



I-ONE therapy brings together proven electromagnetic stimulation technology with a lightweight portable device.

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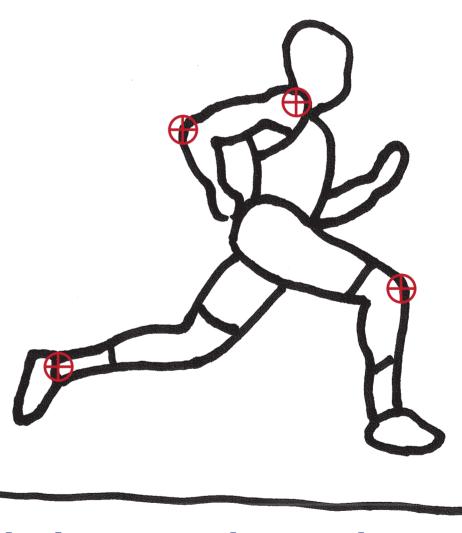
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# **BIOPHYSICAL CHONDROPROTECTION**



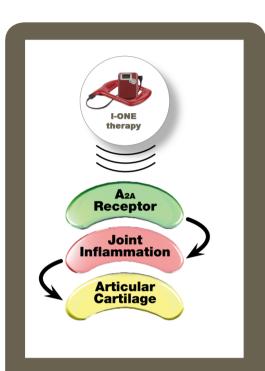
think long ahead

to preserve

# I-ONE® therapy Protecting your joints



#### Rational of use



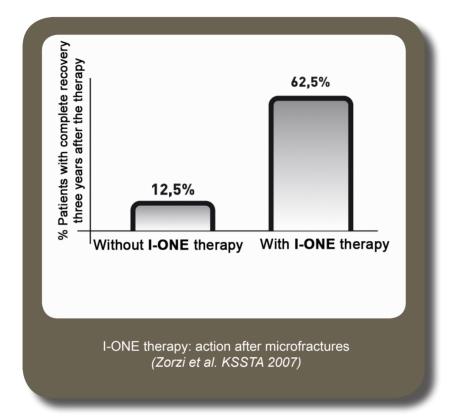
#### Biophysical Chondroprotection: Mechanism of Action

Activation of the  $A_{2A}$  receptors by adenosine is the mechanism by which the body controls inflammatory phenomena.

Molecules with  $A_{2A}$  agonist activity have shown to prevent articular cartilage degeneration when experimental septic arthrosis is induced, thus these drugs are considered chondroprotectors.

In 2002, an in vitro study, with human neutrophils, showed that pulsed electromagnetic fields of defined intensity and physical characteristics (I-ONE therapy), demonstrated an adenosine agonist effect for  $A_{\rm 2A}$  receptors. This observation suggests that I-ONE therapy might be used to control joint inflammation and ultimately protect articular cartilage.

### **Clinical beneft after arthoscopy**



#### LONG TERM BENEFITS

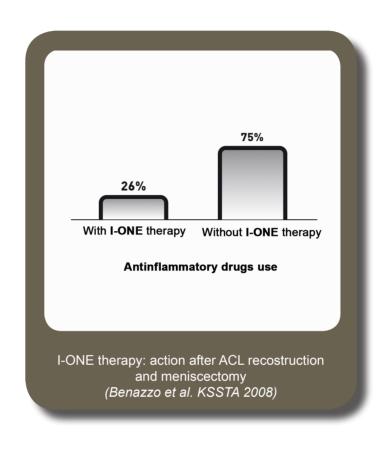
I-ONE therapy has a long-term effect. Pre-clinical studies have shown that I-ONE therapy protects articular cartilage from the catabolic effects of pro-inflammatory cytokines. I-ONE therapy prevents cartilage degeneration, finally resulting in chondroprotection.

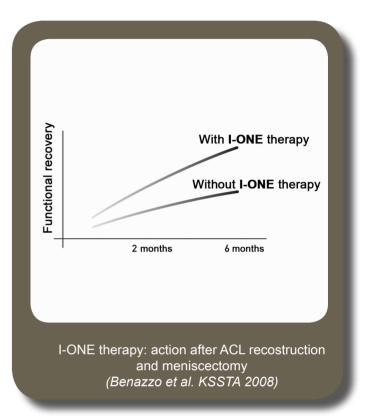
#### **CARTILAGE PROTECTION**

Severe joint inflammation following trauma, arthroscopic surgery or infection damage the articular cartilage.

Every effort should be made to protect cartilage from the catabolic effects of pro-inflammatory cytokines and to stimulate cartilage anabolic activities.

## **Clinical beneft after arthoscopy**





I-ONE therapy can be applied immediately after arthroscopic surgery, without side effects, to improve functional recovery, pain control, reduce use of anti-inflammatory drugs.

#### I-ONE THERAPY PROVIDES SURGEONS WITH:

- A unique chondroprotection device that helps protecting cartilage from the catabolic effect of pro-inflammatory cytokines
- Faster recovery of their patients
- · Improved patient satisfaction

#### FOR PATIENTS, USING I-ONE THERAPY MEANS:

- Pain control
- Joint swelling control
- Faster functional recovery
- Decreased use of anti-inflammatory drugs
- Light portable device, fully compatible with daily activities

#### INDICATIONS FOR I-ONE THERAPY

#### As a preventive treatment

- Early stages of osteoarthritis
- Articular inflammation
- · Bone marrow edema

#### **After Surgery**

- Ligament reconstruction
- Cartilage repair (ACT, subchondral bone microfractures, osteochondral grafting)
- Meniscectomy

Daily treatment time: four hours, treatment duration: 30-60 days