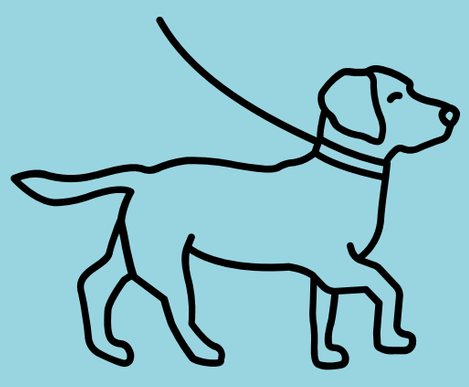
Innovative Pet Lab

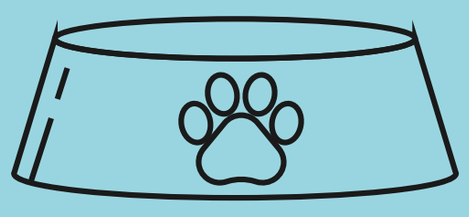
Cat & Dog GI Health Guide

Why test gut health?

Gut health is of utmost importance for pets, just as it is for humans. The gastrointestinal (GI) system plays a crucial role in your pet's overall well-being. Get ready to explore how gut health is important for pets and what you can do to help optimize it for each of your unique pets.

To support your pet's gut health, provide a balanced diet, regular exercise, access to clean water, and routine veterinary care. Consult with your veterinarian for specific recommendations based on your pet's individual needs and health status.





What can I do?

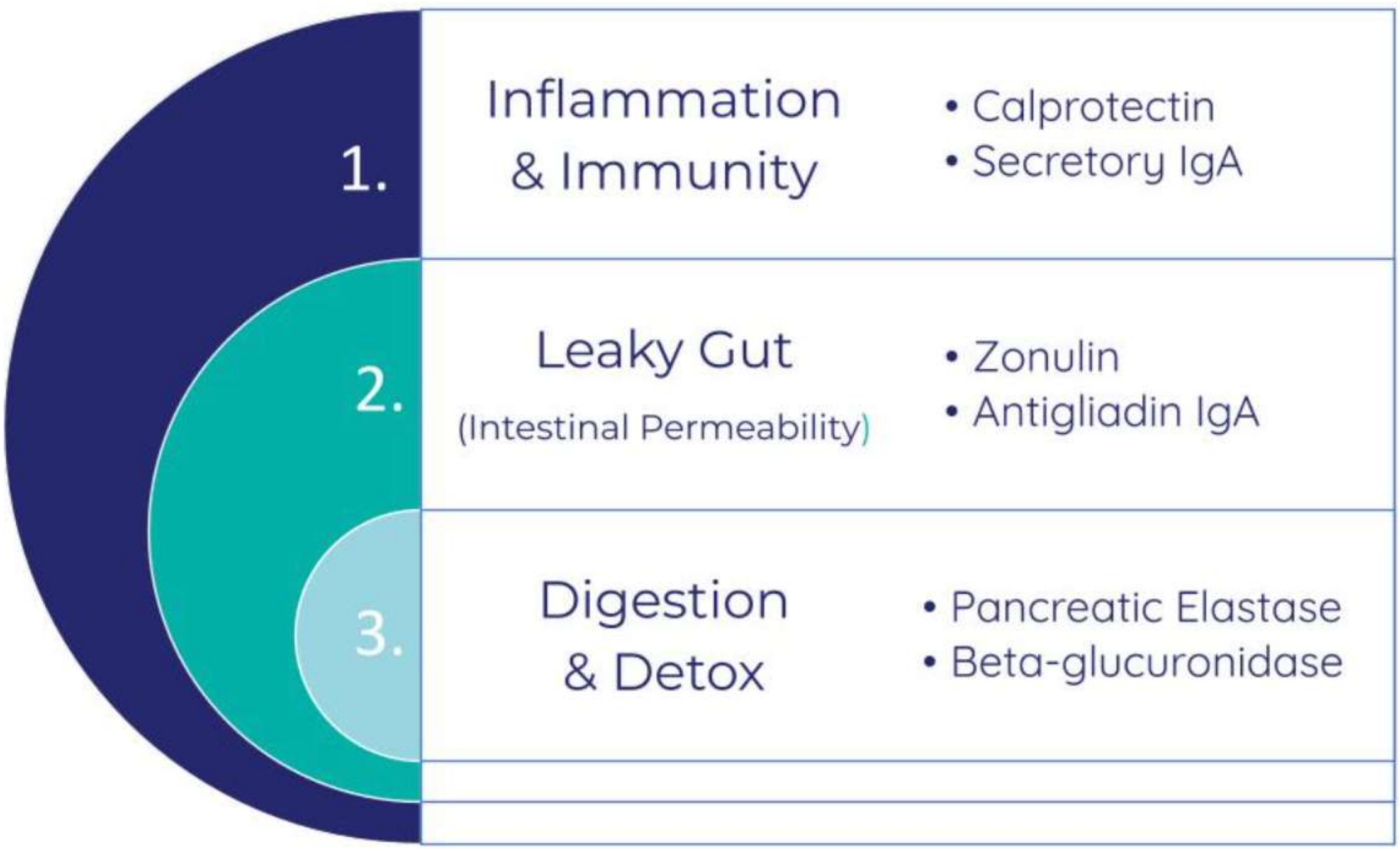
Test and Support the Gut!

