Revealed – The Root Reason So Many Pets Today Are Sick

No wonder so many pets struggle with health issues these days. This brew of chemically altered proteins disrupts the natural balance their body tries to maintain, making it difficult to digest, process, and assimilate nutrients — and leads to at least 16 other vexing conditions.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Your pet's gastrointestinal (GI) health depends on a healthy balance of gut bacteria
- An imbalance of gut bacteria can lead to dysbiosis, also called leaky gut syndrome, which in turn can lead to a long list of GI and other disorders
- The primary cause of dysbiosis in dogs and cats is overuse of antibiotics. Other contributors include a processed diet, parasitic infections, and vaccines
- Healing your pet's leaky gut involves addressing the diet and providing appropriate supplements
- Probiotics play a crucial role in both preventing and treating leaky gut syndrome and antibiotic-associated gastrointestinal side effects

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Thanks to a growing body of research into gastrointestinal (GI) disease in dogs and cats (and humans), there's no longer any question that GI health depends on a balance of good-to-bad gut bacteria. There's also no longer any question that gut health is crucial to overall health.

The microbiota (living microorganisms) in your pet's digestive system consist of bacteria, fungi, viruses, and protozoa, and there are an estimated 100 trillion of these microbial cells. They have an enormous influence on the health of your dog or cat.

The right balance of intestinal microbiota is necessary to regulate the immune system, defend against opportunistic pathogens, and provide nutritional benefits.

When an imbalance exists, meaning there are inadequate supplies of good bacteria, plus an overgrowth of bad bacteria and sometimes yeast, it can lead to dysbiosis (leaky gut syndrome) and a long list of GI disorders and other, often seemingly unrelated diseases.

How Digestion Works and What Happens When It Doesn't

Food digestion begins in your pet's mouth as she chews. When the food reaches her stomach, it mixes with hydrochloric acid and gastric juices. This mixture then travels to the small intestine where the pancreas secretes enzymes and the gallbladder secretes bile to further assist digestion.

The chemical digestive process continues in the small intestine, where bacterial degradation takes place. Once the food is sufficiently broken down, the membranes of the intestinal mucosa absorb the smaller, simpler nutrients.

The remaining food is either further digested and absorbed, or moves into the large intestine where it's ultimately passed out of your pet's body as feces.

In order for this complex process to take place, the environment of your dog's or cat's GI tract must be healthy and fully functioning. The entire length of a healthy digestive tract is coated with just the right balance of bacteria to protect against foreign invaders, undigested food particles, toxins and parasites.

However, if the gut bacterial balance gets thrown out of whack, the environment of the GI tract becomes unstable, which alters the process of digestion. The intestinal mucosa becomes inflamed and permeable, and begins to leak large, partially digested substances from food particles into the bloodstream.

These large complex substances are antigenic and allergenic, meaning they stimulate the immune system to produce antibodies against them. This is what sets the stage for leaky gut syndrome.

Causes of Leaky Gut Syndrome

The most common cause of dysbiosis in veterinary medicine is the overuse of antibiotics. Antibiotics kill both good and bad bacteria, which upsets the healthy ratio of good-to-bad microorganisms and depletes the supply of friendly bacteria that keep the GI immune defenses strong and resilient.

Too many pets are given antibiotics these days, often at a very young age. These are either topical or oral antibiotics prescribed for minor conditions that can often be treated with natural substances.

To make matters worse, additional medications like corticosteroids such as prednisone or NSAIDs (non-steroidal anti-inflammatory drugs) are administered along with antibiotics. These drugs exacerbate the gut problems created by the antibiotics.

Many of these same pets are also fed highly processed commercial diets containing a long list of preservatives and additives. The simple meat proteins in most of these diets have been altered by the extreme processing that pet food undergoes. They are usually combined with plant proteins and grains.

The resulting mix is a brew of chemically altered proteins that are very difficult to digest, process, and assimilate.

Combine a poor diet with environmental stressors such as poor water quality and excessive chemical and drug exposure, and we've set the stage for many of the diseases we see in pets today.

Additional contributors to a leaky gut include ingestion of toxins, parasitic infections, vaccines (they stimulate gut-associated lymphoid tissue or GALT), and stress.

