

Diarrhea in cats (Shelter medicine)

- Caution 1: Many parasites do not routinely show up in stool samples, so don't take a negative stool sample as proof that your cat does not have worms/parasites. Some vets will take a negative stool sample and call the diarrhea "irritable bowel syndrome". Don't label cat as "irritable bowel syndrome" until after trying medications below.
- Caution 2: A cat may have more than one parasite. They may not all be apparent in the beginning, so you may need to treat with one medication after another.
- Caution 3: Healthy adult cats which have had the parasite for a long time may have built up an immunity and may be partially suppressing the symptoms, so be cautious before merging groups of cats. To verify that adult cats does not have parasites which are being well suppressed, break the poop part and verify the color/smell of the inside of the poop to confirm. If not sure, treat per below and see if anything changes. (I have seen adult cats with "good poop", but if the poop is broken in half, there is a yellow goo in the middle, like a yellow cream filling. This is suppressed coccidia, and the cat needs to be treated before being merged with other cats, otherwise she will transmit the coccidia to the other cats.)
- Caution 4: After treating each cat, continue to keep cat separate for 16 days, to ensure symptoms do not return and to ensure that new symptoms do not appear. Don't accept 10 or 13 days of no diarrhea as proof that cat is cured. For many parasites, there will be no symptoms what so ever for 13 days, and then on day 14 – whamo – terrible diarrhea. You must continue to separate and watch for 16 days.
- Caution 5: Bleach does not kill coccidia or crypto. Ammonia does. So clean with a 20% ammonia solution.
- Note about kittens: Below text and images may not apply to milk-feeding kittens. For small kittens, it is recommended to medicate with Albon for 21 days regardless of the appearance of the poop. Albon is mild, and the diarrhea that is created by coccidia can be life threatening for kittens. For most other meds, wait for solid food in order to evaluate symptoms below.

In general -

Poop should be solid, and in segments, like tootsie rolls or brown marbles (See Figures 2 and 3). Look at attached pictures of good poop. Good poop is usually brown when fresh, and will turn pale brown/tan (without yellow tint) as it dries in the kitty litter. Good poop is solid, not cake batter consistence, and not snake like form. Good poop is in segments like tootsie rolls or marbles.

If the poop comes out as long continuous segments, like snake form, as puddles, or like cake batter consistence, then it is diarrhea. If diarrhea, the color can help you determine the cause and the correct medication. Yellow diarrhea is coccidia. Brown diarrhea is either giardia (common) or whipworms (not common). Rust or orange colored diarrhea is Crypto. I've heard that green diarrhea is whipworms (but I have not had one of those yet). One parasite may mask another, so you may have to treat for coccidia first, and only then may the giardia or crypto be seen. Smell can also help you determine the cause of the diarrhea. Coccidia smells terrible, crypto smells like normal poop, and giardia can be slightly sweet like someone mixed 5% frosting into the poop.

Some antibiotics or other medications can cause temporary diarrhea. Some cat treats can cause diarrhea. Keep cats separate until you are sure. Feeding only canned cat food may temporarily suppress the parasites, since they grow more rapidly when fed dry cat food, due to carbohydrates in the dry cat food. A return to dry cat food will bring the parasites back. Oppositely, a cat which has not had enough food (lost and starving) may temporarily have solid stools since lack of food helped prevent the growth of the parasites.

Prevent cross contamination:

Keep all litter pans and scoopers separate. Don't use the same scooper to scoop multiple litter pans. (Keep separate scoopers in plastic bags with cats name when not in use, to prevent contamination.) Unless you are sure that all cats are parasite free, don't let cats use the same litter pan. If a group of cats develops diarrhea, separate the cats and medicate individually. If you are medicating multiple cats, your fingers may transmit the parasites also, and washing your hands between pilling will not prevent transmission (the parasite can stay under your fingernails.) So if you are pilling cats, either use gloves and change between each cat, or use a different finger to pill each cat. Also wash frequently with a soap solution that includes 20% ammonia.

Prevent cross contamination while treating cats:

If you are treating multiple cats or multiple litters, know that you can expose them to cross contamination. Cross contamination for multiple kittens in a litter is OK, but contamination between litters or between cats will include new parasites. For example, if you are giving Albon to a litter of kittens, you can use the same syringe for all kittens in the litter. However, if you are medicating one litter with Panacur for giardia and another litter with Albon for coccidia, you can not use the same syringe for all, because you will expose each litter to the other's parasites, thus creating more problems.

