

# Sarcoptic Mange

## (Mange due to the *Sarcoptes* Mite)

### Basics

#### OVERVIEW

- A non-seasonal, intensely itchy, highly contagious parasite skin disease of dogs and other mammals caused by *Sarcoptes scabiei* mites
- In dogs, the causative parasite is *Sarcoptes scabiei* var *canis*

#### GENETICS

- No known influence

#### SIGNALMENT/DESCRIPTION OF PET

##### Species

- Dogs
- Cats—transient itchiness
- Humans—transient itchiness

##### Breed Predispositions

- None

##### Mean Age and Range

- All ages

##### Predominant Sex

- None

#### SIGNS/OBSERVED CHANGES IN THE PET

##### Historical Findings

- Exposure to affected dogs

##### Physical Examination Findings

- Non-seasonal, intense itchiness (known as “pruritus”)
- Incubation period (period from exposure to signs developing) is variable; itchiness typically develops within 30 days of exposure due to a sensitivity reaction (hypersensitivity) response
- Rare individuals do not become hypersensitive and therefore may not develop severe itchiness
- Following exposure, initial itchiness sign is mild but progresses to severe
- Elbows, ear flap (known as “pinna”) margins, underside of the dog (known as “ventrum”), and hocks are affected first
- Crusted skin bumps (bumps called “papules”) form, leading to generalized hair loss (known as “alopecia”), and skin sores due to scratching and biting at the itchy skin (known as “excoriations”)
- If untreated, skin becomes thickened, with irregular surface (known as “lichenified”), and the area/dog becomes bald
- Peripheral lymph node reactivity/enlargement (known as “lymphadenopathy”) develops with long-term problems

#### CAUSES



- Mite numbers often low in most affected cases
- Individuals with low functioning immune systems may harbor larger numbers of mites
- Mites cause a sensitivity reaction in the dog, leading to the mange signs

## RISK FACTORS

- Exposure to infected dogs weeks before the development of symptoms
- Close contact with other dogs in animal shelters, boarding kennels, groomers, dog parks, and veterinarian offices
- Living in fox or coyote areas

## Treatment

### HEALTH CARE

- Dogs with non-seasonal itchiness may be treated with a medicine to kill the scabies mites (known as “scabicide”) to definitively eliminate mange as a cause of the signs
- When medicated dips are used, the entire dog must be treated, including face and ears
- All in-contact dogs should be treated because they may be mite carriers (without signs)
- Because of the hypersensitivity reaction to the mite, it may take several weeks for itchiness to resolve
- *Sarcoptes* mites usually die quickly in the environment; however, mites have been reported to survive for up to 3 weeks so thorough cleaning of the dog’s environment may be recommended, especially in crowded conditions
- Poor response to antihistamines and anti-inflammatory doses of steroids

### DIET

- Good quality diet

### SURGERY

- Not applicable

## Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all-inclusive

- Selamectin; ivermectin: milbemycin; doramectin; moxidectin
- Injectable and oral medications are administered for 3–6 treatments
- Imidacloprid/moxidectin—applied twice, 4 weeks apart
- Amitraz rinse effective when used weekly for 4–6 treatments (may cause sedation in small dogs)
- Lime-sulfur applied weekly for 4–6 weeks
- Fipronil spray applied to entire skin surface every 2 weeks for three treatments
- Topical seborrhea therapy in conjunction with scabicide therapy—helps speed resolution of the scaling, crusting lesions
- Antibiotics—may be needed to resolve secondary deep skin infections (known as “pyoderma”)
- Prednisone or prednisolone if necessary to relieve itchiness and self-mutilation

## Follow-Up Care

### PATIENT MONITORING

- It may take 4–6 weeks to see a response to therapy
- Topical treatments must be applied in full dose with consistent timing to be effective

### POSSIBLE COMPLICATIONS

- Deep skin infections (pyoderma)
- Re-infestation with the mites if in continued contact with animals with mange
- Approximately 30% of dogs with *Sarcoptes* will also react to house dust mites on allergy (intradermal) tests,

suggesting that house dust mite allergy may be a possible sequel to scabies infection

- People can get an itchy, bumpy rash if in close contact with an affected animal (sarcoptic mange is zoonotic, that is, shared between dogs and people)

## **EXPECTED COURSE AND PROGNOSIS**

- Resolution with treatment can be expected

## **Key Points**

- Avoid continued contact with affected dogs during treatment or it will not resolve as the mite will pass back to the patient
- Handle affected patients with glove barrier as people can get a rash from the mites, passing from the dogs to their skin