

**THE HERNIA
CENTER**
Complete Hernia Care

UNIVERSITY
SURGEONS
ASSOCIATES, P. C.

Mesh Materials Background

Mesh materials are an important part of hernia surgery today. Since the 1950's different materials have been used to improve hernia repair and reduce hernia recurrence. No mesh material is perfect, and some have been removed from the market. New and safer materials continue to come to market for the patients. Our center utilizes the safest and most innovative materials to provide better care for patients. It is important that we communicate the general risks, benefits, and alternatives of the mesh materials used in a hernia repair

Permanent Mesh Materials

Background: Permanent mesh materials are generally made of plastic materials and woven into a mesh screen. Their purpose is to be a permanent load bearing implant to reduce the risk of hernia recurrence. When compared to simple stitches for a hernia repair, a permanent mesh hernia repair has a 5x lower chance of coming back.

Pros: Permanent mesh materials are strong much less expensive (10x less) than resorbable meshes. Most permanent mesh are well tolerated by the body. This is why most hernias worldwide are repaired using permanent materials.

Cons: Mesh shrinkage, hardening, folding, and infection have all be documented in patient after permanent mesh hernia repair. This can lead to hernia recurrence and mesh removal. Thankfully, the rarity of mesh complications is low.

Selection: Permanent meshes are typically placed under sterile conditions into patients with low to moderate risk for infection.

Biologic Mesh Materials

Background: Biologic mesh materials are often made from animal materials or absorbable sugar chains. Their purpose is to be a load bearing scaffold allowing ingrowth by your own body tissue. These materials were developed to be used in hernia repairs, where a permanent plastic mesh is not safe.

Pros: Biologic mesh materials have been shown to tolerate some bacterial contamination without requiring mesh removal. This tolerance has allowed hernia repairs in more challenging patients and settings.

Cons: Cost and durability are two important issues. Being a material that is resorbed by the body brings into question the long-term durability of this mesh material. Additionally, being new has limited study about the 5 and 10 year results.

Selection: Biologic meshes are typically placed under less than sterile conditions into patients with high risk for infection.

Summary

There is no perfect mesh material for hernia repairs. Each has its positive and negative qualities. The choice of which mesh to use will be based on the specific and individual situation of the patient. As the science and knowledge about mesh materials advances, so will our recommendations.