



Medtronic

BILITEC™ 2000

For Detection of Bile Component in Reflux Disease

Gastroesophageal reflux disease is typically thought of as an acid reflux problem. However, studies have shown that bile reflux can be a contributing factor in esophageal complications of the disease.^{1,2} Incidence of Barrett's esophagus and esophageal adenocarcinoma is greater among patients with bile reflux,^{3,4,5} and excessive duodenogastric reflux has been implicated in the etiology of antral gastric ulcers and gastritis.⁶

Bilitec 2000 is currently the only commercially available device that is proven effective in measuring bile reflux.⁷ Using bilirubin as a marker for bile, Bilitec 2000 records the frequency and duration of bile exposure in either the stomach or the esophagus over a 24-hour period.

Combined with 24-hour pH testing, Bilitec 2000 gives a more comprehensive profile of a patient's reflux disease. It can help identify patients with a bile component to their reflux and who are thus at greater risk for developing complications of the disease such as Barrett's esophagus and esophageal adenocarcinoma. Bilitec 2000 is exclusively distributed by Medtronic Functional Diagnostics.



A Good Diagnosis is Half the Cure

BILITEC™ 2000

Is it really acid reflux? Is acid reflux the whole problem or just part of it?

Combined pH and bile testing provides the answers, resulting in more precise diagnosis and better patient management.

Cross analysis made easy with combined graphical view and report

The pH and bile tracings are displayed in the same graph for easy viewing, correlation, analysis and reporting with the Polygram98 software.

Bilitec™ 2000 System Specifications

Number of channels	1-2
Sampling rate	Every second; average value calculated per every 4s, 8s or 16s
Power supply	4 AA size 1.5V alkaline batteries
Current consumption	16mA in measurement configuration, 35mA in set up configuration
Communication	RS 232
Communication speed	9600 baud
Resolution	8 bit
Display	LCD display
Dimensions	200 x 100 x 35mm, 8 x 4 x 1.4 inch
Weight	450g, 16oz
Software	Polygram 98 pH Testing Application

Accessories

Fiberoptic catheter

References

- ¹ Marshall RE, et al., Bile in the oesophagus: Clinical relevance and ambulatory detection, *British Journal of Surgery*, Vol. 84, No. 1, January 1997, pp. 21-28.
- ² Gregory Champion, et al., Duodenogastroesophageal reflux: Relationship to pH and importance in Barrett's esophagus, *Gastroenterology*, Vol. 107, Issue 3, 1994, pp. 707-754.
- ³ Fein, Martin, et al., Duodenogastric reflux potentiates the injurious effects of gastroesophageal reflux, *Journal of Gastrointestinal Surgery*, Vol. 1 No. 1, 1997, pp. 27-33.
- ⁴ M.T.P. Caldwell, et al., Ambulatory oesophageal bile reflux monitoring in Barrett's oesophagus, *British Journal of Surgery*, Vol. 82, 1995, pp. 657-660.
- ⁵ Kauer, Werner K.H. et al., Mixed reflux of gastric and duodenal juices is more harmful to the esophagus than gastric juice alone, *Annals of Surgery*, Vol. 222, No. 4, 1995, pp. 525-533.
- ⁶ Paolo Bechi, et al., Long-term ambulatory enterogastric reflux monitoring. Validation of a new fiberoptic technique, *Digestive Diseases and Sciences*, Vol. 38, No. 7, July 1993, pp. 1297-1306.
- ⁷ James P Byrne, et al., Duodenogastric reflux of bile in health: the normal range, *Physiol. Meas.* Vol. 20, 1999, pp. 149-158.

Data is subject to change without notice.

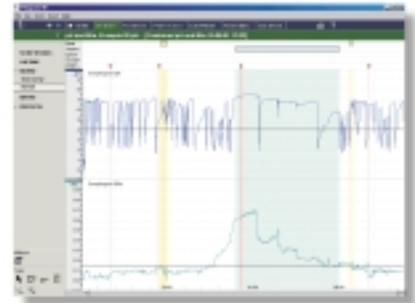


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The Bilitec 2000 and Digitrapper pH enable monitoring of duodenogastric reflux in the patient's daily environment. A combined graphical representation of the pH and bilirubin absorbance traces enhances cross-correlation and analysis.



The fiber-optic Bilitec catheter and antimony pH catheter facilitate simultaneous recording of intraluminal acid and bilirubin.



Creating a summary report is a breeze with standard templates. You can customize these templates to include or exclude the parameters and graphs you choose.



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