HIGH INTENSITY
LASER & SHOCKWAVE THERAPY
HIGH INTENSITY LASER & SHOCKWAVE THERAPY
THE MOST VERSATILE TREATMENT OPTIONS AVAILABLE

BTL Shockwave therapy is a new non-invasive solution for chronic musculoskeletal pain. Extracorporeal shockwave therapy is most frequently used in physiotherapy, orthopaedics and sports medicine. Applications are mostly associated with the treatment of chronic muscular and tendon disorders, calcifications and bone disorders. During Shockwave therapy, acoustic waves interact with the body tissues. This leads to a cascade of beneficial effects including neovascularization, reversal of chronic inflammation, stimulation of collagen production and dissolution of calcium build-up.

BTL High Intensity Laser is a revolutionary technology based on the proven principle of low level laser therapy (LLLT). By using biostimulation and photomechanical stimulation, the BTL High Intensity Laser therapy actually heals the tissue while providing a powerful and non-addictive form of pain management. High Intensity Laser offers very effective treatment for a wide range of clinical indications from muscle injuries and tendinopathies to degenerative joint disorders.

Combining Shockwave and High Intensity Laser therapy allows you to maximize treatment results and to speed up the recovery process. You may choose from single shockwave or laser therapy treatment, or use the treatment combination of Shockwave and High Intensity Laser in one session for exceptional treatment results.

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SCIENTIFICALLY-PROVEN
RESULTS
LASER LIGHT IN HUMAN TISSUE

• The output power is approximately 30–50 times higher compared to the conventional cold laser therapy and is specific with almost unlimited penetration depth. That gives BTL High Intensity Laser ability to stimulate and heal any painful spot in the body.
• Use of pulsed laser with wavelengths close to 1000 nm creates photomechanical wave in subcutaneous tissue. This photomechanical stimulation inhibits painful sensation and brings immediate pain relief.

SHOCKWAVE THERAPY

FAST AND PERMANENT RELIEF FROM PAIN

• Unique, non-invasive solution for musculoskeletal pain
• Just three to four treatments needed at weekly intervals
• A therapy session only takes about 10 minutes

FIELDS OF APPLICATION

• Orthopaedics
• Rehabilitation
• Sports medicine

MECHANISM OF ACTION

A shockwave is an acoustic wave which carries high energy to painful spots and myoskeletal tissues with subacute, subchronic and chronic conditions. The energy promotes regenerating and reparative processes of bones, tendons and other soft tissues.

HIGH INTENSITY LASER

MILESTONE IN LASER THERAPY

• New generation of technology in laser therapy
• Deeper penetration
• Superior clinical outcome
• Maximum safety

ADVANCED TECHNOLOGY

• Deep tissue penetration with power up to 12 W in continuous mode
• Max. power more than 50 times higher than in LLLT (cold laser therapy)
• Pulsed mode for immediate elimination of pain
• Effective and powerful therapy for wide range of clinical indications

LASER LIGHT IN HUMAN TISSUE

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Shockwaves are characterized by jump change in pressure, high amplitude and non-periodicity.

The kinetic energy of the projectile, created by compressed air, is transferred to the transmitter at the end of the applicator.
ONE UNIT,
ENDLESS POSSIBILITIES
HIGH INTENSITY LASER & SHOCKWAVE THERAPY

SHOCKWAVE THERAPY

THE LEADING TECHNIQUE IN PAIN MANAGEMENT AND TISSUE REPAIR THERAPY
• Non-invasive alternative to surgery for chronic tendinopathies and calcifications
• Highly efficient solution for pain therapy and mobility restoration

HIGH INTENSITY LASER THERAPY

A REVOLUTION IN THERAPEUTIC LASER TECHNOLOGY
• Effective and powerful therapy for sport injuries, muscle spasms and back pain
• Deep tissue penetration with power up to 12 W in continuous mode

HIGH INTENSITY LASER & SHOCKWAVE IN A SINGLE DEVICE

THE ONLY COMBINATION SYSTEM OF ITS KIND
• Choose Shockwave therapy for chronic inflammation and calcifications or High Intensity Laser for acute injuries and spinal pain
• Maximize your treatment results and speed up the recovery process using combined protocol of High Intensity Laser and Shockwave in one therapy session
• Broaden your clinical possibilities with an extremely wide indication range

