SUCCESS STORY



ADDITIVE MANUFACTURING PROFESSIONALS AND ORTHOPEDISTS JOIN FORCES TO IMPROVE THE LIVES OF PATIENTS

TAILOR-MADE SOLUTIONS

Bodycad is a family-owned orthopedics company that specializes in customized orthopedic solutions. It uses additive manufacturing to help orthopedists create unique restorations for each of their patients. Customization is based on anatomical specifications and made possible through precision software specifically designed and developed at Bodycad. This proprietary software is at the heart of the company's operations; it can help produce parts with a very high degree of precision by communicating with the machines that manufacture these parts. The tools' versatility offers a multitude of features: 3D design, segmentation, planning, cutting guide generation, implant printing, etc.

At Bodycad, anything can be customized using two principal methods. The first method involves manufacturing implants using predefined design parameters. Implants are then adjusted perfectly to the patient's anatomy and the surgeon's clinical preferences. The second method develops customized cutting guides and implants to print or create bone parts or elements of a hip or knee joint that does not exist yet.



A SUCCESS STORY ON A HUMAN SCALE

Bodycad's mission is to offer personalized orthopedics that help surgeons improve the lives of their patients. An abundance of stories speaks of restored independence and improved quality of life. Thanks to Bodycad's cutting guides and 3D printing expertise, one orthopedic surgeon at the CHU de Sainte-Justine was able to correct a deformity that had brought about severe consequences. The child had been amputated mid-tibia at 18 months. He was unable to walk due to a bone deviation that had only increased with the child's growth. His original prosthesis had been rendered useless and the only apparent solution was to amputate the rest of the tibia. With the help of 3D printing and Bodycad's state-of-the-art technology, surgeons were able to straighten the patient's tibia, allowing the child to walk again.

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"Bodycad's undisputed expertise in custom computer design, combined with Hospital Innovations' experience, will lead to further success in custom restoration work in the UK."

Jean Robichaud,
 Bodycad Founder

ENDLESS POSSIBILITIES

This patient's story speaks of the importance of Bodycad's work and, perhaps more so, the close collaboration between the company's experts and surgical teams. The progress made in these unique situations has allowed the company to broaden its horizons as it turns to the future. It goes without question that collaboration and cooperation are of fundamental importance to Bodycad's daily activities.

With the eventual integration of other technologies like artificial intelligence, robotics and computer-assisted navigation, the possibilities surrounding cutting guides will only increase tenfold. Product shipping is only the beginning; soon, health care facilities will enjoy complete, cutting guide autonomy. Bodycad believes in the democratization of knowledge, making technology accessible to as many people as possible.

Personalized medicine represents the future of health care and Bodycad has been working tirelessly to meet the needs and expectations of patients, and to achieve miracles. Human morphology and anatomy are complex, unusual and ever-changing. 3D printing technology can push the evolution of materials further still, paving the way to cures and treatments for a growing number of pathologies. Through additive manufacturing, the Bodycad process represents the future of specialized orthopedic solutions, along with the hope of a better life for those impacted by disease and accident.

A REPUTATION BEYOND ITS BORDERS

The Food and Drug Administration (FDA) approved Bodycad's customized BC Reflex Uni™ knee replacement solution in late 2019. In 2021, a distribution agreement was reached with Hospital Innovations, a UK-based provider of specialized products used in orthopedics and corrective surgery. This company, fully certified by the Human Tissue Authority (HTA), works in partnership with five of the world's leading tissue banks.



Custom instruments and implants