

VALE WILDLIFE HOSPITAL & REHABILITATION CENTRE

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HEDGEHOG FAECAL SMEARS

The simplest way of checking for eggs, larvae or protozoa in hedgehog faeces is to carry out a simple faecal smear examination under the microscope.

1. Collect a faecal sample from the hedgehog – make sure it is as fresh as possible, especially if taking the sample from a hedgehog housed in an outside pen as the sample can quickly become contaminated by outside elements.
2. Using a scalpel blade, take a small amount of the sample (about half the size of a match head) and place it in the centre of a clean microscope slide. Make sure that this is taken from the outer part of the faeces (the part that has been in contact with the bowel wall) and not from inside it.
3. Using a 1ml syringe and needle, drop 2 or 3 drops of slightly warmed Hartmanns or similar onto the sample on the slide. Hartmanns/saline is used in preference to tap water as it is isotonic and contains a similar concentration of minerals as is found in protozoa. Tap water can therefore damage protozoa and may prevent the detection of them under the microscope.
4. Using the scalpel blade, mix/chop the sample up a bit in the fluid and then place a new cover slip on top of the sample and press down very carefully.
5. Your sample is now ready for the microscope.

Place the prepared slide on the microscope and examine using the lowest magnification to begin with (x40 magnification on our scope).

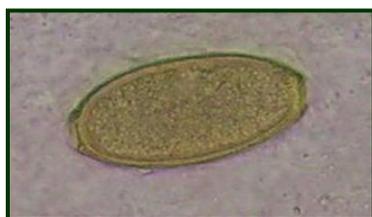
After the entire sample has been examined, turn the microscope to the next magnification (x100 on our scope) and repeat the process. This magnification should be adequate to see/detect most types of parasite.

If eggs or larvae are seen the magnification can then be increased if necessary in order to identify the object more accurately (x400).

Remember that, as eggs etc. are not always shed in every faeces, regular sampling is essential and we recommend carrying out this procedure at least weekly, ideally twice a week.

The most frequently found endoparasites in hedgehog faeces are:

Capillaria erinacei, an intestinal nematode (roundworm). Intermediate host: earthworms.



The 3 capillaria species most frequently found in hedgehogs are sometimes hard to distinguish but if you find any of these Ivomec is our recommended treatment: 3 injections, each one a week apart @ 0.25ml/kg subcutaneously.

Capillaria ovoreticulata, an intestinal nematode (roundworm). Intermediate host: earthworms.



Capillaria erinacei & *Capillaria ovoreticulata* are significantly smaller than *Capillaria aerophila* and can be found in the gut only.

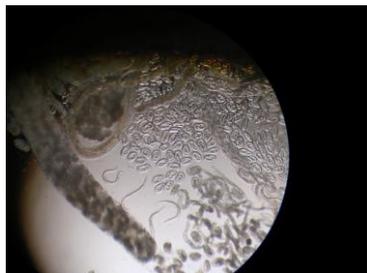
See picture in ***Brachylaemus erinacei*** which shows *Capillaria erinacei* & *Capillaria ovoreticulata* eggs and a fluke egg (the smallest one, top centre).

Capillaria aerophila, respiratory lungworm (roundworm). Intermediate host: snails or earthworms.



Can be found in the gut or respiratory organs, the largest of the 3 commonly found *Capillaria spp.*

Crenosoma striatum, lungworm larvae.



The picture on the left shows an adult lungworm, together with eggs (you can see the curled larvae inside the eggs) and hatched larvae. The picture on the right is a closer view of the eggs and larvae. Any sample that contains these will need to start our lungworm treatment regime

asap:

Marbocyl 2% @ 0.4ml/kg s/c for 7 days (Baytril can be used instead as long as our higher doses are used)

Bisolvon @ 1ml/kg s/c for 7 days

Levacide @ 0.35ml/kg s/c for 3 days

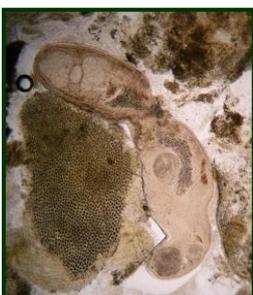
Dexadreson @ 0.5ml/kg s/c **twice** a day for 3 days

The Levacide **only** is repeated from day 13 for 3 days, remembering to recalculate the dose as the weight will probably be greater.

We now use the Levacide on any weight of hedgehog (not just over 400gms as stated in our chart).

If *Capillaria* eggs and larvae are found in the sample, Ivomec should also be given with the above on Days 1, 8 & 15.

Brachylaemus erinacei, intestinal trematode (fluke).

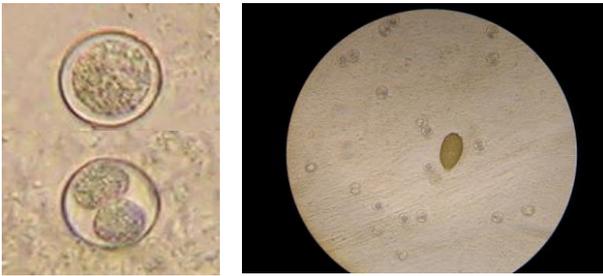


The picture on the left shows an adult fluke in a faecal sample. These can be up to 10mm long.

The picture on the right shows a fluke egg (the smallest one) together with 2 *Capillaria spp.*

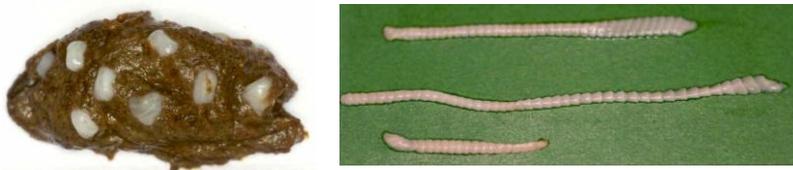
If either adult flukes or eggs are seen, treatment is with Droncit injection @ 0.25ml/kg s/c, repeated in 10 days, or Profender Spot-On (cat) @ 0.25ml/kg on the skin.

Isospora spp., Eimeria spp., coccidial protozoans



Far left top: Coccidial oocyst, unsporulated.
Far left bottom: Coccidial oocyst, sporulated.
Left: Photograph showing oocysts together with a *Capillaria* spp. (probably *Capillaria aerophila*) to give an indication of size.
Treatment is with Tribissen 24% injection @ 0.25ml/kg s/c daily for 7 days.

Hymenolepis erinacei, intestinal cestode (tapeworm).



Pictures by Dora Lambert.

Tapeworms are not something that we see very often in hedgehogs.

Treatment however would be the same as for *Brachylaemus erinacei* above.

We are happy to examine hedgehog faecal samples for you – they can be sent in the post. Please email me at caroline@valewildlife.org.uk before sending a sample for instructions on packing etc. Although we don't make a charge for doing this, if you would like to make a donation to help towards the costs, it would be greatly appreciated.

You are welcome to use any picture (apart from the last 2 tapeworm pictures) as long as you credit 'Caroline Gould, Vale Wildlife Hospital' for them.

Some of the pictures are not brilliant but we will update them as we build our stock photographs.