

# SPARK OF LIFE®

*Orchestrating Sound of Healing with Spark Wave*

Newsletter 2023/1

## Editorial



Dear readers, summer arrived here in Constance, and we enjoy the sun shining on our terrace. In this issue we would

like to present interesting news as well as people. This year we have reason to celebrate, because MTS Medical has its 25th anniversary.

First, we would like to introduce Professor Dr. Gekeler, one of our scientific experts here at HTWG in Konstanz. As a proven expert in power electronics, he had a significant role in the research of the next generation of Spark Wave. In a separate article, we will devote a detailed look at the ground-breaking OW100S technology.

We would also like to give a special shout-out to SoftWaveTRT, our exclusive overseas partner for Softwave technology. The American distributor has been

cooperating with us since 2004 and we work together on innovative projects.

This year MTS was also present at several conferences. We would like to introduce you to some of these events and give you an insight into the fascinating topics that are regularly discussed there.

Enjoy our newsletter and the summer to the fullest and be inspired by the warm season.

Yours sincerely,



Nikolaus Hopfenzitz  
CEO MTS Medical

## 25th Anniversary - A success story from the heart of Lake Constance



For a quarter of a century, MTS Medical has been firmly at home at the Lake Constance. This scenic region is known as the birthplace of the first shockwave device and has an eventful history.

The discovery of the technology to generate shockwaves in the 1950s marked the beginning of a ground-breaking development. However, it would take further 20 to 30 years before ultrafast sound pulses with the speed of a supersonic aircraft found their way into the medical world.


As early as 1993, the „ESWT Ambulant Clinic in Constance“ was founded by Nikolaus Hopfenzitz and laid the foundation for today's company MTS Medical. Intensive research into the effect of shockwaves on the human body led to the first application outside of lithotripsy (kidney

stone fragmentation) as early as 1992, namely the treatment of non-healing bone fractures, so-called pseudarthrosis. This breakthrough opened the door to numerous other orthopaedic indications.

Finally, in 1996, MTS Medical was founded by Nikolaus Hopfenzitz and Ralph Reitmajer. Since then, MTS has grown continuously and the fields of indication have also expanded beyond the scope of orthopaedics. In 1999, the first patient for the MTS devices was granted.

A significant partnership was formed in 2005 with the US company SoftWaveTRT, led by John Warlick and Mark Gronowski. Together they developed the SoftWave OP155 applicator to promote wound healing and tissue regeneration. Today, Spark Wave technology is re-

cognized worldwide and is used in orthopaedics, traumatology, urology, wound healing and veterinary medicine. Through continuous research and development, MTS Medical has produced the OW100S series. This breakthrough technology received FDA approval in 2022, allowing it to be used in the US.

25 years of scientific and medical breakthroughs and MTS' goal remains unchanged: To provide patients with the best quality of treatment within a short recovery time. We are proud of what we have achieved and look forward to the years ahead, full of innovative and effective solutions for the healthcare industry. 

# Model OW100S - A Revolution in Spark Wave Technology

We are pleased to introduce the latest model in Spark Wave technology. With its future-oriented approach, it sets new standards in electrohydraulic shock-wave therapy. This advanced technology has many advantages. The SmarTrode-technology brings to the market an intelligent electrode that can regulate itself. It is therefore very user-friendly and responds exceptionally quickly. To ensure the greatest possible treatment comfort, the adjustable membrane allows the penetration depth to be customized. Moreover, the technology has further refined the applicator's new microchip control.

An outstanding feature of the OW100S is its lifetime and uniform shockwave discharge, which ensures high-quality medical treatment. The life of the applicator is extended by fivefold, to up to 1,000,000 shockwaves, by a new shockwave generation concept. The

OW100S combines power with longer life, resulting in higher treatment volume.

In addition to its technical advantages, the OW100S also has economic benefits. It enables increased efficiency and reduces operating costs by up to 60%. These cost savings allow you to treat more patients and expanding your patient care.