Coccidia –

Symptoms: Cats have diarrhea that tends to become mustard color, tan, grey or yellow-ish (the color of spice brown mustard, see Figures 4 and 5), and strong smell like "something died in there". (In contrast, Giardia is diarrhea but normal brown and normal smell.) May include blood or mucus in the stools. Coccidia is extremely common for cats or kittens which have been outside (estimate 80% of cats coming from outside have coccidia). Adult cats which have strong immune systems and have had it for a long time may have solid or semi-solid stools, but if you break it apart you see the yellow/tan color, and if you smell it there is the classic coccidia smell. Ingested from soil or infected stool. Must treat from all animals that share a litter box at the same time or they will re-infect each other. Bleach does not kill coccidia, so clean floors and kitty litter pans with ammonia (mix 10% ammonia with 90% water in a spray bottle. Caution – never mix Ammonia and bleach, they are a toxic combination.) Or use steam cleaner. Coccidia is very hard to kill off, so treat, re-treat, replace cat litter, clean, re-treat, then wait 21 days to verify symptoms totally eliminated before showing animal for adoption. Coccidia has a 10 to 14 day incubation period meaning it takes up to 16 days for symptoms to show up after being infected.

Treatment Option = prescription Albon (Sulfadimethoxine) once a day for 21 days. (Available for fosters from FHS.) Albon doesn't kill the parasite, instead it works by not allowing the coccidia to reproduce, so takes at least 10 days to see any improvement, and must given every day for full 21 days to eliminate the parasite. If you miss a day, the coccidia is reproducing that day, so start over again and treat for 21 days. Albon has been around a while, so some coccidia is now resistant. About 40% of cats are not cured with standard dose of Albon, in which case re-treat for 21 days with double dose of Albon. Consider starting with double dose if cat has very runny diarrhea (like milk shake consistency) because with severe diarrhea the medication is not in the body for long enough to work, so the cat may need higher dose. Standard dose: Liquid dosage for cats: For the 5% liquid suspension, first day give 1.0 cc for every 2 lbs of cat, and for next 20 days give 0.5 cc's for every 2lbs of cat. So a average 10 lb cat gets 5.0ml's on the first day, and 2.5ml every day for 20 more days. Pill dosage for cats: First dose only: first day is 25 mg/lb of animal body weight. Next 20 days dose is 12.5 mg/lb of animal body weight for 20 days. Pills come in 125 mg or 250 mgs. So for an average 10 lb cat first dose is either two 125 mg tablets or one 250mg tablet. Subsequent doses are either one 125 mg tablet per day or a half of a 250mg tablet per day for 20 more days.

Treatment Options: Also Baycox and Marquis Paste.

Giardia –

Symptoms: Cats have diarrhea that tends remains normal brown color (is not yellow-ish) and has mostly normal poop smell. Giardia can have slightly sweet smell, like someone mixed 5% frosting into poop. Figure 6. Giardia is very common for cats or kittens which have been outside (estimate 40% of cats coming from outside have giardia). Some cats have it and have no symptoms, but it will often flare up if they are under stress or after surgery or injury or other event that lowers their immune system. Ingested from contaminated water or infected stool.

Treatment Option = Metronidazole (available as non-prescription Fish Zole, or as prescription "Flagyl"). For Giardia, the dosage is 6 mg/lb, twice a day for 7 days. For an average 10 lb cat, that is 62 mg twice a day. Since it is a 250 mg tablets, that is ¼ tablet twice a day for average 10 lb cat, twice a day. More or less for larger or smaller cats. Do not give to pregnant or lactating animals. The medication causes mild diarrhea, so don't discontinue thinking that it is not working. Instead continue the medication for 7 days as required, then discontinue and monitor to see if the diarrhea has been eliminated. Metronidazole is also a mild anti-inflammatory effect in the large intestines, so may be used to treat inflammatory bowel disease. Can cause temporary neurological effects (weaving while walking) etc while taking the meds if taken too long or a too high of a dose, so do not use higher dose or longer than needed. (For Giardia, Metronidazole can be given at double dose once a day instead.) Do not exceed 23mg/lb per 24-hr period.

Treatment Option - prescription Panacur (fenbendazole) once a day for 5 days. (Available for fosters from FHS.) (I personally have not had good success with Panacur. Metronidazole is more effective. Panacur is mild, so maybe better choice for small kittens.) If suspension (liquid) then always SHAKE WELL and give 1 cc for every 5lbs cat. So 10 lb cat would get 2 cc's, and small kitten would get 0.5 cc. If powder use 25 mg for every 1 lb cat once a day and repeat dosage for 3 to 5 days in a row. (Makes the poop turn pale grey, which can look like coccidia, so ignore the color while treating with Panacur, and then check again when done.) (Less than \$1 per cat. Name brand Panacur (prescription) or "Safe-Guard for Goats" (same ingredients without a prescription) for \$124 for 1000ml, which will treat 100 cats. Or "Fish Bendazole" without a prescription for 12 grams for \$2.50, which is enough to treat 4 cats.)

