

Chronic Ear Infections in Dogs

Hope for chronic ear infections.

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It was our first lecture in Microbiology 101, at the College of Veterinary Medicine, University of Illinois. The veterinary professor, a former animal hospital owner with 10 years of experience, painted a verbal picture that I visualize every day in practice: "Microorganisms such as bacteria, fungi, and yeast need something to grow in if they are to survive and reproduce, and require a specific environment with a narrow range of local conditions such as moisture and temperature. Bacteria, yeast, and fungi on your canine patients require warmth, moisture, protection from sunlight, and time to multiply their numbers. By the way," interjected the professor, "every dog comes equipped with two exquisitely perfect incubators for growing microorganisms—their ear canals."

Little did we know that one of the most challenging conditions awaiting us in the years ahead would be treating and controlling chronic ear canal infections in dogs. "Treatment" and "control" are key words. Cure is always the goal, but a cure often evades us given the dark, moist, warm environment that virtually invites organisms to set up residence. Unlike the tough barrier provided by the surface of the skin, the ear canal's thin lining is easily traumatized.

Microorganisms secrete waste products as they grow and multiply, and these chemicals can be very offensive and destructive to the delicate superficial cells of the ear canals. Any stress to the ear canal tissues promotes the release of histamine, which is a potent stimulator of itchiness (called pruritus) and swelling. Plus, white blood cells invade the traumatized area in an attempt to gather up and destroy bacteria and yeast. In the heat of battle, tiny oil glands in the lining of the canal are stimulated to hypersecrete more oily sebum; but unfortunately, more sebum can actually act as an enriching medium for enhanced microorganism growth! In the process of the ear canals' battle against infections, there is often widespread collateral damage. A single severe infection (or repeated minor infections) can have long-term consequences due to the damage to the basement layer of cells, which generates new tissue lining the ear canal. Thickened, scarred, swollen, inflamed, moist, and ulcerated ear canals (that's a long list of collateral damage!) can harass a poor dog for a lifetime.