



## **Shock wave therapy a new treatment modality for erectile dysfunction. Review, Background and results**

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### **Abstract**

Erectile dysfunction (ED) affect many men and show increasing prevalence with increasing of age. The prevalence only in The Netherlands is estimated as 900000 persons. The most important cause of ED is vascular insufficiency or/and endothelial dysfunction. Vasculogenic erectile dysfunction (ED) is defined as inability to get or keep an erection firm enough for satisfying sexual intercourse and maybe originated by diseases such as diabetes mellitus and atherosclerotic vascular occlusive disease.

After more than a decade of wide experience with oral therapies for ED, it has become evident that these therapies improve erections but do not treat the underlying mechanism. Furthermore the dependence on oral therapy have its limitations. The search for a better treatment is still going on. Current methods for treating Vasculogenic ED aim at reducing symptoms instead of reversing the source of the dysfunction, which in the majority of the patients is due to arterial or inflow disorders.

Recently a new treatment modality for ED with linear low intensity shockwave has been proposed and recent studies show promising results. It has been demonstrated that shockwaves can enhance intrinsic angiogenesis and is used to treat ischemic heart disease. Low Intensity Shockwaves (LISW) are known to produce revascularization and have been in evaluation and in use to treat erectile dysfunction.

In recent study on Vasculogenic ED patients, Fifty eight patients with mild to severe ED were treated by Renova (an dedicated LISW for ED treatment) and their erectile function was evaluated by the IIEF-EF, SEP and GAQ questionnaires, at baseline and at 1, 3 and 6 months post treatment. The average IIEF-EF increased significantly from 14.78 at baseline to 21.93 at 3 months post treatment and stabilized at 22.26 at 6 months post treatment. Out of 58 patients, 47 (81%) had a successful treatment. No adverse events were reported during the treatment and the follow-up duration.

In conclusion, it appears that the performance of LISW (Renova) adds a new advanced treatment for erectile dysfunction.