

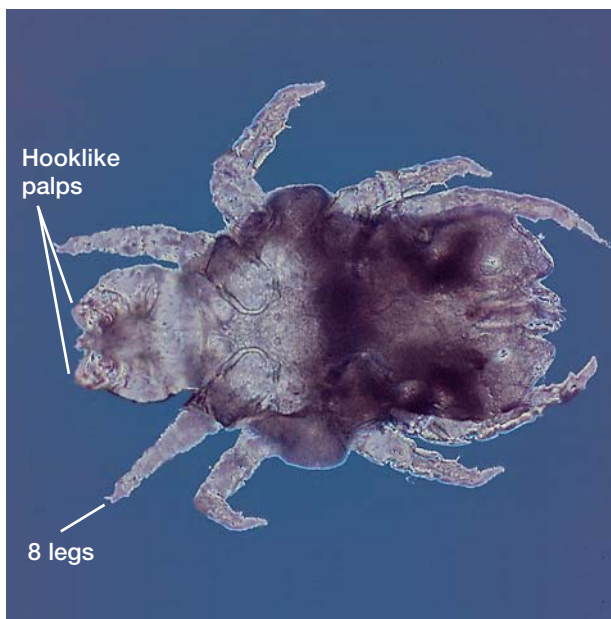
## What's Eating You? *Cheyletiella* Mites

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*Cheyletiella* are nonburrowing mites characterized by hooked anterior palps (Figure). These mites have a worldwide distribution, and *Cheyletiella dermatitis* in human beings results from contact with an affected animal: *Cheyletiella blakei* affects cats, *Cheyletiella parasitivorax* is found on rabbits, and *Cheyletiella yasguri* is found on dogs. In animals, contact with *Cheyletiella* mites produces a subtle dermatitis sometimes referred to as *walking dandruff*.<sup>1</sup> Animals are commonly asymptomatic, and up to 50% of rabbits in commercial colonies may harbor *Cheyletiella* or other species of mites.<sup>2</sup> The typical human patient with *Cheyletiella* dermatitis is female, aged 40 years or younger, and presents with pruritic papules.<sup>3</sup> Papules commonly are grouped<sup>4</sup> but may be widespread.<sup>5</sup> The diagnosis of *Cheyletiella* dermatitis may be challenging because it is uncommon to find the mite on a human with this condition. Therefore, a high index of suspicion is required.

Bullous eruptions caused by *Cheyletiella* mites may mimic those found in individuals with immunobullous disease.<sup>6</sup> Children may experience explosive dermatitis after napping where the family dog sleeps.<sup>7</sup> Farmers and veterinarians are especially vulnerable to zoonotic mite-induced dermatitis.<sup>8</sup>

Various diagnostic techniques are used to help identify *Cheyletiella* infestation in an affected animal. Adhesive tape preparations may demonstrate the mites,<sup>9</sup> and a rapid knockdown insecticidal spray, marketed for use on the animal, will facilitate collection of mites when sprayed on areas of pet "dandruff." Sprays with a pyrethrin and piperonal butoxide base have been used for this purpose



*Cheyletiella blakei* mite.

but may be toxic in some animals. A veterinarian should direct the search for mites. The scaly area is carefully brushed with a toothbrush or fine-toothed comb, and all scale, crust, and hair collected is placed in a sealable plastic bag. When alcohol is added to the bag, most contents will sink, but the mites tend to float. Vacuum cleaners fitted with in-line filters also are used to collect mites. The filter samples are treated with hot potassium hydroxide then floated in a concentrated sugar solution to collect the ectoparasites.<sup>10</sup> A knowledgeable veterinarian is the physician's best friend when a zoonotic infestation is suspected.

Ectoparasitic dips or shampoos have been used to treat *Cheyletiella* infestation in affected animals.<sup>11</sup> Fipronil, in a spray pump, applied to the animal, has been used in conjunction with permethrin spray applied to the environment to treat canine cheyletiellosis.<sup>12</sup> Topical amitraz, which is

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used to treat canine scabies, also can be effective for treating *Cheyletiella* infestation.<sup>13</sup> A veterinarian always should be consulted to evaluate and treat the affected animal.

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