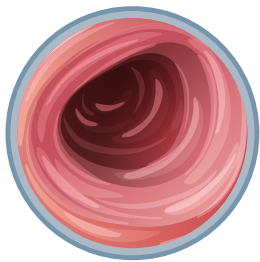# Gastroenterology

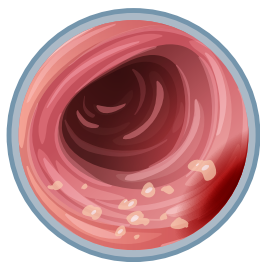## Autoantibodies indicating gastrointestinal diseases

What are gastrointestinal diseases?

Gastrointestinal diseases refer to conditions that affect the digestive tract, including the stomach, small intestine, and large intestine. Autoantibodies, produced by the immune system, can attack the affected tissues, causing symptoms that severely impact the patient's quality of life and potentially becoming life-threatening if left undiagnosed.

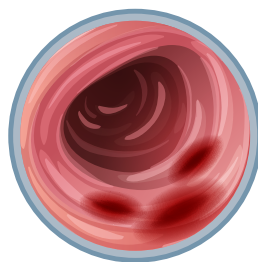### Autoimmune diseases of the digestive tract and their effects

Healthy intestine
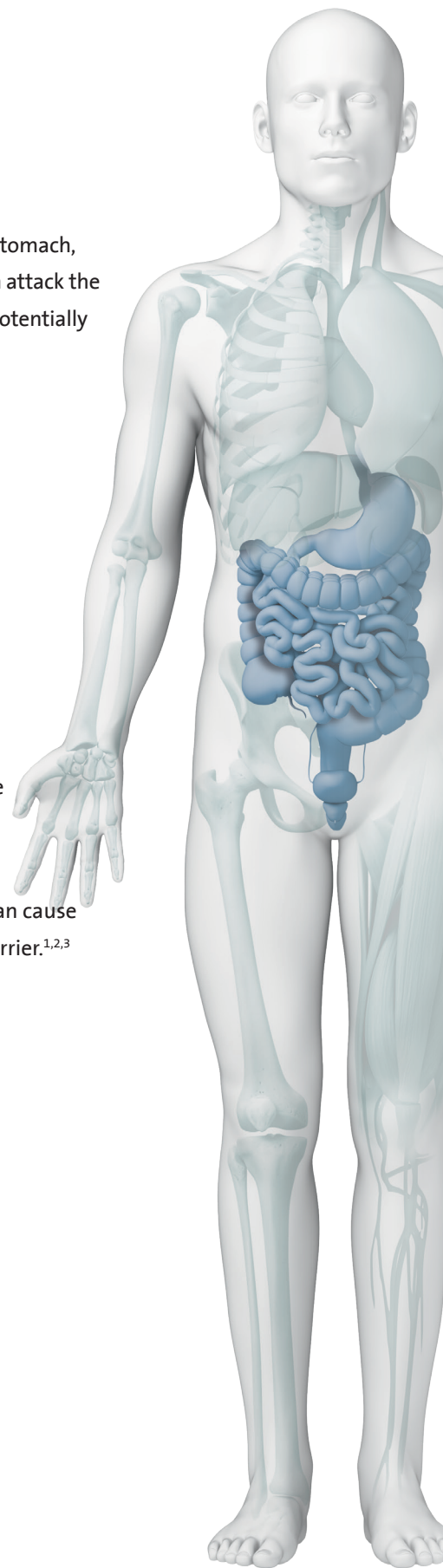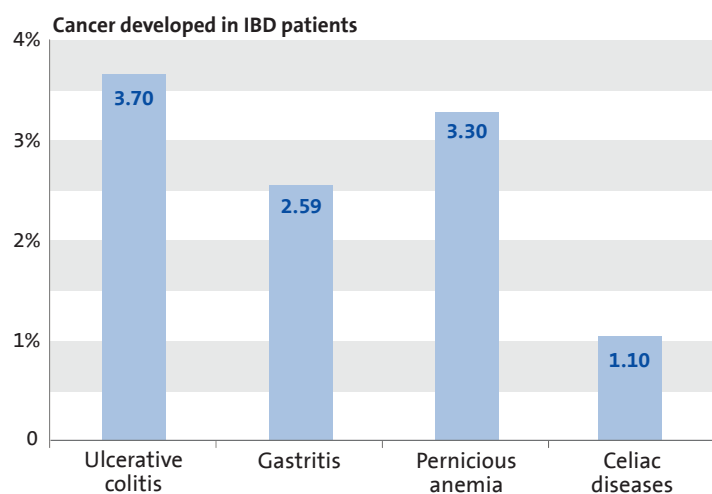
Ulcerative colitis
> Ulceration within the mucosa

Crohn`s disease
> Muscle hypertrophy
> Cobblestone appearance
> Fissures

Digestive autoimmune diseases such as ulcerative colitis or Crohn's disease can present with symptoms such as muscle hypertrophy, ulcerations, or fissures. These symptoms can cause severe abdominal pain and increase the risk of infections due to an altered intestinal barrier.[1,2,3]

Cancer risk ratio in gastrointestinal disease patients

Patients with gastrointestinal diseases have an increased risk of developing cancer which is shown in serveral studies.[4,5,6]

Cancer developed in IBD patients

	Value
Ulcerative colitis	3.70
Gastritis	2.59
Pernicious anemia	3.30
Celiac diseases	1.10

IMTEC

HUMAN

Diagnostics Worldwide

Gastroenterology

Inflammatory bowel diseases (IBD) are the most frequent diseases

Crohn's disease and ulcerative colitis are the most frequently diagnosed inflammatory bowel diseases (IBD).
In a recent study, the annual incidence of Crohn's disease worldwide has been determined as follows:[7]

> North America = 20.2 per 100,000 person-years
> Europe = 12.7 per 100,000 person-years
> Asia = 5.0 per 100,000 person-years
> Middle East = 5.0 per 100,000 person-years

Diagnosis based on identification of autoantibodies

Various gastrointestinal autoimmune diseases can be diagnosed by identifying the presence
of autoantibodies that target the body's own tissues, leading to inflammation and
diverse symptoms.[8]

Incidence and genetic factors in inflammatory bowel diseases (IBD)

Genetic factors play a significant role in the pathogenesis of inflammatory bowel diseases (IBD).
For example, pANCA antibodies are found in 82% of all patients with primary sclerosing cholangitis
and in 25% of their relatives. In ulcerative colitis, 70% of the patients and 30% of their relatives
had pANCA.[9]

During which symptoms is autoantibody testing recommended?

> Chronic diarrhea
> Blood in stool or rectal bleeding
> Recurrent abdominal pain or stomach cramps
> Nausea or vomiting
> Fatigue
> Weight loss

Ordering information for the diagnosis of IBD

Kit name	Format	Size	Antigen	REF
Gastro-LIA	IgG/IgA	24 tests	d-Gliadin, ASCA, PCA, tissue-transglutaminase, Intrinsic factor	ITC30701
d-Gliadin-Antibodies ELISA	IgA	96 tests	d-Gliadin	ITC30605
d-Gliadin-Antibodies ELISA	IgG	96 tests	d-Gliadin	ITC30505
t-Transglutaminase-Antibodies ELISA	IgA	96 tests	tissue-transglutaminase	ITC30400
t-Transglutaminase-Antibodies ELISA	IgG	96 tests	tissue-transglutaminase	ITC30300

References

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