



MTS Medical UG

- Development, manufacture & distribution of Spark Wave™ therapy systems for
 - orthopedics/ traumatology
 - wound care
 - urology
- Konstanz, Germany
- Global player - internationally registered
- CEO: Nikolaus Hopfenzitz





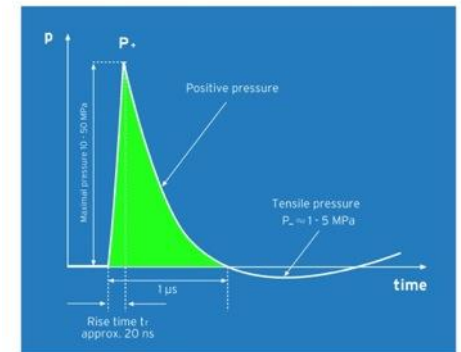
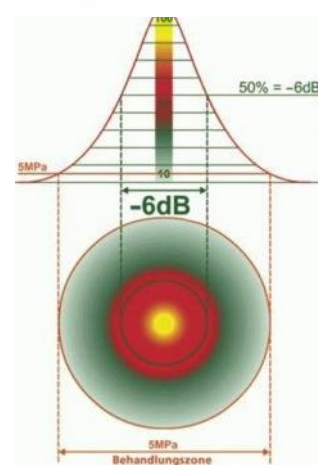
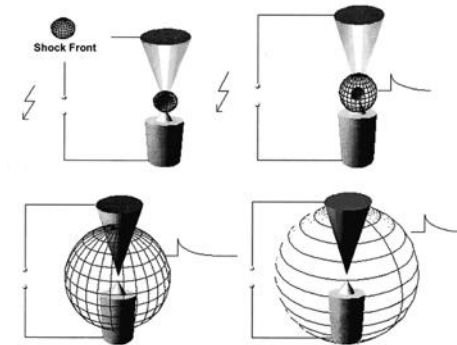
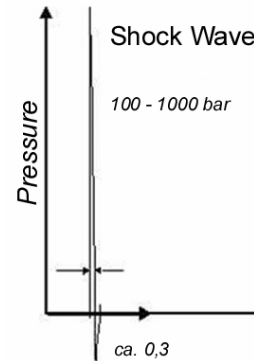
Spark Wave™ therapy with urogold100™

- an effective long-term & highly tolerable solution for patients with erectile dysfunction



What are Spark Waves™?

- Spark Waves™ are highly effective shock waves that initiate biological regeneration processes on cellular level
- Generating principle: spark gap in water quench
- Spark Wave™ characteristics:
 - High peak pressure (up to 100MPa)
 - Fast pressure rise (<10ns)
 - Short lifecycle (<10ms)
 - Positive and negative pressure phase

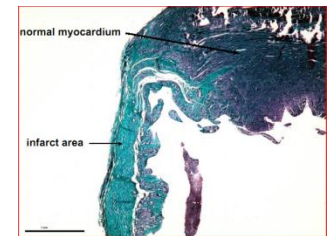
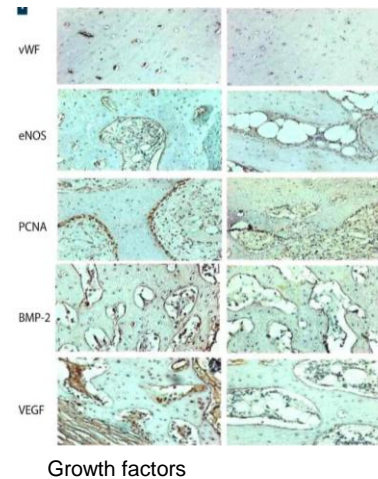




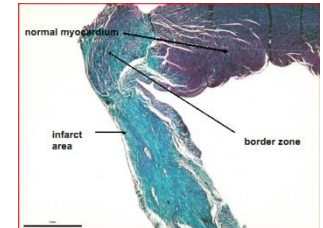
How do Spark Waves™ work?