One expert who played a key role in the development of the OW100S series is Dr. Manfred Gekeler, a professor at HTWG Konstanz in the field of power electronics, electrical drive technology, energy conversion and pulse inverters. As our partner in fundamental research, Professor Gekeler supports highly innovative developments of MTS Medical. His scientific expertise and contribution to the development of the OW100S series make him a valuable part of the team.



The OW100S symbolizes the next generation of Spark Wave. With its improved technology, unique lifetime and economic benefits, it is a groundbreaking innovation in medical treatment. Get excited about the possibilities the OW100S offers both you and your patients.

## Spark Wave Technology Worldwide - From Conferences to New Users



Spark Wave Technology has already made a worldwide impact this year. It has already been represented at renowned trade fairs and congresses in Rotterdam, Jeddah and Seoul. Particularly noteworthy were the simultaneous congresses of the ESSM (European Society of Sexual Medicine) and the JeddahDerm in February, which were in diametrically opposite directions, at least from a German perspective.

The 17th JeddahDerm Congress was held in Jeddah, Saudi Arabia, from February 15 to 18. This congress is considered a must-attend event for physicians and medical device companies in the dermatological and cosmetic fields. Our partner Al-Dawaa (DMSCO) was present on site together with our service manager Jochen Boss and sales representative Stefan Wegner to showcasing the Spark Wave for dermatological indications.

At the same time, Livia Rodi, sales representative at MTS Medical and our partner Dymeco were in Rotterdam, Netherlands, from the 16th to the 18th. At the 24th ESSM Congress, there was a lively exchange of the latest research articles and cutting-edge technologies. MTS Medical has been present at this congress for 8 years. For patients suffering from erectile dysfunction or chronic pelvic floor pain, Spark Wave Therapy is an effective

and non-invasive treatment modality. Another highlight at the beginning of the year was our participation at the Korean KIMES (International Medical & Hospital Equipment Show) in Seoul, where we presented our OW100 line.

We are also pleased to announce a new Spark Wave User in Germany. In the centre of Bavaria, Dr. Bonorden in Munich is now successfully using Spark Wave therapy for orthopedic indications.



### International orientation with over 17 languages at MTS

Today, an organization's international presence plays an important role and can be critical to its success. This is the case at MTS Medical, and we are proud to be able to communicate with our customers in over 17 different languages. This language diversity reflects our commitment to meeting the needs of our customers around the world. We are able to offer our goods and services in a variety of languages to ensure that every custo-

mer, regardless of location or language proficiency, has a wonderful customer experience. Communicating effectively in multiple languages has enabled us to expand our business internationally and collaborate with partners and suppliers in a sustainable way. We are convinced that the ability to communicate in multiple languages is an important factor in our success and helps us better serve our customers around the world.





# MTS Science - New Horizons - Functional Regeneration of the Sciatic Nerve



There is exciting news from MTS Science! A new potential treatment for sciatic nerve regeneration.

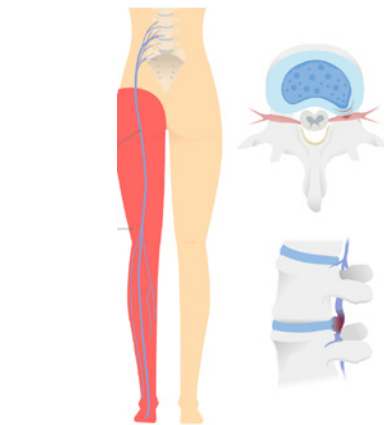
The sciatic nerve is the longest and thickest nerve in the body. When it is

pinched, injured or inflamed, it can cause pain that extends from the back all the way down to the leg.

A recent basic research study in a rodent model by Sağır et al. from Sinop University in Turkey shows that Spark Wave Therapy promotes nerve regeneration and increases myelin sheath thickness.

