

# PULSE LAVAGE SYSTEM

## Thorough cleaning of the bone bed leads to longer implant survival

### PULSE LAVAGE – ESSENTIAL FOR THE LONG-TERM SUCCESS OF A CEMENTED ENDOPROSTHESIS

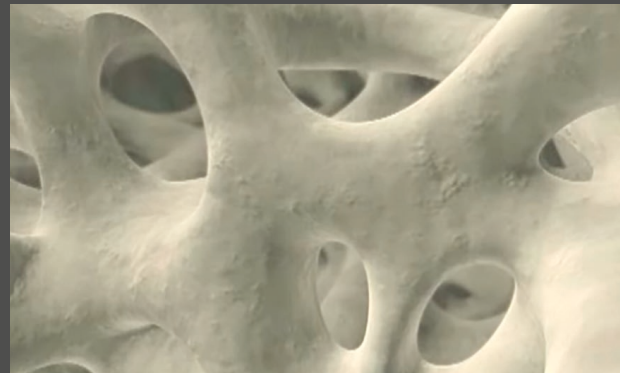
Modern cementing technique is critical for the long-term success of a cemented endoprosthesis. Cleaning the bone bed using pulse lavage is an essential part of that.<sup>1,2</sup> It enables blood, residual fat and excess tissue to be thoroughly removed. This not only reduces the risk of thromboembolic complications but also encourages

good cement penetration and forms the foundation for permanent fixation.<sup>2</sup> Careful cleaning of the bone bed using systems such as PALAVAGE® and the use of modern cementing technique can considerably reduce the risk of revision due to aseptic loosening.<sup>1,2</sup>

#### CLEANING THE BONE BED USING PULSE LAVAGE



Before



After

### THE ADVANTAGES OF PULSE LAVAGE AT A GLANCE

- Efficient cleaning of the bone bed using a pulsating high-frequency spray jet
- Considerably more thorough compared to manual syringe irrigation<sup>2</sup>
- No contamination due to wear particles that can result from cleaning with a brush<sup>3</sup>
- Reduction in thromboembolic complications<sup>2</sup>
- Clear reduction in the risk of revision<sup>1, 2</sup>
- Reduction in the postoperative rate of infection in hemiarthroplasty<sup>4</sup>

(1) Malchau H et al. Prognosis of Total Hip Replacement – Update and Validation of Results from the Swedish National Hip Arthroplasty Register 1979–1998. Scientific Exhibition presented at the 67<sup>th</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, March 15–19, 2000.  
 (2) Breusch S J et al. Zementierte Hüftendoprothetik – Verminderung des Fettembolierisikos mittels gepulster Druckspülung. Orthopäde 2000; 29: 578–586.  
 (3) Germain M A et al. Analysis of debris from brushing the femoral canal with a plastic brush – a potential cause of loosening in total hip replacement. Proc Inst Mech Eng H 1999; 213 (6): 503–506.  
 (4) Hargrove R et al. Does pulse lavage reduce hip hemiarthroplasty infection rates. J Hosp Infect. 2006; 62(4): 446–449.

# PALAVAGE®

## More effective cleaning – reduced waste

**3500**  
**min.**

### OPTIMAL CLEANING POWER:

Highest pulse rate (3500 per minute) for thorough cleaning of the bone bed

Up to  
**- 80 %**

### CLEARLY REDUCED WASTE:

Up to 80% less material consumption compared to single-use systems



### DIVERSE APPLICATIONS:

Different attachments with and without suction for hip and knee surgery



### COMPLETE CONTROL:

Ergonomic handpiece allows easy and precise control of the flow rate



Product	Description	Contents	REF
PALAVAGE® Pulse Lavage	A. O. Synthes Connector	1	66022825
PALAVAGE® Pulse Lavage	Zimmer/Hall Connector	1	66022827
PALAVAGE® Hip/Knee Set	with suction	10	66022828
PALAVAGE® Hip/Knee Set	without suction	10	66022830

Simply order from Heraeus.

[www.heraeus-medical.com](http://www.heraeus-medical.com)