Gut Health for Living the Best Life

1. **Nutrient Absorption:**
   - A healthy gut is essential for proper digestion and nutrient absorption. The digestive system breaks down food into nutrients that can be absorbed into the bloodstream and utilized by the body for energy, growth, and maintenance of bodily functions.
2. **Immune System Support:**
   - A significant portion of the immune system is located in the gut. A balanced and healthy gut microbiome helps support the immune system, helping pets fight off infections and illnesses.
3. **Microbiome Balance:**
   - The gut is home to a diverse community of microorganisms, including bacteria, fungi, and other microbes. This microbiome plays a crucial role in maintaining the health of the digestive system and influencing overall health.
4. **Prevention of Digestive Issues:**
   - A well-functioning gut helps prevent common digestive issues such as constipation, diarrhea, and irritable bowel syndrome (IBS). These conditions can cause discomfort and negatively impact your pet's quality of life.
5. **Energy Production:**
   - The breakdown of food in the gut produces energy that your pet needs for daily activities. A healthy gut ensures efficient energy production and utilization.
6. **Mental Health:**
   - The gut-brain axis is a bidirectional communication system between the gut and the brain. A healthy gut can positively influence mental health and behavior in pets.
7. **Allergy and Sensitivity Management:**
   - An imbalanced gut microbiome can contribute to the development of allergies and sensitivities. Maintaining a healthy gut can help manage and prevent these issues.
8. **Stool Quality:**
   - The appearance and consistency of your pet's stool can be indicative of their digestive health. A well-functioning gut often results in regular, well-formed stools.
9. **Prevention of Chronic Conditions:**
   - Certain chronic conditions, such as inflammatory bowel disease (IBD) and gastrointestinal cancers, may be influenced by the health of the gut. Supporting gut health can contribute to the prevention or management of these conditions.
10. **Longevity and Quality of Life:**
    - A healthy gut is closely linked to overall health and longevity. Pets with well-maintained gut health are more likely to lead happy, active lives.

