



The Evolution of POP mesh use in the US

The following information is regarding US based evolution of POP mesh repair since the 2011 FDA Ob/Gyn Medical Device Committee meeting related to the use of transvaginal mesh (abdominally placed mesh was not questioned in the US). Regulatory and policy processes differ considerably from country to country. In the US, Female Pelvic Medicine Reconstructive Surgeon (FPMRS) urogynecologists and urologists are the preferred sub-specializing surgeons who provide POP surgical procedures. FPMRS surgeons have an additional 2-3 years of curriculum to acquire sub-specialty status in POP repair.

It is additionally recognized that appropriate incision size, proper mesh insertion location, preparation of mesh insertion site, possible topical estrogen use pre and/or post-surgery, degree of mesh tension, a two-layer closure, and low mesh density/increased porosity are important considerations for a quality mesh procedure, whether a surgeon performs mesh surgery through a transvaginal, robotic, or abdominal incision. Informed consent is pivotal.

Upon consideration of surgery, here is APOPS list of mesh questions to ask your physician:

<https://www.pelvicorganprolapsesupport.org/mesh/>

Keys to optimized surgical transvaginal mesh technique include access to the correct anatomic spaces to minimize bleeding, enable anatomically correct mesh placement, and avoid organs and blood vessels.

Mesh qualities recognized as significant:

- Biocompatible.
- Mechanically durable.
- Macroporous.
- Low density.
- Low stiffness.
- Maintains physiologic loading environment of vagina.
- Maintains same supportive capacity of non-prolapsed vagina.

Patient screening and selection is key. Contraindications for mesh that increase risk of complications:

- Immunosuppressed.
- Pelvic irradiation.
- Chronic steroid use.
- Advanced elderly (over 80).
- Smoking history.
- Diabetes.
- Vaginal atrophy.

Articles with pro/con information about POP mesh repair:

Vaginal Reconstructive Surgery: A Case For and Against Mesh Use

<http://www.contemporaryobgyn.net/gynecologic-surgery/vaginal-reconstructive-surgery-case-and-against-mesh-use>

Do we still need meshes for correction of pelvic organ prolapse?

<http://eaumunich2016.uroweb.org/do-we-still-need-meshes-for-correction-of-pelvic-organ-prolapse/>

Research links:

Comparison of vaginal mesh extrusion rates between a lightweight type I polypropylene mesh versus heavier mesh in the treatment of pelvic organ prolapse

https://www.researchgate.net/publication/224932878_Comparison_of_vaginal_mesh_extrusion_rates_between_a_lightweight_type_I_polypropylene_mesh_vs_heavier_mesh_in_the_treatment_of_pelvic_organ_prolapse

The Truth Behind Transvaginal Mesh Litigation: Devices, Timelines, and Provider Characteristics.

<https://www.ncbi.nlm.nih.gov/pubmed/28657986>

What Impacts the All Cause Risk of Reoperation after Pelvic Organ Prolapse Repair? A Comparison of Mesh and Native Tissue Approaches in 110,329 Women.

<https://www.ncbi.nlm.nih.gov/pubmed/29510170>

Long term Follow-up of Transvaginal Anatomical Implant of Mesh in Pelvic organ prolapse

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5809369/>

Current trends and future perspectives in pelvic reconstructive surgery

<https://journals.sagepub.com/doi/full/10.1177/1745506518776498>