

Patient Information: ^{13}C Breath Test for *Helicobacter pylori* (Hp) Infection

Dear Patient,

You are scheduled to undergo a ^{13}C breath test for *Helicobacter pylori* detection. The following information is intended to explain the purpose of this test and the necessary preparatory measures. The accuracy of the ^{13}C breath test is crucial for establishing a correct diagnosis and determining whether further examinations or antibiotic treatments are necessary. Proper preparation is therefore in your best interest, helping to avoid unnecessary and time-consuming repeat tests.

Please note: The test is not reliable while taking antibiotics. If you are currently on antibiotic therapy, please schedule an appointment **four weeks after completing the treatment**.

Principle:

The *Helicobacter pylori* bacterium has the ability to break down urea. This allows for detection through a breath test. When you ingest a **^{13}C -urea tablet**, the urea can be broken down in the presence of the bacterium. A portion of the labeled urea is exhaled as **CO_2** , which can then be detected using specialized measurement techniques.

Test Procedure:

The ^{13}C breath test involves collecting **two breath samples** at **10-minute intervals**:

1. A **baseline breath sample** is taken.
2. You then take a **^{13}C -urea tablet** with a sip of water.
3. After **10 minutes**, a **second breath sample** is collected.

Preparation Instructions:

14 days before the breath test:

- **Discontinue proton pump inhibitors (PPIs)** such as Omeprazole, Pantoprazole, Esomeprazole, Nexium, etc.
- **Discontinue H2 blockers** such as Ranitidine or Zantic.

The day before the test:

- Avoid **corn and soy products** (e.g., cornflakes).
- After dinner, **only drink water**.
- Dinner should be **light**—avoid foods that cause bloating.
- Do not consume foods high in **sugar or artificial sweeteners**.
- Avoid **carbonated drinks** (e.g., cola, sparkling water).
- **6 hours before the test:** Do not eat anything, including snacks.
- **Do not consume alcohol.**
- Until **11:00 PM** the night before the test, you may drink **still water, black coffee, or tea**.

On the day of the test:

- Remain **fasting** (do not eat).
- Do **not** chew gum.
- Do **not** drink anything.
- Do **not** take any medications.
- Do **not** brush your teeth, use **denture adhesives**, or rinse your mouth.
- Do **not** smoke.