

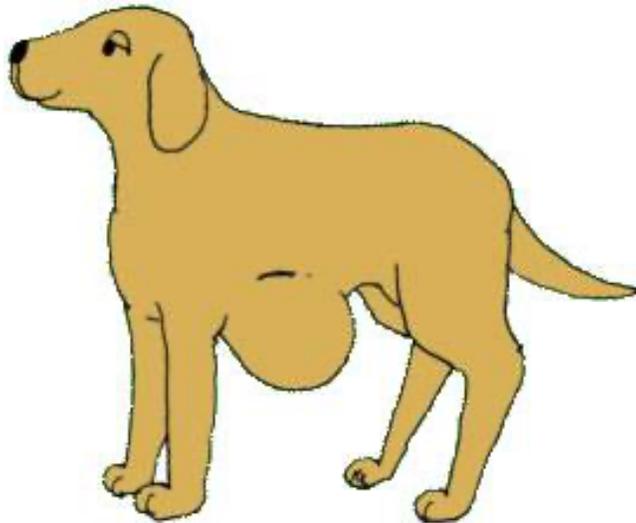
Lipomas in Dogs and Cats

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Finding a lump under a beloved pet's skin is a disturbing event and definitely warrants a trip to the veterinarian's office for an evaluation. Generally speaking, tumors are classified as benign which means not cancerous, or malignant which means cancerous. Happily, it is common for the verdict to turn out to be "just a lipoma" or simply a "fatty tumor"



Original graphic courtesy of MarVista Vet.

(benign) that is nothing to worry about. Still, lipoma is not a condition that the general pet owner is likely to have heard of depending on their experience, and there are different kinds of lipomas to be aware of.

The Lipocyte (also called the adipocyte)

Fat is an important resource to our bodies. It is burned aerobically in times of steady exertion and in times of starvation and provides insulation against the cold. Our bodies have a nearly unlimited capacity to store fat, which has unfortunately led to an epidemic of [obesity](#). Fat is

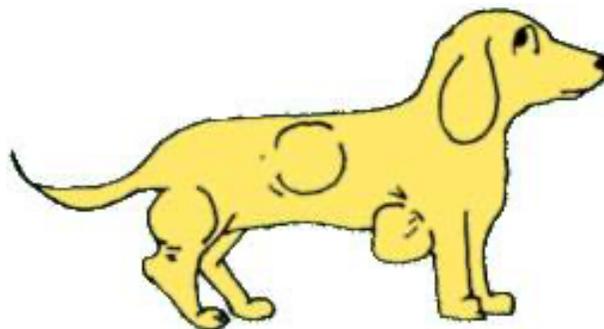
stored within lipocytes, more commonly referred to as fat cells. These cells consist of a thin cell membrane and nucleus around a large fat storage space called a vacuole. The normal fat cell can enlarge spectacularly as it stores large amounts of fat.

The Lipoma

Any tissue can grow a tumor, and fat tissue is no different. It is common for fat cells to form benign tumors called lipomas. The tumorous fat cell grows at a different rate from the surrounding fat tissue and accumulates more fat, forming a lump. Depending on how much fat the lipoma stores, the lump can be very large. If the pet is overweight to start with, the lipoma will be all the more obvious and all the larger; as the overweight pet loses weight, its lipomas will shrink, though they are unlikely to go away completely. The lipoma is benign, meaning it does not invade other tissues or spread in a destructive way. However, some dogs develop multiple lipomas, which can be very large, and the fat deposits in any body area can grow into a lipoma. Most lipomas are found under the skin or in muscle tissue rather than internally. Lipomas are mostly seen in dogs, particularly older, over-weight dogs, though cats occasionally are seen with lipomas.

How Do We Know It's a Lipoma?

The lipoma has a fairly characteristic texture and is rubbery, and relatively soft. Your veterinarian may be fairly certain the mass they are feeling is a lipoma but may recommend testing the lump's cells to help rule out other tumor types that can appear similar to benign lipomas. A needle aspirate can be easily performed by withdrawing some cells from the mass with a syringe and looking for fat droplets on a microscope



Original graphic courtesy of MarVista Vet.

slide. This procedure is commonly performed and generally provides adequate results. Of course, if there is any question, the tissue can be biopsied for accuracy.

Should The Lipoma Be Removed?

In most cases, the problem is a cosmetic one. If the mass is unsightly, it can usually be removed, provided that the patient has no health problems precluding anesthesia. Sometimes, a large lipoma can grow in an inopportune location where it is uncomfortable or interferes with movement. In these instances, removing the lipoma is probably a good idea. Often, lipomas are left alone if they do not seem to bother the patient. Surgical removal is usually easy as most lipomas can simply be peeled out of their location.

Other Lipoma Types

Infiltrative Lipomas

There is a version of the lipoma that grows into the surrounding tissues and therefore, is more difficult to remove. These are not cancerous as they do not spread to distant parts of the body. This type of lipoma is not easily removed, is not encapsulated, and does not have obvious margins. There is a 36% recurrence rate for this type of lipoma, whereas ordinary lipomas do not generally grow back after removal.

Malignant (Cancerous) Lipomas

Although it is rare, there is also a malignant fatty tumor called liposarcoma, a member of a group of tumors called soft tissue sarcomas (STS). Even though this is also a more infiltrative tumor, it does not generally spread through the body in the way we usually think of malignancy. A wide surgical excision is needed to control this type of fatty tumor.

All three forms of lipoma (the regular, the more infiltrative, and the malignant form) may look the same when aspirated for fat cells during an office examination. A biopsy may be needed to

distinguish between the different types.

There are a couple of malignant tumors that can mimic the rubbery nature of the lipoma. The mast cell tumor is a highly inflammatory and potentially very malignant growth of the skin and subcutaneous tissue. The needle aspirate of a mast cell tumor will look different from that of a lipoma, so, in most cases, these can be distinguished during the initial office evaluation. The [hemangiopericytoma](#) is also rubbery like a lipoma and may contain enough fat to confound the aspiration examination. Several soft tissue sarcomas can be difficult to distinguish from a lipoma, though they seem subjectively more deeply rooted and firm in most cases. A biopsy may be needed to obtain a definitive answer and plan therapy if a rubbery mass somehow doesn't seem quite typical for a lipoma.

Summary

If you notice a lump on your pet, it is probably prudent to show your veterinarian. Most lumps require some sort of tissue sampling for diagnosis, though there are a few that can be identified by visual inspection by your veterinarian. Since there is a potential for any lump to be a serious growth, it is important to take lumps and growths seriously and have your veterinarian examine them.

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