MOST COMMON INDICATIONS

• Tennis elbow
• Chronic epicondylitis
• Low back pain
• Muscle strain
• Chronic entesopathies
• Jumper’s knee
• Patella tip syndrome
• Bursitis
• Trigger points
• Ankle distortion
• Heel spur
• Calcific tendonitis of the shoulder
• Acute cervical pain
• Chronic achillodynia
• Plantar fasciitis
• Knee arthritis
HIGH INTENSITY LASER & SHOCKWAVE THERAPY

UNIQUE COMBINATION IN A SINGLE SYSTEM

HIGH INTENSITY LASER THERAPY

- Up to 12 W power
- 1064 or 810 / 980 nm wavelength

SHOCKWAVE THERAPY

- Pressure: Up to 5 bars
- Frequency: Up to 22 Hz

The most powerful shockwave
- Highly energetic acoustic wave with up to 5 bar pressure
- Fast and permanent relief from pain

Perfected applicator ergonomy
- Elimination of backwards shocks
- Ergonomically shaped handle for comfortable use

**Wavelength (nm)**

<table>
<thead>
<tr>
<th></th>
<th>H2O</th>
<th>hemoglobin</th>
<th>melanin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1064</td>
<td>980</td>
<td>810</td>
<td>685</td>
</tr>
</tbody>
</table>

**Relative Absorption**

- Unlimited penetration depth: Up to 10 centimeters of tissue
- Perfection applicator ergonomics: Elimination of backwards shocks, ergonomically shaped handle for comfortable use
### Shockwave Therapy Applications

**Painful Shoulder (Calcification, Tendonitis, Impingement Syndrome)**

| Therapy parameters | pressure: 3–4 bar  
|                     | frequency: 10–15 Hz  
|                     | number of shocks: 2000  
| Patient position | lying on back or sitting upright  
| Frequency of treatments | 5–10 days  
| Number of treatments | 3–5 sessions  

**Heel Spur, Plantar Fasciitis**

| Therapy parameters | pressure: 2.5–3.5 bar  
|                     | frequency: 10–15 Hz  
|                     | number of shocks: 2000  
| Patient position | lying prone supported under the ankle  
| Frequency of treatments | 5–10 days  
| Number of treatments | 3–5 sessions  

**Radial/Ulnar Epicondylitis**

| Therapy parameters | pressure: 2–2.5 bar  
|                     | frequency: 5–10 Hz  
|                     | number of shocks: 2000  
| Patient position | lying on back or sitting upright  
| Frequency of treatments | with the arm at a right-angle  
| Number of treatments | 5–10 days  
| Number of treatments | 3–5 sessions  

**Achillodynia**

| Therapy parameters | pressure: 2–3 bars  
|                     | frequency: 5–10 Hz  
| Patient position | lying prone supported under the ankle  
| Frequency of treatments | 5–10 days  
| Number of treatments | 3–5 sessions  

*Images of shockwave therapy equipment showing different body parts being treated.*
HIGH INTENSITY LASER

MOST COMMON APPLICATIONS

CERVICAL PAIN
- Therapy parameters: Power: 8 W, Frequency: 25 Hz
- Recommended power: 8 W
- Recommended dosage: Use 5 J/cm² in acute phase and in chronic conditions increase the dosage to 8 J/cm²
- Frequency of treatments: 2-5 times per week

LOW BACK PAIN
- Therapy parameters: Power: 6 W, Frequency: continuous
- Recommended power: 6 W in acute phase, up to 10 W in chronic phase
- Recommended dosage: Use 100 J/cm² in acute phase, in chronic conditions increase the dosage to 120 J/cm²
- Frequency of treatments: 2-5 times per week

CARPAL TUNNEL SYNDROME
- Therapy parameters: Power: 3 W, Frequency: continuous
- Recommended power: 3 W in acute phase & 4 W in chronic phase
- Recommended dosage: Use 80 J/cm² in acute phase, in chronic conditions increase the dosage to 120 J/cm²
- Frequency of treatments: Up to 5 times per week

MUSCLE STRAIN
- Therapy parameters: Power: 4 W, Frequency: continuous
- Recommended power: 4 W in acute phase, up to 12 W in chronic phase
- Recommended dosage: Use 100 J/cm² in acute phase and in chronic conditions increase the dosage to 150 J/cm²
- Frequency of treatments: Up to 5 times per week
- Number of treatments: 4-8

