Hemangiosarcoma

- Hemangiosarcoma is a type of cancer that is common in dogs and relatively rare in cats.
- In dogs, hemangiosarcoma generally arises from the spleen, heart, skin, or liver, but any organ may be affected.
- This type of cancer is usually associated with the skin in cats, but it may affect internal organs as well.
- Signs often depend on the location of the tumor, ranging from no signs at all to abdominal distention, exercise intolerance, difficulty breathing, collapse, and soft or firm masses on the skin.
- Diagnosis may require a number of tests, including a complete blood count (CBC), a chemistry panel, and urinalysis; chest or abdominal radiographs (x-rays); ultrasound examination; and fine-needle aspiration (to obtain a cell sample) or biopsy (to obtain a tissue sample).
- Treatment generally involves surgical removal of the mass and possibly chemotherapy.

What Is Hemangiosarcoma?
Hemangiosarcoma is a type of malignancy (cancer) that originates in the cells that line the blood vessels. It tends to occur in middle age to older dogs, especially German shepherds and golden retrievers, and is relatively rare in cats. Hemangiosarcoma can occur anywhere in the body but generally arises from the spleen, heart, skin or liver in dogs. In cats, hemangiosarcomas are mostly found on, or just under, the skin but may also occur in the internal organs or the mouth.

What Are the Clinical Signs of Hemangiosarcoma?
The clinical signs of hemangiosarcoma generally depend on the location of the tumor(s). Dogs with splenic (spleen) tumors may show no signs at all or may experience anorexia (lack of appetite), lethargy (lack of energy), weight loss, abdominal distention, and sudden collapse or death due to tumor rupture and internal bleeding.

Heart tumors prevent the heart from pumping blood effectively. Affected dogs may experience weight loss, difficulty breathing, exercise intolerance, fainting episodes, and fluid buildup in the abdomen.

Hemangiosarcoma can also result in skin lesions, which may be (1) firm or soft, red or black nodules on the skin surface or (2) lumps just under what appears to be normal skin. Dogs with short white hair appear to be predisposed (more susceptible) to this type of hemangiosarcoma.

How Is Hemangiosarcoma Diagnosed?
Your veterinarian may recommend a number of tests to help determine if your pet has hemangiosarcoma:

- **Complete blood count (CBC), chemistry panel, and urinalysis**: These tests will help your veterinarian assess your pet’s general health and, in some cases, provide clues about organs that may be affected.
- **Radiographs (x-rays)**: If your veterinarian suspects an internal tumor, chest or abdominal radiographs may help show abnormalities in the heart, the spleen, or other organs.
- **Ultrasound examination**: If a mass is detected on radiographs, an ultrasound examination may provide a more detailed view. For example, the ultrasound probe will enable your veterinarian to see inside the chambers of the heart to view the mass and its effect on heart function. If necessary, your veterinarian may recommend a CT (computed tomography) or MRI (magnetic resonance imaging) scan to further evaluate the tumor.
Common Conditions

- **Abdominocentesis:** If your pet has fluid in his or her abdomen, a needle may be inserted into the abdomen to obtain a fluid sample for evaluation.

- **Fine-needle aspiration:** Whether the mass involves the skin or an internal organ, a cell sample is needed to definitively diagnose hemangiosarcoma. A needle is inserted into the mass, and cells are extracted for examination under a microscope.

- **Biopsy:** If a larger sample is needed than what is possible with fine-needle aspiration, your veterinarian may recommend a biopsy (tissue sample).

- **Exploratory surgery:** In some cases, such as a splenic mass, your veterinarian may recommend surgical removal of the spleen and examination of other abdominal organs (such as the liver) to look for evidence of cancer elsewhere. When the spleen is removed, it is generally submitted to a laboratory to determine if the mass was benign or malignant. During exploratory surgery, tissue samples from other organs may also be obtained and submitted for laboratory analysis.

**Treatment and Prognosis**

Treatment generally requires surgical removal of the mass, when possible. Because this type of cancer can metastasize (spread) to other locations, such as the lungs, kidneys, muscle, brain, and spinal cord, your veterinarian may refer you to a veterinary oncologist (cancer specialist) for more information on additional treatments, such as chemotherapy, and the prognoses associated with them.