

Dog Tips

A Common Canine Problem That's Easily Avoidable

It's one of the most common reasons dogs see the vet. Save time and money by taking these steps and carefully avoiding triggers. It takes less time and effort than you think.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Early-life programming by diet plays a role in reducing or increasing the risk of ear infections in dogs
- Dogs that ate a raw, meat-based diet in early life had a significantly decreased risk of ear infections later in life, while those that ate a highly processed dry food diet had a significantly increased risk
- The mother dog's diet during pregnancy, as well as puppies' diets from 2 to 6 months of age, were particularly strongly linked to ear infection risk in later life
- Even providing a portion of food in the form of a raw, meat-based diet was beneficial; puppies that ate more than 25% of their food as a raw, meat-based diet significantly decreased their incidence of ear infections later in life
- Allergies are by far the most common reason for ear inflammation in dogs; an allergic response to food can lead to year-round ear issues that a dietary change may solve

Ear infections and chronic inflammation, or otitis, in dogs is a common malady that may affect up to 20% of pooches. But despite its high prevalence, effective treatment can be difficult to find and typically consists of flushing the ear and prescribing antibiotics or antifungal drugs. Meanwhile, most veterinarians do not discuss the importance of diet as a root cause with their clients — a crucial point that could significantly affect a dog's risk of ear infections.

In a study of 3,064 dogs, published in Frontiers in Veterinary Science, it's even been shown that early-life programming by diet plays a role in reducing — or increasing — the risk of ear infections in dogs.² Which way your dog's risk goes, up or down, depends on the food they're eating. This is epigenetics in action.

Nonprocessed, Meat-Based Diet Reduces Ear Infection Risk in Dogs

In addition to alterations in ear microbiota, <u>ear infections in dogs</u> are often the result of allergies, atopic dermatitis, food hypersensitivity, ear mites and autoimmune and endocrine diseases. Yeast and bacterial infections may also contribute, and dogs with long, pendulous ears, such as basset hounds, also tend to be at increased risk.

However, the importance of diet cannot be overstated. The Frontiers in Veterinary Science study evaluated 26 different early-life variables and compared two diets — a nonprocessed meat-based raw diet (NPMD) and an ultraprocessed carbohydrate-based dry (UPCD) food diet.

Dogs that ate the <u>raw, meat-based diet</u> in early life had a significantly decreased risk of ear infections later in life, while those that ate the highly processed dry food diet had a significantly increased risk.³ The mother dog's diet during pregnancy, as well as puppies' diets from 2 to 6 months of age, were particularly strongly linked to ear infection risk in later life.

Even providing a portion of food in the form of a raw, meat-based diet was beneficial. "Analyzing food ratios showed that when puppies were consuming >25% of their food as NPMD it significantly decreased their incidence of otitis later in life," the study found, "while a ratio of >75% UPCD in their diet significantly increased their risk of otitis." ⁴

Interestingly, dogs born in the current family, exposed to sunlight for more than one hour daily and raised on a dirt floor as a puppy also had a lower risk of ear infections later in life.⁵ "We propose that veterinarians, breeders, and owners can impact otitis risk by modifying factors such as diet and environment," the team explained.⁶

Proper Diet During Critical Period of Development Protects Pups' Health

The NPMD diet consisted of raw meat, raw organs, raw meaty bones, raw eggs and raw vegetables and fruits. In contrast, the UPCD diet was **kibble** made up mostly of cereal grains or potato starch, with low amounts of processed animal-derived proteins and plant-based proteins — the opposite of the biologically appropriate diet your dog needs to thrive.

A "biologically appropriate diet" means the bulk of your pet's nutrition comes from raw or minimally processed whole, real foods that exceed the species' minimum nutrient requirements, with a macronutrient profile that mimics an ancestral diet (keeping refined carbs less than 20% of the **diet**). This most closely resembles what the animal would naturally consume.

As you might suspect, feeding dogs a minimally processed, biologically appropriate diet during pregnancy is crucial for dogs' healthy development in utero, which is reliant on the mother's nutrition. Your dog's immune competence later in life may be programed by what his mother ate when he was in utero. External variables, including toxins and nutrients, influence a dog's genetic expression later in life, turning off and on genes that influence health. This phenomenon is called epigenetics.

Likewise, feeding puppies fresh, species-appropriate food in early life programs your pup for long-term health, including better immune system function and gut microbiome composition. The Frontiers in Veterinary Science team explained:⁷

"Maternal diet during pregnancy and postnatal diet both have a programming effect on the fetal immune system during these critical periods of developmental plasticity, thus influencing the long-term health of the offspring.

Moreover, the dog microbiome's sensibility to environmental exposures including the diet is time-dependent, where it is more sentient earlier in life and sensibility declines as the dog ages. Hence, this relatively short yet critical time-period from conception to 6 months of age is important for developing risk or protection."

Fresh, Species-Appropriate Diet Boosts Ear and Overall Health

Allergies are by far the most common reason for chronic ear inflammation in dogs. An allergic response to food can lead to year-round ear issues that a dietary change may solve. Raw pet food consultant Dr. Lea Stogdale explained in The Canadian Veterinary Journal:⁸

"In my experience, commercial or home-prepared raw diets can be medical problem solving for dogs and cats that have developed food allergies, especially to common meats such as chicken and beef. These allergies usually manifest as vomiting and/or diarrhea (including soft stool), recurrent ear infections, and/or excessive scratching or licking."

I visited with Italian researchers Dr. Misa Sandri and Professor Bruno Stefanon at the University of Udine, who completed a study documenting the profound benefits of a fresh food diet compared to processed dog food on the gut microbiome,⁹ which could certainly explain why fresh food is beneficial for ear health and more.

A nutritionally balanced raw or gently cooked homemade diet is my **top food choice for pets**. A freeze-dried/dehydrated low-carb diet is second best. Human-grade canned food is a mid-range choice but can be hard to find. Rotate brands and protein sources frequently to nourish the microbiome.

If you suspect your dog is suffering from an ear infection, seek integrative veterinary care to figure out its underlying cause and get proper treatment. In addition to diet, here are 11 reasons behind ear issues in dogs.

Sources and References

1,2,3,4,5,6,7 Front. Vet. Sci., 06 November 2023

⁹ BMC Veterinary Research volume 13, Article number: 65 (2016)

⁸ Can Vet J. 2019 Jun; 60(6): 655–658