The results are very promising: Shockwave therapy had no notable side effects and significantly increased the number of neuronal axons and the thickness of the myelin sheath. Action potential amplitudes and axon latencies also improved, as did the motor index.

These findings suggest that shockwave therapy may be a promising treatment for peripheral sciatic nerve regeneration.



Reference:

Sağır D, Bereket C, Onger ME, Bakhit N, Keskin M, Ozkan E. Efficacy of Extracorporeal Shockwaves Therapy on Peripheral Nerve Regeneration. J Craniofac Surg. 2019 Nov-Dec;30(8):2635-2639. doi: 10.1097/SCS.00000000000005671. PMID: 31577651.

## Our partner in the USA: SoftWaveTRT

We would like to thank our American partner SoftWaveTRT for their participation at AUA (American Urology Association) 2023 in Chicago, Illinois. Physicians and visitors from around the world had the opportunity to see the latest developments and experience the healing potential of urogold100 and lithogold380 at the largest gathering of urologists.



At booth #3955, SoftWaveTRT showcased shockwave therapy with urogold100 and lithogold380 devices for urogenital indications and lithotripsy from April 28-30. The show provided a great opportunity to bring together industry professionals in order to learn about new developments in shockwave therapy as well as sexual medicine.

Another achievement for SoftWaveTRT was the recognition in the Jefferson Urology Year in Review 2022, with an article on the Low-intensity Shockwave Therapy (LiSWT) research program.

The study is being conducted by researchers in the Men's Health Program at the Urology Department of the Navy Yard Clinic. The project is being led by urologists Dr. Paul Chung, Irvin Hirsch and Perry Weiner, who is responsible for the overall Men's Health Program.

Dr. Paul Chung is confident that low-intensity penile shockwave therapy, can become a widely accepted, minimally invasive treatment option for erectile dysfunction (ED) in the future.

We are proud to partner with SoftWaveTRT.



## SITOD and SETOC

Other highlights of this year were our participation in the shockwave congresses in Rome, Italy as well as Granada, Spain.

SITOD, the Italian Shock Wave Society Congress, was held in Rome on May 19-20 and SETOC, the Spanish Shock Wave Society Congress, was held in Granada on June 16-17. Both congresses offered visitors the opportunity

to experience the healing potential of Spark Wave live as well as to participate in a shockwave certification course.

We were very happy to get in contact with the participants and to get insights into the latest developments and applications of ESWT.




## Our employees - Strong in action and in play



Not only do we work hard, we also play hard. In July, our team enthusiastically participated in a local soccer tournament in Konstanz. They made it to the round of 16 in an exciting penalty shootout on the sports field and thus achieved a place among the best teams.

Congratulations to our team for this fantastic achievement! You have shown us all how important it is to stick toge-

ther and act as a team. It is a great pleasure to have so many talented and dedicated employees in our company.

We are very proud of our soccer players. Their dedication and passion have paid off. They have shown that they can deliver exceptional performance both at work and on the pitch as a team. 

## Upcoming Events:



**ECUADOR VASCULAR2023**  
19 A 22 DE JULIO DE 2023  
Lugar: Hotel Sheraton Guayaquil

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THE WORLD CONGRESS OF THE INTERNATIONAL SOCIETY FOR MEDICAL SHOCKWAVE TREATMENT

**25<sup>th</sup> ISMST**  
JULY 21-23, 2023  
DAEGU, KOREA



Cost Efficiency



# OW100S Series

## THE NEXT LEVEL SPARK WAVE®

Leading Electrohydraulic Shock Wave Technology

Witness. The Spark of Life.

### Impressum

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MTS Medical manufactures  
Spark Wave Therapy Systems for

shockwave applications in fields of  
orthopaedics, traumatology, wound  
healing and urology - even in areas  
that are difficult to treat.  
MTS Medical is one of the pioneers  
in the field of non-invasive regene-  
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