



SHOCKWAVE THERAPY IN UROLOGY





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SHOCKWAVE THERAPY

PERMANENT FUNCTION RECOVERY

Shockwave is extremely energetic acoustic wave which triggers strong healing and repair process in chronic soft tissue conditions. This acoustic energy can be effectively used for treatment of erectile dysfunction and chronic prostatitis. These medical issues have a huge social impact as more than 50% of men face them in their lifetime. Conventional pharmacotherapy and surgery do not offer sufficient solutions, are complicated and have many side effects. Shockwave therapy in erectile dysfunction and prostatitis is painless, non-invasive and brings longlasting results.

In 2014, BTL-6000 SWT Topline achieved the Red Dot Design Award, one of the most respected worldwide awards in product design. The BTL-6000 SWT Topline won this coveted award due to its superior functionality, level of innovation, formal design quality and technological expertise.



reddot award 2014
winner

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SHOCKWAVE THERAPY

HIGHLY EFFECTIVE NON-INVASIVE TREATMENT

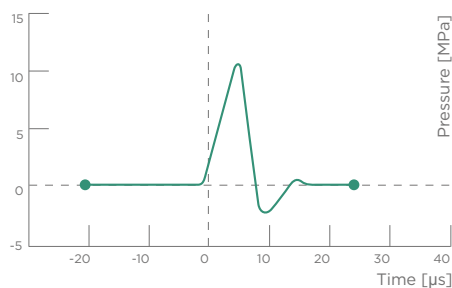
During Shockwave therapy a high-intensity acoustic wave interacts with the tissues of the body. This leads to a cascade of beneficial effects including neovascularization, reversal of chronic inflammation, stimulation of collagen production. Short-term mechanisms also include local vasodilatation, muscle relaxation and pain suppression. Stimulation of these biological mechanisms creates an optimal healing environment. As the injured area is returned to normal, functionality is restored and pain is relieved.

MAIN INDICATIONS

- Chronic prostatitis (CPPS)
- Erectile dysfunction
- Peyronie's Disease – Induratio penis plastica

FAST AND PAIN FREE THERAPY

- Unique, non-invasive solution for chronic disorders
- Just four to eight treatments needed
- A therapy session only takes about 10 minutes
- Fast improvement with long lasting effects



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

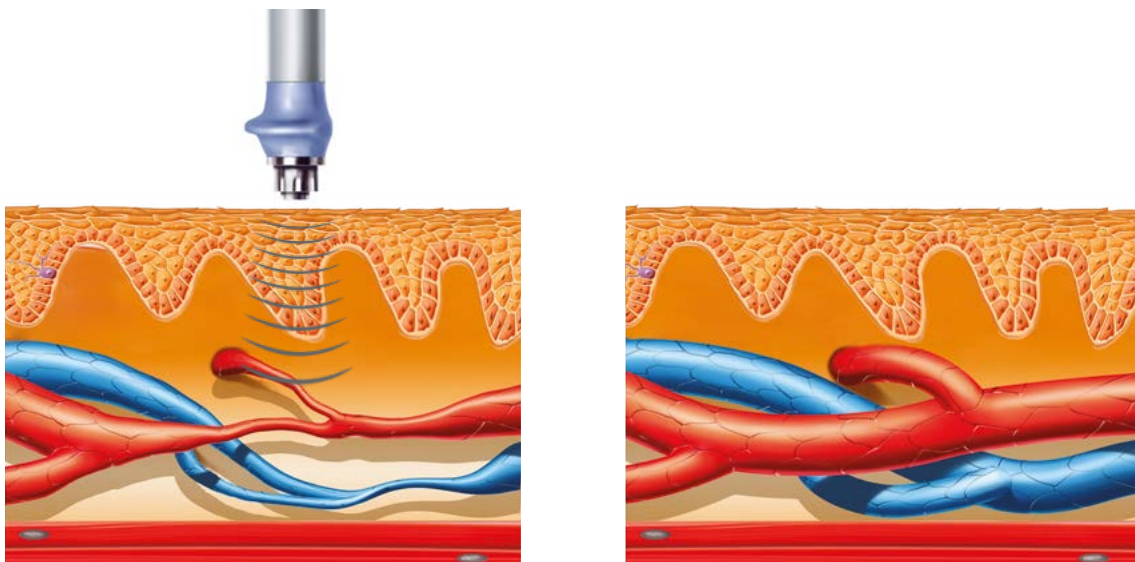


The kinetic energy of the projectile, created by compressed air, is transferred to the transmitter at the end of the applicator.

ACCELERATED TISSUE REPAIR AND NEOVASCULARIZATION

NEOVASCULARIZATION

Nutrient blood flow is necessary to start and maintain the repair processes of damaged tissue structure. The application of shock waves creates capillary micro-ruptures and significantly increases the expression of the growth factors such as the eNOS, VEGF, PCNA and BMP. These two processes stimulate growth and remodelling of new arterioles. The new blood vessels will improve the blood supply and the oxygenation resulting in the faster healing of soft tissues. Sufficient blood supply is the first condition in erectile dysfunction treatment.



