# Hernia

#### BASIC INFORMATION

## Description

By definition, a hernia is an abnormal protrusion of a part, organ or some tissue thru an opening in the body. An abnormal opening, to some extent, is a hernia.

#### Causes

Many hernias occur when a normal opening is enlarged or fails to close normally as the animal develops, such as inguinal and umbilical hernias.

Other hernias occur when trauma occurs and a part, usually a muscle, is wounded or torn, such as diaphragmatic hernias.

## **Types of Hernias**

**Umbilical:** essentially a hernia at the site of the "belly button" or the umbilicus. May occur due to simple failure of the umbilicus to close as the umbilical cord dies and drops off; can be caused by the mother dog being too aggressive in cleaning the pup and removing the cord. Most common hernia we encounter.

**Perineal:** forms when the muscles of the pelvis surrounding the anus and rectum become weak. This almost always occurs in older, non-neutered male dogs. The rectum, urinary bladder and other tissues may protrude thru the hernia and become obstructed. Dogs can have these hernias on both sides of the anus.

**Inguinal:** occur in the groin area where the back leg and the abdomen join. A canal, called the inguinal ring, is naturally present in this location and if larger than normal fat, intestine and other organs can protrude through. Usually present at birth and can be single or double sided, these can also be caused by tearing of the ring through trauma of some sort.

**Scrotal:** occurs when abdominal contents pass through the inguinal ring into the scrotum near the testicle. Is essentially a variant of an inguinal hernia.

**Diaphragmatic:** a hole in the diaphragm, the muscle that separates the chest and abdominal cavities. Can represent a birth defect but most often acquired, often when a pet is struck by a car. Abdominal organs can move through the hernia into the chest.



**Peritoneopericardial Diaphragmatic (PPDH):** is a rare defect combining a hole in the diaphragm and a hole in the pericardium (the sac around the heart) with the two hernias connected. Abdominal contents move from the abdomen and into the area around the heart.

**Traumatic:** represent almost all other hernias commonly seen, most often due to deep bite wounds or severe trauma as when an animal is struck by a car. Can thusly, occur in almost any location including some of those noted above.

**Surgical:** if a spay procedure or some other surgery encounters a failure, as when a pet jumps before full healing has occurred, the surgical wound may open and produce and hernia. This would be most common after spaying or other abdominal surgeries are performed. Most can be repaired.

## **Clinical Signs**

A swelling along any part of the body that appears abnormal. Usually these are on the abdomen or anal area, although traumatic hernias can occur anywhere there is damage. There may be no other signs besides the bulge unless fat or other organs become strangulated in which case redness, severe pain and other signs may arise.

Internal hernias such as diaphragmatic may cause weakness, trouble breathing, shock and collapse. Sometimes a pet may seem normal and these are discovered serendipitously.

#### **Diagnostic Tests**

Most external hernias are diagnosed by physical exam and with X-rays for complete evaluation. Rectal palpation will help diagnose perineal hernias. If there is a concern for organ blockage or strangulation, blood tests will also be employed.

#### TREATMENT AND FOLLOW-UP

## **Treatment Options**

Most of these hernias can be repaired surgically. The perineal hernia will often be best handled by a specialist as the repair is tricky and has a moderate failure rate. Pets with internal hernias may or may not need specialty care depending on the degree of internal organ displacement and concurrent complications. There are no medical options for hernia repair.

#### **Follow-up Care**

Usual post-surgical follow-up is needed with most animals having a quick and smooth recovery. Internal hernias likewise repair well in most cases and when the pet handles the re-organization of internal organs well, long term care is not needed.

#### **Prognosis**

Most hernias can be and are repaired and normal life and function can be expected for most pets. The exception may be the perineal hernia due to the advanced age of most patients with these hernias. Occasionally, a hernia repair may fair and need additional surgery.