

## Coprophagia in the Canine

### Overview

Coprophagia is defined as the consumption of faeces by an animal and is a common complaint of owners to their veterinarians. Since there has been little research done on this particular behavior, the veterinarian is usually poorly equipped to give a recommendation to the owner. This study is intended to provide epidemiological information about the incidence of the behavior in the canine population, the age of onset, age of disappearance, and various other pieces of information crucial to form a basis from which to study this very important behavior.

### Proposed Causes

Coprophagia may result due to various medical problems. Primary among them are exocrine pancreatic insufficiency, pancreatitis, intestinal infections, malabsorptive syndromes, and over-feeding (especially high fat content diets). However, with the majority of these conditions, many other signs beside the coprophagia will be prominent, particularly diarrhea. Coprophagia is usually only a small aspect of these medical conditions.

There have been a variety of behavioral theories put forth as to why canines engage in coprophagia. It is important at this time to define different kinds of coprophagia. Autocoprophagia deals with an animal eating its own faeces. Intraspecific coprophagia deals with an animal eating faeces from another animal within its own species. Interspecific coprophagia deals with an animal eating faeces from another species (dog eating cat, deer, rabbit, etc faeces). Several behavioral explanations of coprophagia are discussed below.

**Attention-seeking behavior:** When the dog engages in coprophagia, their owner tends to reprimand them and, therefore, pay attention to the animal. This may be a sequel to a medical condition, which brought about the coprophagia initially and, now that the medical condition has cleared, the animal continues to engage in coprophagia in order to get attention from the owner. This is unlikely in well-treated animals, however, because they will likely get all the attention they need without having to draw negative attention to themselves. This is being examined in our study.

**Allelomimetic behavior:** The dog observes the owner picking up the faeces and learns from them to do so as well.

**Learned behavior:** The dog observes other dogs engaging in coprophagia and mimics their activity, thus 'learning' it from other dogs within the household or those living nearby. This begs the question as to what started the first dog to engage in coprophagia. This is being examined in our study.

**Maternal behavior:** A bitch with puppies will often engage in coprophagia, and this behaviour is normal. There are many theories as to why the bitch does this, including keeping the den clean and preventing the scent of the faeces from attracting predators. This is being examined in our study.

**Dominance behavior:** There have been reports of a submissive dog consuming the faeces of one

or more dominant dogs in the same household. There are other examples in nature where the submissive members of a group participate in apparently bizarre behaviors. This is being examined in our study.

**Reinforcement:** Something about eating the faeces itself reinforces the behavior. Things such as taste may be a factor in this. It's simply appealing to the dog to eat the faeces, so it does so. This is the likely mechanism in interspecific coprophagia such as eating cat faeces.

**Feeding behavior:** Many people feed their dogs only once per day. Some postulate that dogs naturally want to have multiple meals throughout the day, hence they use coprophagia to supplement their feeding schedule and fulfil this need. This is being examined in our study.

### **Treatment Options**

These treatments are all the opinions of the authors of this study. We make no claims about the efficacy of these treatments, nor do we endorse using any specific products herein. This is provided merely to inform interested individuals of what has been used in the past, and the authors' opinions of these treatments. Our study will provide more objective data regarding the efficacy of some of these treatments.

**Meat tenderizer:** Some people theorize that adding various enzymes to the diet of a coprophagic animal may help. The suspicion is that these enzymes break down more of the nutrients in a dog's diet so that it gets adequate nutrition and need not ingest its faeces to get a proper influx of nutrients. There are some reports of this treatment working.

**Forbid (™)(R):** This is a powder supplement added to a dog's food. It is thought that this makes the faeces taste bad for a coprophagic dog. Note that this must be applied to the food of the dog whose faeces is being eaten. It is by veterinary prescription only. The efficacy has not been proved to the satisfaction of the authors. Note also that this can only be given to dogs, so will only be effective with autocoprophagia or intraspecific coprophagia.

**Deter (™)(R):** This is a pill given to a dog with its food. Like Forbid, Deter is suspected to make the faeces distasteful. It is not veterinary prescribed, but the same issues exist as with Forbid.

