31 Frequent Questions & Answers about Shockwave Therapy
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...about Shockwave Therapy
Shockwaves Clinic™ is the only Medical Center specialized exclusively in the application of Shock Waves, with the use of technological devices and therapeutic protocols that have been tested and proven highly efficient in clinical trials based on strict scientific criteria.

Below you will find detailed answers to 31 frequent patients’ questions about Shockwaves Therapy. We hope that these answers will be useful to every man thinking about choosing the therapy.

01 The name of the method contains the word “shock”. This world generally causes fear. Are Shock Waves dangerous?

Shock waves are not dangerous at all, for they are auditory waves (like ultra sounds) generated by special devices. Auditory waves go through the skin and tissues, but not through the air. Low-intensity Shock Waves, in particular, are the safest ones for the human body.

02 Where are Shock Waves used?

Shock Waves were first used in the 70s, when the first lithotripter for renal calculi (kidney stones) was invented by Dornier Company, that is the known method “Extracorporeal Shock Wave Lithotripsy” (ESWL). Applied worldwide with tremendous success during the last 40 years, Shockwave Therapy has been a breakthrough in the treatment of lithiasis, limiting to the minimum surgical procedures for the removal of kidney stones. After 1980, Shock Waves started being used with equal success for the treatment of inflammatory bone and muscle diseases. In 2000s, low-intensity Shock Waves started being applied in Cardiology to treat heart and vascular problems. At the same time, Shockwave Therapy started being used by Plastic Surgeons for the healing of chronic ulcers/ injuries.

03 How long have Shock Waves been used to treat Urological diseases?

Shock Waves were first used in the late 2000s, with the first paper for the treatment of chronic prostatitis with good results being published in 2008. At the same time, the method was applied in Peyronie's disease (penile curvature) with moderate efficacy. In 2010 the first results were published in patients with vascular erectile dysfunction. Lots of research followed demonstrating the efficacy of Extracorporeal ShockWave Therapy (ESWT) and establishing it as a method.
Is Shockwave Therapy still on an experimental level?

No. Extracorporeal Shockwave Therapy (ESWT) and its respective technological equipment are officially approved and applied in Europe. In the U.S.A., clinical trials are underway for the approval of the method. So far, clinical trials have been conducted in Europe (in Greece at the Aristotle University of Thessaloniki, A.U.Th.), Australia and Asia.

What do Shock Waves induce in the penis?

It has been proven in experimental studies that Shock Waves activate a range of biological mechanisms generating new vessels (neovascularization). Besides enhancing neovascularization, Shock Waves also increase smooth muscle fibers, contributing to the improvement of erectile function.

I have read that there are many technological Shock Wave devices in the Market. Are they all the same?

There is a great number of Shockwave devices in the Market, as the patent expired a long time ago. These devices differ significantly with regard to the way they generate Shock Waves, their technical features (intensity, application diameter, frequency etc) and the shockwave delivery probe used, which plays a determining role in the final result.

Which of the existing Shockwave devices have been tested in trials and have given good results?

Only 5 devices have been used in clinical trials. The rest of them have not been studied at all. Out of these, only 2 devices have demonstrated consistently good results: ED1000 and ARIES2. ED1000 was used in the first studies establishing the method, while ARIES2 was used in trials that resulted in the development of the therapeutic protocols used today. All the other devices follow protocols recommended by their manufacturing companies without though being documented with evidence deriving from multiple clinical trials.

How is the therapy performed?

The process of Extracorporeal Shockwave Therapy (ESWT) reminds a lot of Ultrasound Therapy. After applying the gel on the skin of the target area, Shock Waves are conducted into the penis with the use of a special probe. The specially trained Sonographer moves the probe around the affected region in such a way that Shock Waves are distributed evenly in the entire penis.

How many therapeutic sessions do I need?

This will be decided by your physician. The minimum number of sessions required to see improvement is 6 sessions, but in most cases there is need for 12 sessions. In cases of severe erectile dysfunction, there may be need for 18 sessions to reinstate penile blood flow and achieve full recovery of erectile function.

How many sessions per week can I have?

There is flexibility, as you can undergo 1, 2 or 3 therapeutic sessions per week with respective results. The most commonly applied therapeutic approach is 2 sessions per week.
If I do not fully respond to the therapy, can Shockwave therapy be repeated?

A recent study has demonstrated that, in case of partial benefit, the therapy can be repeated to enhance the result. According to this study, with the repetition of the therapy whenever necessary -even 6 months later- additional benefits can be generated and erection improves even further.

Up to how many sessions is it safe to do?

The studies that have so far been conducted include patients who have undergone up to 18 sessions. However, having more sessions is not considered to bring any negative consequence.

How long does a session last?

The application of the method takes about 20 minutes. So, whole visit lasts about 1 hour.

Is there need for anesthesia?

The method does not cause any pain at all. So, no anesthesia has ever been needed (not even local anesthesia) for the application of low-intensity Shockwave therapy in Urological patients.

Are Shockwave sessions painful?

No. There is no pain either during the application of Shockwave therapy or afterwards. Some patients report a mild tingling sensation (numbness), usually at the beginning of the session. In rare cases, there might be some mild burning sensation in the treated area for a few hours following the session.

Are there adverse events and, if yes, which are these?

Within the 10-year experience with Shockwave therapy, no serious side-effects have been reported. The only extremely rare side-effect that has ever been reported is a temporary local ecchymosis (bruise) appearing immediately after the therapy that subsides spontaneously within the next few days.

Is the method generally safe?

The method is definitely safe. Low-intensity Shock Waves that are used to treat erectile dysfunction are absolutely safe. Equally safe are high-intensity Shock Waves that have been applied for the treatment of renal lithiasis during the last 50 years. In other words, there is tremendous experience with Shock Waves that guarantees safety.

