
ABOUT THE SURGICAL PROCEDURE

Q: Exactly what happens during vasectomy reversal?

A: Simply stated, we undo the vasectomy in vaso-vasostomy and bypass the blockage in epididymo-vasostomy.

In VV, a small incision is made on either side of the scrotum and the vas deferens is examined. The vasectomy site and the two ends of the vas deferens are identified and excised back to healthy tissue. The testicular side of the vas is now unblocked and typically oozes fluid of various consistency depending on the obstructive interval, this in term dictates the procedure to be performed. For VV, the ends are then brought together and reconnected using micro-surgical sutures with the aid of an operative microscope. Either a two-layer or a modified one-layer technique may be used depending on the surgeon's preference and the degree of vas lumen disparity.

In EV, a larger incision will be needed in order to gain access to the epididymis. The vasectomy site is similarly approached and excised. The thick fluid consistency and the lack of sperm will mandate the performance of EV. The epididymis is examined and a single tubule is then selected for the bypass. Various techniques have been used to connect the vas to the epididymis. The current approach relies on invaginating the epididymal tubule into the lumen of the vas. The approach or its variations has the distinct advantages of being easier to perform and has higher success rate when compared with the traditional "end to side" technique.

Q: Will local anesthesia with sedation suffice?

A: In my experience, local anesthesia is inadequate and is not used in my practice for vasectomy reversal. The problem with local anesthesia is that patient will not be able to remain still for an extended period of time despite sedation. The delicate nature of the procedure and the greatly magnified operative field do not allow for any distortion due to patient movement. Despite being touted by some as a money saving alternative, local anesthesia has not gained popularity among the majority of micro-surgeons for vasectomy reversal.

Q: How about laser reversal?

A: Laser has become an indispensable addition to the practice of urology; however, laser plays no role in vasectomy reversal. Laser reversal was first reported in the 80s as a time saving alternative to suture placement. The ends were aligned with 2-3 sutures and the ends were then "laser-weld" together. The fact is laser delivers intense heat to the tissue, which denatures the structural protein and results in tissue remodeling and potential scar formation. Laser reversal has no role in the current practice of vasectomy reversal and has rightfully been abandoned. I see no advantage by incorporating a surgical laser for vasectomy reversal; although I do admit it is a very effective marketing tool given the public perception of laser being the pinnacle of medical technology. Bi-polar electric and battery-powered low temp eye cauterizes are as effective and safe when used properly by a skilled micro-surgeon. The purported benefit of laser use is simply un-substantiated.

Q: What about two-layer vs. modified-one layer vasectomy reversal?

A: Depending on the surgeon's preference and the size difference between the ends of the vas, one may choose either one of above. In two-layer reversal, the lining of the vas lumen and the inner thickness of the vas are incorporated in the first layer of suture closure. The outer aspect is then closed with second layer of suture. In modified-one layer reversal, the initial layer incorporates the full thickness of the vas including the lining, the second outer aspect layer then fill in between the full thickness sutures. With either technique, one may then choose to further re-enforce the connection by bridging the surrounding soft tissue coating; for the most part, this is not necessary. Success rate with either approach is the same (VVSG, 1991). Two-layer technique is the preferred approach if significant disparity exists between the sizes of the vas lumen.



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Q: What is micro-dot vasectomy reversal?

A: Micro-dot is the dotting the vas with a miniature marking pen to pre-determine the suture entry and exit points. In theory, it adds another degree of precision in suture placement and vas alignment. I personally have not found this extra step to be helpful in suture placement and I do not utilize this technique.