

## Impressive results with Bioretec's bioabsorbable implants

**The bioabsorbable fourth generation Bioretec Activa implants have shown excellent results over the past 10 years with 100,000 patients operated: implants maintain their strength and are safely absorbed in the body. The rate of complications has been only 0.01%.**

Orthopedic surgeons as well as trauma and sports medicine surgeons have used bioabsorbable fourth generation Bioretec Activa implants for the past 10 years primarily to treat leg, ankle, knee, foot and upper limb fractures and injuries. The Bioretec Activa and CiproScrew™ product families include nails, screws and pins as well as antibiotic-releasing screws.

### **10 years 100,000 patients and complication rate only 0.01%**

Bioretec Activa implants have been used in 33 countries including the United States, France, China, Russia and Brazil. The most systematic monitoring can be found from the Maude system in the United States where no implant-related complications have been reported out of 25,000 patients operated.

"I have used Bioretec bioabsorbable products since 2008, specially Bioretec ActivaScrew™. I encountered no screw breakage during the implantation, neither have we seen any cysts or adverse tissue reactions related to the Bioretec's implants. I am very pleased with results," says professor and Chief Surgeon Tero Järvinen from Tampere University School of Medicine.

### **The unique material of Bioretec implants offers the required strength and safe bioabsorption**

- Maintains its adequate strength for at least eight weeks while being elastic like bone
- Controlled bioabsorption within approx. two years
- No removal operations, typical to metal implants needed: related infections eliminated and patient treatment costs are reduced
- Implants do not remain in a child's growing bone or an elderly person's fragile bone
- Patient satisfaction: no removal operations, thus shorter treatment time and more certain healing

Bioretec's implants have been developed to work together with their environment: the implant is strong when the bone is at its weakest and degrades as the bone becomes stronger. Thanks to the Self-Locking™ technology the diameter of the implant expands, while the Auto-Compression™ ensures the longitudinal contraction of the implant. These features keep the damaged bone under sufficient compression for eight weeks. Once the damaged area has healed sufficiently, the implant degrades by hydrolysis, forming lactic and glycolic acid until it is finally metabolized into carbon dioxide and water. The bioabsorption of the implant takes approximately two years without remarkable fluid accumulation, infections or rejection.

*Bioretec Ltd. is a Finnish material technology company focused on the development, manufacturing, marketing and sales of bioabsorbable, bioactive and drug-releasing surgical implants. All Bioretec implants are designed and manufactured in Finland.*

Further information:

Simo Hietaniemi, CEO

Tel. +358 40 750 8352

E-mail: [simo.hietaniemi@bioretec.com](mailto:simo.hietaniemi@bioretec.com)

Website: [www.bioretec.com](http://www.bioretec.com)