



ORANGE VILLA
VETERINARY HOSPITAL
BOARDING & GROOMING
714 - 637 - 3660

Dr. Richard E. Dahlem :
drdahlem@orangevillavet.com
Dr. Jeffrey Horn :
drhorn@orangevillavet.com
Dr. Sage:
drsage@orangevillavet.com

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Umbilical Hernias

What is a hernia?

A hernia is a defect in a body wall (muscle). Hernias can be caused from trauma, surgical complication, severe constipation (perianal hernias only), or congenital (born with the hernia).

Abdominal hernias are a defect in the abdominal wall, which allow protrusion of abdominal contents. One type of abdominal hernia is the umbilical hernia. It is the most common type of hernia in the dog.

An umbilical hernia is a "true hernia", which means that it has always been present and contains a hernial ring and a sac of peritoneum (the tissue which surrounds the abdomen). The hernia is a natural defect from when the puppy (or rarely kitten) was a fetus. The defect is from the location where the blood vessels of the placenta (umbilical cord) went into the fetus and into the bloodstream. Normally as the puppy develops, this defect closes as the muscle grows together. If this closure is delayed or does not occur, it is called a hernia.

This delay or failure of closure is believed to be genetic. It is a recessive trait (meaning both parents carry the gene.) It is further believed to require multiple recessive genes in order to occur. Without going too far into genetics this means the trait can skip several generations and only few puppies in a litter may have the defect. At this time, the specific genes involved are unknown. Certain breeds are at a much higher risk of this problem, especially Airedales, Basenjis, Pekinese, pointers, and Weimaraners. The defect is also more common in females than males. It is important to note that umbilical hernias can occur in male or female in any breed of dog.

Most umbilical hernias are small and only trap fat in the umbilical ring and cause no problems. These are called "closed" hernias and generally do not require treatment other than making sure they do not worsen (get larger). If the hernia is large, or if the fat can be pushed in and out of the hernia and into the abdomen ("open" hernias), then these hernias can be more troublesome. The concern is that abdominal contents such as bowel loops (intestines) can drop into the hernia and get twisted. This could cause the blood supply to be compromised (bowel strangulation) and lead to severe damage to the loop of intestine, even causing leakage of gut contents into the abdomen (this is very bad.) These larger hernias require immediate repair.

At this stage it is recommended not to breed dogs with large hernias. Not only could this pose a significant health risk (the hernia worsening from the pregnancy), but also the trait could be passed on to offspring, as there is no means of identifying a carrier of the gene at this time. As for dogs with small closed hernias, whether or not to breed is up to both parties involved in breeding since the mode of inheritance is still unknown.