

# SHOCKWAVE THERAPY





# SHOCKWAVE THERAPY

## FAST AND EFFECTIVE RELIEF FROM PAIN

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

## DIFFERENT FIELDS OF APPLICATION

- ◇ Orthopaedics
- ◇ Rehabilitation
- ◇ Sport medicine

WIDE RANGE OF THERAPIES

SCIENTIFICALLY-PROVEN RESULTS

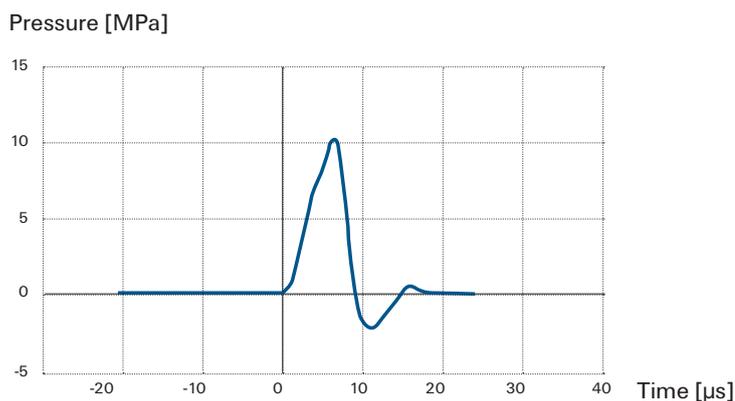
FAST RETURN ON INVESTMENT

## HOW DOES SHOCKWAVE WORK?

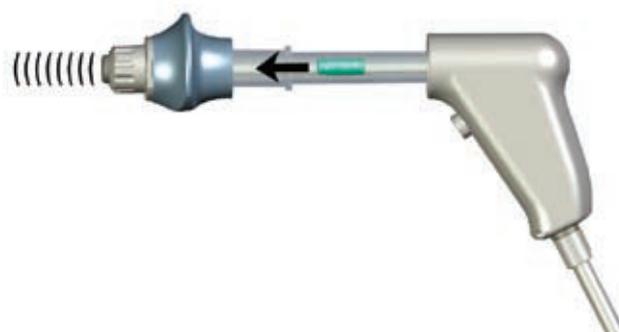
A shockwave is an acoustic wave which carries high energy to painful spots and fibrous or myoskeletal tissues with subacute, subchronic and chronic conditions.

**This energy promotes healing, regenerating and reparative processes of the tendons and soft tissue.**

- ◇ Shockwaves are characterized by a jump change in pressure, a 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.

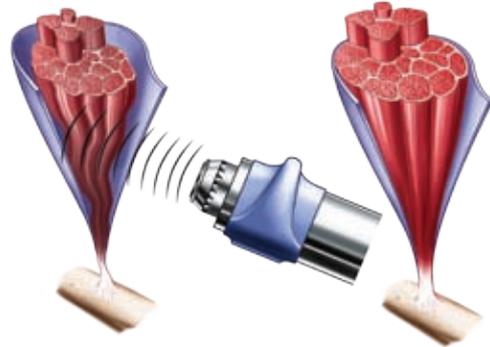


# MEDICAL EFFECTS

## ANALGESIC EFFECT - ELIMINATION OF PAIN

### ◇ Decrease of muscle tension, Inhibition of spasms

Hyperaemia is one of the basic effects of shockwave therapy in the body. It provides better energy supply to hypertonic muscles and their ligamentous structures. Furthermore, it causes the lessening of pathological interactions between actin and myosin. This leads to the reduction of muscle tension which is often painful to the patient.



### ◇ Enhanced dispersion of Substance P

The activity of Substance P (a pain mediator and growth factor) leads to the stimulation of afferent nociceptive fibres. It also supports the development of oedema and supports the secretion of histamine. The reduction of its concentration reduces pain in the affected area and decreases risk of development of oedema.

