

Healthcare industry BW

Shock wave therapy gives hope to many men

Although the approval of vasodilatory drugs made available an effective medicine for treating erectile dysfunction, not all men respond to this type of treatment. MTS Medical UG from Konstanz has developed a therapeutic device that means that these men can now get help too. What's more, the device has no adverse health effects.

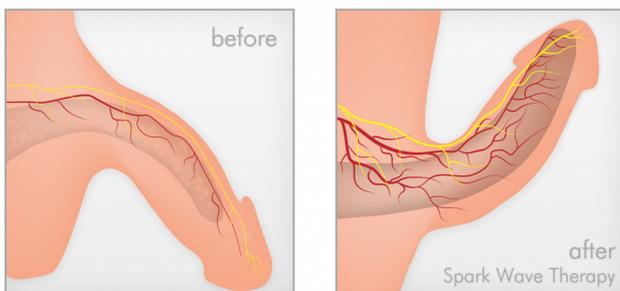
Worldwide, more than 150 million men suffer from impotence, also known as erectile dysfunction (ED). Several methods are available for the treatment of ED, but not all are risk-free and can have a broad range of adverse effects. Many patients use drugs that temporarily expand the blood vessels. However, such drugs can cause diarrhoea, heartburn, headaches and general aches and pains. The only effective remedy for some men is implants or injections. Sufferers who want to avoid potential side effects or who do not respond to medical treatment can now benefit from a new therapy that addresses the problem by applying shock waves to the genital area.

Highly efficient shock waves improve penile blood circulation

MTS Medical UG, a company from Konstanz, has been developing and producing shock wave therapy devices for many years. One of the uses of these devices is the non-invasive treatment of shoulder calcifications. Highly concentrated sound waves, so-called shock waves, are sent directly to the affected region. The shock waves increase growth factor levels, which in turn cause stem cells to migrate to the affected area and produce new blood vessels.

This effect can now also be exploited for treating men with ED. Shock waves are sent directly to the penis in order to improve blood circulation. "Our therapy targets the major cause of ED, i.e. the limited supply of the penile tissue with blood. Stimulating blood circulation in the penis can eventually lead to a normal erection," explains Nikolaus Hopfenzitz, CEO of MTS Medical. The company's Spark Wave® therapy has a number of advantages: the patient can now lead a more spontaneous sex life, and the therapy promotes the regeneration of penile tissue, is pain-free and has no adverse effects. "MTS Medical's technology has been used for treating a broad range of symptoms for around 20 years. No side effects were observed during long-term testing of a special applicator for stimulating blood vessels. Our technology eliminates the negative shock waves, thus avoiding potential adverse effects such as haematomas," says Nikolaus Hopfenzitz.

Clinical trials prove efficiency of method



Shock wave therapy promotes the development of new blood vessels, thus improving penile blood circulation.

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A few years ago, MTS Medical placed a device for treating diabetic foot ulcers on the market. Diabetic foot ulcers result from high blood sugar levels over the long term because of lack of insulin, and are characterised by chronic wounds due to damaged blood vessels. The lesions heal badly due to disturbed blood circulation. However, the identification and successful use of shock waves as an effective means to treat lesions has led to further research in this area. Independently from MTS Medical, scientists from the University of Haifa demonstrated the effectiveness of shock waves for the treatment of erectile dysfunction in a clinical trial. They evaluated the effect of extracorporeal shock wave therapy in 60 patients, half of whom underwent shock wave therapy and the other half sham treatment. The trial confirmed that shock waves generated a significant improvement in erectile function while only five percent of the control group experienced an improvement. The method is now so successful that 50 to 60 percent of the men undergoing shock wave therapy no longer need to use vasodilatory drugs at all. It usually takes six sessions to achieve a satisfactory result.

The technology is also suitable for diabetics

"However, the method is not suitable for all patients. Men whose erectile dysfunction is a result of highly invasive prostate cancer surgery unfortunately cannot benefit from shock wave therapy," says Nikolaus Hopfenzitz. However, other patient groups can benefit enormously from the therapy. Many diabetics suffer from erectile dysfunction as the disease often leads to the degeneration of penile tissue. An animal experiment carried out at the University of California's School of Medicine in San Francisco (USA) showed that diabetic rats suffering from metabolic degeneration of penile tissue regained erectile function after treatment with MTS Medical's Spark Wave® therapy. "The experiment shows that our therapy is able to reverse erectile dysfunction by way of tissue regeneration," says Nikolaus Hopfenzitz.

Expansion of therapy options planned

The Spark Wave® treatment device is produced in Konstanz and exported to many countries in Europe and Asia. Prof. Dr. med. Hartmut Porst from Hamburg is a leading expert in the treatment of erectile dysfunction and uses the new method in his clinic. "The method is particularly suitable for diabetics and hypertension patients suffering from circulatory problems in the genital area and for whom medical treatment has little or no benefit. It has also been shown that many vasodilatory drugs have a significantly improved effect in patients who have undergone Spark Wave® therapy," says the urologist. Four clinics and specialist practices in Germany already use this new therapy for treating ED. "In order to be able to help as many patients as possible, we hope to be able to offer ED treatment in cooperation with urology specialists in as many German states as possible," concludes Nikolaus Hopfenzitz.