Non-invasive breath analysis for the detection of gastrointestinal disorders...

...with the Gastrolyzer® range

Improving quality of life, one breath at a time

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Hydrogen Breath Testing (HBT)

HBT is a non-invasive, sensitive and specific means of diagnosing small bowel sugar malabsorption. They make use of gut bacteria's ability to digest sugars and convert these to hydrogen, which is then absorbed into the blood and can be measured in exhaled breath \(^1\).

The test is commonly used in neonate, paediatric and adult gastroenterology departments to diagnose malabsorption of the sugars lactose, fructose and sucrose. It is also used to investigate small intestinal bacterial overgrowth \(^2\).

The Gastrolyzer range is world renowned for delivering accurate hydrogen breath testing, cited by clinical leaders in gastroenterology, such as Robert Heuschkel \(^1\) and Way Seah Lee \(^3\).

Applications of HBT

- Lactose intolerance
- Fructose intolerance
- Sorbitol intolerance
- Fructose-sorbitol tolerance
- Xylitol intolerance breath
- Lactulose breath
- Xylose breath

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The Gastro+ is an easy to use, non-invasive breath hydrogen monitor, with two sampling modes. Enabling breath samples to be taken from patients of all ages.

**Mouthpiece sampling system**
This sampling system is recommended for use with adults or patients able to hold their breath for a short period of time. The patient takes a deep breath in, holds, then exhales slowly through a sampling system. Within 45 seconds their result will be displayed on the screen to be either downloaded to the Gastro Chart database (included with Gastro+) or recorded manually depending on preference.

**Facemask sampling system**
This sampling system is recommended for use with children and babies, who are unable to co-operate with the test. The Gastro+ is attached to a facemask, which is then placed over the mouth and nose of the patient. Once ‘Facemask’ mode is selected the Gastro+ will take a real-time reading until the operator is happy the reading is correct. The reading is then held on the screen to be downloaded to the Gastro Chart database (included with the Gastro+) or recorded manually depending on preference.

**Gastro+ Gastrolyzer® Features**

**ABS body**
for easy grip and cleaning to ensure optimum infection control every test.

**Battery Indicator**
the Gastro+ requires 3 AA batteries, making it totally portable and easy to transport.

**Colour Touch Screen**
quick and easy use, with visual prompts for patients whilst taking a test to ensure correct results every time.

**Two Sampling Modes**
to enable breath hydrogen testing for patients of all ages.
GastroCHART Patient Database
(included with every Gastro+)

GastroCHART is designed specifically for use with the Gastro+. It allows the health care professional to save up to 10 patients on the monitor for satellite breath tests, if connected to a PC readings can be downloaded to an unlimited patient database immediately.

The readings can then be shown in tabular and graphical formats to show whether the patient has presented a positive/negative result. Results can be easily printed for the patient to retain and record in their medical history.

Technical Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration range</td>
<td>0-500ppm hydrogen (H2)</td>
</tr>
<tr>
<td>Display</td>
<td>Colour LCD with 1ppm increments</td>
</tr>
<tr>
<td>Detection principle</td>
<td>Electrochemical sensor</td>
</tr>
<tr>
<td>Accuracy (repeatability of reading)</td>
<td>± 5%</td>
</tr>
<tr>
<td>Carbon monoxide cross-sensitivity</td>
<td>&lt;± 2%</td>
</tr>
<tr>
<td>Batteries</td>
<td>3 x AA (LR6 or equivalent) alkaline batteries</td>
</tr>
<tr>
<td>Response time</td>
<td>Typically &lt;45 seconds</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>0-40°C (Storage 0-50°C)</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>10-90% (Storage 0-95%) non-condensing</td>
</tr>
<tr>
<td>Sensor operating life</td>
<td>2-3 years, 6 month warranty</td>
</tr>
<tr>
<td>Sensor sensitivity</td>
<td>1ppm</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Approx. 44 x 77 x 138 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 250g including batteries</td>
</tr>
<tr>
<td>Construction</td>
<td>Case - Polycarbonate/ABS blend with elastomeric overmould. D-piece - Polypropylene</td>
</tr>
</tbody>
</table>

Interested in non-invasive breath testing for Helicobacter Pylori (HP) infection?

To find out more about our upcoming developments in breath testing for HP register your details with us. You will be first to find out how we can dramatically reduce the cost of this test and therefore increase accessibility to many more sufferers.

Ways to register:

Call us: 01634 673 720
E-mail us: ask@bedfont.com

References
breath analysis is the new blood test