

CHOCOLATE POISONING

Information provided by Dr. Cecil Brownie, Veterinary Toxicologist

“All substances are poisonous; there is none which is not poison. The right dose differentiates a poison from a remedy”

Paracelsus 1493 – 1541

Whereas eating chocolate seems an American fancy, the same is not true for household pets – dogs to be specific.

Chocolate (sweetened and unsweetened), a product made from processed beans of the *Theobroma cacao plant*, contain theobromine. Theobromine, along with caffeine from processed seeds of *Coffea arabica* and Ilex species of plants, and, theophylline from processed leaves of the *Camellia sinensis plant* are a group secondary plant metabolites called xanthine alkaloids (methylxanthine).



Toxic Principles – Theobromine (Methylxanthine). Other methylxanthines – Caffeine and Theophylline. Baking chocolate has higher levels of theobromine than sweetened milk chocolate.

Dog – Lethal dose “200-500mg/kg body weight

Estimated toxic dose (10 kg dog) – Baking chocolate 2+ ounces; Sweetened milk chocolate 20 ounces.

In dogs as opposed to human, theobromine is slow to absorb (peak plasma level in 10h) and excreted (plasma t_{1/2} life = 17.5h)

Reported clinical signs:

Vomiting, diarrhea, polyuria, weakness, hyper-excitability, tremors, seizure and coma with death (untreated cases) from seizures and cardiac arrhythmias.

Should your pet accidentally ingest chocolate, contact your veterinarian immediately.

Veterinarian:

Theobromine is detected in plasma or serum samples stored @ room temperature – 7 days; refrigerated samples – 14 days; frozen samples – 4 months). Detected in serum 3-4 days post initial exposure.

Treatment: Diazepam (valium) /Pentobarbital to control seizures; Fluids for dehydration; monitor and treat arrhythmias if necessary.

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