



Implants that Do More

bioretec



High quality products
Fast, safe and easy to use
Benefits for the doctor and the patient

With Bioretex you do
more than just a surgery.

You set

**NEW
STANDARDS.**

Knowledge within

The research started by a team led by Professor Pertti Törmälä at the Tampere University of Technology in 1977. As a result of the team's work, a bioabsorbable pin was used in surgical bone fracture fixation at Helsinki University Hospital in 1984, for the first time in the world. Research work continued and, in addition to a vast amount of scientific value (more than 1000 scientific publications), it led to many commercial applications.

Since then this developed technology has been utilized clinically in a broad range of indications worldwide.

More than a million patients have been treated by these bioabsorbable implants over the years.

Today's Bioretec products present the latest bioabsorbable bone fixation device technology. As the most recent generation of bioabsorbable implants, Bioretec developed the shape memory implants and antibiotic releasing screws for patients with increased risk of infection. This unique product can provide unmatched benefits for risk group patients. With the help of this product, surgeons have even avoided performing amputation in some severe cases.



Chevron osteotomy with ActivaPin™

A painful hallux valgus of a 44 years old female was operated using a Bioretec's ActivaPin™. Preoperative X-ray showed mild osteoarthritis of the first MTP joint with hallux valgus angle 29°. The first metatarsal was operated using Chevron osteotomy and an ActivaPin™ 2.0 x 40 mm. User experience was great: Product was easy to pick from the holder with the pin applicator and fast to insert. Grooved surface of the implant added rotational stability that is beneficial when osteotomies are fixed with a single fixation device.

During postoperative care metatarsal heads were firmly bound together with bandage wraps. Immobilization regimen of 6 weeks was introduced. Weight bearing was allowed with a natural limitation of pain. Six weeks after operation the foot was found to be good when both subjectively and objectively measured. No complications were observed. Due to biodegradability of the implants the patient did not need a second operation for hardware removal.

Dr. Heikki Mäenpää
Orthopaedic surgeon




Products

Best bioabsorbable devices and techniques.

Years of research and clinical experience have demonstrated that Bioretec products are an excellent alternative to the metallic products.

Bioabsorption takes place approximately within two years and degradation products exit via metabolic routes eliminating the need for a hardware removal operation.



To pick up ActivaPin™ from its holder: just insert the applicator into the holder, smoothly push, and the pin is ready to use.

Bioretec devices are all protected by patents:
Patents: EP 1864616, EP 1902680, FI 124190, US 7,419,681.
EP, US, FI Patent Pending

ActivaPin™ & ActivaNail™

Bioretec's ActivaPin™ is ideal for fixation of fractures and osteotomies especially in foot and ankle. When operating flake fractures, for example, in chondral areas of the knee, ActivaNail™ offers needed additional support with its small head. Self-Locking SL™ technology and grooved surface design enable pins and nails to stay in place with improved rotational stability. Just choose a suitable pin or nail and tap it quickly into place with Bioretec pin applicator.



ActivaScrew™ and ActivaScrew™ Cannulated

ActivaScrew™ family offers a broad range of fully threaded, partially threaded, and cannulated screws for fixation of fractures and osteotomies. Due to Auto-Compression™ technology screws can maintain compression for at least eight weeks thus reducing the risk of unstable fixation and allowing the bone to heal. ActivaScrew™ is entirely compatible with AO-instrumentation. No need for customized instrumentation!



ActivaScrew™ Interference

Bioretec's interference screw family has a broad range of products suitable for various indications in ligament fixation in foot, ankle, knee, shoulder, elbow, and hand. ACL reconstruction is the most popular indication for 7 – 10 mm interference screws, whereas 4-6 mm are used in many other indications like for smaller ligament or tendon fixation. Self-Locking SL™ technology and graft friendly design increase the reliability of the screws in clinical use.



CiproScrew™

As the world's first antibiotic releasing bioabsorbable fixation device CiproScrew™ opens up new possibilities to prevent implant-related infections. CiproScrew™ releases an antimicrobial agent around itself inhibiting bacteria to colonize the surface of the screw, meanwhile being mechanically strong enough for fixation. Choose CiproScrew™ when your patient has an increased risk of infection.

