



# FACT SHEET

## Indospicine toxicity in dogs



Some cases of liver disease in dogs can be traced to a toxin known as indospicine. Indospicine is found naturally in some plant species and can accumulate in the tissues of grazing animals, which may then be inadvertently fed to dogs, leading to illness or death.

### WHAT IS INDOSPICINE?

Indospicine is a naturally occurring hepatotoxin (toxin that causes liver damage) found in plant species from the genus *Indigofera*. These plants are generally high in protein and palatable to livestock.

Indospicine residues accumulate in the tissues of grazing animals such as cattle, camels and horses, and can persist in tissues for several months after exposure.

Dogs are particularly sensitive to indospicine when it is consumed in meat products from grazing animals containing this naturally acquired plant toxin.

The resultant liver damage can cause a range of clinical signs from mild illness to serious hepatic (liver) disease, leading to death.

*Indigofera* sp. are widely distributed across tropical and subtropical regions. In Australia 65 species have been recorded of which *I. linnaei* is the most prevalent across central and northern Australia and is known to contain high levels of indospicine. They are a hardy, drought resistant plant that flourishes during the wetter months in the subtropics.

### WHAT ARE THE SYMPTOMS OF INDOSPICINE TOXICITY IN DOGS?

Indospicine toxicity in dogs can present with a range of non-specific clinical signs. The severity of disease may be related to the amount of toxin consumed, the duration over which the toxin was fed (i.e. fed once or over several days/weeks) and/or other concurrent health issues that may contribute to the illness.

Clinical signs are often related to underlying liver damage from the toxin and may include:

- Loss of appetite;
- Lethargy;
- Jaundice;

- Abdominal discomfort;
- Vomiting;
- Elevated liver enzymes on a blood test.

Some cases of toxicity will cause severe liver damage resulting in death.

There is no specific treatment for indospicine toxicity which relies on generalised supportive therapies such as intravenous fluids and non-specific medications.

### IS THERE A RISK TO PEOPLE?

Pets suffering from liver disease associated with indospicine toxicity do not pose a risk to people. There are no indications of any risk to human health nor of human food safety issues associated with these cases to date.

Pet meat must comply with the Australian Standard for the Hygienic Production of Pet Meat. There are strong food safety regulatory controls to prevent pet meat entering the human food supply. Research shows that people have a relatively low susceptibility to indospicine toxicity.

### WHAT IF I SUSPECT INDOSPICINE TOXICITY IN MY GREYHOUND?

Contact your veterinarian for medical assessment and advice if your greyhound is unwell.

