## Detoxification

By Dr. Karen Becker

Hi, this is Dr. Karen Becker. It's actually mind boggling to think about all the different ways our pets are exposed to toxins and chemicals in today's world. There's radiation, environmental pesticides, lawn and home chemicals, electromagnetic fields (EMFs), flame retardants, bisphenol A or BPA, hydrocarbons, heavy metals. And then there are animal hormones and antibiotic residues found in pet foods or the meats that pet foods are made from.

Pets are also exposed through a lot of toxic preservatives in pet foods, and actually mycotoxins that are found in grains that are put into kibble are highly toxic for anything that eats them. And of course, there are a lot of allergenic ingredients that often go into pet foods as well.

Unfiltered drinking water provides a source of toxins when it comes to fluoride and chlorine, and as well as other heavy metals that could be present in unfiltered drinking water. And then there are the chemicals in flea and tick preventives, plus vaccines and dewormers and other drugs that are routinely prescribed by veterinarians such as antibiotics and steroids.

If you're wondering if your own pet is carrying a toxin load, sadly, there's no doubt that he is. The truth is that virtually every pet has measurable amounts of chemicals in their bodies, because they walk through them, they sleep on them, they breathe them, they drink them, they eat them, and then veterinarians prescribe them, and we also inject them into pets.

## **Effects of Toxins on Pets**

When your pet's body accumulates too many toxins, it stores them for future elimination. But for many pets, that future opportunity never arrives to actually detoxify and the toxic load begins to build up in your pet's body and can impede the functioning of vital organ systems. Ultimately, toxic overload can interfere with the immune system to the point where cellular abnormalities like tumors and cysts can develop. Other serious diseases may also show up as cells degrade and organ function is impaired.

Side effects of an accumulating toxin load over time actually have a lot of different symptoms, from skin and organ conditions, to behavior problems, to endocrine disease, as well as autoimmune disease, and even many forms of cancer. Your pet's body possesses its own detoxification mechanisms. However, how well they work really depends on the animal's toxin load, his or her age, overall health status, as well as recurrent toxic insults that might occur, and its overall vitality or genetics.

## 10 Ways to Assist Detoxification

Your pet's ability to actually clear accumulated toxins is based on the overall functioning of detoxification pathways or mechanisms. If those pathways aren't working as they should, detoxification systems become stressed or completely overwhelmed. Here are 10 ways that you can absolutely assist your pet's detoxification mechanisms to help function optimally:

1. Really evaluate the quality of your pet's diet. This is one of the very best things you can do to improve the overall well-being and longevity of your pet. If you're feeding a processed diet, which means a kibble (in most, kibble is extruded) or dry food, your pet is actually getting a dose of chemical

additives and carcinogenic byproducts like heterocyclic amines and acrylamides with every bite. I recommend that you switch to a clean, balanced fresh food diet.

I also recommend that you rotate protein sources and strictly limit or eliminate grains in the diet. Remember that "grain-free" kibble has just as many synthetic nutrients and usually a higher glycemic index than regular kibble, so pets eating grain-free food are really no further ahead when it comes to dietary stress.

2. Provide clean, pure, high-quality drinking water. Your pet's drinking water shouldn't contain fluoride, chlorine, heavy metals or other contaminants. Sadly if you're offering household tap water, it probably contains enough toxic minerals, metals, chemicals, and other unhealthy substances to damage you and your pet's health long term. So do something to filter your pet's water and the water that you're consuming as well.

3. Improve your pet's indoor air quality. Forbid smoking in your home, and use only non-toxic cleaning products. Consider investing in an air purifier to control dust mites and other off gases that could be occurring from your furniture.

Avoid polluting your pet's indoor air quality with perfumes, air fresheners, and scented plug-ins or dryer sheets. These products are heavily laden with chemicals and are known to cause or worsen respiratory conditions like asthma in both people and pets.