Stimulation of healing process on cellular level by:

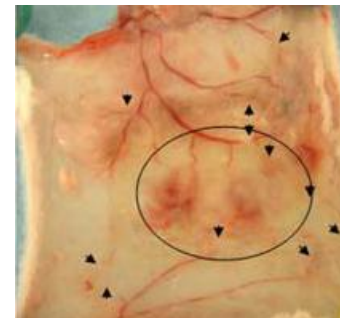
- Promotion of body's own production of growth factors (VEGF, eNOS, PCNA etc.)
- Promotion of development of new blood vessels (angiogenesis)
- Migration of stem cells
- Promotion of blood circulation
- Bactericidal effect (in vitro)
- Reduction of inflammation processes
- Bioengineering & Tissue Regeneration



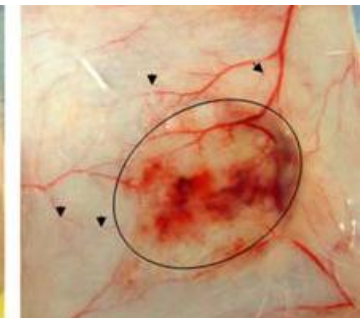
Control group, no ESWT



ESWT group, results of 8 weeks after treatment



Before ESWT



7 days after ESWT

Treatment of ED with uro**gold**100

- Transportable device for therapeutic Spark Wave™ treatment
- Comfortable in handling and operating
- Combined with three applicator types for treatment of:
 - **Erectile dysfunction (ED)**
 - Chronic pelvic pain (CPP) / chronic prostatitis
 - Peyronie's disease (IPP)



Treatment of ED with urogold100

Pros for the treatment of erectile dysfunction with urogold100:

- Unique biological Spark Wave™ effects for successful therapy of ED
- Safe alternative to ingestive medical treatment
- No side effects

Conduct of treatment for ED with uro**gold**100

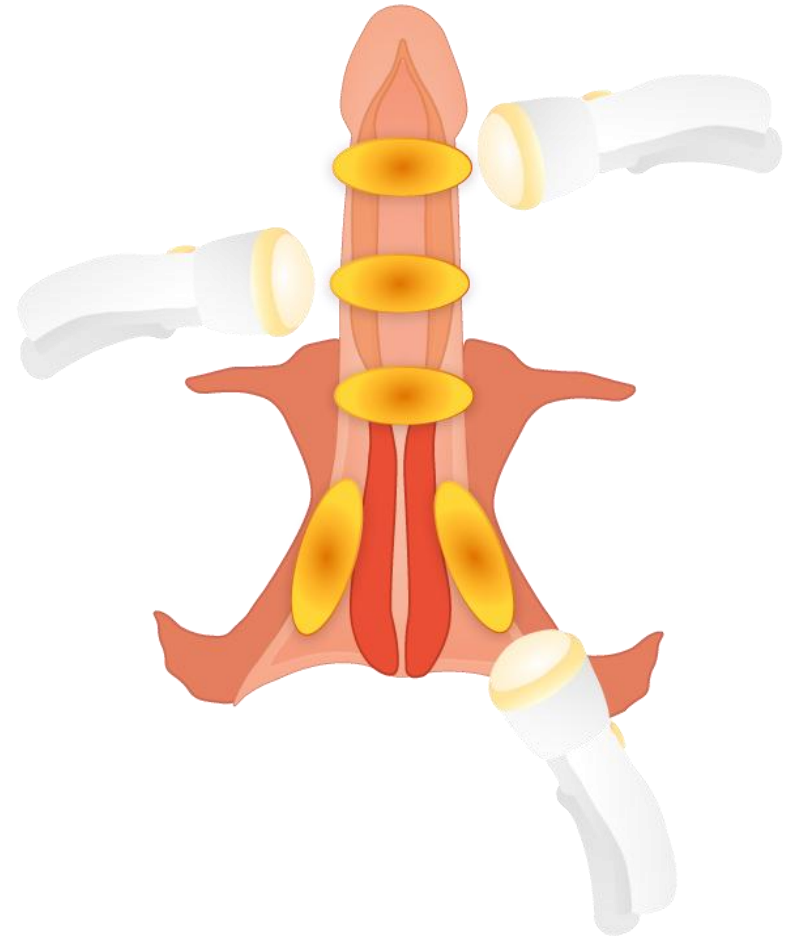
1. Locate direction and penetration depth of treatment area by means of ultrasound, palpation or anatomical knowledge
2. Mark the region for coupling on skin of patient
3. Make sure skin is cleaned from hair and grease in coupling area
4. During treatment patient may either sit or lay down
5. Adjust necessary treatment parameters (penetration depth, energy, frequency)
6. Apply ultrasound gel onto water membrane of applicator
7. Bring applicator in contact with skin of patient, release Spark Waves™ and conduct treatment
8. After treatment clean skin from ultrasound gel

