



H. pylori Breath Test

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H. pylori is one of the most common chronic bacterial infections in humans¹. Infection is acquired in childhood, and persists indefinitely without treatment³. The prevalence in the US is 60% among Mexican Americans, 50% among African Americans and 26% among European Americans. In upper income populations, the prevalence is closer to 10%.

Virtually all infected patients develop chronic gastritis, and 10% to 15% experience recurrent gastrointestinal ulceration. Nearly half of untreated patients develop chronic atrophic gastritis and approximately 1% develop gastric adenocarcinoma or lymphoma³. All patients who have active H. pylori infection should be treated¹.

Indications for H. pylori testing¹:

Definite

- Uninvestigated dyspepsia
- Duodenal or Gastric ulcer (past or current)
- Atrophic gastritis
- Gastric malignancy
- To evaluate the success of eradication therapy

Strongly recommended

- Chronic NSAID, aspirin or antisecretory drug therapy
- Relatives of patients with H. pylori infection or peptic ulcer
- Non-ulcer dyspepsia

Testing for H. pylori was previously done by serology, but this is no longer recommended because of its low sensitivity and inability to confirm eradication after therapy². Post therapy confirmatory testing is critical because 30% of patients fail to clear the organism after initial triple therapy¹. These patients require further evaluation and treatment.

The American Gastroenterological Association's position statement on the evaluation of dyspepsia states that "H. pylori testing is optimally performed by a ¹³C-urea breath test or stool antigen test"⁴. The higher cost of these tests is offset by their accuracy². The ¹³C-urea breath method is the only test that is FDA approved for both diagnostic and post treatment testing.

To avoid false negative results, post treatment testing should be delayed until 4 weeks after completion of the drug regimen. If the stool antigen test is used, a 6 to 12 week waiting period is necessary¹.

The ¹³C-urea breath test is simple to perform and uses a balloon collection device. The patient first provides a baseline sample, and then drinks a citrus flavored, non-radioactive ¹³C-urea solution. 15 minutes later, a second breath sample is collected.

Quick Facts

- ▶ **Conforms to the new American Gastroenterological Association's guidelines for diagnosis and management.**
- ▶ **New AGA guidelines for patient management**
- ▶ **FDA Cleared to Test for Cure**
- ▶ **BreathTEK tests for ACTIVE DISEASE – Serology does not**
- ▶ **95% Sensitivity & Specificity**
- ▶ **Non-invasive**
- ▶ **Non-radioactive, stable isotope**
- ▶ **May continue H2 antagonists through testing**

For more information, please contact Client Services or see us on the Web at



Patient preparation

- Patients should discontinue PPI's (includes Prilosec®, Prevacid®, Aciphex®, Nexium®), antibiotics and preparations containing bismuth (Pepto-Bismol®), two weeks before diagnostic testing, and four weeks before post treatment testing.
- H² antagonists may be substituted for PPIs. These medications do not affect test results and include Zantac®, Tagamet®, Pepsid®, and Axid®.
- Patients should be NPO for 1 hour before the test is done (no food, liquids, or smoking). The test may not be suitable for patients with Phenylketonuria whose dietary phenylalanine should be restricted.

References

1. Helicobacter pylori Diagnosis and Management. Gastroenterol Clin N Am 35 (2006) 229-247.
2. American Gastroenterological Association Technical Review on the Evaluation of Dyspepsia. Gastroenterology 2005;129:1756-1780
3. The Translation of Helicobacter pylori Basic Research to Patient Care. Gastroenterology 2006;130:188-206
4. American Gastroenterological Association Medical Position Statement: Evaluation of Dysplasia. Gastroenterology 2005;129:1753-1755

Test Information

DESCRIPTION **HELICOBACTER PYLORI BREATH TEST**

METHOD Infrared spectrophotometry

ORDER CODE HPYBT

CPT CODE 83013

SPECIMEN See below

COMMENTS *Patient Prep:* Patient is to be fasting for 1 hour prior to the test, no food, liquids or smoking; abstain from the following medications for 2 weeks prior to the test: all antibiotics, Proton Pump Inhibitors (Prilose, Prilosec OTC, Prevacid, Aciphex, Protonix and Nexium), generic version of PPIs and Bismuth Preparations such as Pepto Bismol. Can use Zantac, Tagamet, Pepsid and Axid.

Collection Procedure: Breath samples using preath Tek UBT Kit-one blue bag for the baseline sample and one pink bag for the post dose sample. Follow instruction contained in the collection kit.

Specimen Processing: Send both pink and blue bags at room temperature clearly marked.

Stability: **Room Temp** 7 days Unacceptable Conditions Bags not fully inflated or only one of the bags submitted.

Supply code to order Breathtek kit: 8058

SCHEDULE Sun, Tue, Thu eve

TURNAROUND 1 - 4 days

RANGES Helicobacter Pylori Breath Test **Negative**

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