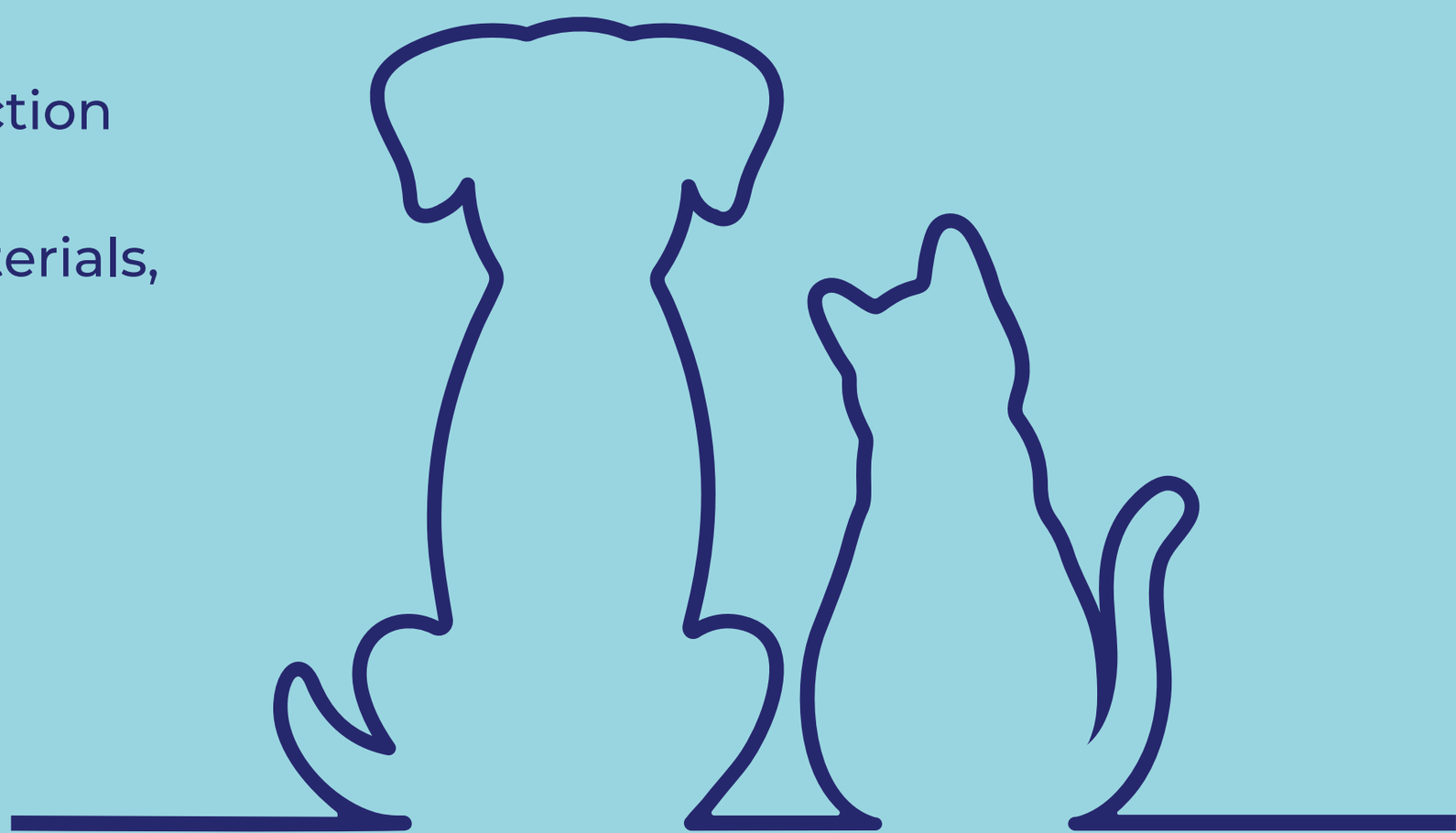
Innovative Pet Lab
GI Helath Solutions

What do we Test?



What does testing involve?

- Collection of a fresh stool sample
- Fill the included collection tube
- Utilizing provided materials, place sample in mail
- Access results online



Inflammation & Immunity

Available For:
Cats & Dogs

Analytes:
Calprotectin & Secretory IgA

Why is this Test Important?

Inflammation and immune reactions are cornerstones of health and a vital first assessment. GI inflammation and impaired immune reactions can manifest in a variety of symptoms. While some symptoms are easy to correlate directly to the digestive tract, others may be less obvious such as asking conditions. Chronic intestinal inflammation is associated with increased risk of immune related diseases and impair digestion and absorption, leading to nutrient insufficiencies. The test can connect symptoms and root cause.

Calprotectin

Calprotectin is a marker of gastrointestinal inflammation in the gut lining.

Inflammation is known to cause redness and swelling that can be seen when it's outside the body. There are also immune reactions internally that cannot be seen, which can cause damage to cells and impair function. Many conditions that are common in pets are often related to intestinal inflammation.

Knowing the level of inflammation can help identify if there is inflammation, its severity, and better target treatments. This can provide guidance for natural treatments when the inflammation is mild and stronger treatments when there is more inflammation.

Borderline high levels may be responsive to change in diet such as a change in protein or an anti-inflammatory diet, targeted supplements, probiotics, probiotics, or other treatments. It may also help avoid more serious prescription medication.

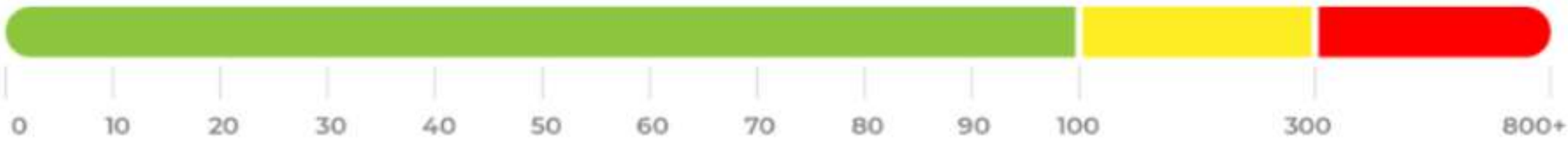
A high calprotectin level >100 µg/g in dogs and >125 µg/g in cats may identify a more serious condition such as Inflammatory Bowel Disease (IBD).

Pets should be retested in 3-6 months after making changes to monitor treatment effectiveness. Conditions such as obesity or diabetes can also be associated with higher levels.