Toxins in the air also come from the off-gassing of chemicals from new synthetic household items like flooring, carpeting, furniture, and drapes, but also pet beds. Unless you are providing an organic chemical-free pet bed that specifically says that it's all natural fibers and it hasn't been treated, you should assume that it has been treated with flame retardants.

4. Make sure that your pet gets regular exercise. Regular exercise provides your pet with countless benefits, including helping the body's detoxification efforts. Physical movement promotes regular elimination, which helps move waste from the body in the form of urine and feces. Exercise also stimulates blood circulation and the lymphatic system, so toxins are moved efficiently to the liver and kidneys for processing. Physical activity also improves respiration and helps your pet eliminate mucus from the respiratory tract.

5. Minimize exposure to outdoor pollutants and chemicals. Try to keep your pet away from outdoor areas with heavily laden pesticides, herbicides, or fertilizers. If your dog likes to eat grass or other outdoor greenery, make sure that she's not grazing where chemicals have been sprayed. If your dog is really craving grass or greenery, provide salads – I recommend organic sunflower sprouts – in her diet to help reduce the desire to want to forage outside if you can't get away from outdoor chemicals.

If you have an indoor cat, you can consider growing wheat grass to satisfy your kitty's need to nibble as well. So providing something in their diet to meet what they need versus having them forage outside could be beneficial depending on your chemical load.

If you're not sure what your pet may have been exposed to or you suspect something outside is causing skin irritation, then do the commonsense thing and just rinse your pet off. You can do a simple foot soak with your dog when you bring her in from outside. So if you're walking in public parks where you know

that there have been chemicals applied, then you just doing a very basic foot rinse or foot soak when you get home can do a dramatic job at reducing the overall chemical burden for dogs that have exposure outside.

6. Keep veterinary drugs, including unnecessary vaccines, to an absolute minimum. Don't subject your pet to unnecessary yearly re-vaccinations or unnecessary drugs of any kind, including the two most overprescribed drugs in veterinary medicine, antibiotics and steroids.

Vets oftentimes send clients home with these two options because they don't know what else to do, because we weren't taught in vet school actually how to address the root cause of disease. So they're giving you medications to try and pacify the symptoms. Most veterinarians aren't trained with the whole variety of other alternative means of treating animals, so they don't have enough tools in their tool box to be able to help you effectively long term. So you get on this crazy cycle of antibiotics and steroids and antibiotics and steroids, especially for itchy dogs or dogs that have recurrent skin issues.

My recommendation is that you only accept antibiotics if your veterinarian can demonstrate that they are the correct choice for the correctly identified bacteria that's dramatically reducing your pet's overall quality of life. I don't recommend that you allow your veterinarian to guess at what antibiotic may or may not work. It's just poor medicine and a bad idea.

I also recommend that you don't accept annual deworming "just because." If your dog or cat has been identified with specific parasites, your vet may recommend a dewormer, obviously. But automatically providing chemicals either once a month via a heartworm prevention, that may be unnecessary. Or twice a year if your vet says "Oh, just use a general dewormer." Those are great ways that you can just say no, reduce your pet's chemical burden to what's absolutely necessary and improve their overall detoxification mechanisms.

Use chemical pest and parasite preventives only when absolutely necessary, and for the minimum amount of time necessary to protect your pet. You can absolutely find all sorts of great safe and natural alternatives to monthly chemical preventives. Very few areas in the U.S. actually have flea and tick or heartworm problems year round. You can ask your veterinarian or do research yourself and learn what the minimum number of dose is needed to effectively protect your dog during heartworm season.

7. Brush and bathe your pet regularly. Your cat or dog eliminates toxins through his skin, and regularly brushing or combing will remove loose fur and debris, as well as help his or her skin breathe via exfoliation. Brushing also helps remove toxic residues from your pet's coat, which means he won't be licking them off when he grooms.

Don't hesitate to bathe your dog regularly, especially if there is chemical exposure or they have irritated skin. Bathing washes away allergens and environmental toxins, along with any chemical exposure or foreign molecules that may have been accumulating on your dog with those outdoor walks. Make sure, obviously, that you're using an all-natural, non-toxic shampoo and conditioner specifically designed for pets.

