

## CDSA - LEVEL 3 (stool)

*The Comprehensive Digestive Stool Analysis (CDSA) is an advanced non-invasive diagnostic tool for assessing gastrointestinal function. As the CDSA combines a large number of tests that evaluate the function of the gastrointestinal tract, a comprehensive picture of a patient's gut health can be obtained. The analysis investigates digestion, metabolism, absorption and metabolic markers, pancreatic function, the balance of beneficial bacteria and the presence of pathological bacteria, yeast and parasites.*

### SYMPTOMS AND CONDITIONS ASSOCIATED WITH ABNORMAL GUT FUNCTION

|                           |                                |
|---------------------------|--------------------------------|
| Abdominal pain            | Fatigue                        |
| Atopy                     | Food allergy and sensitivities |
| Autism                    | Gastrointestinal cancers       |
| Bad breath                | Headaches                      |
| Bloating                  | Inflammatory bowel disease     |
| Brain fog                 | Irritable bowel syndrome       |
| Chemical sensitivities    | Maldigestion                   |
| Coeliac Disease           | Multiple sclerosis             |
| Dermatological conditions | Rheumatoid arthritis           |
| Constipation              | Schizophrenia                  |
| Depression                | Ulcers                         |
| Diarrhea                  | Weight loss                    |

### Gastrointestinal Health

The gastrointestinal tract has three main functions:

- To digest and absorb important nutrients for the body's growth and function
- To act as a barrier to keep harmful solutes, luminal antigens and microorganisms from entering the blood.
- Elimination of waste products and toxins

The GI tract influences not only GI health, but is also known as the 'second brain', so affects the entire body. Within the gastrointestinal tract more than 500 different bacterial species, in excess of 10 organisms per gram of wet weight, can be detected. These bacteria also play a key role in digestion, nutrition, pathogen defence and immune system development. When the function and interplay within this complex system is disturbed, ill-health can easily develop.

Multiple areas can influence this fine balance including digestion, absorption, the location, number and specific species of bacteria, parasitic infection, as well as epithelial integrity and inflammation.

Typical symptoms consist of diarrhoea, constipation, bloating, bad breath, abdominal pain, anaemia, food sensitivities and osteoporosis. However, other conditions not typically recognised, but associated with gastrointestinal health, include chronic fatigue, depression, autism, atopy, arthritis and autoimmune disorders. These conditions may result from 'leaky gut' and the subsequent exposure to foreign particles which may trigger local and systemic immune and inflammatory mechanisms.

The CDSA can assist physicians develop earlier, more effective preventive interventions, improve the timing and precision of treatments, and reduce the risk of clinical relapse in certain groups of patients. It will also allow physicians to better evaluate and document the medical necessity for more invasive procedures, such as colonoscopy.

The results of CDSA testing provide information on:

- Macroscopic and microscopic description.
- Microbiome - the human GI tract houses more than 1,000 species of microbial organisms, almost all of them bacteria, collectively known as the microbiome.
- Metabolic - a series of biomarkers that indicate the microbial production of beneficial molecules.
- Gut ecosystem - bacteriology, fungal mycology and parasitic infections, a listing of both commensal and additional bacteria using visual detection culture and **Matrix Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS)** technology.

### **CDSA – LEVEL 3 (stool) [Test code: 2005]**

- ❖ Macroscopic & Microscopic Description; Digestive, Absorption & Metabolic markers, Pancreatic Elastase; Beneficial & other Bacteria; Yeasts; Parasites (visual); Antibiotic and Natural agents sensitivities (bacteria & yeasts)

### **Other GI tests available**

- **Faecal DNA Multiplex PCR (stool) [2002]:** PCR detection and identification of 10 parasitic & bacterial organisms: Giardia intestinalis, Cryptosporidium, Dientamoeba fragilis, Entamoeba histolytica, Blastocystis hominis; Campylobacter spp, Salmonella spp, Shigella spp, Yersinia enterocolitica, Aeromonas spp; MC&S
- **CDSA Level 1 [2003]:** Macroscopic & Microscopic Description, Beneficial & other Bacteria, Yeasts, Parasites (visual detection); Antibiotic and Natural agents sensitivities (bacteria & yeasts)
- **CDSA Level 2 [2004]:** Macroscopic & Microscopic Description; Digestive, Absorption & Metabolic markers; Beneficial & other Bacteria; Yeasts; Parasites (visual); Antibiotic and Natural agents sensitivities (bacteria & yeasts)
- **CDSA Level 3+ [2006]:** Macroscopic & Microscopic Description; Digestive, Absorption & Metabolic markers; Inflammation markers; Tumour/Ulcer markers; Beneficial & other Bacteria; Yeasts; Parasites (visual); Antibiotic and Natural agents sensitivities (bacteria & yeasts)
- **Genova GI Effects - Microbial Ecology [2205]** Commensal Bacteriology, Yeast and Fungal identification by DNA techniques, Entamoeba histolytica EIA, Giardia lamblia EIA, Cryptosporidium EIA
- **Genova GI Effects – Comprehensive [2200]** Commensal Bacteriology, Yeast and Fungal identification by DNA techniques, Entamoeba histolytica EIA, Giardia lamblia EIA, Cryptosporidium EIA; Digestion, Absorption and Inflammation markers

### **How to order a test kit:**

To order a test kit simply request the test name and/or test code on a NutriPATH request form test code and have the patient phone NutriPATH Customer Service on 1300 688 522.