Calprotectin

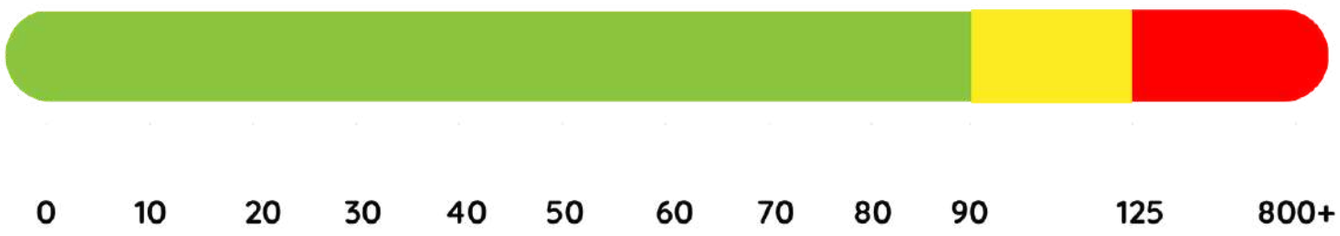
Dogs:

- Normal: <10 µg/g - No intestinal inflammation was noted
- Borderline: 10-100 µg/g - May benefit from testing again in 3-6 months
- High: >100 µg/g - Inflammation has been noted. If associated with symptoms seek further veterinary evaluation. Retest in 3 months



Cats:

- Normal: <90 µg/g - No intestinal inflammation was noted
- Borderline: 90-125 µg/g - May benefit from testing again in 3-6 months
- High: >125 µg/g - Inflammation has been noted. If associated with symptoms seek further veterinary evaluation. Retest in 3 months



Secretory IgA

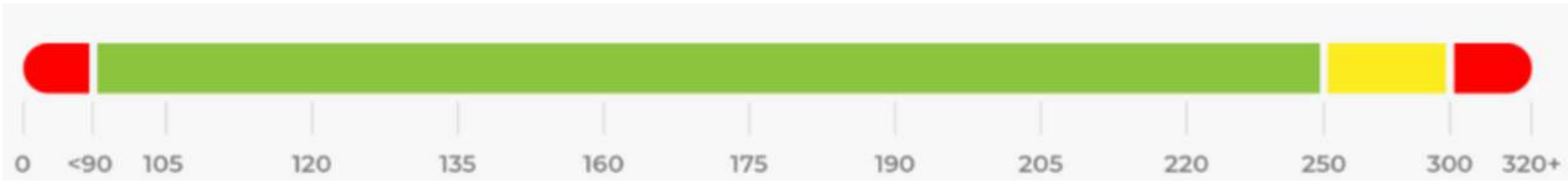
Secretory IgA is the first line of immune defense at the gut lining. It is an indicator of intestinal immune protection, and a marker of intestinal maturity in young animals. Low levels of secretory IgA may identify an inability to have a full immune response and high levels can identify a reaction to something, such as inflammation, parasites, vaccines, pathogens, food sensitivities or allergies. High levels return to normal once the reactive item is addressed.

Low levels of secretory IgA have been associated with autoimmune conditions, allergies, skin conditions and may be impacted by low levels of good gut bacteria. The small intestines are a major site of IgA producing cells. Research is ongoing as to why overactive immune reactions are associated with decreased IgA. Though much focus has been on the gut microbiome. Research studies found secretory IgA from duodenal biopsies and fecal samples to be similar.

Secretory IgA

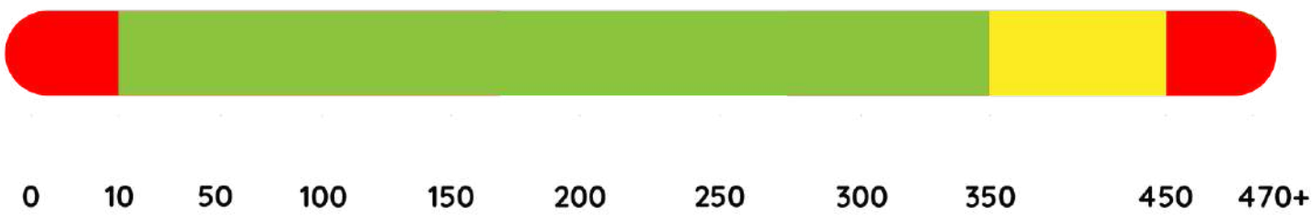
Dogs:

