

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

...with the **Gastrolyzer[®]** range



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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



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

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.

ABS body

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

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

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

References

- 1.R. Heuschkel, H. Shelley and M. Brennan. Hydrogen Breath Testing in Children: What is it and why is it performed?. *Gastrointestinal Nursing*, Vol 7: 18-27, 2009.
- 2.A Eisenmann, A Amann, M Said, B Datta, M Ledochowski. Implementation and Interpretation of Hydrogen Breath Tests. *J Breath Res* 2: 1-9, 2008.
- 3.Lee W S et al. Analysis of breath hydrogen test for carbohydrate malabsorption: validation of a pocket-size breath analyser. *J Paediatr Child Health* 36: 340-342.

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



Contact Bedfont or one of our worldwide **Gastrolyzer[®]** distributors for a free demonstration

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A full list of our worldwide distributors can be found at
<http://www.bedfont.com/uk/english/distributors>

breath analysis is the new blood test

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