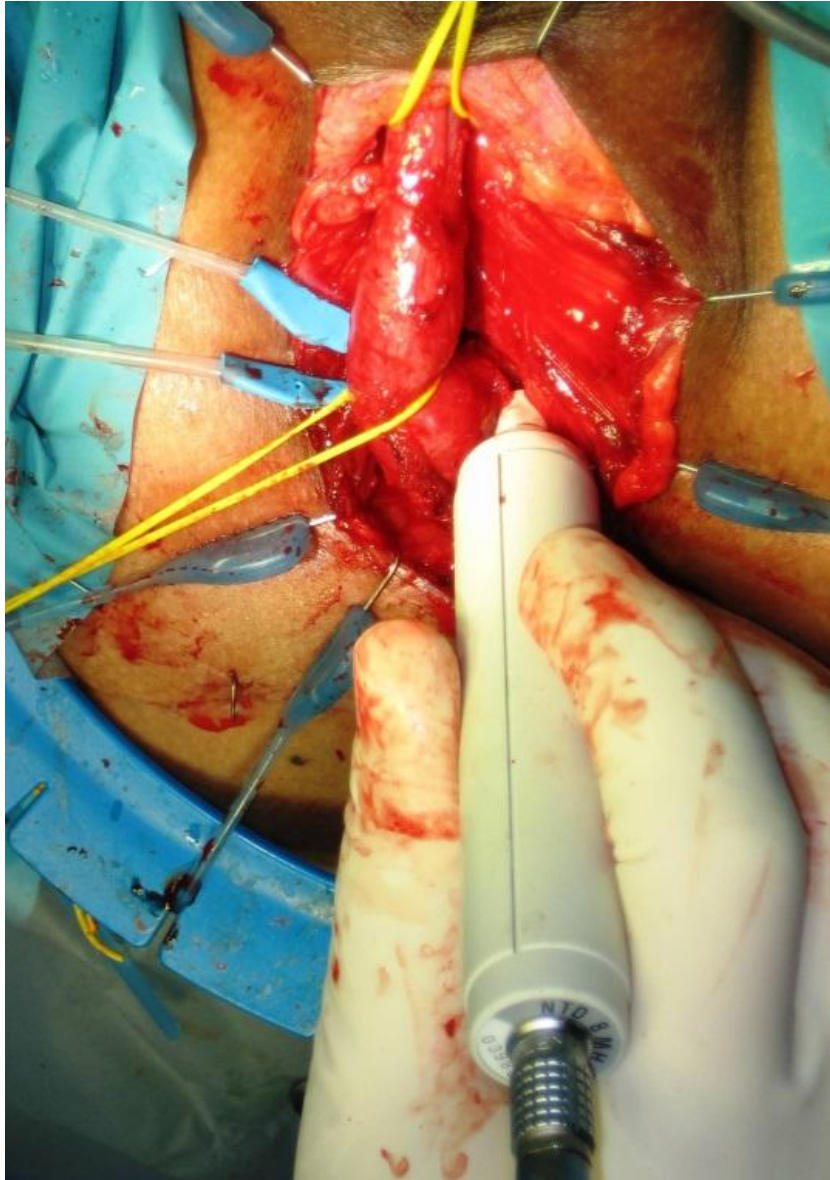




URETHROPLASTY INSTRUMENTATION

DOPPLER STETHOSCOPE





WHAT IS IT USED FOR?

Identification of the bulbar arteries

IN WHICH CASES?

Posterior urethral trauma secondary to pelvic fracture

WHAT IS THE GOAL?

Preservation of one or both bulbar arteries

HOW IS IT USED?

- Audible signals: Artery: high-pitched pulsatile sound.
Vein: non-pulsatile sound (similar to strong wind)
- Identification of the bulbar artery with the greatest blood flow
- Urethral dissection on the side with lower arterial flow
- Intraoperative confirmation of arterial preservation

IS ITS USE MANDATORY?

No. It is recommended but not mandatory



BASIC FEATURES

- SIMPLE
- Stethoscope, not ultrasound
- Handheld
- Bidirectional
- Pencil-shaped probe
- Battery-powered

REFERENCES

- Gómez RG, Campos RA, Velarde LG. **Reconstruction of Pelvic Fracture Urethral Injuries With Sparing of the Bulbar Arteries.** Urology. 2016 Feb;88:207-12. doi: 10.1016/j.urology.2015.09.032.
- Gómez RG, Velarde LG, Campos RA, Massouh R, Humerez V, Barrientos V. **Outcomes of bulbar artery sparing during anastomotic urethroplasty for pelvic fracture urethral injury.** Actas Urol Esp (Engl Ed) 2025;49:102-7. doi: 10.1016/j.acuroe.2024.11.005.
- Davies TO, Colen LB, Cowan N, et al. **Preoperative vascular evaluation of patients with pelvic fracture urethral distraction defects (PFUDD).** J Urol. 2009;181:29. DOI:[10.1016/S0022-5347\(09\)60093-8](https://doi.org/10.1016/S0022-5347(09)60093-8)
- Jordan GH, Eltahawy EA, Virasoro R. **The technique of vessel sparing excision and primary anastomosis for proximal bulbous urethral reconstruction.** J Urol. 2007;177:1799-1802. doi: 10.1016/j.juro.2007.01.036.

Images from Hospital del Trabajador archives