D-ACTOR® 100 · D-ACTOR® 200
Radial Acoustic Wave Therapy
Aesthetics with a fine medical tradition

STORZ MEDICAL AG is a Swiss member company of the KARL STORZ Group, established in 1945. Our products have proved their efficacy all over the world in the medical disciplines of urology, orthopaedics, sports medicine, rehabilitation, gastroenterology, cardiology and dermatology.

Close co-operation with leading medical institutes in the United States, Switzerland and Germany has enabled us to develop a pioneering treatment that sets new standards in aesthetic and cosmetic anti-ageing medicine. This new treatment method is referred to as Acoustic Wave Therapy or briefly AWT®.

Contents

Introduction/Contents
03  Aesthetics with a fine medical tradition

Mode of action
05  Successful treatment of aesthetic indications

D-ACTOR® line
07  Systems
07  Handpiece
07  Transmitters

V-ACTOR®
09  V-ACTOR® – the ideal complement to Acoustic Wave Therapy

Applications
11  Radial AWT® for anti-cellulite treatment
13  Effects on the epidermis and connective tissue
13  AWT® case studies

Experiences with the D-ACTOR® line
15  Experiences with the D-ACTOR® line
15  AWT® case studies
Successful treatment of aesthetic indications

Acoustic Wave Therapy, developed from lithotripsy for fragmentation of kidney calculi and radial shock wave therapy for muscle treatment, generates high-amplitude acoustic pulses of short duration. Tissue stimulation by AWT® improves blood flow, microcirculation and metabolism, while increased lymphatic drainage promotes fat breakdown and removal of metabolic waste products and toxins.

When used in anti-cellulite treatment, Acoustic Wave Therapy addresses the root causes of the condition such as decreased metabolic activity in the affected body regions and reduced elasticity of connective tissue septa. Acoustic waves boost blood circulation and lymph flow. The mechanical vibrations they produce restore the elasticity of the connective tissue septa and improve the skin tone, while lessening the appearance of dimples and bumps related to cellulite.

Radial AWT® provides visible and long-lasting results in anti-cellulite treatment.

The fields of application of AWT® include:
- anti-cellulite treatment
- treatment of striae/pregnancy stretch marks
- lymphatic congestion
- relaxing vibration therapy for muscle and connective tissue relaxation, wellness massage

Follow-up one week after anti-cellulite treatment
6 treatment sessions, study group: 25 patients

Source: Adatto et al.: Controlled, randomized study evaluating the effects of treating cellulite with AWT®/EPAT®, Journal of Cosmetic and Laser Therapy, 2010
The D-ACTOR® handpiece uses high-energy acoustic waves to penetrate deep layers of the epidermis, dermis and subcutaneous tissue. Specific transmitters are available to reach different parts of these structures.

### Systems

The D-ACTOR® line, specifically developed for Acoustic Wave Therapy, has been designed to treat aesthetic indications with pressure waves.

#### D-ACTOR® 100
- Radial waves
- Total weight: 9.5 kg
- "Silent" power air compressor integrated
- V-ACTOR® handpiece: vibration therapy (optional)
- Available in the following colours: silver, green, blue

#### D-ACTOR® 200
- Radial waves
- Total weight (including external compressor): 20.6 kg
- Touch screen operation
- Integrated AWT® software treatment guide, including demonstration pictures
- V-ACTOR® handpiece: vibration therapy (optional)
- Available in the following colours: silver, green, blue

### Transmitters

#### D20-S standard transmitter
- Ø 20 mm, for blood and lymph flow stimulation and tissue relaxation

#### D35-S standard transmitter
- Ø 35 mm, for large-area blood and lymph flow stimulation and tissue relaxation

#### C15 ceramic transmitter
- Ø 15 mm, CERAma-x® for gentle treatment of epidermis and connective tissue, specially for pain-sensitive patients

#### DI15 titanium transmitter
- Ø 15 mm, for epidermis and connective tissue treatment and fat activation

#### D20-T titanium transmitter
- Ø 20 mm, for powerful anti-cellulite treatment and biomechanical connective tissue stimulation
V-ACTOR® – the ideal complement to Acoustic Wave Therapy

Vibrating waves are produced with the V-ACTOR® hand-piece. Vibration treatment stimulates metabolism, improves lymph flow and accelerates the elimination of waste products and toxins. In addition to these benefits, the V-ACTOR® wellness massage has a relaxing effect and a positive impact on muscle tone regulation.

