Helicobacter Pylori C13-breath test

SHOULD A HELICOBACTER INFECTION ALWAYS BE TREATED?

The majority of Helicobacter infections is very likely without any consequences for those who are affected. Therefore the need of treatment because of a positive Helicobacter test result without any stomach or duodenal problems of the respective person is controversially managed. Patients with inflammation of the gastric mucosa or with ulcers of the stomach or duodenum and a consisting Helicobacter pylori infection should undergo a so called eradication treatment in order to eliminate the bacterium. For this a series of therapeutics are available which are usually given in combination and the success rate is above 90%.

WHERE CAN ONE DO A 13 BREATH TEST?

One of the few institutions in which the safe, non invasive and painless C13 breath test is performed is the Institute for Hygiene and Applied Immunology of the Medical University of Vienna, at the address Zimmermannplatz 1.

INFORMATION AND ARRANGEMENT:

Phone +43 (1) 40490 / 79470 or +43 (1) 409 26 66 / 11
URL: www.meduniwien.ac.at/hygiene
E-mail: heliobacter@meduniwien.ac.at

HELICOBACTER PYLORI DETECTION

Helicobacter pylori (HP) is a bacterium which can colonise gastric mucus and the gastric epithelium. It is involved in the aetiology of various diseases such as duodenal ulcer (Ulcus duodeni) or stomach ulcer (Ulcus ventriculi). Ulcers of the stomach occur relatively frequently on the basis of recurrent or chronic stomach inflammation (gastritis).

HOW WILL HELICOBACTER PYLORI BE DETECTED?

There are several test systems available for the diagnosis of a Helicobacter pylori infection. The bacterium is either microscopically detected in a smear of a biopsy of the gastric epithelium taken during a gastroscopy, or by the so called rapid urease test, or by C13 breath test. All other detection methods (stools antigen assay or serological assays) do not demonstrate the vital existence of the bacterium in the stomach.

THE C13 BREATH TEST

The patient swallows a test solution which contains the completely harmless C13 labelled urea. In case of an infection the urease which is produced by the Helicobacter strain cleaves the swallowed urea and releases C13 that will be quantitatively detected in the exhalation. If there is no Helicobacter pylori in the breathing out then there is no C13 detectable. The C13 breath test diagnosis the active infection of the stomach, however, it does not say anything about the condition of the stomach or the duodenum. For this reason the breath test as a first diagnostic measure is only recommended for persons below the age of 40; above this age the gastro-enterological examination comes first. Besides the first diagnostic procedure in young adults the breath test is predominantly used in children in the first four weeks after an eradication therapy. The C13 concentration in the exhalation remains stable for a long period of time which allows sending the vial with the exhalation by mail without loss of quality of the sample.