

Sarcoptic Mange Explained



Sarcoptes scabiei, var. canis

Canine scabies is caused by a dog specific strain of *Sarcoptes scabiei*, the responsible mite for scabies in many mammals including humans and most livestock. In fact, dog scabies can be contagious to humans and to cats, and cause a transient infestation that recedes spontaneously, because these mites do not usually complete their life cycle on humans or cats.

Canine scabies is highly contagious among canines. The reason is the mites can survive up to 2 weeks off the host and therefore transmission does not require a physical contact with other infested animals.

Adult mites are small (0.15 a 0.55 mm long) and can be seen only under the microscope. As all mite species, sarcoptic mange mites **spend their whole life on the same host**. The mites do not actively jump or crawl from one host to another one, but are passively transmitted when animals come in close physical contact. There are **no external vectors** that transmit the mites, e.g. insects, worms, birds, etc., as it happens with many other parasites.

The mites **dig tunnels beneath the skin**. Their saliva has potent digestive enzymes that dissolve the skin tissues. They feed on the resulting liquids. They do not suck blood. Adult females deposit their eggs in tunnels, which hatch in 3 to 5 days. The whole development through several larval and nymphal stages can be completed in less than 2 to 3 weeks. Adults live for 2 to 3 weeks. Off the host the mites survive only a few days.

Harm to animals can be substantial.

Mite digging causes skin irritation, which is enhanced by allergic reactions to mite saliva and feces that develop a few weeks after infestation. The affected skin develops pimples and papules that become **crusty**, with massive **hair loss**, progressive **hardening and thickening**, and building of skin folds. Infestations start often on the head and the ears, where the skin is thinner, to later spread to the rest of the body. Elbows, armpits, chest and belly are often affected.

Affected animals suffer from intense itching and react shaking the head, licking the affected parts, vigorously **scratching** the head the ears and other affected parts, rubbing against objects (trees, furniture, etc.), sometimes up to self-mutilation.

Diagnosis is confirmed by visualizing the mites in skin scrappings examined under the microscope. However, there are numerous false negatives, i.e., no mites are found in the scrapping, but the animal t is indeed infested.

Mite infestations do not always develop into a disease, The reason is that the immune system of the animal is able to keep the mite population under "under control". If the immune system is weakened, mite numbers explode and the animal becomes sick. For proper working of the immune system it is essential to **keep clean, healthy and well nourished**, since mites tend to proliferate in weak and neglected animals. This is particularly important for animals that are stressed.

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