Vibration therapy is an ideal complement to Acoustic Wave Therapy and contributes to long-lasting treatment results.

**Vibration therapy**
- stimulates metabolism and accelerates the elimination of waste products and toxins.
- offers a relaxing wellness massage before and after radial treatment.

**V-ACTOR® mode**
- Available vibration heads:
  - V25 (25 mm) and V40 (40 mm)
- Frequency D-ACTOR® 100: 21 – 31 Hz
- Frequency D-ACTOR® 200: 1 – 35 Hz

Vibration therapy stimulates metabolism and tissue

Treatment with V-ACTOR®

Vibration heads: V25 and V40
Radial AWT® for anti-cellulite treatment

The typical orange peel or mattress appearance of cellulite affects 95% of all women.

Cellulite, which is considered a purely cosmetic problem, is caused by the specific parallel structure of the collagen fibre bundles. The fat cells bulge straight upwards into the corium. Reduced microcirculation further exacerbates the condition and causes fibrosclerosis in the connective tissue.

Acoustic waves stimulate metabolism and microcirculation in connective tissue and fat cells and thus reduce existing metabolic regulation disorders to significantly decrease the visible signs of cellulite. Several clinical studies have been conducted to assess the effects of radial AWT® under controlled, standardised treatment conditions.

Measurements of skin properties such as dimples, skin roughness and skin elasticity before and after the treatment show statistically significant differences. Skin elasticity increases continually over a period of three months. This improvement continues to be seen for a long period of time, which results in a high level of satisfaction among patients.

Text/Chart sources page 11:
Adatto et al.: Controlled, randomized study evaluating the effects of treating cellulite with AWT®/EPAT®, Journal of Cosmetic and Laser Therapy, 2010
Russe et al.: A New Technology to Treat Cellulite: Combining Superficial and Deeper Penetrating Radial Acoustic Waves, ISAPS Congress 2010, San Francisco

Improvement in skin elasticity (MPa)
Study: 8 treatment sessions, 42 patients

Measurements with 3D camera (mm)
Effects on the epidermis and connective tissue

**Before AWT®**
Enlarged fat cells bulge upwards towards the skin surface. The inelastic vertical connective tissue fibres do not stretch along with the surrounding adipose tissue. The typical orange peel appearance becomes visible on the skin surface. Local blood circulation is significantly reduced.

**During AWT®**
Acoustic waves are introduced into the body. The connective tissue relaxes, and the firmness of the epidermis increases. Blood circulation in the tissue is significantly enhanced and enlarged cells shrink to their normal circumference.

**After AWT®**
The results of AWT® are improved density and restored natural elasticity of the skin and connective tissue along with a visible and lasting improvement in skin texture.

**AWT® case studies**

**Before AWT®**
Source: Dr. Johnson, Grapevine, USA

**After AWT®**

**Before AWT®**
Source: Dr. Ledermann, Zurich, Switzerland

**After AWT®**
Experiences with the D-ACTOR® line

Sharon G., Ireland
»I conducted AWT® trials for about four months, to determine whether I would invest in it for my clinic and to see how effective it is. The conclusion was that AWT® is comfortable to have done and gives fast and long lasting results.«

Dr. Paul P., Austria
»Already after the second or third treatment session, women start bringing their friends, especially because of the significant skin tightening effect. We have great results.«

Marina M., Austria
»It often only takes three to four weeks until stage 1 and stage 2 cellulite aren’t visible anymore.«

Dr. Gerhard S., Germany
»In our clinic, we have the best results with younger women having moderate cellulite.«

Dr. Tatjana P., Germany
»This method helps against minor and medium cellulite. The treatment is comfortable, just like a massage. The skin feels tighter and smoother and the cellulite disappears almost completely.«

Dr. Bettina R., Switzerland
»I have been using AWT® in my clinic for over a year and treatment with AWT® has become a key component of the services my practice offers.«

Angelica N., Sweden
»DermaCenter has an average of 8 treatments per day since the start with AWT®. The therapy is very profitable for the clinic.«

For further information about experiences with AWT® and the D-ACTOR® line visit www.cellulite-therapy.com.

AWT® case studies

Global use of acoustic pressure wave therapy