8. Support your pet's liver function. The liver is the primary organ of pet detoxification. There are many herbs that assist liver function and detoxification, including burdock root, dandelion root, licorice, Oregon grape root, yellow dock and milk thistle. Milk thistle actually not only helps detoxify the liver,

but it's actually been proven to help stimulate cellular regeneration of the liver, which also can help the liver regrow. Another vital liver detoxifier you can consider is SAMe (S-adenosylmethionine).

9. Support your pet's kidneys. Make sure your pet is getting plenty of clean pure water each day – both in her diet as well as at the water bowl. Toxins that travel through the kidneys can become highly concentrated in chronically dehydrated pets, and can damage the tiny structures in the kidneys that allow the kidneys to adequately filter. Also, mineral particles can congeal when the urine is highly concentrated, which means when pets aren't getting enough water, which can result in crystals or stones that can cause blockages, irritation, or urinary tract infection. Herbs that help support kidney detoxification include cranberry, corn silk and marshmallow.

10. Support your pet's lymphatic and immune system. The lymph and immune systems are also toxin-removal systems in your pet's body. Red clover and cleavers help your pet's lymphatic system to remove toxins from the tissues of the body. Garlic and turmeric (or curcumin) help support the immune function of your pet. Chlorella is also a great super green food that detoxifies both of these organ systems.

The goal of natural detoxification agents is to support and promote healthy functioning of your pet's toxin-removal systems, including the liver, kidneys, lymphatic system and the immune system. I recommend that you talk with your holistic veterinarian about what detoxifiers are appropriate for your pet's individual needs, and in what doses.

## **Other Recommendations**

Some additional detoxifiers that many holistic veterinarians may recommend to you include Phosphatidylserine, which is critical for a detoxification process known as methylation. Pets' bodies are wired with very potent hormones, such as adrenaline and cortisol. When needed for emergencies, these hormones are critical but as soon as the emergency is done, these hormones can be very damaging if they stay in your pet's system for a long period of time. The faster that your pet's body can get rid of these hormones once they're no longer needed, the less damage that's going to happen. This process of getting rid of hormones is called methylation. And that's something that may be needed if your pet is high-strung or stressed.

Resveratrol is the active ingredient in the plant known as Japanese knotweed. Resveratrol actually reduces liver enzyme elevations by reducing lipid peroxidation in the liver. It helps the liver clean house by flushing accumulations of fat so that this organ can function optimally. The catechins found in green tea also dramatically modify cancer-causing molecules that damage cellular DNA. Inactivation and excretion of carcinogens is a big part of keeping your pet's body cancer-free for a lifetime.

Green tea extract – obviously it's decaffeinated – can be very beneficial for your pets. Superoxide dismutase, which is also called SOD, is a potent enzyme responsible for the removal of free radicals from your pet's body, which helps your pet's lymphatic system to work optimally.

Unfortunately, toxins are almost unavoidable for our pets, but at least we have a means of helping them cope. If your pet is regularly exposed to toxins – such as monthly heartworm, flea, and tick preventives – I recommend you provide your pet with a week of detoxification after those chemicals are fed or applied. If your pet has seasonal exposure to toxins, say, in the warmer months of the year, your housing complex routinely sprays the lawns, then offering seasonal detoxification makes sense. Maybe

you would provide something for your pet a week or 10 days after the chemicals have been sprayed, you would monthly provide detoxification for your dog if he's out in that environment.

If your pet has had an acute episode of a toxic exposure — perhaps she ate a toxic plant or recently has undergone antibiotic therapy or steroid therapy — then I recommend a focused, short-term detoxification protocol. Most importantly, I think we all need to recognize that almost all of our pets benefit from a thoughtful detox program, depending on their age, lifestyle, diet, and chemical exposure. Talk with your integrative veterinarian about what type of protocol, the dose and the duration is best for your pet.

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