

It Sickens or Kills Over 10 Dogs a Day, yet Many Owners Are Clueless

This highly toxic ingredient is popping up in an ever-growing list of everyday products, including some health store favorites. It's perfectly safe for you, but if your pet consumes just a tiny bit, it can lead to pancreas and liver failure. Check this list today.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- A Portland, Oregon veterinarian is helping to bring much-needed awareness to the extreme danger of xylitol poisoning in dogs
- Xylitol is a natural sweetener that is popping up in an ever-growing list of consumer products, including some peanut and other nut butters
- From 2007 to 2013, there was an over 200% increase in reported cases of xylitol toxicity, which means over 10 dogs are being sickened or killed by xylitol every day
- It can be difficult to determine if a consumer product contains xylitol
- If you know or suspect your dog has ingested xylitol, get your pet to a veterinary clinic immediately and/or call a pet poison control hotline without delay

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A veterinarian in Oregon is leading the charge to bring awareness about the potentially fatal threat of xylitol poisoning in dogs.

Xylitol is a sugar alcohol-derived sweetener that is being added to a rapidly expanding list of consumer products, and most dog guardians don't realize the serious danger it poses.

Dr. Jason Nicholas of Portland has compiled a **[list of products containing xylitol](#)**, and has posted links to **[two online petitions](#)**, one to the manufacturers of products containing xylitol, and one to the US Food and Drug Administration (FDA).

Warning: Xylitol May Be in Your Peanut Butter

Perhaps one of the scariest places xylitol is appearing is in a growing number of peanut and nut butters. As most dog owners know, our pets love these creamy butters. Many people use them to hide pills or supplements they give to their dog, or in the occasional Kong or similar treat-release toy, or as a special treat.

According to Dr. Nicholas, as of August 6, 2015 there were five companies making nut butters containing xylitol, including:¹

- Go Nuts, Co.
- Hank's Protein Plus Peanut Butter
- Krush Nutrition
- Nuts 'N More
- P28

According to Nicholas:

"While these are 'specialty butters' that are mostly sold in nutrition stores and online (currently), the subtle presence of xylitol in these butters definitely highlights the importance of reading ingredient labels on products you bring into your home, and especially doing so prior to sharing anything with your pets and if your pets ever get into anything they shouldn't have.

Please don't assume that things which are safe for you are also safe for your pets."

As the Number of Xylitol-Containing Products Grows, so Do the Number of Dog Poisonings

In 2011, the FDA issued a consumer warning to pet owners about the dangers of xylitol ingestion in dogs and ferrets.² However, each year the number of products containing xylitol expands — and so do the cases of poisoning in dogs.

In 2007, the first year the ASPCA Animal Poison Control Center (ASPCA-APCC) started tracking cases of xylitol toxicity in dogs, the Center received 1,764 calls. In 2014, they handled 3,727 xylitol calls.³

"That's a 210 percent increase in cases and means that there's now an average of over TEN dogs eating and being sickened or killed by xylitol every day," Nicholas told Food Safety News.

"And these are just the cases that get called into ASPCA-APCC," Nicholas continues. "There are other animal poison control hotlines and many cases either never make it to the vet or are treated by vets who don't call animal poison control."⁴

On Easter Sunday in Fort Collins, Colorado, a 10 year-old Chihuahua named Pip died after eating apple pie containing xylitol. By the time Pip was taken to a veterinary hospital, he was already suffering pancreas and liver failure. Veterinarians spent over 24 hours trying to save Pip, but he died the following day.

"We tried everything we could," said Dr. Karen Hilling. "But I think it was just too much because he was so tiny and had such a large dose of xylitol."⁵

Also in April, Luna, a 2 year-old Golden Retriever living in Glenwood City, Wisconsin was euthanized after eating a pack of Ice Breaker lemon-flavored gum while her owners were out. Luna's liver was severely damaged from the xylitol in the gum, and the animal emergency center quoted a price of \$20,000 to treat her, with only a 25% chance she would survive.⁶

Toxicity of Xylitol Is Species- and Dose-Dependent

Although xylitol is safe for humans, the sweetener's effect varies by species. In people, rhesus monkeys, rats, and horses, xylitol causes little to no insulin release. However, it has the opposite effect on dogs, ferrets, rabbits, cows, goats, and baboons. Its effect on cats is unknown.

