



Innovative Diagnostics is a medically managed service practice led by a group of doctors and supported by a dedicated team of senior and experienced industry professionals. We achieved the industry gold standard CAP Accreditation in 2013 and are forging a new path. We aspire to set industry benchmarks in doctor and patient experiences.

innovative DIAGNOSTICS

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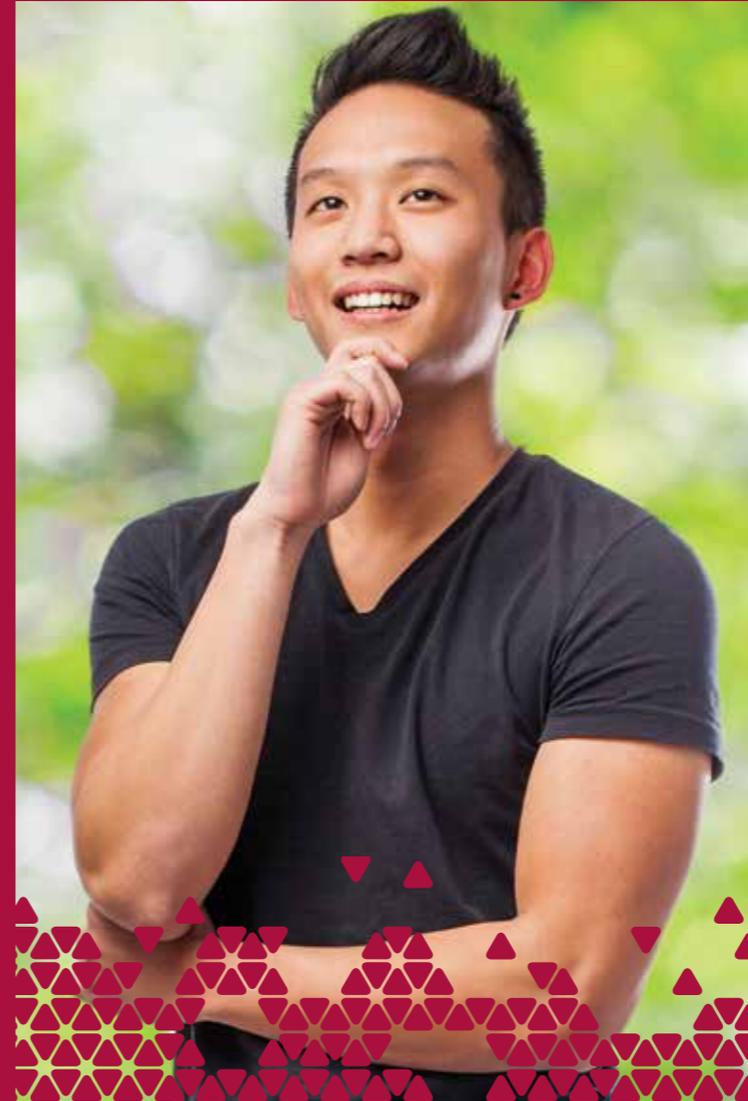
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Urea Breath Test

Detection of increased risk for ulcers, chronic gastritis and gastric (stomach) cancer.



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What Is Urea Breath Test?

The urea breath test detects *Helicobacter pylori* (*H. pylori*) that is associated with the development of ulcers (peptic ulcer disease), gastritis and a certain gastric cancer.

What Is *H. pylori*?

Helicobacter pylori (*H. pylori*) is a type of bacteria. These bacteria can enter your body and live in your digestive tract. It can damage the lining of your stomach, which usually protects you from the acid your stomach produces to digest food. After many years, it may lead to ulcers developing in the lining of your stomach and/or the upper part of your small intestine. It is also a strong risk factor for a certain kind of stomach cancer. Infection with *H. pylori* is common. About two-thirds of the world's population has this infection. For most people, it does not cause ulcers or any other symptoms. But if you do develop problems, and if it is detected early, antibiotic treatment can be given to eliminate the bacteria, help heal the ulcers and reduce the risk of more severe disease.

Symptoms

If you have an ulcer, you may feel a dull or burning pain in your belly. It may come and go, but you'll probably feel it most when your stomach is empty, such as between meals or in the middle of the night. It can last for a few minutes or for hours. You may feel better after you eat, drink milk, or take an antacid.

Other signs of an ulcer include:

- Bloating
- Not feeling hungry
- Vomiting
- Weight loss for no clear reason
- Burping
- Nausea

Ulcers can bleed into your stomach or intestines, which can be dangerous to your health. Get medical help right away if you have any of these symptoms:

- Passing bloody, dark red, or black colored stools
- Trouble breathing
- Dizziness or fainting
- Feeling very tired for no reason
- Pale skin color
- Vomitus that contains blood or looks like coffee grounds
- Severe, sharp stomach pain

It's not common, but *H. pylori* infection is a high risk factor for a kind of stomach cancer called lymphoma. The disease has few symptoms at first, such as heartburn. Over time, you may notice:

- Abdominal pain or swelling
- Nausea
- Not feeling hungry
- Vomiting
- Weight loss for no reason
- Feeling full after you eat just a small amount

What tests should be done?

