New device helps restore penile length and sexual function after prostate cancer surgery

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A new type of penile traction therapy (PTT) device can increase penile length and preserve erectile function in men who have undergone prostate cancer surgery (prostatectomy), reports a clinical trial in *The*

Journal of Urology.

"Our randomized trial suggests penile traction therapy using a new type of device provides an effective new option for penile rehabilitation after prostatectomy," comments senior author Landon Trost, MD, of Male Fertility and Peyronie's Clinic in Orem, Utah. "These objective findings are backed by men reporting an increase in their sexual satisfaction."

While nerve-sparing approaches have reduced the risk of erectile dysfunction and other sexual complications after prostate cancer surgery, men may still experience these issues—sometimes including a reduction in penis size, as well as functioning. Medications and vacuum devices are commonly used, but with limited success.

Originally developed to treat penile curvature due to Peyronie's disease, the new device (marketed under the brand name RestoreX) works by applying gentle, dynamic pressure to stretch and shape the penis. Studies in men with Peyronie's disease have shown the new device can produce significant straightening and increased penile length with as little as 30 minutes of daily use—compared to several hours with previous PTT devices.

Could the same approach be used to improve penile form and functioning after prostate cancer surgery? In the new trial, 82 men (average age 59 years) who had undergone prostatectomy were randomly assigned to six months of daily PTT using the new device or no treatment. Six-month follow-up data were available for 30 men in the PTT group and 25 in the control group.

"Men receiving PTT had significant improvements in most of the objective or subjective measures evaluated," according to Dr. Trost. That included a significant increase in penile length: an average gain of 1.6 centimeters in the PTT group, compared to little or no change

(average 0.3 cm) in the control group.

Erectile function was also improved with PTT: Men assigned to the study treatment had no change on a standard erectile function score, compared to a significant decline in the control group. Patients assigned to PTT were also less likely to use other treatments for erectile dysfunction, including medications and injection therapies.

The PTT group also had higher scores for sexual satisfaction, including satisfaction with intercourse. Average patient satisfaction score was 8 out of 10; more than 90 percent of patients said they would recommend the treatment to a friend. The outcomes of PTT were similar on two treatment schedules, with average device use of 90 or 150 minutes per week. Discomfort and other side effects were mild and generally temporary.

The authors note some limitations of their study, including the relatively low follow-up rate, partly due to the COVID-19 pandemic. They plan a further three-month evaluation, including offering the new approach to PTT to men originally assigned to no treatment.

The study is the first randomized clinical trial of any treatment to preserve erectile function after prostatectomy. "Our findings need to be validated in further studies," says Dr. Trost. "If they are, PTT would be the first treatment with high-quality research data showing improvement in penile length and erectile function in men who have undergone prostatectomy, without medications or other on-demand therapies."

Senior author Landon Trost, MD, developed RestoreX during his time at the Mayo Clinic in cooperation with Mayo Clinic Ventures. PathRight Medical has licensed the technology from Mayo Clinic and maintains rights to the technology.

More information: Amir Toussi et al, Efficacy of a Novel Penile Traction Device in Improving Penile Length and Erectile Function Post Prostatectomy: Results from a Single-Center Randomized, Controlled Trial, *Journal of Urology* (2021). DOI: 10.1097/JU.0000000000001792