

ELECTROGASTROGRAPHY

A Total Solution

As part of our goal to provide a comprehensive solution, the ElectroGastroGraphy system comes with a complete range of accessories, education and training programs, and multi-tiered customer support.

A full range of accessories

We supply a full range of accessories designed for EGG recordings. To ensure quality results, our EGG cables incorporate efficient shielding and filtering. The motion sensor tracks movement and respiration minutely, thus making motion-artifact detection easy and reliable.

Education & training programs

To facilitate quick and smooth integration into clinical practice, Medtronic offers accredited, on-site and regional training programs, as well as pH and Motility Tracing Interpretation seminars for physicians in the United States. These programs are created and developed in collaboration with leading clinicians and researchers. Physicians outside the United States are welcome to participate as well. For more information, please contact your local sales representative or visit our website at www.mfd.medtronic.com.

References

- 1 Chen, J. & McCallum ed. *Electrogastrography: Principles and Applications*. Raven Press, 1994
- 2 Chen, J., 'Abnormal Gastric Myoelectrical Activity and Delayed Gastric Emptying in Patients with Symptoms Suggestive of Gastroparesis', in *Digestive Diseases & Sciences*, Vol 41, No. 8, August, 1996
- 3 Geldof, H. et. al., 'Electrogastrographic study of Gastric Myoelectrical Activity in Patients with Unexplained Nausea and Vomiting', in *Gut*. No. 27, 1986

Data is subject to change without notice.



Product Components

ElectroGastroGraphy Application
Polygraf ID 8-channel
Polygraf ID, Upgrade
EGG main cable
EGG 1-channel extension cable
EGG 3-channel extension cable
EGG 4-channel extension cable
12 small EGG electrodes (Pediatric)
12 large EGG electrodes
NuPrep paste
Signa electrode gel
Motion sensor
Motion sensor extension cable