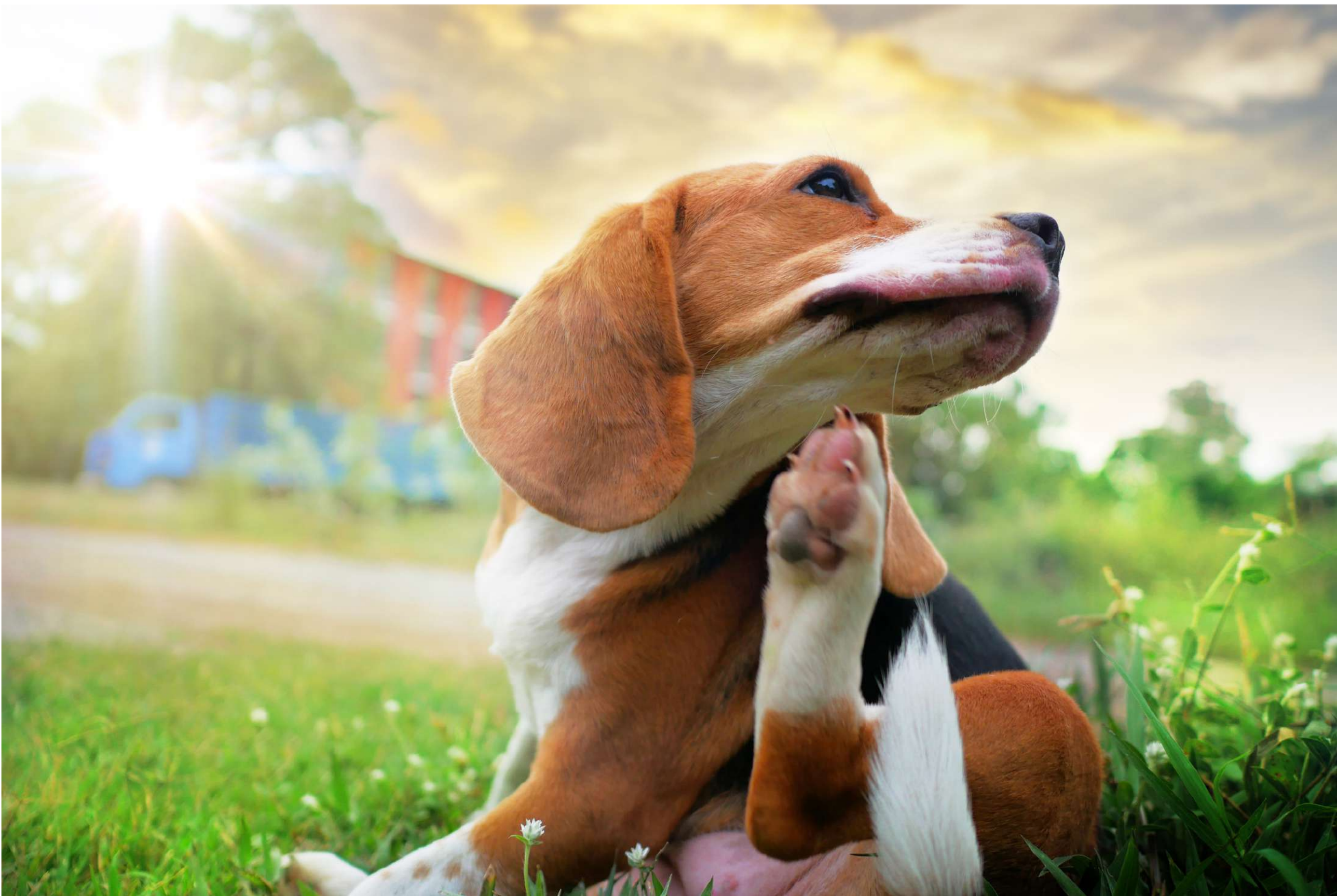
- Normal: 10-300 ug/g - No excess or impaired immune response
- Low: < 10 ug/g - May have an impaired response, support and retest in 3-6 months
- Borderline: 301-350 ug/g - Continue to monitor, consider treatment options and retest in 3-6 months
- High >350 ug/g - Identifies a significant reaction, provide support and retest in 3 months



Cats:

- Normal: 10-350 ug/g - No excess or impaired immune response
- Low: < 10 ug/g - May have an impaired response, support and retest in 3-6 months
- Borderline: 351-450 ug/g - Continue to monitor, consider treatment options and retest in 3-6 months
- High >450 ug/g - Identifies a significant reaction, provide support and retest in 3 months





Leaky Gut

Available For:
Cats & Dogs

Analytes:
Zonulin & Antigliadin IgA

Why is this Test Important?

Leaky gut describes an increase in the permeability of the intestinal cells. Increased intestinal permeability allows substances (such as bacteria, food allergens, toxins, and more) that would normally not pass through the intestines to cross the intestinal walls leading to an immune reaction. Issues with intestinal permeability have been related to overall gut health, which has been noted to have varied symptoms including weight issues, gas, soft stools, inflammatory conditions, skin reactions, fatigue, and more. A leaky gut has been identified as a link between gut function and systemic illness.

