Press release

Syensqo materials help advance medical technologies from heart surgery to implants

Advanced materials enable medical-device innovations in cardiothoracic care, cardiac implants, spinal surgery and surgical instruments

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Advanced materials play an important role in the development of medical technologies. From devices used for complex heart surgery to pacemakers, spinal implants and surgical instruments, they can help make medical technologies lighter, more precise, compatible with the human body or better suited to medical imaging.

Syensqo works with medical-device manufacturers to develop high-performance materials that can meet demanding requirements where conventional materials or metals may fall short, helping improve how medical devices perform for patients and healthcare professionals.

"Behind every medical device is a series of critical choices about how it needs to perform, both for healthcare professionals and for patients," said Natalie Dragunat, Global Marketing Manager, Healthcare at Syensqo. "Our role is to bring advanced materials science into that equation, helping medical-device innovators solve complex challenges and turn new possibilities into technologies that can make a difference in patient care."

Syensqo's advanced materials are helping drive innovation across a range of medical applications, including:

- **Protecting the heart after complex surgery:** *Thoracic Innovations* uses a Syensqo high-strength resin in its sternal spacer, designed to protect the heart and stabilize the chest when it needs to remain temporarily open following certain cardiothoracic procedures.
- **Enabling long-term cardiac implants:** *Biotronik* selected a Syensqo high-performance polymer for its pacemakers, combining biocompatibility for indefinite implantation with transparency to support precise electrode placement during surgery.

- **Supporting bone integration in spinal surgery:** A Syensqo biomaterial is used in a spinal fusion cage developed by *Shanghai REACH Medical Instrument*, combining bone-relevant mechanical properties with bioactive functionality designed to support bone integration.
- **Improving surgical instruments:** An orthopedic surgical guide developed by *Hanisch Medical and TechImport* using a Syensqo advanced polymer is up to 70% lighter than traditional metal versions and enables unobstructed X-ray imaging during surgery.
- **Improving surgical lighting and ergonomics:** *MezLight* uses a Syensqo high-performance polymer in its reusable surgical task light, providing focused illumination while reducing the physical strain associated with traditional surgical headlamps. The material also enables durability and repeated steam sterilization.
- **Advancing orthopedic implants:** *GLW Medical Innovation* uses a Syensqo high-performance polymer in its ApolloAnkle™ Fracture Plating System, combining 3D-printed titanium with a bone-like polymer to support fracture fixation while enabling improved visibility during medical imaging.

Building on more than 60 years of high-performance polymer innovation, Syensqo is also working with medical-device manufacturers early in the development process. In 2026, the company joined MedTech Innovator, a global accelerator for medical-device, diagnostic and digital-health companies, to provide materials and application expertise to emerging healthcare companies.

"Some of the most important decisions in medical-device development are made at the very beginning of the product design," said Marie-Beatrice Madec, Head of Marketing Life Solutions at Syensqo. "That's why we work with innovators from day one, bringing advanced materials expertise into the design process when it can make the greatest difference, while staying alongside them as their technologies evolve, from initial concept to solutions ready for the healthcare market."

Syensqo will also be present at COMPAMED 2026 in Düsseldorf, Germany, from 16 to 19 November (**booth 8AL14**), continuing the dialogue with medical-device manufacturers and innovators.

By combining materials expertise with close collaboration across the healthcare ecosystem, Syensqo aims to support the development of medical technologies that improve care for patients and healthcare professionals.

About Syensqo

Syensqo is a science company developing groundbreaking solutions that enhance the way we live, work, travel and play. Inspired by the scientific councils which Ernest Solvay initiated in 1911, we bring great minds together to push the limits of science and innovation for the benefit of our customers, with a diverse, global team of approximately 13,000 associates in 30 countries.

Our solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices and healthcare applications. Our innovation power enables us to deliver on the ambition of a circular economy and explore breakthrough technologies that advance humanity.

Learn more at www.syensqo.com.

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