

# How I treat Snail Bait Toxicity

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The most common snail bait toxicity in my experience is metaldehyde with very few methiocarb cases.

A range of brands and concentrations

- Most common – Blitzem 15g/kg metaldehyde (1.5%)

Horticultural product – Metarex 50g/kg metaldehyde (5%)

- Baysol 20g/kg methiocarb (2%)
- I see very little methiocarb toxicity so will confine my talk to metaldehyde.

Lethal dose of metaldehyde = 100–300mg/kg

- Using lower dose rate 20kg dog ingests 2g metaldehyde = 130g of Blitzem or 40g Metarex

Standard Blitzem pack size 500g or 1kg

## Clinical signs – in no particular order

Acetaldehyde	Diarrhea	Opisthotonus
Breath odour	Hyperthermia	Respiratory distress
Anxiety	Hyperesthesia	Respiratory failure
Incoordination	Hypersalivation	Stimuli insensitive
Collapse	Muscle fasciculations	Tachycardia
Unconsciousness	Mydriasis	Hyperventilation
Convulsions	Nausea	Muscle tremors
Cyanosis	Nystagmus, rapid eye movement	Vomiting

## Differential diagnosis

Tremorgenic mycotoxins  
 Strychnine  
 4-aminopyridine  
 Pyrethrin overdose  
 Methylxanthines (chocolate/coffee)  
 Pseudoephedrine  
 Amphetamines  
 Cocaine  
 OP/carbamates (disulfoton/methomyl)  
 Bromethalin

## Treatment

Small intake of metaldehyde and /or mild clinical signs

1. Induce vomiting with apomorphine sc injection or conjunctival sac application
2. I/V catheterisation
3. Diazepam I/V – dose given slowly to avoid excitement
4. Monitor and if no progression over the next 1-2hrs then will be fine with no more treatment

### Large intake of metaldehyde and/or more severe symptoms

1. Induce vomiting if dog still able to walk
2. Monitor body temperature and start cooling if significant hyperthermia > 40C
3. I/V catheterisation
4. Induce general anaesthesia with propofol and intubate – maintain on Isoflurane
5. Start I/V fluids, Hartmanns at twice maintenance
6. Gastric lavage with tap water 5-10mls/kg– cool if hyperthermia, warm if normothermic. Large volume until clear.
7. Activated charcoal (1-4gms/kg in 50-200ml of water) – repeat after 30 mins
8. Start propofol CRI at 0.1–0.6mg/kg/min. Run CRI separately into a second line via syringe pump or buretrol
9. Continue sedation/general anaesthesia if hyperthermia and/or severe twitching develops, don't if tremor or paddling as usually just hypothermia or recovery from anaesthesia

Owners financially restricted and dog with severe symptoms – g/a with pentobarb (diluted Pentobarb 300) lavage and activated charcoal. Or just activated charcoal.

Generally prognosis is good if you are able to treat intensively and they have not developed severe hyperthermia. Acute or delayed hepatotoxicity was an uncommon complication.

### Things to consider

Cost of treatment – Propofol CRI expensive.

- Propofol CRI 20kg dog at 0.3mg/kg/min
- 6mg/min = 360mg/hr
- Repose 10mg/ml propofol
- 36mls Repose/hr @ \$0.65/ml = \$23.40/hr COST without any markup.

Monitoring body temperature

Care with ET tube cuff inflation – tracheal necrosis.

Emesis is more effective than gastric lavage so generally only lavage if apomorphine not able to be used or ineffective.

Inhalation pneumonia with gastric lavage.

Measuring weight of activated charcoal which is very messy stuff.

Large bore stomach tube.

If passing green bait – colonic irrigation with tap water and activated charcoal enema.

### Other drugs that can be used

1. Methocarbamol (Robaxin) not available in NZ but very good for muscle fasciculations.
2. Phenobarbitone can be used but is expensive and in my hands not that effective.
3. ACP can improve the effect of diazepam.
4. Pentobarbitone no longer available except for euthanasia.

Barbituates actively compete with the liver detoxification of acetaldehyde.