

What is Hemangiosarcoma?

Hemangiosarcoma is an aggressive, malignant tumour of blood vessel cells. This type of cancer usually affects middle-aged to older dogs (six to 13 years) and is more common in mid-size to large breeds. Although this type of cancer can occur in any part of the body, the most common areas affected are the skin, spleen, and heart.

The skin form of Hemangiosarcoma is the easiest to treat and has the most potential for positive outcome. Hemangiosarcoma of the skin can form either on the skin's surface (dermal) or just underneath the skin (hypodermal):

- Dermal Hemangiosarcoma develops as a “rosy red” or black growth and is associated with sun exposure. Tumors form on areas of the skin that have little or no hair like the abdomen. Dogs with short, light-colored coats such as Dalmatians, Pitbulls, white Boxers, and American Bulldogs have a higher risk of developing dermal Hemangiosarcoma. About one-third of dermal cases will spread internally, so it's important to have any tumours removed as soon as they are discovered.
- Hypodermal Hemangiosarcoma develops as dark red blood tumours under the skin, leaving the surface looking normal. Unfortunately, 60 percent of hypodermal tumours spread internally so early detection is important.

Hemangiosarcoma of the spleen is a rapidly spreading cancer. Tumours on the spleen, whether malignant or not, tend to burst and bleed profusely. About 25 percent of dogs with splenic Hemangiosarcoma also have Hemangiosarcoma of the heart. And like splenic Hemangiosarcoma, the heart-based form tends to bleed excessively and spread quickly. In about 60 percent of patients with heart based Hemangiosarcoma, the cancer has spread by the time has been diagnosed.

Causes of Hemangiosarcoma

Dermal hemangiosarcoma has been linked with sun exposure, the causes of other forms of Hemangiosarcoma are not known. There may be some environmental risk factors for dogs as human hemangiosarcoma, although rare, has been linked to exposure to toxic chemicals such as vinyl chloride, which is used to make plastic and vinyl products.

Also, an increase in this type of cancer in several breeds — including Golden Retrievers, Boxers, Doberman Pinschers, English Setters, German Shepherds, and Labrador Retrievers — may indicate a genetic link to the disease.

What are the symptoms of Hemangiosarcoma?

Unfortunately, hemangiosarcoma develops most often in a dog's internal organs such as the spleen and heart, and most dogs show few or no obvious signs of illness until the disease is in its later stages. The following symptoms may indicate the presence of hemangiosarcoma:

- Lump under the skin
- Visible bleeding
- Easily tired
- Unexplained weakness
- Pale colour in the gums
- Difficulty breathing
- Abdominal swelling
- Seizures
- Abnormal heart rhythms
- Collapse
- Depression

How is Hemangiosarcoma diagnosed?

As with any suspected illness, your vet will give your dog a thorough physical exam and run routine tests such as blood tests and urinalysis. The first signs of hemangiosarcoma may include visible growths on the skin, pale gums and/or abdominal swelling.

A diagnosis of dermal hemangiosarcoma requires a biopsy of the skin growth. To determine whether dermal Hemangiosarcoma has spread to any internal organs or to confirm suspected cases of hypodermal, splenic, or heart based Hemangiosarcoma and whether the tumour has metastasized, several other tests are necessary. They may include chest x-rays to see if it's spread to the lungs; ultrasound of the spleen; and ultrasound of the heart.

Treatment and Prognosis

The treatment of Hemangiosarcoma depends on the location. Patients with dermal or hypodermal Hemangiosarcoma can often be successfully treated and even cured by surgery alone. When it is not possible to remove the entire tumour, chemotherapy or radiation may be necessary.

If the skin form of hemangiosarcoma has spread internally or the cancer originates in the spleen, heart, or other internal organs, more aggressive treatment is needed. There is rarely a cure, and survival rates are poor. In most cases, a combination of surgery and chemotherapy is used.

Dogs with hemangiosarcoma of the spleen or heart may only live about three months with surgery alone. In these cases, if the cancer has not spread at the time of surgery, chemotherapy treatment may give patients another three months or so with their families.

A clinical study conducted at the University of Pennsylvania School of Veterinary Medicine found that the addition of the Chinese Herb **I'm-Yunity**, a mushroom extract, was found to extend the life of the pet significantly. It has been used in conjunction with surgery and chemotherapy and by itself in areas where surgery is not possible.

Hemangiosarcoma patients often have a blood-clotting disorder that may pose a serious and even life-threatening risk of hemorrhaging during surgical procedures, including biopsy, and postoperative care.

The Chinese herb **Yunnan Bayalo** has been used in pets with Hemangiosarcoma to help improve clotting. More current research on the use of immunotherapy in the treatment of hemangiosarcoma's has shown a promising potential for the future.

Additional Resources

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10486958/#:~:text=Immunotherapy%20has%20emerged%20as%20a,study%20were%20efficacy%20and%20safety>