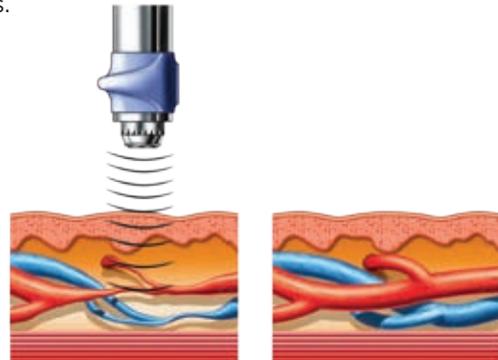
## ACCELERATION OF HEALING

### ◇ Increase of collagen production

The production of a sufficient amount of collagen is a necessary precondition for the repair processes to the damaged myoskeletal and ligamentous structures. SWT technology stimulates production of collagen in deeper tissues.

### ◇ Improved metabolism and microcirculation

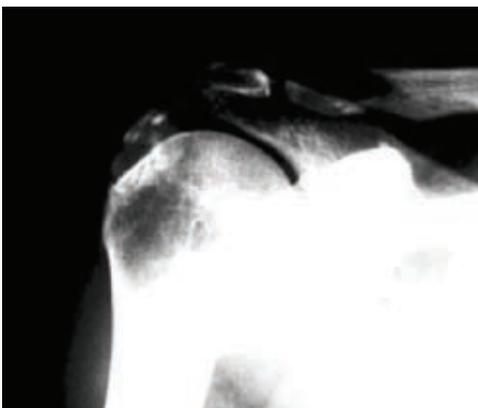
The SWT technology accelerates removal of nociceptive metabolites, increases oxygenation and supplies the damaged tissue with a source of energy. It supports removal of histamine, LA and other irritating agents which are of a mostly acidic nature.



## MOBILITY RESTORATION

### ◇ Dissolving of calcified fibroblasts

SWT technology dissolves calcified fibroblasts and it starts subsequent biochemical decalcification of primary calcaria or secondary symptoms of arthrosis.



Before shockwave treatment



After 3rd application of SWT

# MOST COMMON INDICATIONS



- ◇ Trigger points
- ◇ Chronic enthesopathies



prog man menu user

### diagnosis

- achilles tendon
- calcaneal spur, plantar fasciitis
- exostoses of small hand joints in case of grade 1 arthrosis
- pain in the area of the hip and the iliotibial tract
- program: W-U100 calcaneal spur, plantar fasciitis

\*ABCD

EFGH

IJKL

MNOP

QRSTU

VWXYZ

W1

SWT A

ESC

enter

on/off

stand/sleep

x



# BTL-6000 SWT TOPLINE

## POWERFUL & COMPACT SHOCKWAVE DEVICE

- ◇ Pressure up to 4 bars
- ◇ Frequency up to 15Hz



BTL-6000 SWT Topline system with trolley

### TOUCH OPERATION

- ◇ Intuitive operation with colour touch screen (5.7")



### EASILY TRANSPORTED

- ◇ Only 7kg including the built-in compressor



### EASY-TO-USE BY ANY THERAPIST

- ◇ Therapeutic encyclopaedia with colour anatomical images
- ◇ User-defined therapies for experienced users



### ERGONOMIC APPLICATOR

- ◇ Ergonomy designed by users



BTL physio

# BTL-5000 SWT POWER

## THE MOST POWERFUL SHOCKWAVE

- ◇ High pressure up to 5 bars
- ◇ High frequency up to 22Hz



BTL-5000 SWT Power

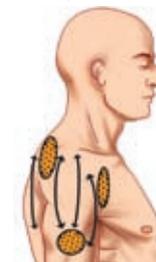
### TOUCH OPERATION

- ◇ Intuitive operation with colour touch screen (8.4")



### EASY-TO-USE BY ANY THERAPIST

- ◇ Therapeutic encyclopaedia with colour anatomical images
- ◇ User-defined therapies for experienced users

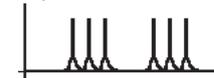


### ERGONOMIC APPLICATOR FOR EASY USE

- ◇ Ergonomy designed by users

### BURST MODE

- ◇ For extra-sensitive patients



### MODULAR SYSTEM

- ◇ Up to 5-in-1 therapies

# 5-IN-1 THERAPIES

## THE ONLY SWT COMBINED WITH OTHER PHYSICAL THERAPIES

The BTL-5000 SWT POWER gives the user a wide range of therapeutic possibilities along with the opportunity of saving on investment, office space and time.