Conduct of treatment for ED with uro**gold**100

Spark Wave therapy is applied on penile shaft and corpus

The following regions are treated:

- Distal, mid and proximal penis shaft
- Left and right-hand crus of penis shaft

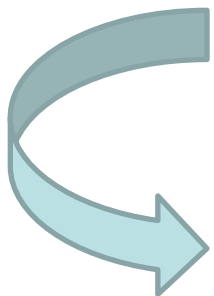


Conduct of treatment for ED with uro**gold**100

Treatment protocol for ED therapy with uro**gold**100:

- Every 1-2 weeks for up to 6 treatments in total
- Treatment may be resumed after a 4 week period if necessary

Per patient:



6 treatments during 12 weeks
5 treatment zones
300 shocks per zone

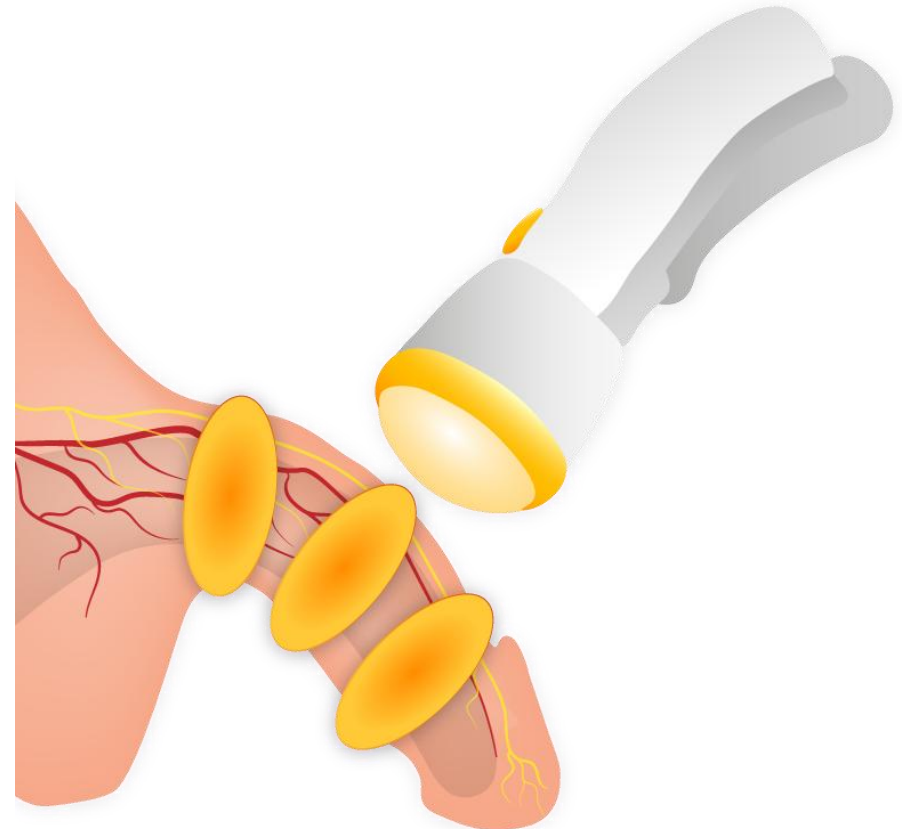
Only 9000 shocks in total for significant improvement of erectile function

Conduct of treatment for ED with urogold100



Treatment of the shaft:

