



A Broader Perspective on Cardiac Patient Management

CASE™ Cardiac Assessment System for Exercise Testing



Broader measurements.

The CASE Cardiac Assessment System for Exercise Testing supports detection and effective management of Cardiovascular Disease (CVD). It provides clinicians with a suite of comprehensive diagnostic measurements, offering deeper insights and broader perspective on cardiac patient management.



MORE THAN 400 MILLION PEOPLE
live with cardiovascular disease (CVD)¹

We added measurements, not complexity

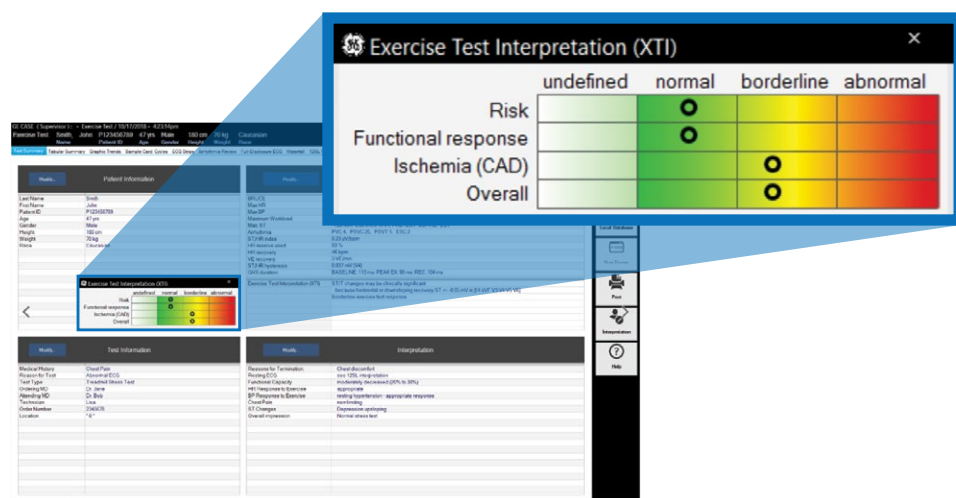
Known for robust ECG signal quality and clinical accuracy, the CASE system also provides a suite of advanced measurements to help you manage a variety of CVD patient groups.

- **Coronary artery disease (CAD)** – CASE is the only stress solution to use **ST/HR Hysteresis** analysis, shown to improve the accuracy of CAD detection.²
- **Sudden cardiac death** – The CASE system provides critical algorithms – including the **patented T-wave Alternans (TWA) algorithm** – to assist you in predicting patients at risk of sudden cardiac death.
- **Cardiovascular disease monitoring** – **Metabolic equivalent (METS)** level achieved during exercise testing is an important predictor of adverse cardiac events after myocardial infarction.³ Failure to achieve 5 METS during treadmill exercise is associated with a worse prognosis.⁴

Quick, easy-to-read results

The CASE exercise testing system enables a fast, confident assessment

- **In-test access to results** – Access to in-test full disclosure means you can deep dive into any element of the ECG at any time during the test.
- **XTI algorithm** – Highlights measurement deviations, providing an advanced analysis of patients' functional response, cardiac risk profile and coronary artery disease risk.



The results are displayed in a quick and easy to read format offering you a broad insight into your patients' response to exercise testing.

The unique
XTI
ALGORITHM
compares
MORE
THAN



DATA
POINTS
against
established
benchmarks

Broader testing flexibility.

The more testing devices and modalities you can integrate with your cardiac assessment system, the more flexibility you have in choosing the right combination for each patient.





Scalable and flexible.

Whatever the size of your facility, your stress solution can be configured to maximize productivity and simplify workflow based on your IT and clinical needs.

CASE can seamlessly integrate to MUSE™, and PACS systems so results are available virtually anywhere, anytime. Clinical analysis data, report results, manual interpretations and confirmations are included, providing a comprehensive view of the patient's diagnosis.

- **Advanced security and compliance.** The CASE system protects your data and system with multi-level password login configurations.
- **Open system architecture.** GE Healthcare uses industry standard communication protocols, including DICOM and XML.
- **Support services.** Count on GE Healthcare technical support experts to provide installation, system configuration, upgrade services and remote support.



Imagination at work

- 1 Global, Regional, and National Burden of Cardiovascular Diseases for 10 Causes, 1990 to 2015 JACC. VOL. 70, NO. 1, 2017 https://ac.els-cdn.com/S0735109717372443/1-s2.0-S0735109717372443-main.pdf?_tid=8a00d9d7-0b78-4f65-8a52-84eb557fd6e3&acdnat=1531820057_515861b7187a6943d50cdb59cfc3bc3
- 2 R. Lehtinen, H. Sievänen, J. Viik, V. Turjanmaa, K. Niemelä and J. Malmivuo. Accurate Detection of Coronary Artery Disease by Integrated Analysis of the ST-Segment Depression/Heart Rate Patterns During Exercise and Recovery Phases of the Exercise Electrocardiography Test. *Am J Cardiol* 1996; 78:1002–10062 AHA Releases 2015
- 3 Myers, J., et al., Exercise capacity and mortality among men referred for exercise testing. *The New England Journal of Medicine*, 2002. 346(11): p. 793-801.
- 4 D.J. Mertens et al., A simple formula for the estimation of maximal oxygen intake during cycle ergometry. *European Heart Journal* (1994) 15, 1247–1251.