Medtronic

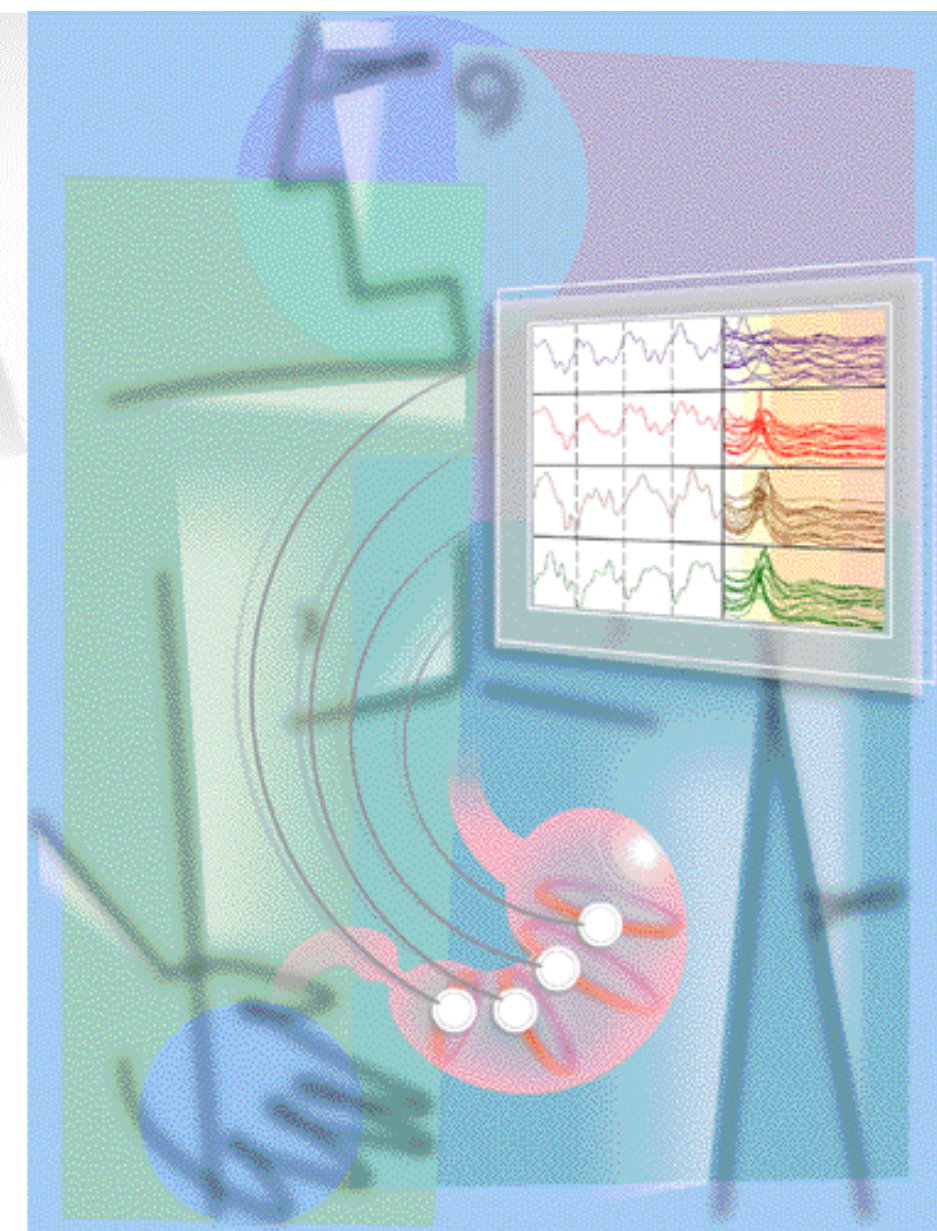
ELECTROGASTROGRAPHY APPLICATION

Non-invasive assessment of gastric motility

Having pioneered digital portable electrogastrography (EGG) more than a decade ago, Medtronic now introduces the next generation in EGG diagnostics, the ElectroGastro-Graphy Application running on the POLYGRAM NET™ platform.

Multiple publications establish that in a person with normal health, gastric pacemaker signals propagate at approximately 3 cycles per minute (cpm)¹. Research indicates that an abnormal frequency, signal coupling, and/or poor power responses to test meals from the gastric motor complex, are associated with diseases such as functional dyspepsia, gastroparesis and unexplained nausea and vomiting^{2,3}. By measuring these frequency and power characteristics, EGG provides unique insights into patients' gastric pathophysiology allowing physicians to:

- characterize patient's disease more accurately
- recommend therapy with greater confidence



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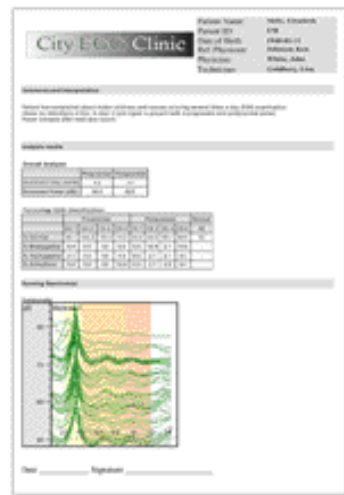
ISO-9000
certified

For More Accurate Gastric Myoelectrical Pathophysiology Profiles

ElectroGastroGraphy Application refines the definition of pathophysiology

New insights into gastric myoelectric coordination with Medtronic Propalyzer[®] multi-channel analysis

A single point measurement cannot indicate gastric signal propagation. However, with the Medtronic Propalyzer multi-channel analysis of the ElectroGastroGraphy Application, you can investigate the propagation and coupling of gastric myoelectric wavefronts, thus obtaining a more complete picture of a patient's pathophysiology.



Customized report: Users can customize each report to include the necessary parameters, types of analysis and patient's information.

Refined profile of gastric myoelectric waves with Running Spectrum Analysis

Traditionally, EGG data analysis is based on long-term variations, often 4 to 5 minute periods. The ElectroGastroGraphy Application provides a new dimension: using algorithms developed by leading EGG researcher Dr. Jiande Chen, it displays the recorded data on a minute by minute basis. This enables identification of sporadic spikes that would remain undetected in long-term analyses.

On-screen overview of patient's pathophysiology during recording

The ElectroGastroGraphy Application enables you to gain an overview of a patient's pathophysiology during the recording, thus providing physicians with more immediate information.



User-Configured Patient Symptom Diary

At any time during or after data recording, notes about patient's symptoms can be inserted directly on the tracing. This is achieved using a pre-defined set of Symptom Event Markers that can be inserted with comments; thus allowing grading of symptom severity. Symptom Events can be customized to suit specific clinical needs.

Easy to Use

ElectroGastroGraphy Application delivers high-performance with simplicity

Intuitive step-by-step on-screen procedure guides

A step-by-step on-screen guide (see below) assists you to achieve a successful outcome.

Intuitive navigation

Based on web-page architecture and graphical presentation, navigating through the ElectroGastroGraphy Application is easy.

