hamilton
SPECIALIST REFERRALS

A MINI GUIDE TO

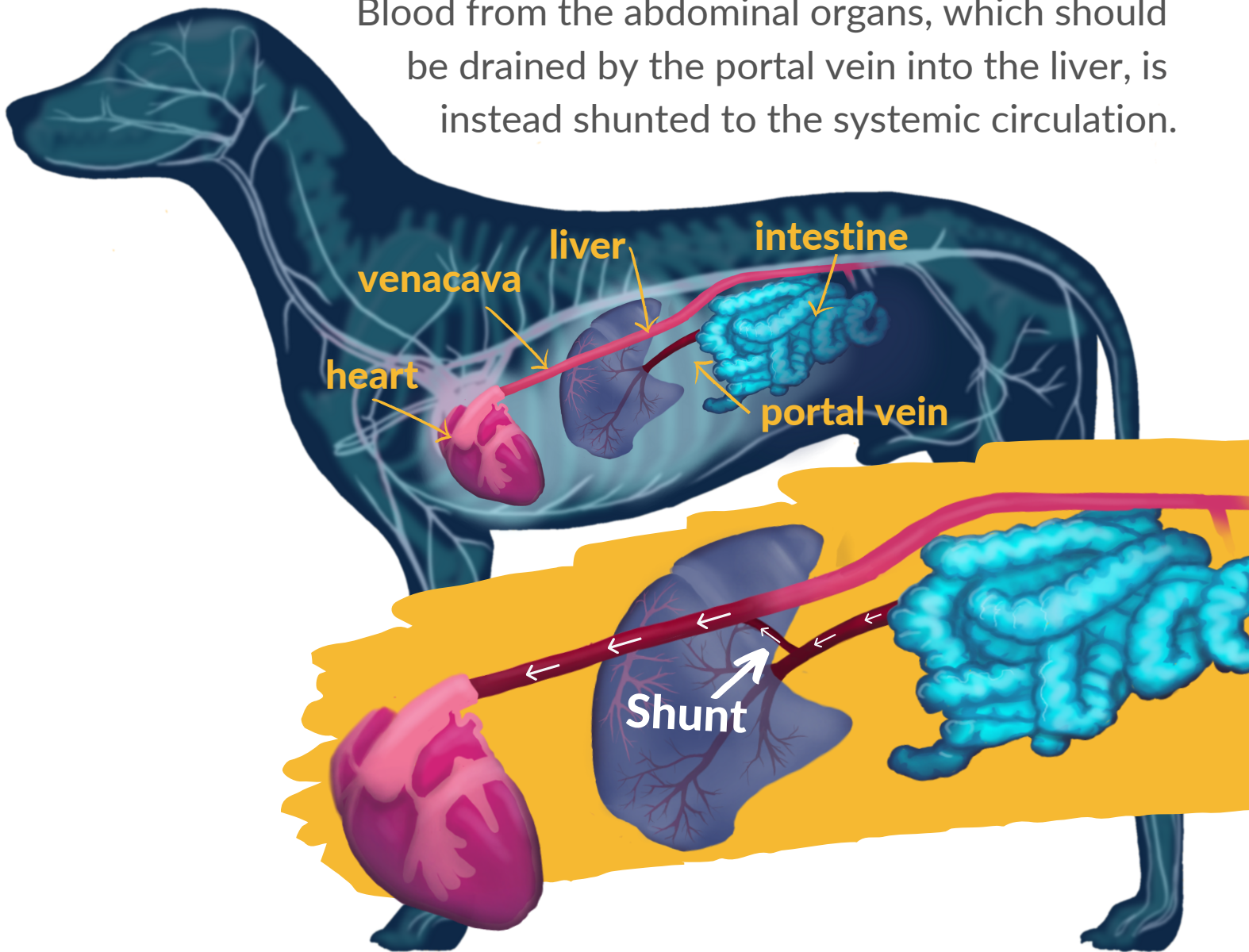# Liver Shunts

IVC EVIDENSIA
REFERRALS

soft tissue
DEPARTMENT
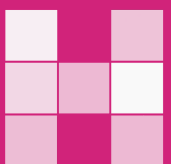
— Overview —

Portosystemic shunts (PSS) are abnormal connections between the portal vascular system and systemic circulation. Blood from the abdominal organs, which should be drained by the portal vein into the liver, is instead shunted to the systemic circulation.