Could the method worsen my erection?

No. Shock Waves can only have beneficial effect on erectile function. This has been proven by experience and evidence-based research from multiple clinical trials.

What improvement should I expect in my erection?

In 70% of patients with mild or moderate erectile dysfunction, erectile function is expected to recover after 6 or 12 Shockwave therapeutic sessions. Patients with severe erectile dysfunction may need 18 sessions to regain their functional erection.

When will I see improvement?

Improvement is visible within 1 month after therapy begins. Even further improvement can be seen within 3 months after the initiation of the therapy.
When will I see the ultimate result?

According to studies, the ultimate outcome is visible within 3 months after the completion of the therapy. Following this period, the therapeutic result is stabilized.

Can I have sex during the therapeutic period?

Of course, sexual activity may even bring an even more positive result, since erection during sexual intercourse stimulates penile blood flow.

Can I take erectile dysfunction pills (ED medication) during the therapeutic period?

Yes, you can. Studies have demonstrated that the use of ED medication during Shockwave therapy improves the final outcome of erectile function. Sexual activity is allowed throughout the whole therapy.

Once the therapy is completed, can I keep taking ED medication?

Yes, you can. There is no reason to interrupt or limit their use.

How long do the positive results of Shockwave therapy last?

There are 6-12 month follow-up studies showing excellent maintenance of the result during 1-year period. One 24-month follow-up study has shown that the positive outcome remained stable within 2 years in 50% of patients. In the rest 50% of patients, the result was not maintained due to other health problems they had (diabetes mellitus, hypertension, cardiovascular disease etc) that affected the newly-formed vessels following the process of neovascularization.

Can every man with erectile problem undergo the therapy?

Every man with vascular erectile dysfunction can be benefited by the therapy. One first study showed positive results also in patients after radical prostatectomy for prostate cancer but there is need for further studies with a larger sample of patients.

Can patients who take heart medication or antidiabetics undergo Shockwave Therapy?

Of course, they can. There are no contraindications for the method. It has to be stressed though that patients with severe heart disease should have the approval of their Cardiologist not for the application of Shock Waves but for having sexual activity.

Is the method contra-indicated for patients who take anticoagulants?

No. The sample of clinical trials included also patients who took aspirin or other anticoagulants, and there were no adverse events.

Is Shockwave Therapy different when applied in patients with chronic prostatitis or chronic pelvic pain syndrome?

The process is exactly the same. The therapeutic protocol includes 6 sessions (1 session/week). Depending on the result, the therapy can be repeated in patients who have already seen improvement of their symptoms.

Is it likely to notice any side effect of the therapy after months?

No long-term complications have been reported within the 10-year experience since the method started being applied.
**Do a quick test to self-assess your erectile function**

The test is called "International Index of Erectile Function" (IIEF) and is used worldwide to assess symptoms. All test questions refer to the experiences you had during the last month.

Score > 25: normal function
If your score is below 25, it is recommended to discuss the problem with your Urologist.

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**DO THE ERECTION TEST**

**How often were you able to achieve an erection during any sort of sexual activity (masturbation, sexual intercourse)?**

- **0** I had no sexual activity
- **1** Almost never/ Never
- **2** Few times (much less than half the time)
- **3** Sometimes (about half the time)
- **4** Most times (much more than half the time)
- **5** Almost always/ Always

**During sexual arousal, how often were you able to achieve erections hard enough for penetration?**

- **0** I had no sexual activity
- **1** Almost never/ Never
- **2** Few times (much less than half the time)
- **3** Sometimes (about half the time)
- **4** Most times (much more than half the time)
- **5** Almost always/ Always

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**Which are the characteristics of patients with vascular erectile dysfunction that render them the best candidates to be benefited by Shockwave therapy?**

1. Age > 40 years
2. Gradual manifestation and deterioration of erectile dysfunction
3. Morning erections similar to nocturnal erections (normal nocturnal/ morning erections usually indicate psychogenic cause)
4. History of hypertension or diabetes mellitus or cardiovascular disease
5. Risk factors for cardiovascular disease (obesity, smoking, sedentary life, malnutrition)
6. Sexual desire exists and is normal
7. Sexual relationship is good. There is support and understanding from the sexual partner concerning the problem of erectile dysfunction.
8. Performance anxiety is under control.
When you attempted sexual intercourse, how often were you able to penetrate (enter) your partner?

- 0: I had no sexual activity
- 1: Almost never/ Never
- 2: Few times (much less than half the time)
- 3: Sometimes (about half the time)
- 4: Most times (much more than half the time)
- 5: Almost always/ Always

During sexual intercourse, was it difficult to maintain your erection until completion of intercourse?

- 0: I had no sexual activity
- 1: Almost never/ Never
- 2: Few times (much less than half the time)
- 3: Sometimes (about half the time)
- 4: Most times (much more than half the time)
- 5: Almost always/ Always

Your self-confidence that you can achieve and keep your erection is:

- 1: Very low
- 2: Low
- 3: Moderate
- 4: High
- 5: Very high

IIEF Scoring

- Normal erectile function: 26 - 30
- Mild erectile dysfunction: 22 - 25
- Mild to moderate erectile dysfunction: 17 - 21
- Moderate erectile dysfunction: 11 - 16
- Severe erectile dysfunction: 1 - 10
Where to find us
The Medical Center Shockwaves Clinic™ is located on Aghia Sophia Square right in the center of Thessaloniki - easily accessible to all patients.

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Parking
In collaboration with a private car parking lot, Shockwaves Clinic™ offers every visitor/patient parking space FREE OF CHARGE within a 3-minute distance from the Clinic for one (1) hour.

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