IMPROVED METABOLISM AND MICROCIRCULATION

The SWT technology accelerates removal of nociceptive metabolites, increases oxygenation and supplies damaged tissue with source of energy. It supports removal of histamine, lactic acid and other irritating agents. This enables restoration of balance in the pelvic area.

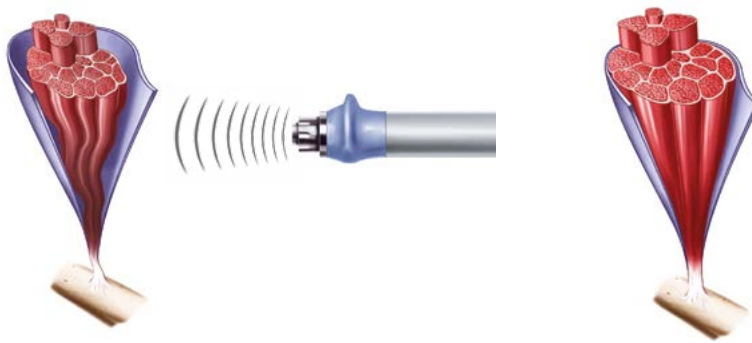
REVERSAL OF CHRONIC INFLAMMATION

Chronic inflammation occurs when the inflammation response is not completely halted. It can damage healthy areas in the body and can result in chronic pain. The activity of mast cells, which are involved in inflammatory process, may be increased by radial shock waves. Mast cell activation may be followed by the synthesis of chemokines and cytokines. The releasing of pro-inflammatory compounds, when needed, may help to restore the normal healing and regenerative processes and reduce symptoms of prostatitis.

ANALGESIC AND MYORELAXATION EFFECTS

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 in the pelvic area and their ligamentous structures. Furthermore, it causes lessening of pathological interactions between actin and myosin. This leads to significant reduction of muscle tension.



ANALGESIC EFFECT

Mechanical stimulation of the free nerve endings in the subcutaneous tissue results in activation of the gate control, analgesic mechanism. Following pain suppression is immediate and with extremely long lasting effect. Reduction of substance P concentration reduces pain in the affected area and decreases the development of oedema. These mechanisms allow for elimination of the major CPPS symptom.

ROLE OF THE PELVIC FLOOR

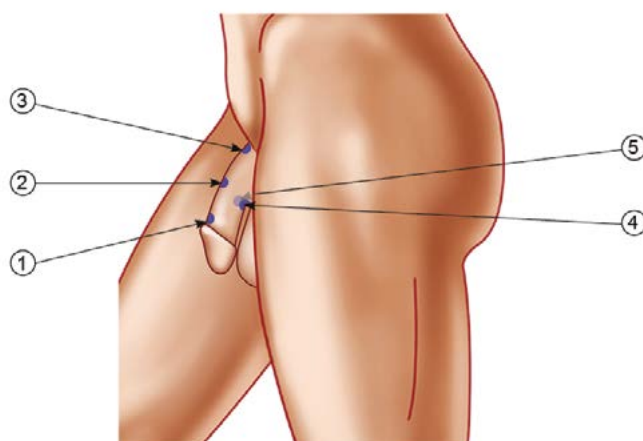
Pelvic floor is important in providing support for pelvic organs, maintenance of continence and of optimizing intra-abdominal pressure. The muscles also help sexual function and it is vital to keep the pelvic floor fit. Shockwave therapy supports proper function of the pelvic floor by increasing blood perfusion and relaxing tense muscles.

BTL THERAPY GUIDE

EASY-TO-USE

ENCYCLOPAEDIA

The built-in therapeutic guide is designed to make the therapy both very easy and effective. Common therapy time is about 8-12 minutes when approximately 3000 pulses are applied to the area of pathology. Specific therapeutic protocol differs according to the indication and actual health condition of the patient.



PROGRAMME	W-0135 ERECTILE DYSFUNCTION
Therapy parameters	type: continual pressure: 1.5 Bar frequency: 12 Hz number of shocks: 3000
Patient position	Position the patient on the urological chair.
Frequency of treatments	every 3-4 days
Number of treatments	8
Process of treatment	The therapy is performed in 5 consequent steps. In each step apply about 600 pulses using static application. Therapy areas are marked on Picture 1; in steps 4 and 5 the shocks are applied to the left and right side of the penis.
Note	The rest regime is recommended after the shockwave therapy, especially in the first 48 hours after the treatment. Shockwave therapy application causes biological process resembling acute inflammation which will later cause intense acceleration of healing. This is why the rest regime is suitable for a few first days after the procedure.

CLINICAL STUDIES

EVALUATION OF RADIAL EXTRACORPOREAL SHOCK WAVE THERAPY IN THE TREATMENT OF ERECTILE DYSFUNCTION

Author: Turcan, P.; Pokorný, P.; Prochazka, M.; Prochazkova, J.
Source: 17th Congress of the European Society for Sexual Medicine
 5 - 7 February 2015, Copenhagen, Denmark

A prospective single center, open label clinical study of the radial shockwave therapy system (BTL-6000 SWT) in therapy of the patients with erectile dysfunction, who were responders to PDE5is. Assessment of erectile function was performed at screening, after the last treatment, and at the 3 month follow-up examinations by using the five items International Index of Erectile Function (IIEF-5). Significant increases in IIEF-5 domain scores were recorded in 21 men, 1 man had a score without change. RSWT represents a new, effective, non-surgical, non-pharmacological, and well tolerated treatment for men with erectile dysfunction, who previously responded to pharmacotherapy.



