



What is a hernia?

By Dr. Keri Thomas, DVM, MVetSc

Q: What is a hernia?

A hernia is a protrusion — or bulging — of an organ or tissue through an unusual or abnormal opening. Hernias typically appear as an unusual swelling that pops up, particularly on the ventral or under part of a horse's abdomen. In most cases, the swelling is caused by a portion of the intestine that has fallen down through this abnormal opening in the body wall.

Q: What are the different types of hernias?

Umbilical hernias occur most frequently in foals and are often present at birth, although they may develop within the first few weeks of life. They usually involve a piece of intestine that comes out through a defect in the abdominal wall near the umbilicus or belly button. If the intestine becomes stuck inside the opening, it can swell and lose blood supply — a serious outcome that results in an intestinal blockage and requires emergency surgery. If you notice a swelling around the umbilicus and suspect an umbilical hernia, you should consult your veterinarian to determine the best course of action.

Hernias that are larger than five centimetres (cm) usually require surgery; however, this measurement is only a guideline and is not a steadfast rule. The surgeon makes an incision around the area and removes a portion of the body wall around the defect in order to create a fresh edge which will heal itself once it's sutured closed. If the opening is smaller than five cm, there is potential that it may be resolved without surgery by pushing the contents of the hernia back up through the hole or ring, which feels like a tight ring of fibrous, dense tissue. When the hernia is pressed back in daily, the area becomes traumatized causing scar tissue to form and eventually seal over the opening.

Inguinal hernias are more commonly seen in foals, but they can also occur in stallions or geldings. They occur when a portion of intestine finds its way through the inguinal ring — the abdominal opening into the inguinal canal which extends from the abdomen to the scrotum. In some cases, the intestine may actually move all the way into the scrotum. Surgery is usually required to replace the intestines and close the defect. Castration is necessary in the case of a scrotal hernia or a hernia that has resulted in the intestine putting pressure on one of the testicles — a situation that can cause necrosis of that testicle due to a lack of blood supply. In foals, the first indication of an inguinal hernia is often a swelling in the scrotum or general region. Stallions or geldings that are showing signs of colic should always be checked for an inguinal hernia. Symptoms of colic along with swelling can indicate an intestinal blockage and/or strangulation — a very serious condition that requires emergency surgery.

Although there is minimal risk of herniation after a routine castration, the risk can increase if the procedure requires recovery of an abdominally-retained testicle (an abdominal cryptorchid). If the inguinal ring is altered during recovery of the testicle, absorbable sutures can be used to close the ring to help reduce the additional risk.

Post-operative hernias occur when a surgical incision opens and allows the abdominal contents to spill out. They can result from an incision that becomes infected or from a horse that becomes active too soon after surgery. Horses that have undergone colic surgery are at a high risk because they typically have a large incision on the ventral or underside of their abdomen — an area that has to bear the weight of their abdominal contents. These hernias can occur anywhere from immediately post-operatively to weeks after surgery, and owners should call their veterinarian if they see any signs such as a bulge or leakage from the incision as well as any indications of infection. An infection can cause the tissues to lose their strength so that the suture material ends up tearing through it — causing a herniation.

Repairing these hernias can be complicated. Depending on the size and location of the hernia, heavy suture material or wire may be needed to close the opening. In some cases a mesh material is inserted to span the gap created by the defect to provide the necessary support.

Hernias caused by trauma can result from a kick or from a heavy blow caused by running into something. Owners should monitor any swelling or lumps after such an event and should consult their veterinarian if there's any concern that the body wall has ruptured.

Once a trauma-related hernia has been diagnosed, the surgeon will often recommend waiting until some scar tissue has formed around the defect. Surgery involves cutting the edges of the scar tissue to create trauma that then stimulates healing. This scar tissue is also stronger and better able to hold the sutures while the defect heals and forms a complete barrier once again.

Diaphragmatic hernias occur when a defect in the diaphragm allows organs or tissues from the abdomen to move into the thoracic cavity where they compress the lungs. Some diaphragmatic hernias are congenital while others result from trauma. Owners may first become aware of this type of hernia when they notice that their horse has difficulty breathing or isn't performing as well as usual.

These hernias are very difficult to repair surgically. Since the diaphragm is a thin, pliable muscle that tears easily, the sutures may not hold and the defect will just tear open again. Mesh can sometimes be used to fill the gap, but the hernia is often in a location that's difficult for the surgeon to reach. Even when the hernia can be fixed, there's a high risk that it may return. In many cases surgery is not an option, and your veterinarian may recommend that you just monitor the animal for any signs of colic – an indication that the intestinal tissue has lost its blood supply. As long as they're comfortable and in good condition, horses can go for months without any problems, particularly if they're just out in pasture and not being worked where they would require more oxygen.

Q: What are the clinical signs of a hernia?

Owners should watch for any unusual swelling, particularly after a surgery or an incident where their horse has fallen down or has been kicked by another horse. These swellings are usually not painful and are not associated with increased heat as an abscess would be. Signs of colic in association with such a swelling may indicate that a portion of the intestines has lost blood supply, and they should contact their veterinarian immediately. Owners should also monitor foals for hernias, particularly the umbilical and inguinal areas as well as the scrotum.

Q: Are there any natural remedies that you would recommend for repairing hernias?

In the case of an umbilical hernia that's smaller than five cm in diameter, people have had good results from daily reduction – pushing the contents of the hernia back into the abdomen every day. However, it's a good idea to consult with a veterinarian to determine whether the defect is an appropriate size that will heal over using this method rather than surgery.

I don't recommend using a hernia clamp or a ring. It's a high-risk option that involves pushing the contents of the hernia back into the abdomen and then applying a clamp or ring to the affected area. This action cuts off the blood supply and causes inflammation in an effort to promote healing of the opening. However, there's a significant risk of infection and of complications that may occur if the tissue does not heal, resulting in a much larger opening that now extends outside of the body – allowing exposure to flies, mud and other contaminants.

Q: Are some horses more disposed to hernias than others?

Foals tend to have more problems with umbilical and inguinal hernias, and there's some evidence that a predisposition to hernias may be passed on to future offspring. New owners should be made aware if there's a history of hernias in the breeding line so they can monitor offspring more closely.

Q: Do hernias pose a serious health risk?

The amount of risk depends on the size of the hernia and the degree of danger that the intestinal or abdominal content will lose its blood supply or become strangulated. Once that occurs, emergency surgery is necessary. Post-surgical hernias can be extremely serious if the intestines are exposed to external contaminants or if they dry out from the air.

Q: Does a hernia affect a horse's performance?

Once the hernia has been repaired, a horse can return to normal activity. The key factor is to ensure that the animal gets the right amount of rest after hernia surgery. As long as there's enough time allowed for proper healing, there's no significant risk that the hernia will reoccur.

Dr. Keri Thomas is an assistant professor at the Western College of Veterinary Medicine (WCVM) and an equine surgeon in the WCVM Veterinary Medical Centre. Reprinted with permission from the WCVM Townsend Equine Health Research Fund (www.tehrf.ca) and Horse Canada.