Zonulin

Zonulin is a protein that increases permeability in the epithelial layer of the small intestine. It modulates intercellular tight junctions. Tight junctions help hold intestinal cells together.

Zonulin identifies intestinal permeability which has been associated with inflammation, an imbalance of healthy gut bacteria, autoimmune conditions, and may be a risk factor for food allergies and food sensitivities, and is known to react to gluten.

Possible Symptoms of Leaky Gut:

- Digestive issues such as diarrhea, bloating, constipation, weight loss, changes in appetite, gas and fatigue
- Skin issues such as dry skin, hair loss, redness, rashes and scratching
- Chewing, licking, or gnawing paws and paw pads
- Pets can also have no symptoms in early stages

Zonulin

Dogs:

- Normal: <6.6 ug/g
- Borderline: 6.5-11 ug/g - Retest again in 3-6 months
- High: >11 ug/g - Associated with Leaky Gut, treat and retest in 3 months

Cats:

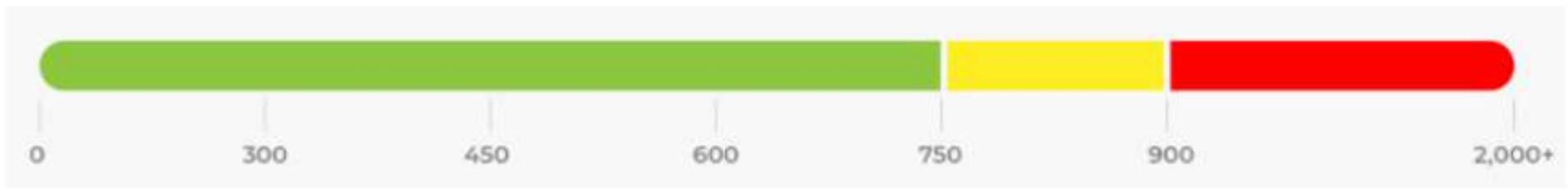
- Normal: <2.0 ug/g
- Borderline: 2.0-6.0 ug/g - Retest again in 3-6 months
- High: >6.0 ug/g - Associated with Leaky Gut, treat and retest in 3 months

Antigliadin IgA

Antigliadin IgA is an antibody to gliadins, a component of gluten.

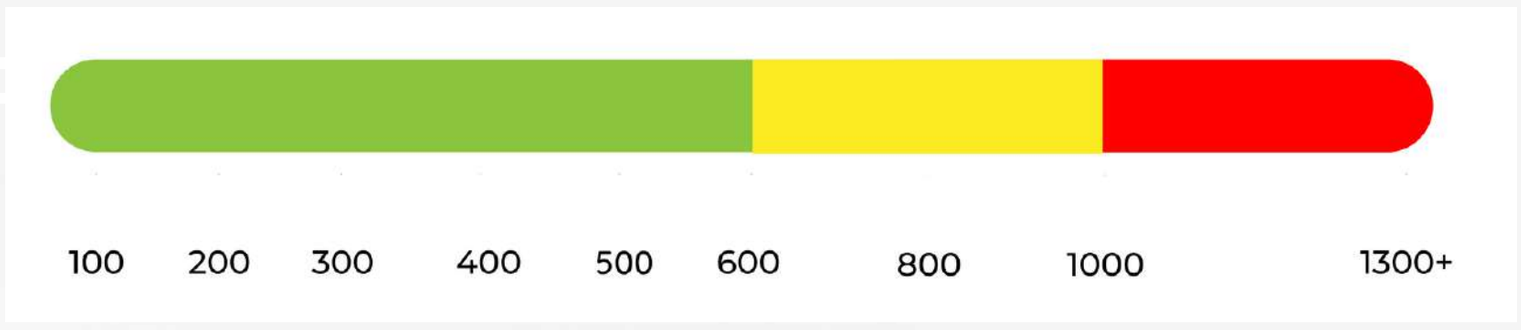
Dogs:

- Normal: <750 µg/g
- Borderline: 750-900 µg/g - Indicates moderate reaction
- High: >900 µg/g - Highly reactive to gluten



Cats:

- Normal: <600 µg/g
- Borderline: 600-1000 µg/g - Indicates moderate reaction
- High: >1000 µg/g - Highly reactive to gluten



Digestion & Detox

Available For:
Dogs

Analytes:
Pancreatic Elastase 1 &
Beta-glucuronidase

Why is this Test Important?