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eBike III

Ergometer

The GE Healthcare eBike III ergometers have been designed with the patient in mind. The ergonomic design offers a seating position that is optimal for almost all body sizes, and a step-through passage allowing for easy mounting and dismounting, even for those with restricted movement.

Cadence-independent bicycle ergometers for load ranges between 6 and 999 watts. The robust mechanical construction ensures reliable function even when in constant use.

The connection between GE Healthcare stress-testing systems and eBike III allows for optimal control of the entire examination.

eBike III is available in two versions – eBike III Basic and eBike III Comfort – with different characteristic features.

eBike III Basic ergometer

- Cadence-independent load
- Seat height continuously adjustable
- Handlebar angle adjustment
- Whisper quiet drive
- Extra-low step-through frame
- Pedal stopping without delay
- Automatic blood-pressure module (optional)[†]
- Microphone signal strength indicator for auscultatory BP (Standard with blood pressure option)
- Digital interface to GE stress-testing systems

eBike III Comfort ergometer

Includes all eBike III Basic features in addition to the following:

- Motorized seat height, continuously adjustable
- Digital indication of the current seat height
- Permissible patient weight up to 200 kg (440 lb)

[†]Availability of Automatic Blood Pressure Module varies by country. Contact your local GE Healthcare representative for more information.



	eBike III Basic	eBike III Comfort
Ergometer		
Brake system	Computer-controlled eddy current brake with torque measurement	Computer-controlled eddy current brake with torque measurement
Load range	6-999 watts, speed (RPM)-independent	6-999 watts, speed (RPM)-independent
Load Accuracy	Complies with DIN VDE 0750-0238	Complies with DIN VDE 0750-0238
Speed range	30-130 RPM	30-130 RPM
Permitted patient weight	160 kg (352 lb)	200 kg (440 lb)
Handlebar adjustment	Continuous tilt thru 360° Rigid steering column	Continuous tilt thru 360° Rigid steering column
Saddle height adjustment	Manual adjustment	Electrical adjustment of the saddle height with digital indication of the current saddle height
Display	Control terminal M with 93 x 70 mm LCD, 128x64 pixels and 7-segment RPM display	Control terminal M with 93 x 70 mm LCD, 128x64 pixels and 7-segment RPM display
Display values (during exercise test)	Load (watts), duration (min), speed (RPM), most recent blood pressure [†] and heart rate during blood pressure test [†]	Load (watts), duration (min), speed (RPM), most recent blood pressure [†] and heart rate during blood pressure test [†]
Digital display of saddle height	✕	✓
Options		
Automatic blood pressure measurement [†]	★	★
Interfaces		
PORT 1 (DSUB-9-pole): remote control from PC or ECG recorder	✓	✓
USB: remote control from PC (driver required)	✓	✓
COM module (analog option)	★	★
Environmental & Safety		
Safety standards	DIN EN 60601-1, DIN EN 60601-1-2, DIN VDE 0750-238	
Protection class/degree of protection	Protection class II. B (ergometer). BF (blood pressure module)	
MDD classification	Class IIa to 93/42 EEC	
RF emission	Class B to DIN EN 55011 / 5.0. DIN EN 60601-1-2	
Environment	Operation: Temperature: +10 to +40 °C (50 to 104 °F) Rel. humidity: 30 to 75%, no condensation Atmospheric pressure: 800 to 1060 hPa Transport and storage: Temperature: -20 to +70 °C (-4 to 158 °F) Rel. humidity: 10 to 95%, no condensation Atmospheric pressure: 500 to 1060 hPa	
Other Details		
Dimensions (Approx.)	Length 1030 mm (40.55 in) Width 490 mm (19.29 in) Height 1140 to 1400 mm (44.88 to 55.11 in)	Length 1030 mm (40.55 in) Width 490 mm (19.29 in) Height 1140 to 1400 mm (44.88 to 55.11 in)
Weight (Approx.)	61 kg (134 lb)	69 kg (152 lb)
Power	100 – 240 V / 50 – 60 Hz (max. 60 VA or 90 VA)	100 – 240 V / 50 – 60 Hz (max. 60 VA or 90 VA)

✓ = Standard ★ = Option ✕ = N/A

[†] Availability of Automatic Blood Pressure Module varies by country. Contact your local GE Healthcare representative for more information.

Blood Pressure Module (Optional)	
Measuring method	Auscultatory method (Korotkov), oscillometric; for resting BP, the results from both measurements are compared for plausibility
Measuring range	Systolic pressure: 40 to 280 mmHg Diastolic pressure: 40 to 280 mmHg Pulse rate: 35 to 230 bpm
Measurement error, systematic	Systolic pressure: +/- 3 mmHg Diastolic pressure: +/- 3 mmHg (temperature: +15 to +25 °C (59 to 77 °F))
Standard deviation (clinical trial)	Systolic/diastolic pressure: 7 mmHg (max.)
Inflation pressure	300 mmHg max.; during inflation the inflation pressure automatically adapts to patient's BP
Inflation rate	Between approx. 6 seconds (to 140 mmHg) and approx. 18 seconds (to 300 mmHg)
Max. cuff pressure	300 mmHg
Cuff deflation method	Pulse-dependent deflation rate approx. 3 mmHg/beat or approx. 3 mmHg/s
Calibration	Calibration with external pressure meter
Artifact rejection	Automatic artifact rejection

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter – great people and technologies taking on tough challenges.

From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

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