

# Peer-Reviewed Journal Articles and Selected Abstracts for Relevant Information on Long-term Continuous Glucose Monitoring Systems

## PIVOTAL STUDIES

**Evaluation of accuracy and safety of the 365-day implantable Eversense continuous glucose monitoring system: The ENHANCE study.** Bailey TS, Liljenquist DR, Denham DS, Brazg RL, Ioacara S, Masciotti J, Ghosh-Dastidar S, Tweden KS, Kaufman FR. *Diabetes Technol Ther.* 2025 Jan 27. DOI: 10.1089/dia.2024.0592.

**Evaluation of accuracy and safety of the next-generation up to 180-day long-term implantable Eversense continuous glucose monitoring system: The PROMISE study.** Garg SK, Liljenquist D, Bode B, Christiansen MP, Bailey TS, Brazg RL, Denham DS, Chang AR, Akturk HK, Dehennis A, Tweden KS, Kaufman FR. *Diabetes Technology and Therapeutics.* 2022;24,84–92, DOI: 10.1089/dia.2021.0182.

**A prospective multicenter evaluation of the accuracy and safety of an implanted continuous glucose sensor: The PRECISION study.** Christiansen MP, Klaff LJ, Bailey TS, Brazg R, Carlson G, Tweden KS. *Diabetes Technology & Therapeutics.* 2019;21(5):231–237. DOI: 10.1089/dia.2019.0020.

**A prospective multicenter evaluation of the accuracy of a novel implanted continuous glucose sensor: PRECISE II.** Christiansen MP, Klaff LJ, Brazg R, Chang AR, Levy CJ, Lam D, Denham DS, Atiee G, Bode BW, Walters SJ, Kelley L. *Diabetes Technology & Therapeutics* 2018 1;20(3):197–206. DOI: 10.1089/dia.2017.0142.

**Accuracy and longevity of an implantable continuous glucose sensor in the PRECISE study: A 180-day, prospective, multicenter, pivotal trial.** Kropff J, Choudhary P, Neupane S, Barnard K, Bain SC, Kapitza C, Forst T, Link M, Dehennis A, DeVries JH. *Diabetes Care* 2017;40(1):63–68. DOI: 10.2337/dc16–1525.

## REAL WORLD STUDIES

### Post-Approval Studies

**Long-term safety and people reported outcomes of a long duration implantable CGM system in the US post-approval setting.** Tweden KS, Romarowski B, Warren M, Latif K, Oiknine R, Kaufman FR. *Interventions Obes Diabetes.* 2024;6(5). DOI: 10.31031/IOD.2024.06.000648.

**Implantable CGM use improves glycemic control in CGM naive patients.** Tweden KS, Romarowski B, Mdingi C, Kaufman FR. *Interventions Obes Diabetes.* 2023;6(1). IOD: 10.31031/IOD.2023.06.000635.

**Longitudinal analysis of real-world performance of an implantable continuous glucose sensor over multiple sensor insertion and removal cycles.** Tweden KS, Deiss D, Rastogi R, Addaguduru S, Kaufman FR. *Diabetes Technology & Therapeutics* 2020;22:422–427. DOI: 10.1089/dia.2019.0342.

**Real-world safety of an implantable continuous glucose sensor over multiple cycles of use: A post-market registry study.** Deiss D, Irace C, Carlson G, Tweden KS, Kaufman FR. *Diabetes Technology Therapeutics.* 2020;22(1):48–52. DOI: 10.1089/dia.2019.0159.

### Glucometrics

**994-P: Real-World Evaluation of the Implantable 180-Day Eversense E3 CGM System.** Tweden KS, Romarowski B, Mdingi C, Kaufman FR. *Diabetes* 2024;73(Supplement\_1):994-P. DOI: 10.2337/db24–994-P.

**Real world evaluation of people with type 2 diabetes with a 180-day implantable CGM system** – Media Centre | EASD Mdingi, C. et al. European Association for the Study of Diabetes, Abstract and Oral presentation (EASD) #870, 60th Annual Meeting. Madrid, Spain, September 9–13, 2024.

**Clinical use of a 180-day implantable glucose sensor improves glycated haemoglobin and time in range in patients with type 1 diabetes.** Irace C, Cutruzzola A, Nuzzi A, Assaloni R, Brunato B, Pitocco D, Tartaglione L, Di Molfet-ta S, Cignarelli A, Laviola L, Citro G, Lovati E, Gnasso A, Tweden KS, Kaufman FR. *Diabetes, Obesity and Metabolism.* 2020;1–6, DOI:10.1111/dom.13993.

**Real-world data from the first U.S. commercial users of an implantable continuous glucose sensor.** Sanchez P, Ghosh-Dastidar S, Tweden KS et al. *Diabetes Technology & Therapeutics.* 2019;21(12):677–681. DOI: 10.1089/dia.2019.0234.

## PERSON REPORTED OUTCOMES

**Acceptability of implantable continuous glucose monitoring sensor.** Barnard KD, Kropff J, Choudhary P, Neupane S, Bain SC, Kapitza C, Forst T, Link M, Mdingi C, DeVries JH. *Journal of Diabetes Science and Technology*. 2018;12(3):634–638. DOI: 10.1177/1932296817735123.

## CLINICAL REVIEWS

**Prevalence and Description of the Skin Reactions Associated with Adhesives in Diabetes Technology Devices in an Adult Population: Results of the CUTADIAB Study.** Diedisheim M, Pecquet C, Julla JB, Carlier A, Potier L, Hartemann A, Jacqueminet S, Vidal-Trecan T, Gautier JF, Dubois Laforgue D, Fagherazzi G, Roussel R, Larger E, Sola-Gazagnes A, Riveline JP. *Diabetes Technol Ther*. 2023 Apr;25(4):279–286. DOI: 10.1089/dia.2022.0513.

