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Japan approves world's first iodine-treated total hip replacement system

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iTaperlocÃ?Â® Complete and iG7Ã¢â??Â¢ Hip System with Iodine Technology inhibits bacterial adhesion and prevents biofilm formation



Zimmer Biomet Holdings, Inc., a global medical technology leader, has announced that the Pharmaceutical and Medical Devices Agency (PMDA) in Japan has approved the iTaperloc® Complete and iG7™ Hip System, the world's first approved orthopedic implants with Iodine Technology that inhibits bacterial adhesion on the implant surface.

Implant-associated bacterial infection or Periprosthetic Joint Infection (PJI) remains one of the most common causes of revision and a challenging complication of total joint arthroplasty (TJA).

PJI is estimated to occur in 1-2% of primary TJA procedures and can have serious consequences. In fact, the mortality rate associated with PJI approaches the 5-year mortality observed in breast cancer (11%) and far exceeds that of prostate cancer (1%).

"Iodine Technology represents a significant advancement in orthopedic implant design," said ProfessorHiroyuki Tsuchiya, Director at Yokohama Sakae Kyosai Hospital and Emeritus Professor of Orthopedic Surgery at Kanazawa University. Prof. Tsuchiya, who developed the technology, explained: "By integrating a controlled-release iodine layer through advanced anodization and electrophoresis, we created an implant that inhibits bacterial adhesion and biofilm formation during the postoperative period. This innovation combines simplicity and sophistication to help address the issue of PJI after total joint replacement."

iTaperloc and iG7 combine the long-standing clinical heritage of the Taperloc Complete Hip System and the simplicity, efficiency and performance of the G7 Acetabular System with Iodine Technology. Iodine is a biocompatible, essential body nutrient that does not cause antibiotic resistance and is commonly used in medicine as an antiseptic. Iodine Technology applies iodine to the implant's surface during the manufacturing process to inhibit biofilm formation.