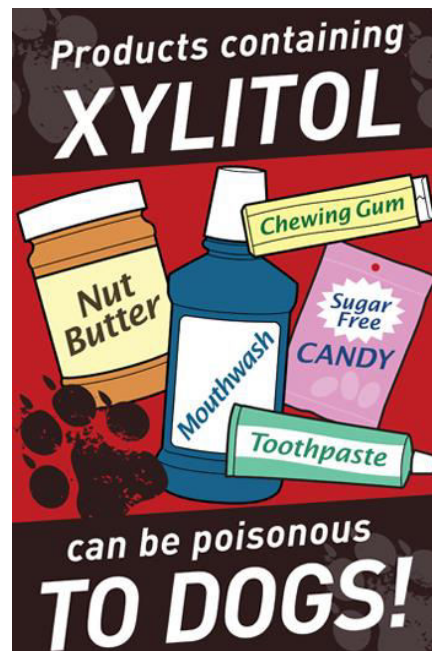




What is xylitol and why is it toxic?

(Information from vspn.org) Xylitol is a white, crystalline sugar alcohol that is used as a sugar substitute sweetener in many products. In the United States, the use of xylitol has grown rapidly over the last few years. It is increasingly found in sugar-free gum, candy, and foods (including some brands of peanut butter). It is also available in granulated form for baking. It is popular among diabetics and those on low-carbohydrate diets. It also is increasingly being included in toothpastes and other oral hygiene products due to its anti-cavity properties.



In humans, xylitol is absorbed slowly and has little to no effect on blood sugar or insulin levels. However, in dogs, xylitol is quickly absorbed into the bloodstream. It then acts as a strong promoter of insulin release, which causes profound hypoglycemia (low blood sugar). In dogs, xylitol can also cause liver failure, bleeding, and death. Xylitol's effect on insulin and blood glucose in cats is not clear at this time. There is no antidote for xylitol poisoning

It takes very little xylitol to cause signs of toxicity in dogs. Based on experience at the ASPCA APCC, dogs ingesting > 0.1 g/kg of xylitol should be considered at risk for developing hypoglycemia, while doses of > 0.5 g/kg may lead to liver failure. Each piece of gum contains an estimated 0.3 g of xylitol per piece. Gums which list xylitol as the first ingredient may contain more than that.

The prognosis is good for uncomplicated hypoglycemia when treatment can be instituted promptly. Liver failure and bleeding disorders generally carry a poor prognosis. Dogs that develop stupor or coma have a grave prognosis.

Treatment is supportive. For hypoglycemia the patient is hospitalized and given sugar supplementation in IV fluids. For liver failure, treatment is more intensive and can include blood products, liver protectant medications, etc. It is recommended to monitor liver enzyme and blood clotting tests are monitored for 2 to 3 days. Blood levels of potassium are ideally monitored as well. Elevated blood phosphorus levels in patients with liver failure have a tendency to do worse.