

Additional information about the GastroPanel examination:

Biohit Oyj has developed the GastroPanel biomarker tests, a unique blood sample examination for the screening and diagnosis of *Helicobacter pylori* infection and damage or dysfunction of the mucous membrane (atrophic gastritis) of the stomach. Unlike the *H. pylori* examinations still being used (13C urea breath test and stool antigen test), the GastroPanel tests reliably detect the *H. pylori* infection, the typically asymptomatic condition atrophic gastritis, and associated risks, including cancer.

The April 2012 Maastricht IV consensus report of the European Helicobacter Pylori Study Group recommends blood sample biomarker tests as a reliable method of diagnosis of diseases of the stomach mucosa and associated risk conditions. Researchers recommend biomarker tests for the diagnosis and follow-up of *Helicobacter pylori* infection and especially for atrophic gastritis that causes achlorhydric stomachs, as well as to the screening of asymptomatic patients. The report emphasises the fact that *H. Pylori* eradication therapy does not cure precancerous gastric conditions. This is why gastroscopy and biopsy examinations are recommended at regular intervals of 2-3 years for patients with moderately severe or severe atrophic gastritis. Without gastroscopy and biopsy examination, atrophic gastritis in the entire stomach (precancerous condition) and its location can only be diagnosed with a GastroPanel biomarker test.

The international Healthy Stomach Initiative group's 16 gastroenterology experts from 12 countries came to the same conclusions. Biomarker tests can be used to diagnose and screen atrophic gastritis and related risks in both asymptomatic patients and patients with abdominal discomfort (www.biohithealthcare.com: Investors/ Stock Exchange Releases: 17/02/2012 Biohit Oyj's GastroPanel biomarker test recommended). According to the taskforce, GastroPanel biomarker tests, unlike the *Helicobacter pylori* examination tests still in use, reliably diagnose the most significant risk conditions of the acid-free stomach (atrophic gastritis). With the help of the GastroPanel test, patients can be referred to appropriate further examinations, therapy and treatment. At the same time it is also possible to reliably diagnose patients who have a "healthy" stomach, i.e. patients who do not have *H. pylori* infection and/or atrophic gastritis.

An IARC (WHO agency on cancer research) classification of October 2009 states that acetaldehyde in alcoholic beverages and naturally generated in alcohol is a group 1 carcinogen and is therefore as carcinogenic as *H. pylori*, asbestos, formaldehyde and benzene. GastroPanel biomarker tests reliably detect an anacidic stomach which is the major risk factor of gastric cancer. In addition, recent studies show that acetaldehyde generated in an anacidic stomach is a significant reason for gastric and oesophageal cancer risk associated with the condition. Microbes from the mouth can colonise an acid-free stomach and produce carcinogenic acetaldehyde from sugar and alcohol. According to gene studies this is one of the major risk factors of gastric and oesophageal cancer. The risk can be reduced with the help of another Finnish innovation - prescription-free Acetium capsules, which are taken during food and alcohol consumption, to bind (neutralise) carcinogenic acetaldehyde in the stomach.

Literature:

1. Malfertheiner P et al. Management of *Helicobacter pylori* infection--the Maastricht IV/ Florence Consensus Report. <http://gut.bmj.com> on May 18, 2012. European *H. pylori* Study Group, ESPSG.
2. Agréus L et al. Rationale in diagnosis and screening of atrophic gastritis with stomach-specific plasma biomarkers. *Scand J Gastroenterol* 2012;47:136-47.
3. World Health Organisation WHO, 2009. www.iarc.fr/en/media-centre/pr/2009/pdfs/pr196_E.pdf.