If you do not have symptoms of an ulcer, your doctor probably will not test you for H. pylori. But if you have them now or had them in the past, it is important to find out what is causing your symptoms so you can get the right treatment. To start, your doctor will ask you about your medical history, your symptoms, and any medicines you take. Then he/she will give you a physical examination, including pressing on your abdomen to check for swelling, tenderness, or pain. You may also have:

- Tests done on your blood and stools, which can help find an infection.
- Urea Breath Test. This test will detect the presence of H. pylori in your stomach. It requires you to swallow a tablet that contains a substance called urea. The urea is labeled with a ¹³C tracer that is not radioactive. If H. pylori is present in your stomach, the urea is broken up and degraded into carbon dioxide and ammonia. The carbon dioxide is absorbed across the lining of the stomach and into the blood. It then travels in the blood to the lungs where it is excreted in the breath. The test requires you to exhale into a bag and your exhaled breath will be sent by your doctor to a laboratory to be tested.

What happens if I have a positive result with my Urea Breath Test?

If you have H. pylori infection, your doctor may also want to exclude the possibility of stomach cancer. This includes:

- Physical examination.
- Blood tests: To look for anemia. Loss of red blood cells could happen if you have a tumor that bleeds.
- Fecal occult blood test: This test checks your stools for the presence of blood that is not visible to the naked eye.
- Upper gastrointestinal endoscopy: In a hospital, a doctor will insert a tube with a small camera, called an endoscope, down your throat to look at the insides of your oesophagus, stomach and upper part of your small intestine. You may be asleep or awake during the procedure, but you will be given mild sedation to make you more comfortable.
- Biopsy: When a doctor takes a small piece of tissue from your stomach to look for signs of cancer. Your doctor may do this during an endoscopy.
- X-rays: You will be asked to drink a liquid called barium, and X-rays will be taken after drinking it. The barium coats the insides of your oesophagus and stomach and makes them stand out clearly on the X-ray images.
- Special Imaging: These make detailed pictures of the insides of your body, such as a CT scan or magnetic resonance imaging (MRI)

Patient preparation

1. Some medications may interfere with this test. Please see the table below for medications to avoid. Always talk to your doctor before stopping any medication.
2. You are required to fast for at least 6 hours prior to the test. No food or water is to be consumed during this period. This test can be performed in the afternoon, following adequate fasting.
3. You should not smoke for 6 hours prior to the test, and for the duration of the test.

Medications to avoid before doing the Urea Breath Test

| Period before | Category | Medication |
|----------------|--|--|
| 6 Hours before | Antacids H ₂ Antagonists | Mylanta, Gaviscon Tagamet, Zantac |
| 7 Days before | Proton Pump Inhibitors | Zoton, Losec, Somac, Pariet, Nexium, Omeprazole |
| 14 Days before | Cytoprotectives | Sucralfate, Bismuth preparations (Pepto Bismol) |
| 30 Days before | Antibiotics | Flagyl, Amoxil, Klacid, Rulide Tetracyclines |

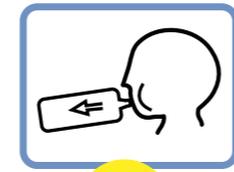
Is this test safe?

This test should only be given to pregnant, possibly pregnant or lactating women only if the anticipated diagnostic benefit is thought to outweigh any potential risk. If you are pregnant or think you might be pregnant, please consult with your doctor prior to taking the test. The safety of this test has been not established for pediatric use. This test does not contain any radioactive substances.

How is the Urea Breath Test performed?

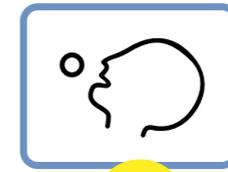
The test requires you to fast for at least 6 hours. A pre-dose sample of exhaled breath is collected. You will be asked to swallow one UBIT Tablet (containing 100mg of ¹³C-urea) promptly with 100ml of water without crushing or chewing the tablet. The tablet must be not allowed to disintegrate in your mouth. You will be required to lie down on your left side for 5 minutes and then return to sitting position. A post dose collection of your exhaled breath will be taken 20 minutes after administration of the tablet. The pre and post dose exhaled breath samples will then be sent to the laboratory for testing.

Urea Breath Test - How to collect breath



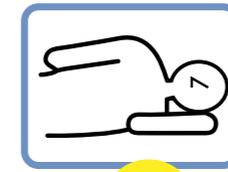
1

Collect 1st
baseline
sample



2

Take the
13C-Urea
capsule



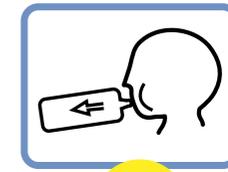
3

Lie on left
side for
5 min



4

Remain
seated for
15 min



5

Collect 2nd
breath
sample



Baseline Bag



Sample Bag

No
gargling
necessary

* Things to keep in mind when collecting breath

- 1) Hold sample bag against the mouth, breathe in through the nose and hold breath for 5-10 seconds.
- 2) Breathe slowly into the bag.
- 3) If you have difficulty holding your breath, make two or three short breaths into the bag instead.
- 4) When blowing into the bag, make sure to breathe out from the lungs.