Humans absorb xylitol slowly, and the sweetener when ingested orally is absorbed at from 50% to 95%. However, in dogs, xylitol is rapidly and totally absorbed within about 30 minutes. Just a small amount of xylitol can cause a dangerous insulin surge and a rapid drop in blood sugar.

The toxicity of xylitol in dogs is dose-dependent. The dose required to trigger hypoglycemia (low blood glucose) is approximately 0.1 grams/kg, while the amount needed to cause liver failure is about 0.5 grams/kg. As a point of reference, most chewing gums and breath mints typically contain .22 to 1.0 gram of xylitol per piece of gum or mint. This means just a single piece of gum or one mint may cause hypoglycemia in a 10-pound dog.

For more detailed information and graphics on how much xylitol is dangerous to different sized dogs, as well as a comparison of xylitol vs. chocolate toxicity in dogs, take a look at this [**Preventive Vet**](#) page.

Determining the Amount of Xylitol in a Product

Currently, product manufacturers aren't required to list the quantity of xylitol on package labels, and while some companies will reveal the amount in their products, many are reluctant to do so.

In some cases, you might be able to use the placement of xylitol on an ingredient list to estimate how much is in the product. In the US, ingredient lists for foods must be organized in descending order based on weight. The ingredient weighing the most is at the top of the list.

In most chewing gum ingredient lists, xylitol appears in fourth or fifth place, making it clinically insignificant. But if it appears as one of the first three ingredients, extreme caution should be taken. In fact, I recommend dog guardians avoid or very carefully secure any product that contains any amount of xylitol, no matter how small.

When it comes to medications and dietary supplements, US regulations do not require manufacturers to list xylitol by name on package labels. This is because the sweetener is often categorized as an "inactive" or "other" ingredient, and such ingredients don't have to be listed in order by the amount contained in the product.

To confuse matters further, when xylitol is named in these products, it is often part of an alphabetized list, which could lead pet owners to assume — perhaps in error — that there is a very small amount in the product. That's why it's best, in my opinion, to either avoid or very carefully store any product that contains xylitol in any amount.

Dr. Nicholas offers a list of common marketing buzzwords that signal there could be xylitol in a product. These include:⁷

- Sugar free
- Sweetened with birch sugar
- Reduced sugar
- Low carb
- All natural — no sugar added
- Low cal
- No artificial sweeteners
- Low calorie
- Naturally sweetened
- Helps fight cavities
- 100% natural
- Cavity fighting
- Safe for sugar-controlled diets
- Anticavity
- Safe for diabetics
- Tooth friendly
- Aspartame free

Symptoms of Xylitol Poisoning and Required Treatment

Symptoms of xylitol intoxication in dogs include vomiting, weakness, lethargy, loss of coordination, seizures, and collapse.

Hypoglycemia is usually evident within an hour or two after a dog ingests xylitol, but symptoms are occasionally delayed for several hours. Treatment depends on how quickly it is given. **Vomiting** is induced in cases where the xylitol has just been ingested.

Once a dog develops hypoglycemia, IV dextrose must be administered until the animal can self-regulate his blood glucose concentrations, which typically takes from 12 to 48 hours.

In dogs who ingest enough xylitol to cause liver toxicity, liver enzymes must be closely monitored, as evidence of hepatic necrosis can show up one to two days after ingestion. Should the liver begin to fail, the dog will require IV fluids, dextrose, hepatoprotectants (substances to help support and repair the liver), and regular monitoring of blood clotting activity.

When xylitol exposure is caught early in a dog and treated effectively, the prognosis for a full recovery is excellent. The prognosis for dogs that develop liver failure is less optimistic.

Sources and References

^{1,7} [Preventive Vet](#)

² [FDA.gov](#)

³ ASPCA.org

⁴ [Food Safety News, August 19, 2015](#)

⁵ [WTSP.com, April 14, 2015](#)

⁶ [Kare11.com, April 23, 2015](#)