Properly digesting food and absorbing adequate amounts of essential nutrients is an important part of overall gut health. Chronic irritation to the gut lining can lead to maldigestion and malabsorption of nutrients. Deficiencies result in a wide array of health issues. Increased levels of beta-glucuronidase can identify gut dysbiosis and increase the impact of toxins and hormones.

Pancreatic Elastase 1

Pancreatic elastase 1 is a digestive enzyme. Low levels can identify impaired pancreatic function. A dog's digestion depends on enzymes secreted by the pancreas to digest food. Dogs who don't secrete enough digestive enzymes may not fully digest food or absorb enough nutrients from food or supplements and could have a condition known as Exocrine Pancreatic Insufficiency (EPI).

The symptoms of poor digestion are varied but can include diarrhea, weight loss, gas, or other symptoms related to nutrient deficiencies.

Dogs:

- Normal: >30 µg/g - Can be used to exclude pancreatic insufficiency
- Borderline: 10-30 µg/g- Retest in 3-6 months
- Low: <10 µg/g - Indicates digestive issues and recommend further testing
    - A serum trypsin-like immunoreactivity (TLI) is likely a follow up test in dogs with extremely low fecal Elastase 1 and significant symptoms

Beta-glucuronidase

Beta-glucuronidase is an enzyme both people and dogs make that catalyzes the breakdown of complex carbohydrates. It is also made by gut bacteria. High levels can be due to an imbalance of healthy gut bacteria, which is called dysbiosis.

Additionally, high levels of beta-glucuronidase is known to free toxins that have previously gone through detoxification.

Increased levels of beta-glucuronidase are associated with increased levels of free toxins and hormones which can lead to negative health effects.

Consistently elevated beta-glucuronidase has been associated with intestinal disease.

Dogs:

- Normal: < 4 µg/g
- Borderline: 4-6 µg/g - Retest in 3-6 months
- High: >6 µg/g - Indicative of issues with gut bacteria or increased levels of toxins. Provide treatment and retest in 3 months

Basic Gut Check

Available For:
Dogs & Cats

Analytes:
Calprotectin & Zonulin

Why is this Test Important?

The Basic Gut Check combines and evaluates two key areas of gut health: leaky gut and inflammation. GI inflammation can manifest in a variety of symptoms. While some symptoms are easy to correlate directly to the digestive tract, others may be less obvious such as asking conditions. Chronic intestinal inflammation is associated with increased risk of immune related diseases and impair digestion and absorption, leading to nutrient insufficiencies.

Leaky gut describes an increase in the permeability of the intestinal cells. Increased intestinal permeability allows substances (such as bacteria, food allergens, toxins, and more) that would normally not pass through the intestines to cross the intestinal walls leading to an immune reaction. Issues with intestinal permeability have been related to overall gut health, which has been noted to have varied symptoms including weight issues, gas, soft stools, inflammatory conditions, skin reactions, fatigue, and more. A leaky gut has been identified as a link between gut function and systemic illness.

Calprotectin

What Testing Should I Choose?

Issues / Tests					
Diarrhea and/or Constipation		✓	✓	✓	✓
Behavior Issues Mood Disorders	✓	✓			✓
Skin Issues itching, Scratching, Chewing Paws	✓	✓	✓		✓
Allergic Reactions to Environmental or Food	✓	✓	✓		✓
Weight loss				✓	✓
Bad breath				✓	✓
Poor Gut Microbiome	✓			✓	✓