1. Stretch the penis
2. Bring applicator in firm contact to treatment location perpendicular to shaft
3. Apply 300 shocks each at distal, mid and proximal penile shaft (900 shocks in total)
4. Use generous amount of coupling ultrasound gel



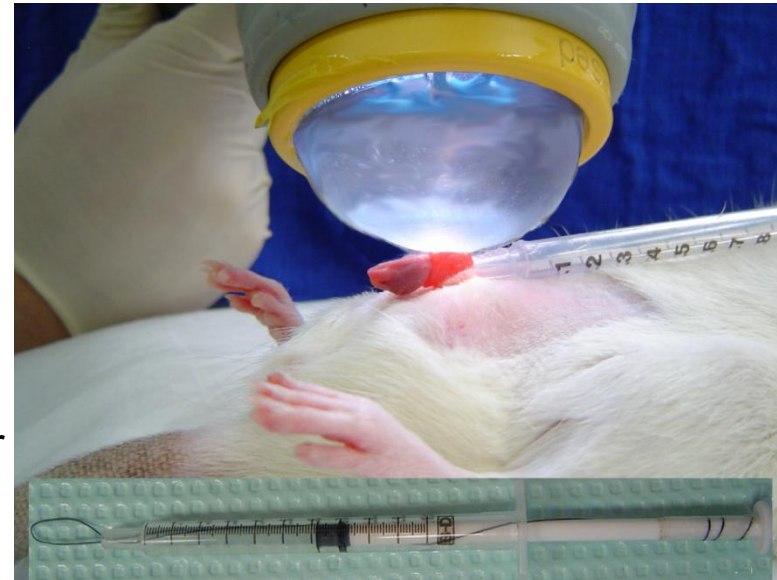
Spark Wave therapy for ED - scientifically proven

University of California, San Francisco

Qiu et al. „Effects of low-energy SWT on the erectile function and tissue of a diabetic rat model“ (2013)

– **Methods:**

- 24 male rats, 3 groups: control group, DM-induces group & DM-induced group that received trice per week for two weeks Spark Wave™ therapy
- After 4 weeks all rats were evaluated for erectile function & penile tissues were examined by histology

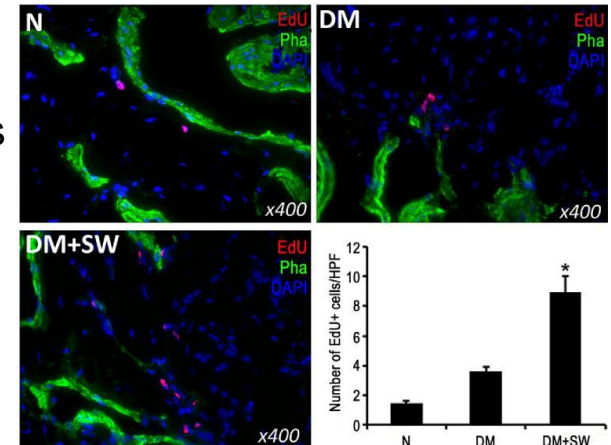


Spark Wave™ therapy for ED - scientifically proven

Study University of California, San Francisco

Qiu et al. „Effects of low-energy SWT on the erectile function and tissue of a diabetic rat model“ (2013)

- **Results:** DM-associated deficits (decrease in erectile function, reduction of nNOS-positives nerves and endothelial & reduction of smooth muscle contents) were significantly reversed by Spark Wave™ therapy
- **Conclusion:** Spark Wave™ therapy ameliorates DM-associated erectile dysfunction





Take home message

- Spark Wave™ therapy is effective long-term and highly tolerated solution for patients with ED to restore sexual spontaneity
- Innovative, safe and effective therapy for ED and other urogenital disorders to avoid problems in sexual intercourse
- Unique biological Spark Wave™ effects for successful therapy of urogenital disorders, such as ED
- Safe alternative to ingestive medical treatment of ED without the side effects of the latter
- Even suitable for ED-patients that did not respond to medication



Thank you very much for your attention!



MTS Medical UG
Robert-Bosch-Str. 18
78467 Konstanz
Tel.: 07531 36185 – 0
Fax: 07531 36185 - 72
www.mts-medical.com
info@mts-medical.com