

## Garlic Can Be Deadly

**Toxin:** S-methylcysteine sulfoxide, n-propyl disulfide, methyl disulfide, allyl disulfide

**Source:** Onion or garlic (*Allium* spp.) including those that are fresh as well as those dried for use as spices.

**General Information:** Garlic and onion are used as flavor enhancers in food. Since the toxic amount is unknown, it is recommended not to add it to your pet's food. Many human baby foods have onion in them, and it is not recommended to feed them to pets. In dogs and cats, these ingredients can cause [Heinz body anemia](#), resulting in a breakdown of the red blood cells and anemia. The bulbs, bulbets, flowers, and stems of the garlic and onion are all poisonous.

**Toxic Dose:** Unknown. Cats appear to be more sensitive than dogs.

**Signs:** Vomiting, diarrhea, anemia, discolored urine, weakness, liver damage, allergic reactions, asthmatic attacks, and in case of skin exposure, contact [dermatitis](#).

**Immediate Action:** Induce vomiting and seek veterinary attention. If dermal (skin) exposure, bathe thoroughly and contact a veterinarian.

**Veterinary Care:** General treatment: The induction of vomiting may be continued, [gastric lavage](#) is performed, and [activated charcoal](#) administered, if ingested. If [dermal](#) exposure has occurred, the animal will be bathed and dried thoroughly.

**Supportive treatment:** [IV](#) fluids are administered to maintain hydration. The animal will be monitored and treated for liver damage. Repeated blood tests will be performed to monitor for anemia; blood transfusions will be administered if necessary.

**Specific treatment:** Unavailable

**Prognosis:** Variable

[Prince DVM, Jennifer; *Onion and Garlic*; Veterinary Services Department; Drs. Foster and Smith, Inc.]



It has long been thought that garlic provides many health benefits when fed regularly to our pets. Garlic has been shown to stimulate white blood cells, prevent tumor formation, and decrease blood cholesterol. Vets have proposed garlic as a treatment for allergies, asthma, diabetes, heart disease, cancer, infections, intestinal parasites, and kidney disease. Add to these its effectiveness as a natural flea and parasite repellent and you would naturally be inclined to include it in your pet's diet. Many

manufacturers of raw and other natural diets include garlic in their formulas. Most treats and vitamins contain garlic. You can even buy supplements made of 100% garlic. Until recently, garlic was thought to be an inexpensive, natural, and *safe* way to fight parasites and improve the health of our pets.

Garlic is part of the onion family (*alliaceae*) along with leeks and shallots. There is ample research available which indicates onions can be harmful, if not deadly, to our pets. In the last five years, more and more toxicity studies are being conducted on garlic and all seem to indicate that it, too, can pose serious health risks when fed to cats and dogs. A 2003 study on Grape and Raisin Toxicity in Dogs, published in the Australian Veterinary Journal begins, "The list of commonly available human foods toxic to dogs continues to grow. Grapes and raisins can be added to onions, garlic, chocolate, and macadamia nuts as posing dangers when ingested in excessive quantities." [1] Unfortunately, no one knows what constitutes "excessive quantities." In an article on Onion and Garlic Toxicity in Dogs and Cats, Jennifer Prince, DVM states: "Garlic and onion are used as flavor enhancers in food. Since the toxic amount is unknown, it is recommended not to add it to your pet's food. These ingredients can cause Heinz body anemia, resulting in a breakdown of the red blood cells and anemia." [2] Although the exact toxic dose is not known, studies unanimously agree that foods containing garlic should not be fed to dogs.

I have spoken with owners who have been feeding garlic to their dogs for years with no apparent ill effects. They maintain that, until something better is found to fight fleas, they will continue to feed garlic. Once again, it seems that we are far too willing to subject our pets to potentially dangerous substances in the name of convenience. If someone told you that feeding your dog arsenic would keep him from getting fleas, would you consider doing it? Of course not. The effects of garlic toxicity are not inconsequential. They include vomiting, diarrhea, anemia, tachycardia [irregular heart beat] weakness, liver damage, allergic reactions, asthmatic attacks, contact dermatitis, and gastrointestinal damage. [2,4,5]

There are many forms of garlic—fresh raw, cooked, dried, oil of garlic—all of which pose the same serious risks when fed to dogs and cats. Jennifer Prince DVM states that “The bulbs, bulbets, flowers, and stems of the garlic and onion are all poisonous” and that “both fresh and dried (for use as spices) are equally dangerous.” [2] In a paper titled: *Toxin exposures in dogs and cats: Pesticides and Biotoxins*, Michael J. Murphy, DVM, PhD, writes: “The active ingredient in oil of onion is allyl propyl disulfide; the active ingredient in oil of garlic is a similar compound called allicin. Garlic may cause contact dermatitis or imitate an asthmatic attack.” [6] A 2001 study on the effect of garlic on the gastrointestinal mucosa compared the effects of several different forms of garlic on the lining of the stomach and intestines. The results of the study showed that the dehydrated boiled garlic powder caused “severe damage” to the lining of the stomach; the dehydrated raw garlic powder caused some reddening, and that the aged garlic extract had no ill effects on the stomach membranes. The study also found that feeding enteric-coated garlic tablets caused “loss of epithelial cells at the top of crypts in the ileum.” [4]

The findings of this study would seem to be borne out in the tragic story of a woman in Pennsylvania who lost her beautiful Newfoundland show dog to what she believes was the use of garlic. Within two weeks of feeding a popular garlic supplement available at most pet stores and over the Internet, her Newfoundland developed a bleeding ulcer and perforated intestine. Sadly, the dog did not live. In a Case Report by Osamu Yamato, a 4-year-old miniature schnauzer presented with anorexia and was found to have a severe case of Heinz body hemolytic anemia. The cause? Two days earlier the dog had eaten some Chinese steamed dumplings which contained Chinese chive and garlic. [7]

In his book, *Natural Health Bible for Dogs & Cats*, Shawn Messonnier, DVM takes two pages to expound on the health benefits of feeding garlic. Here are excerpts from his list of safety issues: “Too much garlic can be toxic to pets, causing Heinz body anemia...Do not use in pets with anemia...Do not use in pets scheduled for surgery due to the possibility of increased bleeding times...Topical garlic can cause skin irritation, blistering, and even third-degree burns...Garlic may cause excess intestinal gas...Taking garlic at the same time as taking ginkgo or high-dose vitamin E might conceivably cause a risk of bleeding problems.” [8] In my opinion, the potential risks of feeding garlic far outweigh any perceived benefits.

If you, as I do, find the evidence compelling enough to stop feeding garlic to your pets, you will need to look very closely at the ingredients in your pet food, treats, and supplements. Many pet foods, especially the new premium natural blends and many of the commercial raw diets, contain garlic. When you start looking at treats, you will find it difficult indeed to find a commercial treat recipe that does not contain garlic. Although it is relatively simple to avoid garlic supplements, you will find that many combination supplements, including most multi-vitamins contain a significant amount of garlic. When you look closely at what you are feeding your dog, you may find he is getting garlic in his food, his treats, and his vitamins and supplements. Granted, you may have been feeding garlic for years with no problems and therefore feel it must be safe. Let me remind you that the toxic levels remain undetermined. What if that toxic threshold is crossed with his very next meal or treat?

## References and Other Studies

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