Time savings with Automatic Impedance Check and optional Motion Sensor

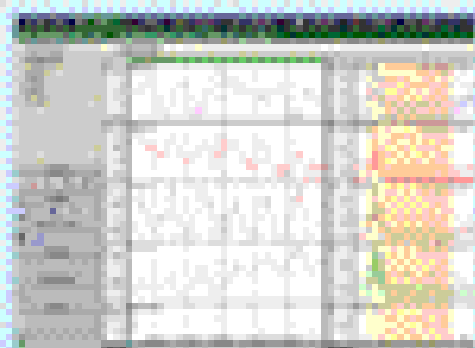
The Automatic Impedance Check verifies electric contact with the skin within 10 seconds on all electrodes. An optional Motion Sensor records respiratory and patient movements during data capture. This assists physicians to easily identify motion artifacts, which can then be excluded from subsequent analysis.

Portable system

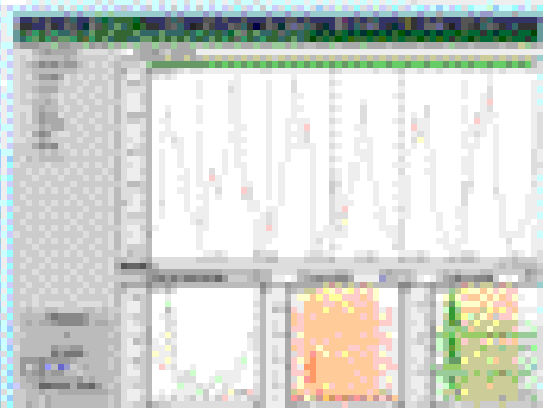
Consisting of the Polygraf ID and the option to work with a laptop, the Medtronic ElectroGastroGraphy system can be easily transported to the clinical room or bedside.



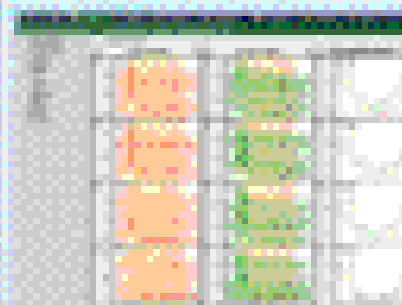
**Medtronic Propalyzer is a term we use for propagation analyzer.*



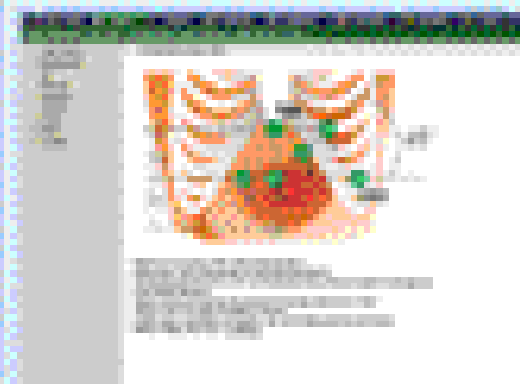
Capture View: Whilst recording data collected in all channels and motion sensor are displayed simultaneously together with a corresponding Running Spectrum Analysis (RSA) graph. The latter presents data captured by minute in a stack sequence. Test periods and artifacts can be easily marked out while the recording takes place.



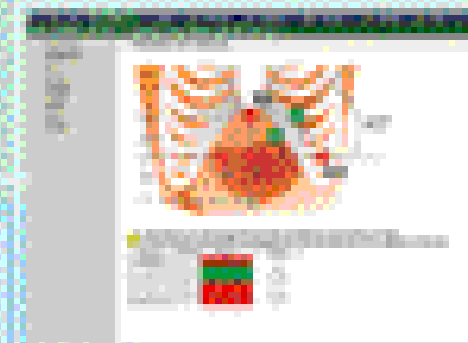
Clinical View: Allow reviewing of data in an individual channel. It displays an Overall Spectrum Analysis (OSA) graph which shows and indicates the Dominant Power and Dominant Frequency in a given period. Also shown are two RSA graphs corresponding to Preprandial and Postprandial.



Matrix View: Offers an overview of two defined periods from all the channels at the same time. Two RSA and one OSA graphs are displayed for each channel.



On-line step-by-step preparation guide: Users are hand-guided through the necessary steps in order to achieve a good EGG recording.



Automatic Impedance Check: Measures the skin impedance of each channel automatically, showing its value onscreen and verifies that all electrodes are in good electrical contact with the skin. The Status Bar gives a clear visual feedback.