The BTL-5000 SWT can be combined with:

- ◇ Electrotherapy
- ◇ Ultrasound
- ◇ Laser
- ◇ Magnetotherapy



### SHOCKWAVE THERAPY

- ◇ Dissolving of calcified fibroblasts
- ◇ Increase of collagen production
- ◇ Decrease of muscle tension
- ◇ Analgesic effect



### LASER

- ◇ Bio-stimulation
- ◇ Regenerative effects
- ◇ Anti-inflammatory effects



### ELECTROTHERAPY

- ◇ Analgesic effect
- ◇ Spasmolytic effect
- ◇ Muscle relaxation



### ULTRASOUND

- ◇ Muscle relaxation
- ◇ Antiedematous effect



### MAGNETOTHERAPY

- ◇ Accelerates modelling and healing of the skeleton and soft tissues
- ◇ Antiedematous effect



# ERGONOMY DESIGNED BY USERS

## ERGONOMICALLY-SHAPED HANDLE

- ◇ Ergonomic shape of the handle allows comfortable (“gun-like”) gripping of the applicator
- ◇ The most comfortably-shaped applicator on the market



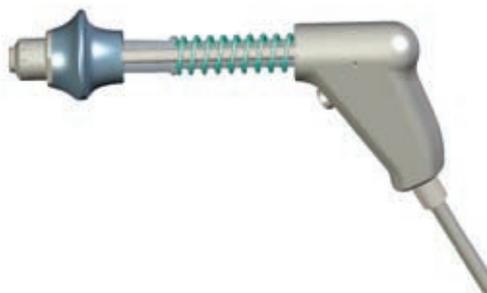
## SPECIAL ERGONOMIC GRIP

- ◇ Prevents the hand-piece from slipping out of the therapist's hand during treatment.
- ◇ The ergonomic shape allows the therapist to hold the hand-piece comfortably in many different positions. The hand-piece can be gripped in either the right or left hand and can be effectively used by both men and women.
- ◇ Provides sufficient support for the therapist's hand to prevent fatigue during extended use.



## ELIMINATION OF BACKWARD SHOCKS

- ◇ Spring-loaded applicator which eliminates the transfer of reverse shocks to the therapist's hand
- ◇ Provides appropriate contact between the treated tissue and the applicator during therapy
- ◇ Built-in air dumper



## MULTIFOCUSED TRANSMITTERS

- ◇ Specially-designed transmitters with several focal points
- ◇ Allows a more effective energy transmission into the target tissue



# SIMPLE OPERATION

## JUST 3 STEPS

1. Locate painful spots by palpation;
2. Apply gel;
3. Deliver shockwaves.



Locating painful spots



Applying the gel



Delivering shockwaves

## THE EASY-TO-USE BTL THERAPEUTIC ENCYCLOPAEDIA

Following the latest medical research, BTL has developed the shockwave therapeutic encyclopaedia for easy and effective treatment.

### EXAMPLE:

Programme	W-0108 radial/ulnar epicondylitis
Therapy parameters	type of shocks: continuous pressure: 2 bar frequency: 10 Hz number of shocks: 2000
Diameter of the head	15 mm
Patient position	Lying on back or sitting upright with the arm at a right-angled flexion at the elbow; arm should be comfortably supported, preferably with a soft cushioning pad
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions
Process of treatment	Manual localization of painful points in the area of radial/ulnar epicondyle and along the corresponding muscle groups of the forearm. > Application of gel. > Start the therapy with 400 shocks at 2 bars and 5Hz around the most painful point. >Subsequently treat the most painful point with approximately 1000 shocks >Then apply successively to the corresponding muscle groups of the forearm the last 400 pulses applied with a frequency of 10 Hz.
Note	Painful points are indicated by the dotted areas in the picture. The arrows indicate the direction of movement of the applicator.