venacava

liver

intestine

heart

portal vein

Shunt

This means that toxins, proteins and nutrients from the intestines, that are usually processed by the liver, are shunted directly to the heart (and around the body)
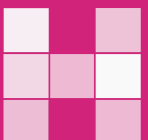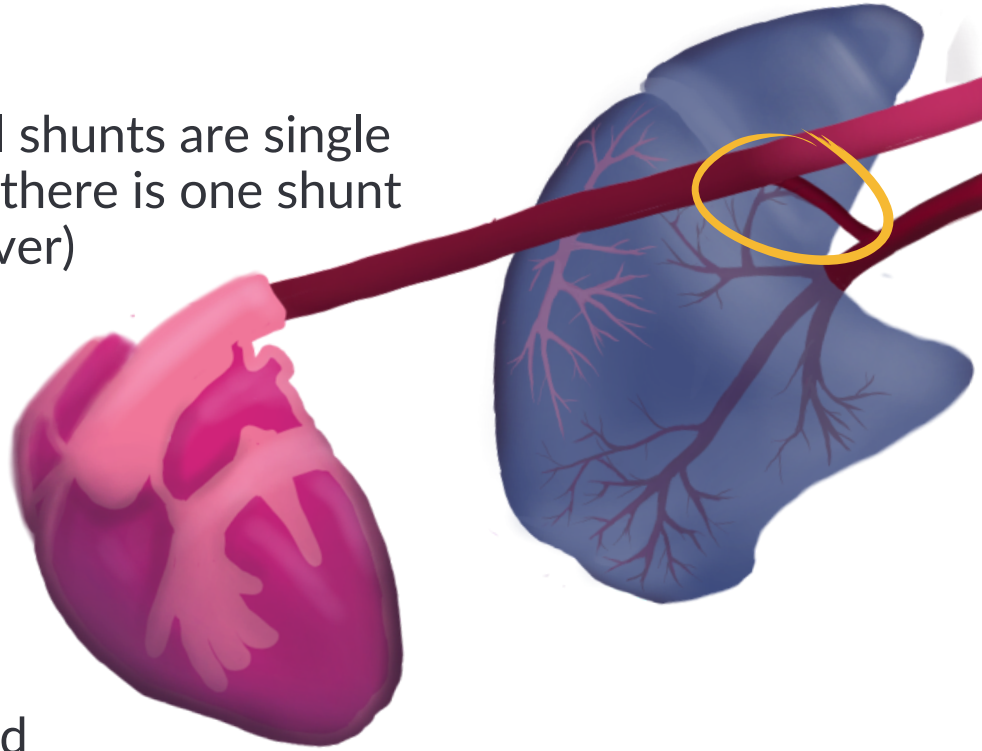
— Variations —

Congenital shunts are reported to occur in approximately 0.18% of the canine population.

66-75% of congenital shunts are single **extrahepatic shunts** (there is one shunt located outside the liver)

These are more common in small breed dogs such as:

Miniature Schnauzers
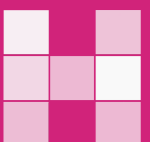
Dandie Dinmont Terriers
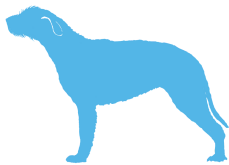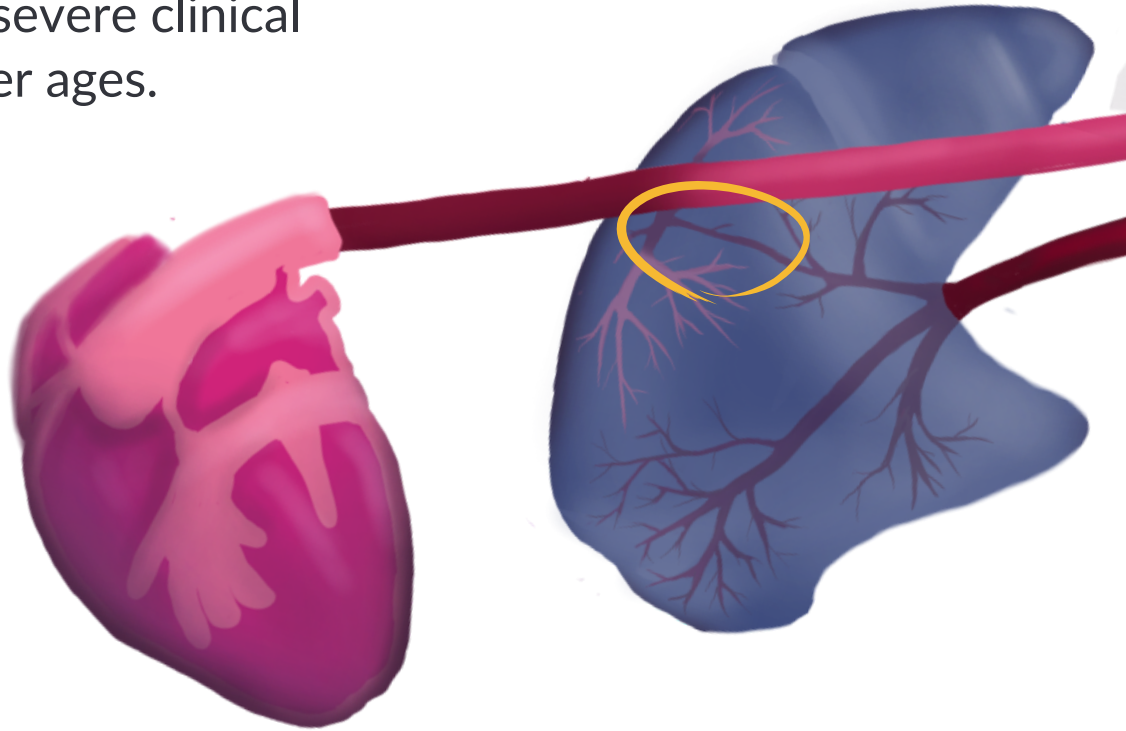
Yorkshire Terriers

Pugs

Maltese

Cairn Terriers

— Variations —

Intrahepatic shunts (where the shunt is located inside the liver) are more common in large breed dogs. These can result in more severe clinical signs at younger ages.

Irish Wolfhounds
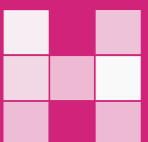
Australian Cattle Dogs

Labrador & Golden Retrievers

Australian Shepherds

Under certain circumstances, some shunts form later on in life when problems occur with the liver. These are known as **acquired shunts.**

Signs & Symptoms

Congenital signs include:

- Small body stature & stunted growth
- Behavioural abnormalities
- Long recovery from anaesthetic

Symptoms may include:

- Ataxia
- Seizures
- Circling
- Excessive drinking and/or urination
- Vomiting
- Diarrheoa

Some dogs may not show symptoms until later on in life and may begin to develop recurring cystitis due to urinary stone formation.

Certain signs may be more pronounced after eating.

Speak to your vet if you are concerned your dog may be showing these symptoms
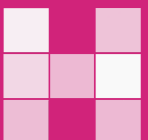
Diagnostics & Treatment

A diagnostic workup may include:

- Urinalysis
- Blood tests
- Bile Acid Test
- Specialist ultrasound
- CT scan

Medical management may involve treatment with lactulose, antibiotics and a low protein diet

Surgical management technique will depend on the nature of the shunt and the vascular development of the patient's liver