



Dawson Creek Veterinary Clinic

238-116 Avenue, Dawson Creek BC, V1G 3C8
Small Animal 250-782-5616, Large Animal 250-782-1080
www.dcvet.ca

Parasites and Your Horse

Proper and effective parasite control is essential for maintaining optimal health and performance in our horses. There are two major parasites of concern, which is what we target our deworming protocols for. They are *Parascaris equorum* (round worms), and cyathostomes (small strongyles).

Some of the common problems that internal parasites can cause are general unthriftiness, a poor hair coat, a pot belly, colic and in severe cases, death. Overall, parasites can cause a horse to be more susceptible to a variety of infections, can deprive a horse of important nutrients and can damage internal organs through their migration.

There are many different types of internal parasites that can affect horses and I am going to focus on the most common ones in this area and those that cause the most significant problems.

Large Strongyles (also known as bloodworms or redworms) live in the large intestine. The adult worms lay eggs which are passed in the manure. These eggs hatch in the manure and the larvae climb up the grass where they are eating during grazing. Once in the body, the larvae can migrate through the large blood vessels that supply blood to the intestines, causing damage. In very severe cases, the damage can result in a blood vessel rupturing and the horse bleeding to death. In other cases, the blood vessels can be damaged enough that the blood supply to the large intestine is affected, leading to damage of the large intestine. This can result in signs of colic (or a belly ache).

Small Strongyles have a similar life cycle to large strongyles but they don't migrate through the blood vessels. Instead the larvae move through the walls of the intestines which causes irritation. They also have the capacity to encyst (become dormant and live in cysts of scar tissue) for several months which can make them more difficult to kill. These parasites can cause colic, diarrhea and weight loss as a result of the irritation to the walls of the intestines.

Ascarids (also known as roundworms) are very common and have an amazing capacity of laying 100 000-200 000 eggs/day. These are the long white worms that you might occasionally see in your horse's manure. Their life cycle differs slightly from that of the strongyles because the eggs that pass in the manure can live for years in the environment. The horse actually eats the eggs which then hatch into larvae in the horse's intestine. These larvae then migrate through the body, causing damage to the liver and lungs in particular. This in turn may make a horse more susceptible to pneumonia and bleeding when they are heavily exercised. The horse will cough the larvae up and then re-swallow them where they will hatch into adult egg laying machines. In severe cases, there will be enough of these adults present in the intestines that they can cause a physical blockage. These parasites generally affect young horses the most severely and cause them to be pot-bellied and unthrifty.

Bots are well known to horse owners due to the obvious nature of the flies and the eggs. Bot eggs are laid by brown flies which are bee-like in appearance. These little yellow eggs are usually laid on your horse's legs and chest and sometimes around their nose and mouth. When the horse licks at these eggs, they

ingest them. The eggs hatch into larvae which can occasionally cause sores in your horse's mouth. The larvae then spend the winter attached to the lining of your horse's stomach. When spring comes they are passed in the manure where they hatch into flies. Horses should be dewormed with a dewormer that works on bots every fall. Ideally the bot eggs can be manually removed from your horse before they lick them or an alcohol wipe can be used to dry the eggs out and kill them.

Pinworms are probably the least harmful of all but are the ones we can often blame when your horse starts rubbing his tail on the fence. These little worms live inside your horse's rectum and then pop out and lay eggs around the anus. This irritation is what makes your horse itch so much.

Tapeworms have historically been considered to be fairly uncommon and non-problematic in horses. Part of this is due to the fact that the normal fecal evaluations we do to determine if your horse has parasites, is not very good at detecting tapeworms. In recent years a better test has been developed for tapeworms and more research has been done to show that these may be more of a problem than previously believed. Tapeworm eggs live in mites that live in soil and on your horse's feed. Then the mite with the tapeworm egg or larvae is eaten by the horse. Adult tapeworms live in the opening of the large intestine where they cause irritation. Tapeworms have been found to cause colic as well.

There are many dewormers on the market and it can be quite overwhelming when trying to decide what to use and when. For a specific program for your horse or your herd, you should consult your veterinarian. Veterinarians can do a special test on your horse's manure to determine what kinds of parasite are laying eggs and they can also give an idea of how many parasites are affecting your horse by counting the eggs. They will also look at the type of horses you have and the management of these horses when recommending a specific program. Most dewormers come in liquid or paste formulas which can be given to your horse by mouth. Horses should be dewormed a minimum of 2 times a year but often will need to be done more often if they are kept in smaller paddocks or with lots of other horses. There are too many brand names of dewormers available to discuss in this article but there are relatively few active ingredients. Packages and inserts for specific dewormers will give you more detailed information.

1. Pyrantel (example: Strongid T) is an older dewormer that gets most of the common internal parasites discussed above, except bots and the larvae of small strongyles when they are in their dormant stage. It works on tapeworms when given at a higher dose.
2. Ivermectin (example: Equimax and Eqvalan) is a newer type of dewormer that was developed in the 80's. This gets most of the internal parasites except tapeworms and the small strongyles when they are in their dormant stage.
3. Moxidectin (example: Quest) is even newer but acts by the same mechanism of Ivermectin. It was developed in the 90's and can get most of the parasites other than tapeworms. This should not be used in foals that are less than four months of age. There are new dewormers on the market which contain both Praziquantel and Ivermectin or Moxidectin which work on tapeworms.
4. Fenbendazole (examples: Safe-guard and Panacur) is also an older dewormer that gets most internal parasites except bots and tapeworms.

Unfortunately, parasite resistance to the drugs available to us is starting to pop up. Originally it was identified in the United States, but more and more it is being documented in Canada. It is a scary thought -

that one day we may not have any defense against these parasites! Luckily though, there are several things we can do to help prevent resistance.

- Regular removal of feces (where possible) or harrowing
- Avoid high stocking densities (1 horse per 2 acres max)
- Pasture rotation (alternate cattle with horses annually- the parasites that affect one species cannot affect the other!)
- Graze young horses on the cleanest pastures
- Keep young horses separate from other horses
- Use a strategic deworming protocol, especially young horses
- All horses on farm should be on the same deworming protocol
- Monitor the effectiveness of your dewormer by doing a fecal egg test (best done in July/August, before Fall)

Overall, by following these simple steps and being aware of why we deworm and what dewormers we use, we can help to provide the best parasite prevention for our horses.

If you have any questions about parasites in your horse or you want recommendations on a parasite control program for your horse, please call the Dawson Creek Veterinary Clinic where we will be happy to help you.