Cryptosporidiosis (commonly called "Crypto"):

Symptoms: Not common. (Estimate 20% of cats coming from outside have crypto.) Commonly appears as rust or orange colored diarrhea (in comparison, Giardia is brown, and coccidia is yellow or tan). Normal poop smell. See Figures 7 and 8. May also have blood or mucus in their stools, may lose weight, or may lose their appetite. Occasional vomiting (which will appear orange, pink or pale red in color) may occur, especially in the beginning. Adult cats which have strong immune systems and have had it for a long time may have semi-solid stools, but if you break it apart you see the rust/orange color of crypto. Ingested from contaminated water or infected stool, and is transmitted in poop and saliva, so is contagious for cats that share the same kitty litter, water bowl or food bowl. Treatment takes 30 days, and you won't see any improvement for at least 10 days, so must be persistent. (Some recommendation says that clindamycin works, but some studies show it does not.) Treat for 30 days, and then keep cats separate for another 14 days after that to ensure that it does not return. Extremely contagious – cats which share food bowls, water bowls, or cat litter will infect each other, so keep cats separate. Bleach does not kill Crypto, so clean with ammonia. Cats will continue to excrete eggs (cysts) for the first 5 to 10 days of medication, so remove cat from cage and sanitize with 40% ammonia solution on days 5, 7 and 10, to stop the cycle of reinfection.

Treatment option: Tylosin for 30 days. Buy Size #4 capsules (small) and fill with Tylosin. Give 1 to 4 capsules every 12 hours for 30 days. (Suggested dose = 1 capsule for cats 8lbs and less, 2 capsules for cats 8 to 12 lbs, 3 capsules for cats 12 to 16 lbs and 4 capsules for cats 16 lbs and over.) Treat all cats that share the same kitty litter box, food bowls or water bowls, even if the others don't have symptoms yet. Stools will go from rust colored diarrhea, to brown diarrhea, to solid, over a 4 week period. Continue treatment for 30 days even if improved. (Tylosin work on only about 70% of the cats, but has fewer side effects than Azithromycin, so good first choice to try.) If you don't see improvement in 7 to 10 days, then increase dosage and start over on 30 days of treatment. Cats with severe diarrhea may need higher dose so that some remains in their body to work. Toxic dose is 100 times recommended dose, so very well tolerated – don't have to worry about giving too much. Tylosin powder can be purchased on Amazon – it also used for birds and chickens, so readily available. Tastes terrible, so you must give as capsule – they will not accept it sprinkled on food. For cats which are difficult to cure – try increasing dosage, try same dosage for 60 days instead of 30 days, or try Azithromycin.

Treatment option Prescription Azithromycin at 10 to 15 mg/kg or 4.5 to 7 mg/lb every 12 hours for 30 days. Treat all cats that have shared the same kitty litter box, food bowls or water bowls, even if the others don't have symptoms yet. (Also available as non-prescription Fish-Zith or fish-Zithromax, labeled for fish tanks, from www.aquaticpharmacy.com.) (\$2.50 a pill, or less than a dollar per daily cat dose.) Side effects include nausea, not eating, vomiting. A dosage that is too high will cause vomiting or the cat will stop eating, so do not exceed

recommended dose, and reduce dose if cats vomits or is not eating. Not tolerated by all cats, and in general the Tylosin is better tolerated. (7mg/lb is equal to approx 1/3 of a pill for 250mg pills for 8 to 12 lb cat, and ½ a pill for 15 to 20 lb cats. For cats which are especially sensitive and are having nausea and not eating, try ¼ of a pill.) Caution – watch cats closely to ensure they are eating, and give small portions so you can verify they are eating every day. If cat stops eating, discontinue Azithromycin immediately. If cats don't eat for more than 2 or 3 days, their liver can shut down causing other life threatening problems. Therefore, don't treat a group of free feeding cats with Azithromycin since you can't verify which cats are eating and which are not. Cats must be separated in cages during treatment to allow you to verify they are eating every day. Too much Azithromycin can be life threatening. This is a serious medication. For cats which are difficult to cure – try same dosage for 60 days instead of 30 days.

Tape worms.

Symptoms: What looks like little grains of rice in poop or on blankets where the sleep. Other symptoms are dragging or rubbing the anus on the ground, and visible tapeworm segments on the feces. Other symptoms: seems hungry a lot, eats a lot but never gains weight, large bloated belly, frequent urination, diarrhea, frequent licking of genitals, persistent cough, coughing up a white glob instead of a hairball. Tapeworms come from fleas, so any cat that was exposed to fleas may have tape worms. Cats that go outdoors can also pick up tape worms by eating rodents, or squirrels, etc. Ingested by eating fleas. Commonly does not show up in fecal tests. (Worms live in lower intestines.)

