

# Macadamia Nuts & Dogs Don't Mix - A Peculiar Toxicity for Pups!

Whenever my family and I visited my maternal grandparents, my Papou (Greek for grandfather) would obsess about making sure we had enough to eat. There was always a jar of mixed nuts on the coffee table. Inevitably macadamia nuts were among the mixture of delicious nuts. They have such a delicate flavor and crunchy texture. Did you know they're toxic to dogs? Most dog parents are unaware of this unique toxicity. So, I wanted to dedicate some blog space to giving you something interesting on which to chew this week. Happy reading!



## Macadamia Nuts - Why are they toxic?

Macadamia nuts in the United States are cultivated from *Macadamia intergrifolia* and *M. tetraphylla* trees in Hawaii. To date, the toxic principle is not known. Evidence suggests the mechanism of toxicity may be specific to the dog because the clinical signs seen in dogs that ingest these nuts have not been seen in other species. Human patients may have anaphylactic reactions to them. All parts of the

nut should be considered toxic until research definitively identifies the toxic principle.



Trees of *Macadamia intergrifolia*

## **Macadamia Nuts - What does toxicity look like?**

Clinical signs of macadamia intoxication typically manifest within 12 hours of ingestion. The most common clinical sign is weakness. Weakness affects the pelvic limbs, and concurrent tremors may be present. Other clinical signs include:

- Depression
- Vomiting
- Inability to walk steadily (called ataxia)
- Elevated body temperature

The amount of nuts that a dog needs to ingest to cause clinical signs is variable.

As little 2.4 gram per kilograms of body weight (g/kg) has been documented to cause pelvic limb weakness and as little as 7 g/kg to cause vomiting.

## **Macadamia Nuts - How is toxicity diagnosed?**

There is no specific test to confirm macadamia nut intoxication. Diagnosis is based on suspected or known ingestion of the nuts with concurrent consistent clinical signs of intoxication. Blood tests have occasionally documented elevated serum lipase levels. This finding may be due to the large volume of oil present in the nuts and/or may represent a biochemical red flag for possible acute pancreatitis.



## **Macadamia Nuts - How is toxicity treated?**

The level of intervention needed for a dog who ingests macadamia nuts depends on the amount ingested and the associated clinical signs. Patients with minimal pelvic limb weakness may be able to be simply observed at home. However, patients with profound weakness, tremors, vomiting, and/or depression should be evaluated by a veterinarian as soon as possible. Administration of medications like activated charcoal with a cathartic agent hasten passage through the gastrointestinal tract. Dehydrated patients benefit from intravenous fluid therapy, and vomiting may be controlled with anti-nausea medications. Patients who develop acute pancreatitis often require hospitalization for around-the-clock care, including aggressive pain management and nutritional support. In general, the prognosis for uncomplicated macadamia nut intoxication is good. Most dogs return to normal activity within 48 hours. Patients with complications like acute pancreatitis have a more guarded prognosis.

## **The take-away message about macadamia nut toxicity in dogs...**

Macadamia nuts may be tasty treats but they are toxic to our canine companions. Common signs of toxicity include pelvic limb weakness and tremors, as well as depression and vomiting. Prognosis is generally good for uncomplicated intoxication, and many dogs return to normal activity within a couple of days.

To contact a board-certified veterinary toxicologist, please contact the ASPCA Animal Poison Control Center.

To find a board-certified veterinary emergency and critical care specialist, please visit the American College of Veterinary Emergency and Critical Care.

Wishing you wet-nosed kisses,

cgb