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Vacuum therapy in erectile dysfunction--science and clinical evidence.

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Erratum in

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Vacuum therapy (VT) utilizes negative pressure to distend the corporal sinusoids and to increase the blood inflow to the penis. Depending on its purpose, VT could be used as vacuum constriction device (VCD), with the aid of an external constricting ring which is placed at the base of penis to prevent blood outflow, maintaining the erection for sexual intercourse. Also, as a vacuum erectile device (VED), without the application of a constriction ring, just increases blood oxygenation to the corpora cavernosa and for other purposes. The emerging of phosphodiesterase 5 inhibitors (PDE(5)I) for the treatment of erectile dysfunction (ED) eclipsed VCD as therapeutic choice for ED; however, widespread usage of VED as part of penile rehabilitation after radical prostatectomy and other purposes rekindle the interest for VT. The underlying hypothesis is that the artificial induction of erections shortly after surgery facilitates tissue oxygenation, reducing cavernosal fibrosis in the absence of nocturnal erections, and potentially increases the likelihood of preserving erectile function. Due to its ability to draw blood into the penis regardless of nerve disturbance, VED has become the centerpiece of penile rehabilitation protocols. Herein, we reviewed the history, mechanism, application, side effects and future direction of VT in ED.

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