

# CHOCOLATE POISONING

## BASICS

### OVERVIEW

- Sudden (acute) gastrointestinal, nervous system, and heart problems caused by excessive intake of chemicals (known as methylxanthine alkaloids, such as theobromine and caffeine) present in chocolate

### SIGNALMENT/DESCRIPTION OF ANIMAL

- Dogs and rarely cats
- Small dogs—may be more at risk (amount of chocolate available compared to dog's body weight)
- Puppies and young dogs—may be more likely to ingest large amounts of unusual foods

### SIGNS/OBSERVED CHANGES in the ANIMAL

Signs are seen after recent chocolate ingestion

- Vomiting and diarrhea—often the first reported signs; occur 2–4 hours after ingestion
- Early restlessness and increased activity
- Frequent urination (polyuria)—may result from diuretic action of chemicals in chocolate
- Advanced signs—stiffness; excitement; seizures

### CAUSES

- Usually some form of processed chocolate (used for baking and candies, such as milk chocolate)—contain high concentrations of theobromine and caffeine

### RISK FACTORS

- Dogs—most commonly affected because they consume large amounts of unusual foods quickly
- Chocolate—highly palatable or tasty and attractive; often readily available and unprotected in homes and kitchens, especially around the holidays when chocolate products and candies are common

## TREATMENT

### HEALTH CARE

- Describe the type of chocolate and amount of exposure to your veterinarian; take your pet to a veterinary hospital as a potential poisoning emergency
- Fluid therapy—correct electrolyte disturbances caused by vomiting, as necessary
- Control seizures
- Detoxification (if not having seizures or seizures are controlled)—your veterinarian may induce vomiting, flush the stomach with fluids (gastric lavage), and administer activated charcoal
- Control overheating (hyperthermia)
- Treat rapid heart rate (tachycardia)

### ACTIVITY

- Avoid stress and excitement as these could make nervous system signs (hyperreflexia or seizures) worse

### DIET

- Acutely affected patient—do not feed
- Recovering or convalescent patient—bland diet for several days to allow recovery from gastrointestinal problems

## MEDICATIONS

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- Induce vomiting (emesis)—*only if patient is not having seizures*—apomorphine, syrup of ipecac, or 3% hydrogen peroxide
- Flush the stomach (gastric lavage)—only before onset of vomiting and other clinical signs or vomiting has been controlled, if drugs to induce vomiting are not effective, seizures are controlled, and an endotracheal tube is in place
- Once vomiting is controlled—activated charcoal to attract and keep the remaining alkaloids in the gastrointestinal tract
- Osmotic cathartic—sodium sulfate or sorbitol 70% promotes gastrointestinal elimination of chocolate
- Hyperactivity and seizures—controlled with diazepam
- Ventricular rapid heart rate (known as “tachycardia”) in dogs—lidocaine (without epinephrine); lidocaine is not recommended in cats

- Serious abnormal heart rhythms (arrhythmias) that persist after medical treatment—metoprolol or propranolol; metoprolol preferred but may be difficult to obtain; may use oral therapy once patient is stable; monitor electrocardiogram (ECG) and watch for hypotension (a possible complication to this treatment)
- Control may be obtained with methacarbamol
- If response to diazepam inadequate—consider phenobarbital
- For refractory seizures—pentobarbital

## FOLLOW-UP CARE

### PATIENT MONITORING

- Electrocardiogram (ECG) to evaluate and monitor abnormal heart rhythms (arrhythmias)
- Watch for mild to moderate kidney disease (nephrosis) in recovering patients

### PREVENTIONS AND AVOIDANCE

- Chocolate is among the 20 most common poisonings reported in recent literature, by the National Animal Poison Control Center, and by the Hennepin County (Minneapolis) Poison Control Center
- Keep chocolate in a secure location, out of reach of pets

### POSSIBLE COMPLICATIONS

- Pregnant animal—risk for abnormal development of fetus leading to birth defects of newborns
- Nursing animals—over stimulation of nervous system in nursing newborns

### EXPECTED COURSE AND PROGNOSIS

- Expected course—12–36 hours, depending on dosage of chocolate and effectiveness of decontamination and treatment
- Successfully treated patients—usually recover completely
- Prognosis—good if oral decontamination occurs within 2–4 hours of ingestion; guarded with advanced signs of seizures and arrhythmias

### KEY POINTS

- Chocolate ingestion is hazardous to pets; if you suspect your pet has eaten chocolate, contact your veterinarian immediately
- Describe the type of chocolate and amount of exposure to your veterinarian; take your pet to a veterinary hospital as a potential poisoning emergency
- Chocolate is among the 20 most common poisonings reported in recent literature by the National Animal Poison Control Center and by the Hennepin County (Minneapolis) Poison Control Center
- Keep chocolate in a secure location, out of reach of pets
- Be especially careful around holidays when chocolate products and candies are readily available

