

Guardian® RT

Continuous glucose monitoring system
with real-time display and alarms



Real-time glucose information for effective control

Guardian® Real Time uses a proven and reliable technology

Diabetologists throughout the world have been using the Medtronic MiniMed subcutaneous glucose sensor since 1999. To date, over 150,000 people of all ages with diabetes have benefited from the additional insight into glycaemic patterns beyond A1c and finger sticks and have received improved treatment thanks to the CGMS system [Ref.1].

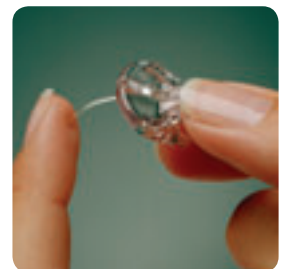
Based on this proven sensor technology, Guardian® RT system is designed to display real-time blood glucose levels, and to continuously and reliably alert patients of dangerous hypo and hyperglycaemic levels as they occur [Ref.2, 3].

Easy to use and wear

A special insertion device called Sen-serter® allows optimal and easy insertion of the subcutaneous sensor. A water tight transmitter sends glycaemic data wirelessly to the monitor over a distance of up to 2 meters, giving the user freedom and comfort.

Guardian® RT provides around-the-clock information about glycaemic trends for up to 3 days per sensor, requiring only 2 finger stick calibrations per day.

Guardian® RT can be used by people of all ages. The device is comfortable enough for a child to wear, and discrete enough for adults.



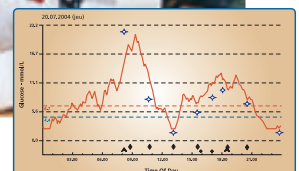
Glycaemic display available in mg/dl and mmol/l.

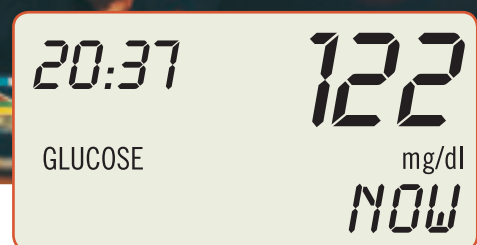
A powerful 'diabetes diary' to share information

People with diabetes using Guardian® RT have the opportunity to use their device as a powerful 'diabetes diary', storing up to 21 days of data. They can easily enter their finger stick values, insulin doses (in U), the amount of carbohydrate per meal, the time spent exercising and 'other' events into Guardian® RT.

The download feature of the Guardian® RT software comprehensively displays the relationship between the patient's activities and his/her glycaemic control throughout the day.

By providing insight into glycaemic trends, Guardian® RT assists the healthcare team in making faster therapeutic adjustments to achieve better control.





Protect people with diabetes from severe hypoglycaemic events

Almost 50% of all severe hypoglycaemia episodes occur at night during sleep. If low blood sugar levels continue to go unnoticed or untreated, such episodes can become serious especially for children [Ref. 4, 5]. Guardian® RT system helps to warn diabetic people of severe hypoglycaemia through its hypoglycaemic alarm function. By using Guardian® RT, you provide peace of mind for your patients and their families.

Instant glycaemic information to achieve better control

The Guardian® RT system is a personal continuous glucose monitoring system that displays blood glucose levels around the clock. This continuous information facilitates any treat-to-target approach and empowers people with diabetes to take action before glycaemic excursions lead to emergencies [Ref.6]. Alarms provide added safety for patients when their blood glucose levels go above or below the target range.

Educate and empower your patients

Education and learning is critical for people with diabetes. Guardian® RT helps to visualise the glycaemic level during and after food intake, physical exercise, life style changes and other daily events.

The Guardian® RT system is for all Type 1 or Type 2 patients who wish to reduce erratic blood glucose fluctuations and emergency situations [Ref. 7]. Thanks to this feedback, understanding and controlling one's own diabetes has never been easier.





Register on www.GuardianRT.com

to receive more information about Guardian® RT

Guardian® RT is expected in Europe in early 2005. If you would like to receive more information, just leave us your contact information

On the web: www.GuardianRT.com

By email: guardianrt@medtronic.com

By fax: +41 21 802 7275

Or by contacting your local Medtronic MiniMed representative.

Investigational device. Not yet cleared by European authorities.

Our commitment to you and your patients

When you use your first Guardian® RT system, Medtronic MiniMed is there to help you with any needs or questions you might have. We will train your staff thoroughly on the Guardian® RT system, and provide you with materials that make it easy for you to train your patients. Our product specialists are on hand to assist you and your patients using the Guardian® RT system.

References

[Ref. 1] *Data based on Medtronic estimate.* Over 100 publications on Medtronic CGMS are available, and more than 1500 leading hospitals throughout Europe use Medtronic subcutaneous sensor technology.

[Ref. 2] Hoss U. et al: *Accuracy of the Guardian continuous monitoring system under conditions of normal use.* Abstract #1932, 64th annual meeting of the American diabetes association. 2004.

[Ref. 3] Bode B., Gross K., Rikalo N., Schwartz S., Wahl T., Page C., Gross T., Mastrototaro J. *Alarms Based on Real-Time Sensor Glucose Values Alert Patients to Hypo- and Hyperglycaemia: The Guardian Continuous Monitoring System.* Diabetes Technology & Therapeutics 2004;6:105-113.

[Ref. 4] Jones TW, Davis EA. *Hypoglycaemia in children with type 1 diabetes: current issues and controversies.* Pediatr Diabetes. 2003;4(3):143-50.

[Ref. 5] Allen KV, Frier BM: *Nocturnal hypoglycaemia: clinical manifestations and therapeutic strategies toward prevention.* Endocr Pract. 2003 Nov-Dec;9(6):530-43.

[Ref. 6] Lee S.W et al. *Glucose excursions detected by the continuous glucose monitoring system and missed by routine self-monitoring blood glucose measurement in patients with type 1 and type 2 diabetes requiring insulin.* Abstract #444, 64th annual meeting of the American diabetes association. 2004.

[Ref. 7] Yogev Y; Ben-Haroush A; Chen R; Kaplan B; Phillip M; Hod M. *Continuous glucose monitoring for treatment adjustment in diabetic pregnancies-a pilot study.* Diabet Med 2003 Jul;20 (7): 558-562.



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