RADIAL SHOCK WAVE THERAPY IN CHRONIC PELVIC PAIN SYNDROME (CPPS)

Author: Kernesyuk, M.N.
Source: Urology, 2013, Volume 6 [original article in Russian language]

Thirty patients suffering from CPPS for at least 3 months were investigated in two groups. Both groups were treated once per week for a 6 months period. Group 2 was established as control group. The investigation was designed as controlled, randomized study. All 15 patients in the first group showed significant improvement of pain, quality of life in comparison to the control group. The study revealed perineal ESWT as a safe and effective therapy option for CPPS with more significant effects in comparison to pharmacological treatment.



CLINICAL STUDIES

IS LOW INTENSITY SHOCK WAVE A FAVORABLE MODALITY IN THE TREATMENT OF PEYRONIE'S DISEASE?

Author: Mohammadian, R.; Shakeri, S.; Zeighami, S.; Tadayon, A.; Rezaei, H.; Abdalkhani, N.; Salehli, M.; Croup, M.; Yadollahi, M.
Source: 18th Congress of Iranian Urological Association, 2015

Thirteen patients with Peyronie's disease (PD) and subsequent ED or painful erection participated in this study. Each patient underwent several courses of LISW therapy directed to his penis using BTL-6000 SWT Topline Power. Before and after the treatment, variables including plaque size, ED, and pain were documented and changes were compared. Statistical analysis was done using Chi-square test. All the patients had improvement in erectile function. Thirty percent had painful erection and all of them had their pain relieved after therapy. Thirty percent had decrease in their plaque sizes and in 30 % the plaques disappeared completely after the treatment. LISW therapy was significantly effective in the resolution of Peyronie's plaque when it was less than 5 square centimeter ($p: 0,021$).



EVALUATION OF SWT EFFICIENCY IN TREATMENT OF ERECTILE DYSFUNCTION

Author: Kazalakova, K.; Yordanova, S.
Source: Pilot study, 2014

A prospective single center open label clinical study of the radial SWT intended for treating patients with symptoms of erectile dysfunction. Eight patients (mean age $55,5 \pm 6,3$) with vasculogenic ED underwent 8 treatments on every 3-4 days. Improvement in IIEF domain score was noted in all patients and only one subject had the total score increased with less than 10 points. The results remained unchanged at 30 and 90-day examination. No adverse events were reported during the sessions and follow-ups. The results confirm that the BTL-6000 SWT device is safe and efficacious to improve erectile function.



BTL SHOCKWAVE THERAPY

LEADING THE
NEW WAY





BTL-6000 SWT TOPLINE

DESIGNED FOR UROLOGY

BTL-6000 SWT TOPLINE POWER URO

- Pressure up to 5 bars
- Frequency up to 20 Hz

FEATURES & BENEFITS

- Intuitive operation with colour touch screen (5.7")
- Compact and portable – only 7 kg 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 – ergonomics designed by users



Touch operation

Intuitive operation with colour touch screen (5.7")



Ergonomic applicator for comfortable use

Ergonomics designed by users



Compact and portable

Only 7 kg including the built-in compressor

ERGONOMY

DEVELOPED BY USERS

SPECIAL ERGONOMIC GRIP

- Prevents the handpiece from slipping out of the therapist's hand during treatment
- The ergonomic shape allows the therapist to hold the handpiece comfortably in many different positions; the handpiece can be held in either 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 to eliminate the transfer of reverse shocks to the therapist's hand
- Provides appropriate contact of the treated tissue and the applicator during the therapy
- Built-in air dumper



MULTIFOCUSED TRANSMITTERS

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



TECHNICAL PARAMETERS

MODEL	BTL-6000 SWT TOPLINE POWER URO
Part number	P6000.220
User interface	5.7" colour touch screen
Max. pressure	up to 5 bars
Frequency	1-20 Hz
Single mode & Continuous mode	•
Intensity gradient mode	•
Preset programs	5
Encyclopaedia	•
Encyclopaedia with anatomical images	•
User-defined protocols	100
Dimensions	320 × 190 × 280 mm
Weight: main unit (without accessories)	7 kg
Mains supply	230 V / 50-60 Hz, 115 V / 50-60 Hz
Class: MDD 93/42/EEC	IIb
Equipment protection class	II (in accordance with IEC 536)
Standard accessories	Transmitters: 9, 15 mm multi-focused and 15 mm focused, gel 300 ml, touch screen pen pointer

Optional accessories for BTL-6000 SWT

Part number P014.015	Exchangeable kit	Part number P6000.210	SWT transportation case (small)
Part number P6000.211	BTL-6000 trolley	Part number P014.018	SWT 20 mm aesthetics transmitter
Part number P007.010	Gel 300 ml		



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