

# slip slop slap

the risk of skin damage and cancer in our pets

BY DR ALEX MELROSE



Although you may not realise it, our pets can also be susceptible to diseases related to excessive sun exposure. Numerous cancers can affect the skin of animals and most are linked to spending time in the sun.

## play it safe

Sunburn is painful to animals too, so keep your pet out of the sun in the middle of the day during our harsh New Zealand summers. In pets, sunburn can appear as red skin or hair loss, and in severe cases can progress to blistering or the formation of multiple rounded, non-healing erosions and crusts. Sunburn will also irritate or exacerbate existing conditions, such as allergies and eczema.

Sunscreen should be used on animals that have light-coloured noses or ears, and thin, very short or missing fur. Cats with sparse hair, such as the Sphynx, or dogs with light-coloured hair and skin, such as West Highland White Terriers, are most in need of a protective sunscreen as they are more susceptible to sun-related diseases. The underbelly, especially, requires sunscreen because hair is very thin there and UV light can reflect off light surfaces and penetrate the skin. Be aware that pets that have temporarily suffered hair loss from allergies, hot spots and dermatitis, or have undergone a surgical preparation at their vet, may require the diligent application of sunscreen to those areas for one to two months.

Sunscreen should routinely be applied to the bridge of the nose, ear tips, the skin surrounding the lips, and any area where pigmentation is low. Choose fragrance-free, non-staining sunscreen that contains a minimum UVA and UVB SPF15+. Use PABA-free, baby-approved sunscreen products, or those created specifically for pets, to limit any side effects from accidental ingestion. Some have insect repellent added, which can be useful to reduce insect-bite lesions.

*Two relatively common conditions can result from excessive sun exposure:*

## melanoma

Malignant melanoma is a tumour involving the pigmented cells of the skin, the melanocytes. In pets, canines are usually affected most, although cats are prone to developing melanomas in their eyes.

How a melanoma behaves depends on where it develops. The good news is that most areas of skin grow benign versions of the melanoma called melanocytomas. These tumours typically do not spread and only minimally attack the surrounding tissues, giving an opportunity to get in early and remove the offending tissue before it becomes something much more destructive. Once removed, all tumours must be analysed by a pathologist for future planning of treatments. Melanomas developing on the face and close to the mouth can behave more aggressively and should be dealt with immediately.

There are several areas of a pet's body where particularly invasive and malignant melanomas can also spread cancer to the lungs, liver and other areas. Melanoma development is particularly threatening on the:

**mouth** - often situated in the upper soft palate or growing off the side of the gum tissues and difficult to see. Bad breath or slight bleeding from the mouth are early signs to watch for.

**toes** - a particular risk for black dogs. The cancer is very destructive to the bones of the toe and is very painful, initially presenting like a rapidly progressing, ulcerating nail-bed infection.

**eyes** - the most common site of malignant melanoma in cats. The iris is the most common area, with the melanoma appearing as a dark-brown bump on the surface. As these develop, they can induce lens luxations and painful glaucoma.

**treatment** The growth is surgically removed, biopsied and, if it's determined to be a melanoma, the aggressiveness of the tumour is graded from one to three. More extensive surgery may be required to cure the disease or at least postpone recurrence by removing a larger volume of surrounding tissue. Radiographs will also be taken to check for signs of it spreading to the chest and abdomen. In a cat with an ocular melanoma, removing the eye is often curative and although this sounds dramatic, it is a fantastic option for the cat compared to its likely rapid death if surgery is not undertaken.

If full surgical removal isn't achieved, a veterinary oncology specialist and radiation therapy can be used for further chances of a cure. Unfortunately, chemotherapy has been disappointing and malignant melanoma is felt to be resistant to the drugs available at the moment.

## squamous cell carcinoma

The squamous cell carcinoma is often one of the most heartbreaking tumours our pets can develop. Initially the tumour is local and rapidly invasive, and doesn't spread to other parts of the body until late in its course. Potential surgical removal and cure is possible but only if the animal is presented for veterinary treatment early when the tumour is at a small size. Sadly, these tumours tend to arise in locations where surgery is challenging, for example the nose, or where the tumour isn't detectable until surgery is no longer possible.

Initially, these cancers present as a red ulceration or erosion of the skin surface, often not raised, usually sensitive, and prone to repeated episodes of bleeding or crusting. They can begin as tiny red patches, a few millimetres across, most commonly on the bridge of the nose or margins of the ears. Later they can become larger, swollen distortions of the surrounding tissue, in some cases eating away large sections of raw, inflamed tissue.

**treatment** If you notice any new, small red erosions or scabs, especially on a white or unpigmented area of skin, get them checked. Because of their very slow internal spread via blood and lymphatics, these tumours offer a fantastic chance of complete surgical cure, but only if they are treated early enough.

Be very suspicious of any wounds or scratch-type lesions on your pet that don't heal within a couple of weeks. A simple skin scraping can be done on any small suspect area to gather cells for microscopic examination, to accurately confirm or deny the presence of cancer or pre-cancerous cells.

## take-home message

Keep your pets out of the sun, especially in the middle of the day, and apply safe sunscreen daily during the summer. Check them over regularly and thoroughly for any skin lesions, and get veterinary help and advice if something pops up. As it is impossible for any vet to know what skin lesions may be by simply looking at them, request to have samples collected. These can be done painlessly, safely and simply – and can help you and your vet choose the right path for your pet's future. 🐾

## hope for the future

An amazing vaccine has recently been developed in the United States for melanomas. An enzyme called tyrosinase has been found to be crucial to the melanocyte's ability to produce pigment. By using human tyrosinase as a stimulator, the patient's immune system can be tricked into attacking the melanoma cells. It is given in four doses at two-week intervals, with booster shots given every six months, doubling the life expectancy in some patients. However, the vaccine is exceptionally expensive and at present is only available in New Zealand through a single veterinary oncology specialist.

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