

## **Ectoparasites in the Domestic Rabbit & Cavy**

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Rabbits and cavies are subject to a myriad of ectoparasitic infestations that can wreak havoc on a prime coat or fool you into believing another metabolic process is occurring. While there are multiple parasites that can live in various soft tissues in rabbits and cavies, this article will focus on their ears and fur specifically.

### **Ear Mites**

The ears of rabbits in particular are subject to relatively severe forms of parasitic infections of ear mites. This organism, *Psoroptes cuniculi*, is an obligate non-burrowing parasite. Obligate infers that the rabbit is this parasite's preferred host. A caveat to this is that it can live off of the host for up to 21 days! Breeders who come across this in their herd will notice very thick, reddish-brown crusts exuding from one or both ear canals. As the infection progresses, the infection spreads to areas like the face, neck, legs, feet, and dewlap. This process is extremely pruritic (itchy) and you may find your rabbit literally carving his or her outer ear to shreds some days.

Even the most serious cases of ear mites usually respond extremely well to Ivermectin and it should be the first drug you reach for in the case of ear mites. I recommend 0.4 mg/kg SC (subcutaneous under the nape of the neck) for 2-3 treatments 2 weeks apart. So a severe infection may get a SC injection on 3/1/09, 3/15/09, and 3/21/09. It is important to note that many times the mites have left a trail of destruction in their path and a resulting superficial bacterial skin infection may be present. As an adjunct treatment, I usually will also administer Trimethoprim sulfa (Sulfonamide and trimethoprim, TMS, SMZ-TMP) at 30 mg/kg by mouth twice a day for 2 weeks.

## **Fur Mites**

*Chyletiella parasitovorax* is often referred to as “walking lice” in rabbits as it appears like large flakes of walking dandruff to the naked eye. This mite usually just causes dry, scaly, sometimes itchy dermatitis on the neck, trunk, hind end, and abdomen. The mite can be seen grossly or easily under a low power microscope for identification. Other mites commonly affecting rabbits include *Leporacarus gibbus* and *Sarcoptes scabiei*. Rabbits infested with mites can be treated with Ivermectin with identical directions that were used for ear mites. Cavy mites include *Trixacarus caviae* and *Chirodiscoides caviae* with *Trixacarus* infections the most common. Cavies with infestations have excessive pruritus and secondary infections that form following infestation. The degree of itchiness has been characterized as so severe that cavies may have seizures from them. The most common areas affected are over the shoulders, on top of the neck, and on the thighs and back. Cavies respond well to Ivermectin given at 0.5-0.8 mg/kg SC 7 days apart (nape of the neck just like rabbits). Secondary infections, like rabbits, are cleared up readily by TMS at a dosage of 25 mg/kg PO twice a day for 2 weeks.

## **Fleas, ticks, and lice**

Fleas are common in rabbits that are housed in close proximity to dogs and cats. Fleas can also come from rabbits housed outside and have occasional contact with wild rabbits. Rabbits with a flea infestation will have a dull, lifeless coat with hair that can be easily removed. They will often be itchy and have patches of hair missing. Rabbits can be safely treated with *Advantage* for CATS. I prefer 0.4 mL to the base of the neck for

rabbits less than 9 pounds or under 10 weeks of age. Double this dose for rabbits over 9 pounds (0.8 mL).

Ticks occur in both wild and domestic rabbits with the most common species being the hard tick *Haemaphysalis leporis-palustris*. Ticks cause all of the previously mentioned signs of mites and fleas however also can cause significant blood loss and anemia. They are also vectors for some very serious diseases including myxomatosis and papillomatosis. Remove any visible ticks you see with forceps being careful to remove the entire tick. Ivermectin at the dose mentioned earlier will kill any remaining adults that are feeding. Lice are relatively rare infestations in rabbits and may be safely treated with Ivermectin at the dosing regimen listed. For cavies, I recommend using 0.3 mg/kg SC 10 days apart to control lice infestations.

**Some Quick Tips:**

-A review on how to calculate how much Ivermectin to give for a 10 lb. English Lop:

$$10 \text{ lb} / 2.2 \text{ lb/kg} = 4.5 \text{ kg}$$

1% Ivomec injectable (Swine, Cattle) = 10 mg/mL concentration

$$4.5 \text{ kg} \times 0.4 \text{ mg/kg} = 1.8 \text{ mg} / 10 \text{ mg/mL} = \mathbf{0.18 \text{ mL}}$$
 given SC

-Rabbit and cavy mites are **ZOONOTIC** meaning that they can transiently infect you and cause itching!

-NEVER, NEVER, NEVER use **Frontline (fipronil)** on rabbits! Commonly used in dogs and cats to treat fleas and ticks, this has the potential to cause seizures and death in rabbits after application.

-Make sure you follow any treatment of ectoparasites with thorough cleaning of any bedding, horizontal surfaces, or objects your rabbit or cavy come in contact with.

*References available upon request*