**Bad taste on faeces:** This is perhaps the most common treatment for coprophagia. Owners are advised to put something like hot sauce on or in their dogs' faeces. The theory is that the dog will consume the treated faeces and will have an aversive response to it (due to bad taste) and will eventually cease the behavior. For this behavior to be effective, it must be used 100% of the time. Every faeces must have hot sauce or other noxious tasting element on it or else the dog will not associate the bad taste with eating the faeces. It is the opinion of the authors that the owner should simply pick up the faeces instead. Lack of access to faeces is the most effective treatment option (described below). Some dogs will stop engaging in coprophaga if the cycle is broken by picking up faeces, so that treatment is much easier, much simpler, and more effective means of controlling coprophagia.

**Scolding/Punishment:** This is a common method of trying to have an animal stop a behavior. Barking is a good example- owners think if they scold their pet for barking, it will cease to bark.

WRONG, Punishment almost never works as well as reinforcement, however, and should only be used as a last resort. This may actually lead to more coprophagia as the dog learns that it gets attention (being scolded) if it eats its faeces.

**Ignoring:** This is often used by owners because they have figured out that their dogs may want attention from eating the faeces, so they ignore the dog when it's engaging in coprophagia. This is likely better than scolding and punishment, but probably not as effective as reinforcing a good behavior (such as coming when called).

**Pickup:** This is a treatment strategy by preventing access to the faeces by the animal. In extreme cases of coprophagia, a muzzle may have to be administered when the dog is let outside to prevent it from eating the faeces. Usually simply picking up shortly after the dog and preventing the dog from eating faeces during walks is sufficient. Often this may break the cycle of behavior as described above under scolding/punishment.

**Other chemicals:** There are no less than several dozen purported chemical treatments for coprophagia, including homeopathic remedies. Of course, only anecdotal information is available about these compounds. Some supplements which have been suggested include pumpkin seeds, breath mints, papaya, anise seed, and pineapple.

**Muzzle:** If the dog engages in this behavior when unattended, or consumes the faeces directly when it comes out, a muzzle may be a practical solution to the problem. If it is well tolerated and the dog does not have to have it on for extended periods of time, this may be one of the more practical ways to deal with a dog who is coprophagic and unsupervisable.

**Wait:** Anecdotally, this seems to be a behavior most often occurring in younger dogs. Many owners report that their dog eventually grows out of it. While not exactly treatment, it is possible that the dog will stop being coprophagic as it ages.

**Positive Reinforcement:** This is the process of reinforcing another behavior instead of the coprophagia. When the dog is about to begin eating faeces, the owner can use any variety of commands. "Leave it", "come", "sit", etc. can all be used. The idea here is to distract the dog long enough to allow the owner to pick the faeces up and make the dog forget about the coprophagia behavior.

**Combination:** It is almost impossible to recommend a single best treatment for coprophagia for all dogs. Because the mechanism and reasons why dogs engage in this behavior are unknown, it is not known which behavior modification therapies will be most effective. It is the opinion of this author that a combination of reinforcing desired behaviors and picking up faeces is the best combination for treatment of coprophagia.

### **Health Implications**

Most of the time, coprophagia is merely a habit which is disgusting to owners but causes no real problems for the dog who is eating it. There are some important exceptions to this, however. The most critical is the possibility of ingesting internal parasites. Usually this will happen if your dog eats the faeces of unfamiliar, infested dogs or the faeces of wild life (such as deer). If you keep

your animals properly de-wormed, the dog eating the faeces of these animals is usually not at risk for internal parasites. However, the possibility of picking up a parasite from a strange animal (especially wild life) is very real, and the dog should be prevented from eating such faeces as much as possible.

In addition to internal parasites, organisms such as *Toxoplasma gondii* is transmitted in some cat faeces. This can cause a dog a variety of problems, including CNS and muscle damage. Try to keep the dog away from cat faeces as much as possible because of this.

It's also possible that the faeces, if left to sit too long, can become infested with fly larvae, foreign bacteria, fungus, etc. It is best to make sure your dog avoids these sources of disease as much as possible. Be sure to keep your dog away from strange faeces when on a walk and clean up any old faeces in your yard as soon as possible.

Some important canine viral diseases can also be transmitted by the focal-oral route and infection could result from coprophagia of infected dogs' faeces. Hepatitis and canine parvovirus are two important diseases which can be transmitted in this manner. Fortunately, vaccinated dogs are at little risk.

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