**Review of the long-term implantable Senseonics continuous glucose monitoring system and other continuous glucose monitoring systems.** Joseph JI. *Journal of Diabetes Science and Technology*. 2021;15(1):167–173. DOI: 10.1177/1932296820911919.

**Clinical practice recommendations on the routine use of Eversense, the first long-term implantable continuous glucose monitoring system.** Deiss D, Szadkowska A, Gordon D, Mallipedhi A, Schütz-Fuhrmann I, Aguilera E, Ringsell C, De Block C, Irace C. *Diabetes Technology & Therapeutics*. 2019;21(5):254–64. DOI: 10.1089/dia.2018.0397.

**Device profile of the Eversense continuous glucose monitoring system for glycemic control in type-1 diabetes: Overview of its safety and efficacy.** Irace C, Cutruzzola A, Tweden K, Kaufman FR. *Expert Review of Medical Devices*. 2021;18(10):909–914. DOI: 10.1080/17434440.2021.1982380.

## HEAD-TO-HEAD TRIALS

**Implantable and transcutaneous continuous glucose monitoring system: a randomized cross over trial comparing accuracy, efficacy and acceptance.** Boscarì F, Vettoretti M, Cavallin F, Amato AML, Uliana A, Vallone V, Avogaro A, Facchinetti A, Bruttomesso D. *Journal of Endocrinological Investigation*. 2022;45(1):115–124. DOI: 10.1007/s40618-021-01624-2.

**Comparing the accuracy of transcutaneous sensor and 90-day implantable glucose sensor.** Boscarì F, Vettoretti M, Amato AML, Vallone V, Uliana A, Iori E, Avogaro A, Facchinetti A, Bruttomesso D. *Nutrition, Metabolism & Cardiovascular Diseases*. 2021;31:650–657. DOI: 10.1016/j.numecd.2020.09.006.

**Performance of the Eversense versus the Free Style Libre Flash glucose monitor during exercise and normal daily activities in subjects with type 1 diabetes mellitus.** Fokkert M, van Dijk PR, Edens MA, Hernandez AD, Slingerland R, Gans R, Alvarez ED, Bilo H. *BMJ Open Diab Res Care* 2020;8:e001193. DOI:10.1136/bmjdr-2020-001193.

**A three-way accuracy comparison of the Dexcom G5, Abbott Freestyle Libre Pro, and Senseonics Eversense continuous glucose monitoring devices in a home-use study of subjects with type 1 diabetes.** Jafri RZ, Balliro CA, El-Khatib F, Maheno MM, Hillard M, O'Donovan A, Selagamsetty R, Zheng H, Damiano E, Russell SJ. *Diabetes Technology and Therapeutics*. 2020;22(11):846–852. DOI: 10.1089/dia.2019.0449.

## OTHER ORIGINAL STUDIES

**Reduction of clinically important low glucose excursions with a long-term implantable continuous glucose monitoring system in adults with type 1 diabetes prone to hypoglycaemia: The France adoption randomized clinical trial.** Renard E, Riveline J-P, Hanaire H, Guerci B, on behalf of the investigators of France Adoption Clinical Trial. *Diabetes Obes Metab*. 2022;1-9. DOI: 10.1111/dom.14644.

**A novel and easy method to locate and remove first approved long-term implantable glucose sensors.** Akturk HK and Brackett S. *Diabetes Technology & Therapeutics*. 2020;22;1-3. DOI: 10.1089/dia.2020.0023.

**The implanted glucose monitoring system Eversense: An alternative for diabetes patients with isobornyl acrylate allergy.** Opiel E, Kamann S, Heinemann L, Reichl FX; Högg C. *Contact Dermatitis*. 2020;82(2):101–104. DOI: 10.1111/cod.13392.

**First assessment of the performance of an implantable continuous glucose monitoring system through 180 days in a primarily adolescent population with type 1 diabetes.** Aronson R, Abitbol A, Tweden KS. *Diabetes, Obesity and Metabolism*. 2019;21(7):1689–1694. DOI: 10.1111/dom.13726.

**Interference assessment of various endogenous and exogenous substances on the performance of the Eversense long-term implantable continuous glucose monitoring system.** Lorenz C, Sandoval W, Mortellaro M. *Diabetes Technol Ther*. 2018;20(5):344–352. DOI: 10.1089/dia.2018.0028.

**Long-term home study on nocturnal hypoglycemic alarms using a new fully implantable continuous glucose monitoring system in type 1 diabetes.** Wang X, Ioacara S, DeHennis A. *Diabetes Technol Ther*. 2015;17(11):780–786. DOI: 10.1089/dia.2014.0375.

**Multisite study of an implanted continuous glucose sensor over 90 days in patients with diabetes mellitus.** Dehennis A, Mortellaro MA, Ioacara S. *Journal Diabetes Science and Technology*. 2015;9(5) 951–956. DOI: 10.1177/1932296815596760.

**Performance characterization of an abiotic and fluorescent-based continuous glucose monitoring system in patients with type 1 diabetes.** Mortellaro M, DeHennis A. *Biosens Bioelectron*. 2014;61:227–231. DOI: 10.1016/j.bios.2014.05.022.

**Increased in vivo stability and functional lifetime of an implantable glucose sensor through platinum catalysis.** Colvin AE, Jiang H. *J Biomed Mater Res*. 2013;101A:1274–1282. DOI: 10.1002/jbm.a.34424.