At Home Ways to Support Pet GI Health

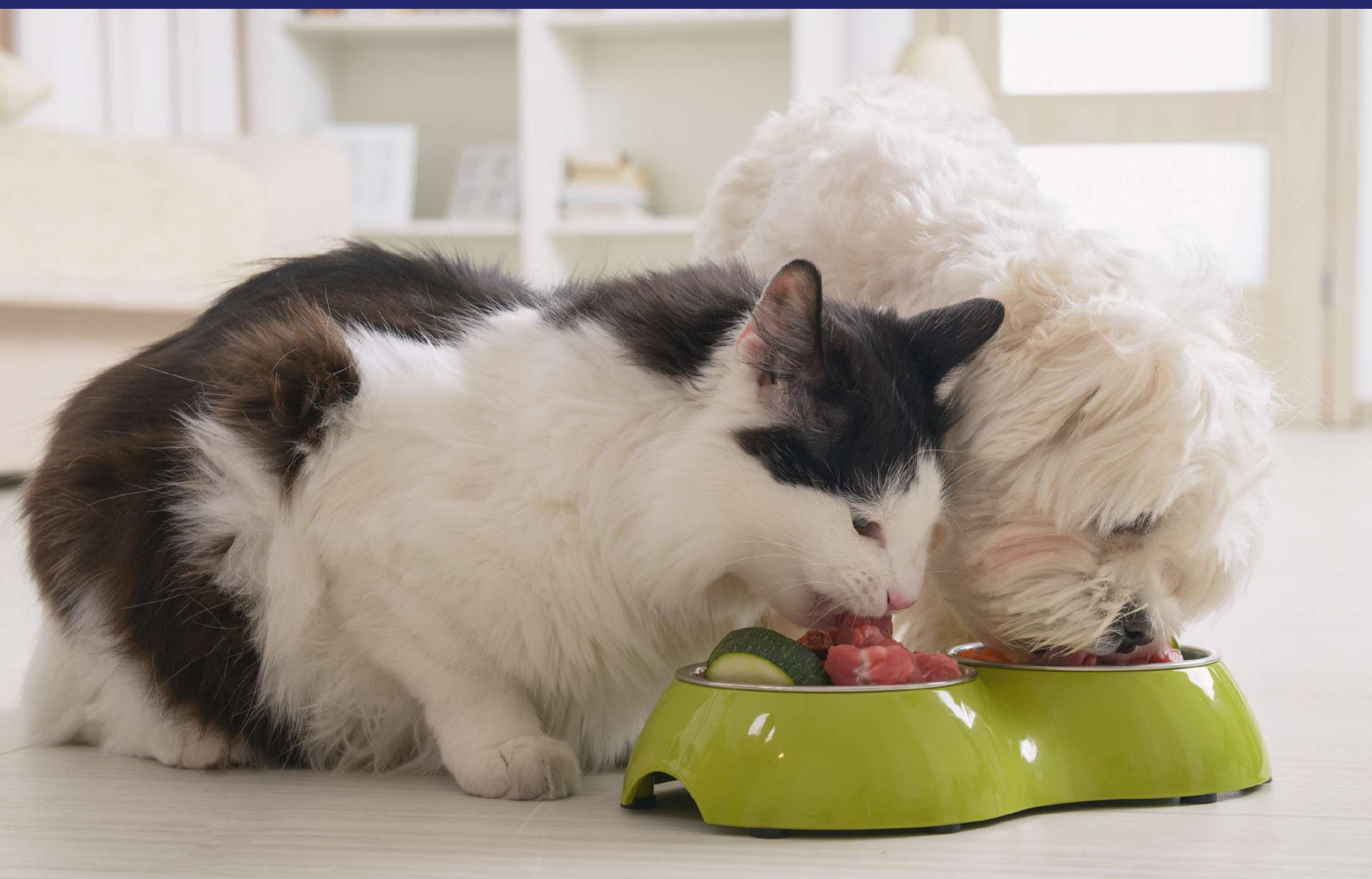
Provide a Balanced Diet:
Feed your pet a high-quality, well-balanced diet that meets their specific nutritional needs. Consult with your veterinarian to determine the best diet for your pet's age, size, and health condition.

Regular Exercise:
Regular physical activity helps promote healthy digestion. Ensure your pet gets enough exercise through activities such as walks, playtime, and interactive toys.

Hydration:
Ensure that your pet has access to clean and fresh water at all times. Proper hydration is crucial for digestion and overall health.

Probiotics:
Consider incorporating pet-friendly probiotics into their diet. Probiotics are beneficial bacteria that can support a healthy balance of gut flora. Discuss with your vet before adding any supplements to your pet's diet.
Prebiotic Foods:

Avoid Harmful Foods:
Be aware of foods that can be harmful to pets, such as chocolate, onions, garlic, and certain artificial sweeteners. Keep these substances out of reach.



More Ways to Support Pet GI Health

Regular Vet Check-ups:
Schedule regular veterinary check-ups to monitor your pet's overall health, including their GI system. Early detection of any issues can help in prompt intervention.

Stress Management:
Minimize stress as much as possible. Changes in environment, routine, or the introduction of new pets can stress your pet, affecting their GI health. Provide a comfortable and safe space for your pet.

Monitor Stool Quality:
Keep an eye on your pet's stool quality. Any sudden changes in frequency, consistency, or color may indicate an issue. Consult your vet if you notice anything unusual.

Slow Diet Changes:
If you need to change your pet's diet, do it gradually over several days to allow their digestive system to adjust.

Good Grooming Practices:
Regular grooming, especially for long-haired pets, can prevent them from ingesting excess fur, which could contribute to digestive issues.

Always consult with your veterinarian before making significant changes to your pet's diet or lifestyle. They can provide personalized advice based on your pet's specific needs and health status.

Redefining Pet Care

Innovative Pet Lab is on a mission to empower the pet community with at-home testing and personalized solutions to enhance the lives and well being of pets.

www.innovativepetlab.com