

# Diabetic foot osteomyelitis

## About Bonalive

As the world seeks answers to the growing threat of antibiotic resistance, Smart Healing™ solutions represent a new standard in patient care. Evolving at the intersection of technology and human biology, our technologies reduce antibiotic treatments and enable a better quality of life for patients.

With over 20 years clinical history, and one of the most evidence-based technologies in the industry, we are re-imagining a smarter future for healthcare.

It's time to heal smarter.



**bonalive**

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**Smart Healing™**



## Bonalive® granules for bone infections

Bonalive® granules is a CE-marked unique bone regeneration technology that naturally inhibits bacterial growth and stimulates bone formation.

Bonalive® granules is effective against 50 clinically relevant bacteria strains, providing surgeons with a 1-stage surgical solution for bone infection treatment.

Based on S53P4 bioactive glass, Bonalive® granules consist solely of elements naturally found in the human body. The granules naturally inhibit bacterial growth in both gram positive and gram negative bacteria, as well as Methicillin resistant bacteria, e.g. MRSA or MRSE.

### Indications

- Bone cavity filling
- Bone cavity filling in the treatment of chronic osteomyelitis

### Composition

- 53% SiO<sub>2</sub>, 23% Na<sub>2</sub>O, 20% CaO, 4% P<sub>2</sub>O<sub>5</sub>

## DFO patient

### Patient history

50-year-old male with type 1 diabetes and terminal chronic renal failure on hemodialysis. Transmetatarsal amputation of the forefoot. Patient came for observation with a deep plantar-lateral ulcer up to the bone level (cuboid bone) and radiological signs of osteomyelitis.

### Bacterial culture

Oxacillin resistant *Staphylococcus aureus* (ORSA)

### Operation

Complete debridement was performed and the cavity was filled with Bonalive® granules (S53P4 bioactive glass). A collagen membrane was used to receive complete soft tissue coverage of Bonalive® granules.



### Clinical outcome

11 months after treatment complete osseointegration of Bonalive® granules can be observed.



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