Treatment option: prescription Cestex (Epsiprantel). (Available for fosters from FHS.) Prescription medication effective at killing tape worms in cats and kittens over 7 weeks. The usual dose for cats is 1.25mg/pound given as a single dose.

Treatment Options: prescription Droncit, non-prescription Drontal, prescription Profender, or non-prescription Praziquante such as "Fish tapes" or "Trade Winds".

Whipworms

Symptoms: Loose stools with mucus or blood in them, stools with green tint, and diarrhea (often with acrid smell). Can result in anemia or retarded growth. Whipworms are not very common. Ingested from contaminated soil, or from nursing from infected mom. (Worms live in lower intestines, so stools can have swirls of blood.) Difficult to eliminate because the diarrhea reduces how well the cat absorbs the medication. Whipworms can also be resistant to medications, so treat with a different medication if no relief with the first medication. Whipworm med kills the adults but not the eggs, so must retreat once a month for 3 months. (Treatment must continue for full 3 months period, because eggs take 90 days to hatch and grow.) Almost never shows up in stool test because test only looks for eggs, but adults take 90 days to mature to the point of laying eggs, so will only show up in the stool sample if the cats has had whip worms for 3 months or more ! WARNING: medication kills the adults only and not the eggs or larvae, and whipworms take about 3 months to grow from egg to worm, so MUST repeat meds for 3 months.

Treatment - prescription Panacur (fenbendazole) once a day for 5 days. (Available for fosters from FHS.) If suspension (liquid) then always SHAKE WELL and give 1 cc for every 5lbs cat. So 10 lb cat would get 2 cc's, and small kitten would get 0.5 cc. If powder use 25 mg for every 1 lb cat once a day and repeat dosage for 3 to 5 days in a row. For kittens 2 weeks old or older. Whipworm med kills the adults but not the eggs, so must retreat once a month (for 5 days each) for 3 months. (Makes the poop turn pale grey, which can look like coccidia, so ignore the color while treating with Panacur, and then check again when done.) (Less than \$1 per cat. Name brand Panacur (prescription) or "Safe-Guard for Goats" (same ingredients without a prescription) for \$124 for 1000ml, which will treat 100 cats. Or "Fish Bendazole" without a prescription for 12 grams for \$2.50, which is enough to treat 4 cats.)

Others:

Hookworms and round worms are also common in cats, but don't show up as diarrhea. Give Strongid twice, 21 days apart. Or Revolution once.



Figure 1 – “type 1” and “Type 2” (maybe) are normal poop. All others are forms of diarrhea. Notice that snake shape is diarrhea. Consistency of cake batter is diarrhea. More than just Type 7.



Figure 2 - Good poop. Solid, segments. Fresh poop often starts brown, and then becomes more pale (pale brown) as it dries.



Figure 3 - Good poop. Solid, segments. Fresh poop often starts brown, and then becomes more pale (pale brown) as it dries. Color in pictures may not be perfect, since a lot of indoor lighting changes the color of images. This poop is starting to dry and is becoming more pale brown, almost tan, but does not have yellow color to it.



Figure 4 - Classic coccidia. Notice the yellow tint and lack of form. Very runny. Coccidia is very common for cats that have ever been outside. Smells terrible also. People often describe the smell as “something died in there”.



Figure 5 - Coccidia maybe semi formed, if cat is developing immunity to the parasites. Yellow color, snake like shape, and terrible smell are the clues that it is coccidia.



Figure 6 - Giardia is brown, but snake like. Cake batter consistency. And either normal poop smell or slightly sweet smell.



Figure 7 - Crypto. Crypto may be semi-formed (like above) or snake like shape. Or runny like coccidia. This cat had semi formed stools, but when broken parts we see the orange color of Crypto. After 30 days of treatment the stools were brown and solid. (Notice in the above Crypto picture, the stool appears well formed segments, and we had to break appear to see the orange/rust color. So this cat had the parasite for a long time, and had built up immunity, but still would have spread to other cats if allowed to share litter box. Result would have been other cats would have developed snake like orange diarrhea.)



Figure 8 - Crypto. Crypto may be semi-formed (like above) or snake like shape. This poop was almost normal brown on the outside, but suspiciously snake shaped instead of segmented like tootsie roll. When I opened it, it had the classic rust color that is associated with Crypto. Compare color to Figure 4 (coccidia). Figure 4 is more yellow and Figures 7 and 8 (crypto) are more rust color.