

Marijuana Poisoning

Basics

OVERVIEW

- Marijuana (from the *Cannabis sativa* plant) is the most common illegal drug exposure in companion animals
- The major active agent, tetrahydrocannabinol (THC), is most concentrated in the leaves and buds
- Dried plants are much more potent
- THC binds two cannabinoid receptors in the central and peripheral nervous system, resulting in clinical signs
- The THC content in marijuana can range from 0.4% to 20% depending upon the cultivation techniques so there is large variability in its potential toxicity depending on the source

GENETICS

- Not applicable

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs
- Cats

Breed Predilections

- None known

Mean Age and Range

- Younger animals more likely to eat things

Predominant Sex

- None



SIGNS/OBSERVED CHANGES IN THE PET

Historical Findings

- May or may not be observed eating the plant or products

Physical Examination Findings

- Often begin signs 1–2 hours after eating it or may begin in minutes following inhalation
- Moving with a staggering, drunken way (known as “ataxia”), incoordination, excess drooling, vomiting, glazed eyes, dilated pupils (known as “mydriasis”), depression, low body temperature (known as “hypothermia”), trembling, loss of urinary control
- Higher doses may cause low heart rate (known as “bradycardia”), low blood pressure (known as “hypotension”), and coma. Rhythmic movement of the eyes (known as “nystagmus”), vocalization, fast heart rate (known as “sinus tachycardia”), and seizures may also occur

CAUSES

- Eating or inhaling marijuana or derived products (“medibles” such as brownies or cookies)
- Police dogs may be at higher risk due to their work exposure

RISK FACTORS

- Being in a home where marijuana is used recreationally

Treatment

HEALTH CARE

- Mildly affected patients may not require intervention and can be kept in a low-stimulation, protective environment
- Treatment is focused on removing the substance if possible, and supportive care. Vomiting may be induced following recent (< 2 h) ingestion in patients not showing signs only if they have not already vomited. If signs are already present, pumping the stomach (known as “gastric lavage”) will be considered for very large intake amounts or if concentrated products (i.e. butter, foods) were taken in
- Activated charcoal may be given to help reduce absorption from the digestive tract
- Warming/cooling measures as needed
- IV (intravenous) fluid support if poor blood supply to the tissues (known as “poor perfusion” or dehydration is noted
- Oxygen will be given if respiratory depression (poor breathing)
- Eye lubrication and rotation from side to side is used for nursing care for comatose animals

DIET

- Good quality diet

SURGERY

- Not applicable

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

- Anti-vomiting, anti-nausea medicine such as maropitant as needed
- Diazepam to calm excess nervous system stimulation, anxiety, agitation as needed

Follow-Up Care

PATIENT MONITORING

- Monitor temperature, pulse rate, respiratory every 2–3 hours until normal
- Monitor blood pressure in severe cases

POSSIBLE COMPLICATIONS

- Death has occurred when dogs ingested food made with marijuana butter

EXPECTED COURSE AND PROGNOSIS

- Prognosis is excellent with appropriate care
- Signs may last up to 24 hours in mild cases and may be monitored at home
- Signs may persist for several days in severe cases where a large dose was ingested for the body size

Key Points

- Important to prevent accidental exposure by keeping products well out of access, or keeping pets confined during parties
- Pets will readily consume marijuana and products