

Adapter for cleaning attachment for implants

implant, infection, endoprosthesis infection, orthopedics, implant cleaning, cleaning device, in-situ procedure

DESCRIPTION OF TECHNOLOGY AND PRODUCT

The treatment of implant-associated infections is still a major challenge and requires effective cleaning procedures to prevent a complete replacement of the implant. By means of a novel adapter system, an in-situ cleaning system from the dental field (e.g. GalvoSurge®), which removes biofilms by galvanization, can now also be used in other fields of application.

With the aid of various adapter attachments, orthopedic implant systems, for example endoprostheses and osteoprostheses, can now also be cleaned in-situ. This should prevent time-consuming and costly removal or replacement of prostheses.



The attachments are designed for different implant geometries (e.g. ball joints and knee TEP) and sizes, in the form of a hood or a brush.

SCOPE OF APPLICATION

Orthopedic implants with biofilm
(e.g. endoprostheses/ screws/ osteosynthesis plates)

AT A GLANCE ...

Scope of Application

- Orthopedics & Traumatology
- Orthopedic implants

Market/Branche

- Implantation technique

USP

Various adapter attachments (hood & brush)

Adapter uses electrolytic cleaning method for orthopedic implants

Development status

- A demonstrator is created

Patent portfolio

Priority application filed with the European Patent Office on Nov. 17, 2022.

A PCT application is planned.

ADVANTAGES COMPARED TO STATE OF THE ART

- Attachments for different implant shapes / sizes
- Adapter for electrolytic in-situ cleaning system (e.g. GalvoSurge®)
- possible reduction of patient treatment time
- resource saving (material, time & costs)

MARKET POTENTIAL

Due to increasing aging of the population, the number of artificial hip and knee joint surgeries will also increase. As of 2018, approximately 300,000 endoprosthesis surgeries are performed annually in Germany².

Average treatment costs of a revision (implant replacement) are estimated at approximately \$50,000³.

OFFER

On behalf of its shareholder Justus-Liebig-University Giessen, TransMIT GmbH is looking for cooperation partners or licensees for further development in Germany, Europe, the US and Asia.

¹ Holinka, J., Windhager, R. Management von Protheseninfektionen. *Orthopäde* **45**, 359–374 (2016). <https://doi.org/10.1007/s00132-016-3247-8>

² Grimberg et al., EPRD-Jahresbericht 2022 (2022) <https://www.eprd.de/de/downloads-1/berichte>

³ Sculco TP: The economic impact of infected total joint arthroplasty. *AAOS Instr Course Lect* 42:349-351, (1993)

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