COMBINED PROTOCOL

SHOCKWAVE AND HIGH INTENSITY LASER THERAPY CAN BE PERFORMED TOGETHER IN JUST THREE STEPS:

1. High Intensity Laser therapy: Analgesic Mode
   - First phase of the therapeutic procedure
   - Effect: Initial pain reduction

2. Shockwave therapy
   - Second phase of the therapeutic procedure
   - Effects: Tissue repair acceleration, neovascularization, microcirculation support and pain reduction

3. High Intensity Laser therapy: Biostimulation Mode
   - Third phase of the therapeutic procedure
   - Effects: Side effects control, local metabolic activity enhancement, anti-inflammatory and anti-oedematous effects
## TECHNICAL PARAMETERS

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Part number</th>
<th>BTL-5000 SWT POWER + HIGH INTENSITY LASER 7 W</th>
<th>BTL-5000 SWT POWER + HIGH INTENSITY LASER 12 W</th>
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<tbody>
<tr>
<td></td>
<td>P6000.405</td>
<td>P6000.406</td>
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### LASER PARAMETERS

<table>
<thead>
<tr>
<th></th>
<th>BTL-5000 SWT POWER + HIGH INTENSITY LASER 7 W</th>
<th>BTL-5000 SWT POWER + HIGH INTENSITY LASER 12 W</th>
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<tbody>
<tr>
<td>Total output</td>
<td>7 W in continuous mode</td>
<td>12 W in continuous mode</td>
</tr>
<tr>
<td>Operating wavelength</td>
<td>810 / 980 nm simultaneously</td>
<td>1064 nm</td>
</tr>
<tr>
<td>Mode of operation</td>
<td>Continuous, pulsed and single pulse</td>
<td></td>
</tr>
<tr>
<td>Number of protocols</td>
<td>61</td>
<td></td>
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<tr>
<td>Safety features</td>
<td>Emergency off switch</td>
<td>Footswitch operation</td>
</tr>
<tr>
<td></td>
<td>Safety interlock</td>
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### SHOCKWAVE PARAMETERS

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<table>
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<tr>
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<tbody>
<tr>
<td>Maximum pressure</td>
<td>Up to 5 bars</td>
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<tr>
<td>Maximum frequency</td>
<td>Up to 22 Hz</td>
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<tr>
<td>Single mode &amp; Continuous mode</td>
<td>Yes</td>
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<tr>
<td>Burst mode</td>
<td>Yes</td>
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<tr>
<td>Intensity gradient mode</td>
<td>Yes</td>
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<tr>
<td>Number of protocols</td>
<td>27</td>
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<tr>
<td>Encyclopedia with anatomical images</td>
<td>Yes</td>
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<tr>
<td>User-defined diagnoses</td>
<td>100</td>
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### UNIT PARAMETERS

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<tbody>
<tr>
<td>User-interface</td>
<td>5.7” colour touch screen</td>
</tr>
<tr>
<td>Dimensions</td>
<td>320 x 190 x 280 mm (main unit)</td>
</tr>
<tr>
<td></td>
<td>330 x 220 x 300 mm (air compressor)</td>
</tr>
<tr>
<td>Weight: main unit (without accessories)</td>
<td>7 kg</td>
</tr>
<tr>
<td>Weight: compressor</td>
<td>20 kg</td>
</tr>
<tr>
<td>Mains supply</td>
<td>230 V / 50-60 Hz or 115 V / 50-60 Hz</td>
</tr>
<tr>
<td>Laser class</td>
<td>IV</td>
</tr>
<tr>
<td>Equipment protection class</td>
<td>IIB</td>
</tr>
<tr>
<td>Standard accessories</td>
<td>Shockwave therapy applicator, trolley, 15 mm multi-focused transmitter, 15 mm focused transmitter, 9 mm multi-focused transmitter, additional exchangeable kit, gel (1 litre), touch-screen pen pointer, laser footswitch, calibration block, safety eyewear 2 pieces, safety applicator spacer (30 mm)</td>
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</tbody>
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### Optional accessories

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<tr>
<th>Part number</th>
<th>Description</th>
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<tr>
<td>P6000.412</td>
<td>Safety applicator spacer 10 mm</td>
</tr>
<tr>
<td>P6000.414</td>
<td>Safety applicator spacer 60 mm</td>
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<tr>
<td>P6000.416</td>
<td>BTL-5000 SWT upgrade for BTL-6000 High Intensity Laser units</td>
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