

# Mammary Tumors in Dogs

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Tumors of the breast tissue are very common in un-spayed female dogs. Some statistics cite as many as one in four intact female dogs will develop mammary tumors. About half of the cases are benign hyperplasia (non-cancerous tissue growth), and about half are malignant neoplasia (cancer). Malignant tumors carry a more guarded prognosis, but even benign mammary tumors can cause problems if not removed. Fortunately, spaying (ovariohysterectomy) at a young age, especially before the first heat cycle, almost completely eliminates the chance of breast tumor development. There is less than a 1% incidence of breast tumors of any kind in dogs spayed before their first heat cycle.

Mammary tumors, whether benign or malignant, are very often hormone-responsive. Estrogen and progesterone receptors in the tissue cause the masses to grow as the hormone levels fluctuate. The physical appearance of the tumor gives no evidence of whether it is cancerous. A surgical biopsy must be performed, and affected tissue must be analyzed by a pathologist (a specialist in tissue diseases).

Malignant mammary tumors have the potential to metastasize, or spread to other tissues and organs in the body. The mammary glands drain into lymph nodes adjacent to the breast tissue. Cancer cells are delivered through specialized vessels throughout the body via the lymphatic system. The lungs and lymph nodes are common sites of metastasis. X-rays may help reveal tumor development elsewhere in the body. Breast tumors, even if they have not spread to other parts of the body, can become a health problem as they continue to increase in size. The tissue can actually out-grow its own blood supply and become devitalized. When this occurs, the skin covering the tumor will often ulcerate and become infected.

Treatment of mammary tumors involves surgical excision of all abnormal tissue with submission of the tissue for histopathology (testing to determine tissue health and presence of malignancy). The tumor type determines the prognosis. If the pathologist determines that the mass is indeed malignant, a consultation with an oncologist – a specialist in cancer – is recommended to decide upon further treatment options to extend and improve quality of life. For benign mammary masses, surgical excision is most often curative.

Spaying your dog at a young age will almost completely eliminate the risk that she would develop mammary tumors as an adult.