horses undergo cryotherapy (ice therapy) of their feet and are kept on appropriate analgesics (painkillers) and foot support</p>