



# CONNECT

## Sensor implants for painless blood glucose measurement

### Background

Roche Diabetes Care is addressing the issue of diabetes patients and developing the Eversense XL solution, a CGM system that offers sufferers the option of reliable and continuous measurement of glucose levels. The CGM solution is based on three components that interact with each other: a sensor implant, a transmitter, and a mobile app. The cost of the innovative CGM solutions is usually approved by health insurers when insulin therapy is needed or blood glucose levels are highly fluctuating.

### More freedom for diabetics thanks to innovative sensor implants

Diabetes Mellitus - 8 million people in Germany are affected by the blood sugar disease, which is divided into 2 types. Every year, another 600,000 people contract the disease. Affected persons of diabetes type 1, must continuously and lifelong supply their body with insulin, since it is an autoimmune disease. The main causes of type 2 diabetes are obesity, lack of exercise and genetic predispositions and can be treated in part without the addition of medication or by means of blood sugar-lowering drugs, but there are also many sufferers in this patient group who are dependent on life-sustaining insulin therapy. The number of diabetes patients worldwide is continuously increasing.

Conventional insulin therapies require patients to have their blood glucose measured regularly and to take the required insulin daily. This inevitably restricts the lives of the individuals concerned, as the supply requires a specific daily routine with set insulin times and a high degree of discipline with regard to diet. Alternatively, there is a mixture of long-acting insulin injections and additional doses and injection before food intake or the use of an insulin pump that the patient wears on the body.

Continuous Glucose Monitor (CGM) systems are now considered an innovative solution and promise more flexibility and continuous blood glucose monitoring for sufferers. Patients are implanted with a sensor in the subcutaneous fat tissue that uses a transmitter and an app for data visualization to continuously measure glucose. With its Eversense XL product, the Roche company developed a long-term sensor that is placed completely under the skin and can be used for up to six months. Insertion and removal is performed by a physician on the upper arm and promises reliable and accurate glucose measurement. Through the waterproof, low-profile Smart Transmitter, which is removably attached to the skin over the sensor using a silicone-based adhesive patch, the patient receives glucose readings from the sensor and transmits them to the accompanying free Eversense mySugr app. Here, data is recorded, changes are documented and warning signals are sent out. If critical glucose values are reached or strong ch-



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anges are detected, the patient is additionally alerted via a vibration of the Smart Transmitter.

The innovative sensor solution enables patients to achieve a higher level of quality of life and normality in everyday life as well as a better feeling for their own body. Patients can see which activities have a positive or negative effect on their blood glucose and how glucose levels behave under normal circumstances. Daily manual blood glucose measurements, where patients have to prick their finger again and again, will be a thing of the past in the future.

The topic around diabetes treatments and CGM systems arouses your interest and you would like more information about it? We would be happy to put you in touch with the company! Just contact us with your request. arcoro CONNECT links innovative ideas and people - personally and directly.

COMPANY	LOCATION	WEBSITE	FIELD OF EXPERTISE
Roche Diabetes Care	Germany	<a href="https://www.roche.de/">https://www.roche.de/</a>	CGM systems
Abott Laboratories	USA (IL)	<a href="https://www.abbott.com/">https://www.abbott.com/</a>	CGM systems
Dexcom Inc	USA (CA)	<a href="https://www.dexcom.com/de-DE">https://www.dexcom.com/de-DE</a>	CGM systems
Insulet Corporation	USA (MA)	<a href="https://www.insulet.com/">https://www.insulet.com/</a>	CGM systems
Senseonics Holdings Inc	USA (MD)	<a href="https://www.senseonics.com/">https://www.senseonics.com/</a>	CGM systems
Ascensia Diabetes Care Holdings AG	Swiss	<a href="https://www.diabetes.ascensia.de/eversense/">https://www.diabetes.ascensia.de/eversense/</a>	CGM systems
Medtronic plc	Ireland	<a href="https://www.medtronic.com/de-de/diabetes/home/cgm/cgm-zur-insulinpumpe.html">https://www.medtronic.com/de-de/diabetes/home/cgm/cgm-zur-insulinpumpe.html</a>	CGM systems
Eyesense GmbH	Germany	<a href="https://www.eyesense.com/">https://www.eyesense.com/</a>	CGM systems
A.Menarini Diagnostics s.r.l	Italy	<a href="https://www.menarinidiagnostics.de/de-de/">https://www.menarinidiagnostics.de/de-de/</a>	CGM systems

Would you like a direct contact for Continuous Glucose Monitoring? We have identified a small selection of specialists for you who are passionately dedicated to the field of diabetology. Convince yourself or get in touch with us. We are happy to assist you and connect you with international opinion leaders!



FACHSPEZIALIST	POSITION	FACHBEREICH
Dr. Manmohan Kamboj, MD	Chief of Endocrinology at Nationwide Children's Hospital	Diabetes technology
Dr. med. Guido Freck- mann	Physician for Diabetology & Head of the Institute for Diabetes Tech- nology at Ulm University	Diabetes technology
Dr. David A. Simmons, MD	Physician for Diabetology	Diabetes technology

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