Did you know that innocent looking loaf of bread dough rising on your kitchen counter can make your dog very sick, even to the point of death?

Many dogs will gobble up raw dough if they have access to it, and the results can be disastrous.

**How Bread Dough Becomes Deadly**

Most bread dough contains yeast.

When exposed to a warm, anaerobic environment (like the oven or the inside of your dog), the enzymes in the yeast convert the sugar in the dough to ethanol (alcohol) and carbon dioxide.

The carbon dioxide is what makes the dough rise.

The ethanol serves to flavor the bread as it evaporates during the process of baking.

There are two concerns for a dog that has eaten bread dough.

One, there's a large mass of dough in the stomach that is continuing to rise.

And two, the warm environment of the stomach promotes ongoing fermentation of the alcohol in the dough, which can result in ethanol toxicosis.

**Symptoms of Ethanol Toxicosis**

Toxicosis comes on quickly as the ethanol released from the dough is absorbed by every inch of your dog's GI tract.

In some dogs symptoms appear with 30 minutes to an hour after ingesting raw dough, but it often takes two hours or more for the first signs of ethanol poisoning to appear.

Frequently the first signs of a problem are a distended abdomen from the expanding lump of dough, and gassiness. There may also be vomiting or unproductive retching.

Other symptoms can include:

- Ataxia (loss of coordination)
- Loss of bladder control
- Vocalization
- Behavior changes
- Central nervous system (CNS) depression

If the ethanol level continues to rise uninterrupted, respiratory depression, cardiac arrest and ultimately death can follow.
The wad of dough itself is a foreign body inside your dog's stomach that not only causes often painful distension of the abdomen, but can also compress blood vessels and compromise blood flow to the gastric wall. Gastric dilatation volvulus (GDV, also called bloat) or gastric rupture can result.

Ethanol poisoning is diagnosed with blood-alcohol tests. Testing urine for low blood sugar can also help to confirm ethanol poisoning, as can a pH test to look for abnormally high acid levels in the dog's body.

**Treatment**

If you know your dog has eaten bread dough but isn't yet having symptoms, sometimes emesis (making the dog vomit) may be effective.

This should be done only by your vet, however, because the dough can block the esophageal sphincter. When this occurs, vomiting may not be effective and there's risk the stomach will rupture with the effort.

More often than not, dogs are showing signs of toxicosis by the time the vet is called. In a dog with loss of muscle coordination or CNS depression, vomiting should not be induced.

If your dog is symptomatic, the first thing your vet will do is stabilize your pet, then take x-rays of her abdomen. If there's a lot of gas present, the vet may decide to insert a gastric tube to help expel the gas.

He may also perform a cold water gastric lavage (pump the stomach).

If your dog is vomiting, she may be given an antiemetic drug, however, this must be done with great care because certain antiemetics can exacerbate the problem. Abdominal pain and cramping are managed with painkillers that won't interfere with gut motility or amplify GI irritation. Sometimes H2 blockers and other anti-ulcer meds are given.

Your vet will monitor your pet's urine output, electrolytes, blood glucose and acid-base levels. Dextrose and/or thiamine may be added to the IV fluids your dog is receiving. Acidosis and electrolyte abnormalities will be corrected as necessary.

If a dog is extremely ill with severe respiratory depression or is comatose, a drug called yohimbine is sometimes used, but is reserved for life-threatening cases of ethanol toxicosis. Yohimbine stimulates the central nervous system and increases respiration, which has proved beneficial in some dogs with several ethanol poisoning.

Fortunately, with prompt treatment, most dogs who ingest bread dough make a full recovery.

**Prevention**

Sadly, ethanol poisoning in dogs isn't uncommon.

Exposure to certain alcohol-containing beverages, mouthwashes, medications, disinfectants, perfumes, paints and gasoline can cause toxicity, as can fermented products like bread dough and also rotten apples.

Ill-informed owners who include their dogs in happy hour can also wind up poisoning their pet.
Preventing bread dough toxicosis -- or any kind of ethanol poisoning -- means eliminating every opportunity for your dog to ingest potentially deadly foods and liquids.

The ASPCA's Animal Poison Control Center receives the bulk of its calls about bread dough poisoning during Christmas and Easter, so be extra vigilant over the holidays. Even if you're not into baking bread, someone you take your dog to visit might be.

And keep in mind your pet can be exposed to alcohol-containing products through the skin, so clean up spills as soon as they occur and long before your furry companion has a chance to get into them.