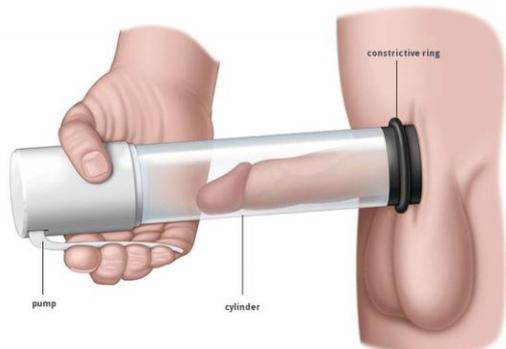


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VACUUM CONSTRICTION/ERECTION DEVICE (VCD/VED)



Advantages:

- Effective regardless the cause of ED
- Can also be used after non-nerve sparing surgery
- Early stages of penile rehabilitation following RP until the nerves have healed sufficiently for drug treatments to work
- Can be combined with PDE5 inhibitors and intraurethral alprostadil, or used as an alternative to drug treatment when it is unsuccessful or unacceptable.
- Research suggests that early use of the of VCD after RP facilitates early sexual intercourse, early patient/spousal sexual satisfaction, maintenance of penile size and an earlier return of natural erections
- Satisfaction scores are generally high for both patients and their partners, and most men who are satisfied with the VCD continue to use it long-term.
- As compared to drug treatments for ED, a major advantage of the VCD is that it has a low risk of systemic side-effects and therefore the potential to be used in a greater number of patients.
- The VCD can be used to ensure multiple erections on a daily basis. Although it is not known how many erections are required in a given time to maintain the health of erectile tissue, it is plausible that if a man with normal erectile function has 3-6 erections every night, the VCD has the potential to more closely mimic natural physiology.
- Even though initial costs are significant, VCDs represent a very cost-effective way of treating ED over the long-term.

Adverse effects:

- These include bruising, local pain and failure to ejaculate. However, ejaculation is expected to be absent after RP and some of the other adverse effects may be reduced or eliminated with careful instruction on using the VCD.
- Urinary leakage can occur during use of the VCD if urinary control has not been achieved following RP.

Ideal candidates:

- Patients who are motivated and sexually active preoperatively, who are interested in maintaining preoperative potency.
- VCDs are most effective if the man and his partner have positive attitudes towards using them.

Who should it not be prescribed to:

- VCDs are contraindicated in men with bleeding disorders or those taking anticoagulant therapy.
- Patients with severe Peyronie's disease are unlikely to be able to use the device.

Timing?

- Clinical studies demonstrating efficacy of the VCD in restoring erections and maintaining penile size post RP initiated therapy at 1 month or between 2-8 weeks (mean 3.9 weeks) after surgery.
- 4-8 weeks may therefore be considered an appropriate recovery period, but this should be governed by the degree of healing and the patient's level of comfort.

Guidelines:

- Clinical trials demonstrating efficacy of the VCD for ED after RP involved daily use.
- The aim is to achieve approximately 20 engorgements daily, which can be done in one 10 minute session, two 5 minute sessions or with multiple sessions throughout the day.
- Penile rehabilitation with the VCD can continue until natural erections are restored. The device can be used indefinitely if natural erections do not return.
- Because it reduces arterial inflow as well as venous outflow, the constriction ring should not be used for penile rehabilitation purposes. However, it should be used for maintaining an erection for intercourse.

Instructions for penile rehabilitation:

- When the VCD is used for penile rehabilitation the penis and cylindrical vacuum pump should be thoroughly lubricated with water soluble jelly.
- Pubic hair needs to be shaved to create an airtight seal.
- Retract foreskin if not circumcised
- The cylinder is placed over the flaccid penis and pushed firmly against the pubis to create an airtight seal. The pump is then used to cause penile engorgement.
- Pump slowly at 2 to 3 pumps every 5 seconds.
- Continue until full erection is achieved and maintain that for 5 seconds.
- After 5 seconds release the vacuum
- Repeat process for a total of 20 erections
- Do one 10 minute session or break it up into 5 minute sessions twice a day.
- Do immediately after shockwave treatment!!

To create an erection sufficient for intercourse:

- Appropriate sized constriction ring should be thoroughly lubricated with water soluble jelly.
- The constriction ring is placed either directly onto the open end of the cylinder or slid over a transfer sleeve to the base of the cylinder.
- Once a full erection has developed, the constriction ring can be transferred onto the base of the penis and the vacuum pump removed.
- The constriction ring should not be worn for more than 30 minutes and a break of at least 60 minutes should be taken between uses to allow full restoration of the penile blood supply. If a condom is to be worn, it should not be used during the vacuum process, but put on as a last step.