

VALE WILDLIFE HOSPITAL & REHABILITATION CENTRE

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**IMPORTANT – IF YOU INTEND TO SEND SAMPLES TO US FOR EXAMINATION,
PLEASE SEE THE INFORMATION AT THE END OF THIS DOCUMENT.**

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 a third of the size of a match head at most) 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, put 1 drop 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 but very firmly.
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 most scopes).

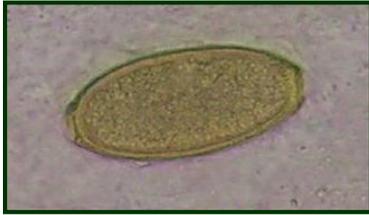
After the entire sample has been examined, turn the microscope to the next magnification (x100 on most scopes) and repeat the process. This magnification should be adequate to see/detect most types of parasite.

If eggs or larvae are seen the magnification can then be increased if necessary in order to identify the object more accurately (x400). However, we usually only need to use this magnification when identifying protozoa.

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 following pages contain photographs and information about the most commonly seen parasites found in faecal smears.

The most frequently found endoparasites in hedgehog faeces are:



The 3 *Capillaria* species most frequently found in hedgehogs are sometimes hard to distinguish but treatment is the same for all three.

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

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.

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.



***Isospora* spp., *Eimeria* spp.**, coccidial protozoans



an indication

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 of size.

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.

For treating any of the above please see our ‘Hedgehog Parasite Treatments’ document. This is available to download from our website.

IMPORTANT

We are happy to examine hedgehog faecal samples for you – they can be sent in the post. To help towards our costs and to try to cut down on unnecessary sampling, we charge a small fee of **£2.50 per sample** sent. Please enclose a cheque payable to ‘Vale Wildlife Hospital’ with the sample/s you are sending or you can pay through Paypal, email address onlinesales@valewildlife.org.uk (please try to use the option that does not incur any costs to us).

Please email me at caroline@valewildlife.org.uk to let me know that you are sending it.

You need to send a fresh, complete sample (as we need to take our slide sample from the outside of the faeces, the part that has been in contact with the bowel wall).

It should be put in a small, airtight, non-crushable sample pot, available from your vet. Royal Mail will no longer deliver samples to us that are not packed appropriately.

This should then be put in a padded envelope along with your details **including your email address.**

Send this first class to our address (make sure you pay the correct postage as it will be either a ‘large letter’ or a ‘small packet’ – it will not just be an ordinary letter stamp).

Further pictures can be seen on the ‘Help for Rehabbers’ page of our website.