# MOST COMMON APPLICATIONS

The examples illustrate application of therapy in different locations on the body while holding the applicator in either the right or left hand by men and women. There are many different ways to hold and grip the BTL hand-piece. It is surprisingly comfortable and easy to use.

## 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



## CALCAR CALCANEI, PLANTAR FASCIITIS

Therapy parameters	pressure: 2.5–3.5 bars frequency: 10–15 Hz number of shocks: 2000
Patient position	lying prone with leg 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 bars frequency: 5–10 Hz number of shocks: 2000
Patient position	lying on back or sitting upright with the arm at a right-angle flexion at the elbow; arm should be comfortably supported, preferably with a soft cushioning pad
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions



## ACHILLODYNYA

Therapy parameters	pressure: 2–3 bars frequency: 5–10 Hz number of shocks: 2000
Patient position	lying on back with knee supported
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions



# MOST COMMON APPLICATIONS

## PATELLAR TENDINOPATHY (OR JUMPER'S KNEE)

Therapy parameters	pressure: 2–3 bars frequency: 5–15Hz number of shocks: 2000
Patient position	lying on back with knee supported
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions



## TRIGGER POINTS

Therapy parameters	pressure: 2–4 bars frequency: 5–20Hz number of shocks: 2000
Patient position	depending on the treated area
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions



## TIBIALIS ANTERIOR SYNDROME

Therapy parameters	pressure: 1.5–2.5 bars frequency: 5–15Hz number of shocks: 2000
Patient position	lying on back with knee supported
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions



## PAIN IN THE HIP AREA

Therapy parameters	pressure: 2.5–3 bars frequency: 10–15Hz number of shocks: 2000
Patient position	lying on side
Frequency of treatments	5–10 days
Number of treatments	3–5 sessions



Other protocols are described in detail in the BTL therapeutic encyclopaedia.

# TECHNICAL PARAMETERS

Technical parameters	BTL-5000 SWT BASIC	BTL-5000 SWT POWER	BTL-6000 SWT TOPLINE
Ordering number	P014.001v100	P014.002v200	P6000.200
User-interface	5.7" colour touch screen	8.4" colour touch screen	5.7" colour touch screen
Pressure	1-3 bars	1-5 bars	1-4 bars
Frequency	1-15Hz	1-22Hz	1-15Hz
Single mode & Continual mode	yes	yes	yes
Burst mode		yes	
Preset programs	13	13	13
Encyclopaedia	yes	yes	yes
Encyclopaedia with anatomical images		yes	yes
User-defined diagnoses	100	100	100
Electrotherapy upgrade		yes	
Ultrasound upgrade		yes	
Laser upgrade		yes	
Magnetotherapy upgrade		yes	
Dimensions	230 x 390 x 260 mm (main unit), 330 x 220 x 300 mm (air compressor)		320 x 190 x 280 mm
Weight: main unit (without accessories)		4.7 – 5.3kg	7 kg
Weight: compressor	19kg	20kg	
Mains supply	230V / 50-60Hz, 115V / 50-60Hz		
Class: MDD 93/42/EEC	IIb		
Equipment protection class	II (in accordance with IEC 536)		

# STANDARD & OPTIONAL ACCESSORIES

	BTL-5000 SWT BASIC	BTL-5000 SWT POWER	BTL-6000 SWT TOPLINE
SWT applicator	◇	◇	◇
Transmitters: 9, 15mm multi-focused and 15mm focused	◇	◇	◇
Exchangeable kit	◇	◇	o
Trolley	◇	◇	o
BTL-6000 trolley			o
Gel 1000ml	◇	◇	o
Gel 300ml	o	o	◇
Touch screen pen pointer	◇	◇	◇
SWT transportation case	o (big)	o (big)	o (small)
SWT foot pedal to start/stop the treatment	o	o	

◇ – standard

o – optional

