IGEA PAPSENTS
OSTEOSPINE: NON-INVASIVE PORTABLE AND LIGHT

Osteospine harnesses upwards of twenty years' experience in the field of clinical biophysics. Our firm and steady commitment in research and experimentation has led to the realization of Osteospine.

Osteospine is the Igea's own bone growth stimulator based on an employment of electrical fields, specifically designed for the treatment of arthrosis and vertebral fractures.

Clinical studies, performed in the last two years, have demonstrated the effectiveness of Osteospine in promoting osteogenesis and its lack of side effects. Osteospine enables the patient to employ the device easily and in complete comfort, in perfect compatibility with daily activity.

Stimulation of endogenous reparative osteogenesis with electrical fields is a therapeutic choice already well consolidated in modern orthopedics and traumatology.

Osteospine is able to control and supply the electrical current density needed to promote osteogenesis at the level of the site of treatment: 15-30 µA/cm². The signal of Osteospine complies therefore with the characteristics of a Focused Osteogenic Signal (FOS) for therapeutic effectiveness.

SPINAL FUSION

FAILED SPINAL FUSION

Duration of treatment: 10 hours/day until complete healing.
The adhesive Igea electrodes are placed at the site of treatment, at the sides of the spinal column, at 10 cm distance from one another and in direct contact with the skin.
Osteospine can be used in presence of internal synthesis devices.

- Non-invasive, portable and easy to use. Very limited weight and size (weight: 136 g, size: height 100 mm, width 70 mm, depth 27 mm).
- Battery operated: supplied with rechargeable battery, giving average 30 hours working.
- Fitted with a microprocessor which guarantees the optimum functioning.
- The Igea electrodes, size 50x90 mm and with contact impedance 157.5 Ohm at 60 kHz frequency, are essential for correct working of Osteospine.
- Electrical safety is certified by IEC. Osteospine is manufactured in compliance with the standard IEC-601-1 and 601-2-10, it complies with the requirements of the Directive 93/42 EEC and is marked CE0051.

Characteristics of the Osteospine signal

a) Burst signal with 12.5 kHz frequency and 50% duty cycle.
b) Sine wave signal with 60 kHz frequency.

Representation of the electrical field in the spine