

CDSA

Comprehensive  
Digestive Stool  
Analysissample type: **STOOL**

The **Comprehensive Digestive Stool Analysis (CDSA)** is Genova's original non-invasive evaluation of gastrointestinal function. This assay helps pinpoint imbalances, provides clues about current symptoms, and warns of potential problems should imbalances progress.

Digestive complaints are among the most common reasons that individuals seek medical care.

**GI Indications for Testing:**

- Indigestion
- Constipation
- Diarrhoea
- Gas and Bloating
- Infection
- Dysbiosis
- Abdominal pain
- Irritable Bowel Syndrome (IBS)

Recent evidence confirms that GI abnormalities may be associated with many conditions **outside of the GI tract**.

**Extra-intestinal Indications for Testing:**

- Arthritis
- Autoimmune disease
- Chronic Fatigue
- Fibromyalgia
- Antibiotic use
- Skin problems
- Osteoporosis
- Diabetes

The **CDSA** is comprised of the following clinically useful panels:

- **Digestion Markers:** An indirect evaluation of digestive function, providing insight into adequate digestive enzyme production and maldigestion. Markers include Chymotrypsin, Putrefactive Short Chain Fatty Acids (SCFAs), Meat Fibers and Vegetable Fibers.
- **Absorption Markers:** Elevated levels of the listed fatty acids may indicate maldigestion, malabsorption, altered transit time, and small bowel bacterial overgrowth. Markers include Long Chain Fatty Acids, Phospholipids, Cholesterol, Triglycerides and Total Faecal Fat.
- **Metabolic Markers:** These markers identify imbalances that are associated with increased toxic burden, small bowel bacterial overgrowth or severe inflammation. Abnormal levels are associated primarily with intestinal conditions, including potential risk for colorectal cancer. Markers include Beneficial SCFAs, n-Butyrate, Beta-Glucuronidase, pH, Fecal Lactoferrin, Macroscopic exam, and Occult blood.
- **Microbiology Markers:** Provides quantitative measures of the beneficial flora Lactobacillus and Bifidobacterium as well as additional aerobic flora as they present in culture. These include strict pathogenic bacteria and potentially pathogenic bacteria and yeast.
- **Parasitology:** (If ordered) - (EIA and microscopic evaluation) This evaluation demonstrates the highest documented recovery rates available (22% positivity rate). It quantifies all ova and parasites identified. Microscopic evaluation for yeast and blood cells is included.

**• Analytes:**

Triglycerides  
chymo-trypsin  
Putrefactive SCFAs  
meat and  
vegetable fibers  
long chain fatty acids  
cholesterol  
total fecal fat  
total short chain fatty acids  
n-butyrate  
short chain fatty acid distribution  
beta glucuronidase  
pH  
bacterial and yeast cultures  
sensitivities as appropriate  
fecal lactoferrin  
macroscopic analysis  
Parasitology (if ordered)

**• Specimen Requirements:**

5cc stool in each vial- Formalin  
and Cary/Blair

**• Before Taking this Test:**

- Avoid antimicrobials, laxatives, and anti-diarrheals (for 3 days)
- Avoid or reduce anti-inflammatories, digestive enzymes, and most pain relievers (for 2 days)
- See instructions inside test kit for more details

**• Turn-Around Time:**

14 Days



Genova  
Diagnostics®  
Europe

Innovative Testing for Optimal Health

## Comprehensive Digestive Stool Analysis

Genova Diagnostics ( Europe  
Parkgate House  
356 West Barnes Lane  
New Malden  
Surrey  
KT3 6NB

Patient: **SAMPLE  
PATIENT**

DOB: April 25, 1980

Sex: M

MRN:

Order Number:

Completed: November 28, 2007

Received: November 21, 2007

Collected: November 15, 2007

Route Number: A080461

### Digestion

	Reference Range
Chymotrypsin	0.9-26.8 U/g
Putrefactive SCFAs (Total*)	1.3-8.6 micromol/g

\* Total values equal the sum of all measurable parts.

	Inside	Outside	Reference Range
Meat Fibers *	None		None
Vegetable Fibers	Few		None - Few

### Absorption

	Reference Range
Triglycerides	0.2-3.3 mg/g
Long Chain Fatty Acids	1.3-23.7 mg/g
Cholesterol	0.2-3.5 mg/g
Phospholipids	0.2-8.8 mg/g
Fecal Fat (Total*)	2.6-32.4 mg/g

\* Total values equal the sum of all measurable parts.

### Metabolic Markers

	Reference Range
Beneficial SCFAs (Total*)	>= 13.6 micromol/g
n-Butyrate	>= 2.5 micromol/g
Beta-Glucuronidase	337-4,433 U/g
pH *	6.1-7.9

\* Total values equal the sum of all measurable parts.

### SCFA distribution

Acetate %	44.5-72.4 %
Propionate %	<= 32.1 %
n-Butyrate %	10.8-33.5 %

### Immunology

	Inside	Outside	Reference Range
Fecal Lactoferrin *	Negative		Negative

### Macroscopic

Color	Brown		Brown
Mucus	Negative		Negative
Occult blood *	Negative		Negative

### Bacteriology

#### Beneficial Bacteria

Lactobacillus species	(3+)
Escherichia coli	(2+)
Bifidobacterium	

#### Additional Bacteria

alpha haemolytic Streptococcus	NP	(4+)
gamma haemolytic Streptococcus	NP	(4+)
Bacillus species	NP	(1+)
Citrobacter freundii	PP	(4+)
Enterobacter cloacae	PP	(4+)

### Mycology

Candida albicans	NP	(1+)
Candida parapsilosis	NP	(1+)
Hansenula anomala	NP	(1+)
Rhodotorula species	NP	(2+)

*NG	NP	PP	P
No Growth	Non-Pathogen	Possible Pathogen	Pathogen

This test reveals important clinical information about:

- **Maldigestion** that can result in GI symptoms such as gas, bloating, abdominal pain, diarrhea and constipation
- **Chronic dysbiosis (altered gut ecology) and inflammation** that can impair absorption, leading to deficiencies of nutrients, proteins, carbohydrates and fats, or induce systemic autoimmune reactions
- **Excess bacterial enzyme activity** in the intestine that can promote carcinogenesis, hormonal imbalances and GI irritation
- **Short chain fatty acid inadequacy** linked to increased incidence of colon cancer and ulcerative colitis
- **Bacterial and yeast overgrowth** underlying gastrointestinal symptoms, chronic fatigue, mood shifts, and weakened immune function
- **Chronic digestive dysfunction** that can set the stage for the development of leaky gut, food allergies, toxic stress, and gut irritation

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For test kits, clinical support, or more information contact:

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More detailed publications with references are also available: [www.GDXuk.net](http://www.GDXuk.net)