
How Does The Sun Affect Cats?

Soon it will dawn and the sun will appear on the horizon; Intense and bright as usual. The sunbathing is the best moment of the day: who has not seen his cat lying on his stomach enjoying the heat it provides? It seems that its resistance to heat has no limit, and its state of relaxation and enjoyment pleases us.

Cats are mammals and, like all mammals, they need to maintain their body temperature. Especially when sleeping - your favorite activity - because during sleep hours your metabolism works more slowly and your body temperature drops. When a cat wants to sleep, what it looks for is the heat, whether from the sun, from its cozy little bed, from our lap, from a radiator, or even from an electronic device. Our pet will not find anything simpler and at the same time more rewarding than enjoying the pleasure of a nap in the sun.

Although cats like the sun, we must take precautions and ensure that our pet does not take it too much, especially in summer, especially if it is a cat with white hair or little fur.

The solar spectrum is made up of visible (40%), infrared (50%) and ultraviolet (9%) rays. In ultraviolet (UV) rays we distinguish UVAs - they are the most abundant, they cross the atmosphere and penetrate deeply into the skin - and UVBs - which are stopped by the ozone layer of the atmosphere and act more superficially on the skin. Part of the ultraviolet rays is reflected in the skin and the fur, but another part gets absorbed.

A moderate absorption of ultraviolet radiation from the sun is a healthy contribution to the cat since UVB radiation allows the synthesis of vitamin D (calciferol) in the skin, necessary for calcium absorption and bone structure formation. However, the contribution of vitamin D that triggers solar radiation is insignificant concerning the amount that our pet needs to obtain through its diet. Let's not think that the sun will supply a balanced diet.

Excessive or prolonged exposure to ultraviolet rays can cause severe damage to the skin's cellular components. The rays can damage the epidermis and superficial blood vessels of the dermis. Also, they stimulate the production of free radicals, modify the structure of keratinocytes and alter the natural mechanisms of skin protection. When the local immunity of the skin is altered, the risk of bacterial infections in the area is increased. Prolonged exposure to harmful levels of ultraviolet rays can cause changes in the deep structures of the skin and the possible appearance of tumors. White or furless cats are the most vulnerable to these effects. In the rest of the races, the edges of the ears, the nose, the lower eyelids, and the lips are the areas with the highest risk of lesions.

The diseases or damages associated with the effects of the sun will depend on the intensity of the radiation, the exposure time, the density of the animal's fur, pigmentation of the hair and the skin and individual susceptibility factors such as concomitant disease or other problems of the skin. The main effects to be monitored will be:

- Burns: they are the most immediate and visible damage. When they are deep they can be accompanied by secondary bacterial infections

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- Solar or actinic dermatitis: has reddened skin, hair loss, irritation and inflammation of the area. When the exposure increases, scabs, ulcers, and blisters may appear that produce intense itching.
 - Squamous cell carcinoma: Chronic skin damage can cause malignant transformation of cells, leading to a tumor
 - Hyperthermia or heat stroke: mainly in the summer when temperatures rise to overwhelming levels. Felines do not sweat, and to release heat, they pant or lick

Although these diseases are not very common in cats, it is advisable to prevent these risks. So we must try to prevent our cats from being exposed to the sun's rays, especially at the peak of the day and for a long time. We must resort to the use of sunscreen creams, specific to cats, and apply them in the areas of greatest risk. Creams marketed for humans should not be used as they may be toxic to the animal.

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