



Penbode Pet Vets.

October is Breast Cancer Awareness Month

Background

Breast cancer affects 1 in 8 human women, which is a scary statistic. But did you know that it also affects 1 in 3 to 4 (studies differ) entire female dogs. Tumours are driven by the hormones progesterone and oestrogen (depending on tumour type) in a dog's mammary glands. Approximately 50% of all mammary tumours in dogs are benign, and the other 50% are malignant. However, in cats 85-90% of tumours in cats are malignant.

The reproductive hormones progesterone and oestrogen drive the development of neoplastic (cancerous) cells. These hormones come from reproductive tissue, largely the ovaries. An ovariectomy therefore, reduces the occurrence of malignant lesions because the procedure removes the source of the hormones that cause some mammary cells to become cancerous.

We would advise timing of the neutering of individuals to when they are fully grown, minimising the impact on tissue development and potential associated disease.

The risk of a dog developing a mammary tumour is 0.5% if spayed before their first season (approximately 6-8 months of age), 8% after their first season, and 26% after their second season. Finding the right time balance in terms of time of when to spay requires detailed knowledge of cancer development, the closure or growth plates (in bones) in each breed, and breed specific growth issues, we encourage owners to chat to their vet or a Registered Veterinary Nurse (RVN) about the most appropriate time. If you decide not to have your pet spayed then we advise close monitoring and weekly checks for mammary lumps. Dogs mature much faster than we do and so the growth of tumours can be far more rapid.

What to do if you find a breast lump in your pet?

Make a note of where it is, and how many you can feel, then inform your vet, so that they can examine your pet. It's worth noting that it is impossible to visually tell if a mass is benign or malignant. Your vet will want to do some tests as part of a diagnostic process and, if malignant, the oncological (cancer) care. The sooner you act with any mass the sooner therapy can start, so spread becomes less likely.

Your vet will review your pet's case and as part of a good physical examination, we will check the mass and the size of regional lymphatic tissue for signs of spread. We may also advise fine needle aspiration of the mass or surgical biopsy. In addition we may also recommend blood work (biochemistry and haematology), clotting times (as hormonal toxicity can decrease the body's ability to form blood clots) and radiology as part of surgical planning

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Treatment options

Surgery is the gold standard for care for most mammary tumours. Removal of the affected tissue and extra surgical margins around it is needed to ensure removal.

For entire females ovariectomy is also advised, in theory to reduce the propagation of further tumours, but also to prevent other diseases of the reproductive tract diseases such as pyometra, ovarian cancer, cystic-ovaries etc.

The extent of the surgery depends on size, number and spread of the tumours. In some cases, the whole mammary strip (all glands on the affected side) of tissue is removed, in others local removal of a single gland is adequate. It's the same with some human patients, it is not always possible to remove all neoplastic tissue at the microscopic level, so early treatment gives a much better chance of full curative resection (tissue removal).

Radiotherapy is an option but is poorly available, very costly, and requires many anaesthetics. Chemotherapy sadly does not offer much hope for mammary tumours in pets, at this time.

Prevention is better than cure, and we do not want to see our human or animal family members suffer from breast cancer. Because of the reproductive nature of humans we do not pre-emptively spay. However, in dogs and cats that are not breeding we do advise that all females are spayed and even breeding females after adequate time. This can be done using traditional surgical or now laparoscopic surgical approaches to the abdomen.

It is important to remember that after a spay procedure the diet needs to be adjusted down by about 20%, to compensate for the reduction in energy requirement. We don't want to see animals becoming obese and putting strain on their bones, joints and ligaments.

If you're concerned about your pet's health or think you may have found a lump (however small), please get in touch with your vet who will be able to advise you. Remember, if surgery is advisable, it may be appropriate to opt for a laparoscopic spay, a service offered at Penbode Pet Vets.

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