CiproScrew™ is entirely compatible with AO-instrumentation. No need for customized instrumentation!

Not available in US market.



Instruments and accessories

Bioretec offers a broad range of high -quality instruments and accessories to make the insertion of the implants quick and easy.

- Disposable applicators for pins
- Arthroscopic instruments
- Complete instrument sets

All of Bioretec`s bioabsorbable products are constructed of bioabsorbable poly(L-lactide-co-glycolide) (PLGA).



Benefits

for every patient

No need for removal operation.

Fast recovery.

Bioretec products biodegrade safely in the body, so there is no need for removal operation, thus reducing the recovery time.

Excellent for pediatric use.

Enables new possibilities for children's fracture fixation and orthopedic disorder treatment.

Reduces the need for a hospital stay and unnecessary suffering.



Bioretec implants do more

Bioretec has the knowledge and expertise whereby it is possible to help you to enrich your quality of life in situations where surgery is the only option. The safety of Bioretec's products and their excellent possibilities for use are based on decades of co-operation with the best medical experts.

These implants have brought relief and joy to patients world-wide during many past years and will continue to do so in the future!

It has been a great success story, and it continues.

Success stories with Bioretec

OCD fragment fixation in elbow using ActivaNail™



My name is Emilia, and I am 11 years old. I like exercise, and have actively pursued sports, and particularly gymnastics my whole life. I have had three-hour practice sessions, several times a week.

A little more than a year ago, I suffered a stress fracture to my right elbow. The physician decided to repair my fracture in 2013. The operation was performed quickly, and I was in hospital only for one day, so the procedure was not scary to me at all. A cast, which was later replaced by an arm sling, was placed on my hand.

I felt some pain in the beginning, but the doctor said that was normal following an operation. I did not partake in gymnastics exercises while my hand healed, but rather did some track and field exercise, which did not disrupt the healing process of my hand.

It has now been a year since my surgery, and I can start my gymnastics training again. There is no pain in my hand, and I can do all of the things I could before my injury, which is great.

Medial malleolus fracture fixation using ActivaScrew™



My name is Marjut and I have gone on trekking trips for many years already. While on a trekking trip with my husband in 2008, my right foot slipped and was badly splayed outwards as the path below me caved in. In hospital, a dual compound fracture was diagnosed.

The physician's diagnosis was that both sides of my ankle would need surgery. The inner side of my ankle was corrected utilizing Bioretec 4.5 bioabsorbable screws, whereas the area which had undergone surgery on the outside of the ankle was reinforced with a metal plate. A metal plate was affixed to the ankle with 7 small metal screws.

I was in hospital for a total of 4 days, and both surgery points on my ankle healed well. A second surgery was performed in 2009 to remove the metal screws and plate due to them causing me pain and irritation. My physician told me that the bioabsorbable screws had resorbed without problem in my body, and that the fracture which they had supported had healed well.

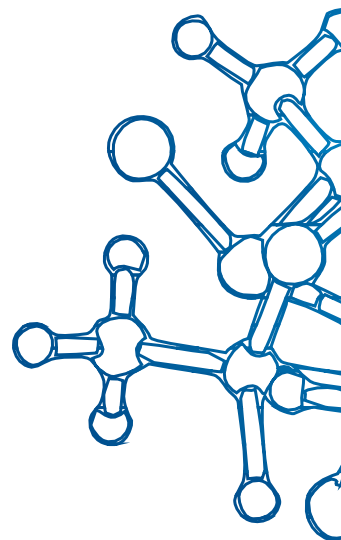
I have been very pleased with the end results of my surgery. My ankle has healed well, all told, and I have been able to return to my trekking hobby.



The Mission of Bioretec is to develop and bring into clinical use innovative bioabsorbable products and surgical solutions which improve patient outcome, user friendliness and cost-efficiency in clinical care.

Implants that do more – It's Bioretec

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