Leaky Gut Symptoms

The classic GI-related symptoms in pets with a leaky gut are gas, bloating, and diarrhea. But it's important to understand that dysbiosis can also cause or exacerbate a wide variety of other symptoms and conditions, many of which may appear to have nothing to do with digestion. These include:

- Hyperactivity
- Certain types of cancer
- Immune system disorders; autoimmune disease
- Liver, gallbladder and pancreatic disorders
- Behavioral abnormalities
- Bladder inflammation (cystitis)
- Joint pain
- Heart disease
- Nutritional deficiencies
- Dry eyes
- Respiratory difficulties, including asthma
- Weight fluctuations
- Seizure disorders
- Gum disease
- Allergies
- Bad breath

Resolving Your Pet's Leaky Gut

Each case of dysbiosis is unique, so a customized healing protocol must be designed for each patient based on the animal's specific set of symptoms and underlying disorders.

It's very important to recognize that your dysbiotic dog or cat has a very fragile immune and digestive system. A sudden change in diet or a harsh GI detox protocol could make him worse instead of better.

Sometimes we address diet first, and then begin working to heal the gut. Other times a better approach is to provide GI support before making any dietary changes. And then there are some pets who require a leaky gut protocol and a dietary change simultaneously.

Resolving dysbiosis involves addressing food allergies and intolerances, as well as any underlying nutritional deficiencies caused by malabsorption or inefficient digestion. Appropriate probiotics, digestive enzymes, and nutraceuticals should be given to help reduce inflammation in the GI tract.

The Importance of Probiotics in Resolving a Leaky Gut

Probiotics are extremely important in the treatment of dysbiosis. They reseed your pet's gut with good bacteria and prevent an overgrowth of bad bacteria, which returns the intestine and mucosal lining to good health.

However, there are many different types of probiotics, each having its own merits and benefits. Some animals can't tolerate milk-based probiotics. Others can't tolerate probiotics derived from yeast cultures or even certain strains of non-dairy organisms, which is why it's important to work with a veterinarian who understands all of the different facets of dysbiosis.

Fortunately, the conventional veterinary community is starting to embrace the fact that supplementation with beneficial bacteria in the form of probiotics can help pets regain and maintain gut health. According to a recent report in the veterinary journal Clinician's Brief:

> *"Many studies in the human and veterinary literature have demonstrated that the administration of probiotic bacteria can aid in the prevention and treatment of disease."*[1]

For example:

- In two placebo-controlled studies, probiotics significantly shortened episodes of diarrhea in dogs with acute gastroenteritis.[2,3]
- Shelter cats given probiotics also had a significant decrease in the duration of diarrhea.[4]
- Dogs with moderate to severe inflammatory bowel disease (IBD) were given either probiotics or the drugs prednisone (corticosteroid) and metronidazole (antibiotic). While it took the dogs on probiotics about a week longer for their symptoms to resolve, both groups had similar remission rates.[5]

In addition, only the dogs given probiotics showed enhanced T regulatory cell function and normalization of dysbiosis 30 days post-treatment.

Probiotics in the Treatment of AAGS

Traditional veterinarians (and MDs) are also coming around to the realization that probiotics are an excellent way to prevent Antibiotic-Associated Gastrointestinal Side Effects (AAGS). According to one study, AAGS is a problem for 5% to 39% of people, and up to 70% of children.[6]

Just a 7-day course of antibiotics can alter the fecal microbiome and increase bacterial resistance for at least four years,[7] and administration of probiotics is associated with about a three-fold decrease in AAGS in people.[8] And while the incidence of AAGS in pets isn't known, studies show that antibiotic therapy does indeed "derange" the microbiome of dogs and cats similar to its effect on humans.[9]

Veterinary researchers believe antibiotic-associated gastrointestinal side effects play a significant role in dogs and especially cats receiving antibiotics, who are much more likely to show a decrease in appetite, aversion to food, and vomiting.

In general, removing highly processed, high-stress foods from a sick pet's diet in favor of a balanced species-appropriate, low-stress diet, plus appropriate supplements to address inflammation and yeast, if necessary, and support of other organ systems including the liver and pancreas, can relieve symptoms, address the root cause of the leaky gut, and get the pet on the road to recovery.

Sources and References

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