

Treating Prolapse with Surgery

Authored by Amy Rosenman, MD

Can Prolapse Be Treated With Surgery?

While prolapse never leads to serious medical illness, it can make some women's lives uncomfortable or even miserable. Surgical repair of prolapse can be performed through abdominal incisions, incisions high up inside the vagina or, more recently, through small incisions in the navel and lower abdomen through which a laparoscope and small instruments are placed. It is common for more than one supporting structure of the pelvis to develop weakness or tears, so it's not uncommon to find more than one area is in need of repair. The surgical repair of prolapse is undergoing a re-evaluation. MRI has recently been used to better define the specific areas of damage to muscles and supporting tissues that often lead to prolapse and incontinence.

What Can Be Done If The Bladder Is Bulging?

The repair of a bulging bladder is one of the most common pelvic operations. The weakening or tearing of the supporting connective tissue around the bladder and up inside the vagina can result in the bulging of the bladder into the middle portion of the vagina. This weakened or torn connective tissue needs to be surgically mended in order to lift the bladder back to its original position. This surgery involves opening the wall between the vagina and the bladder so that the supporting tissue of the bladder can be seen. The surgeon looks for undamaged connective tissue that can be pulled together and mended. This reinforced tissue holds the bladder in a better position. This procedure is called a cystocele repair, and its success rate is excellent.

Sometimes tissue that supports the bladder and connects it to the pelvic bones is torn during childbirth, allowing the bladder to fall down. We call this a paravaginal defect, and the result is also a bulging bladder, or cystocele. In order to repair these tears, the surgeon must suture the torn side attachments back together. This repair, called a paravaginal repair, pulls the bladder back to its normal position. It may be performed through an incision up inside the vagina, through an incision in the abdomen, or through small incisions in the navel using laparoscopic techniques. Regardless of the type of incision made, the principles of these procedures remain the same; the surgeon's goal is to repair the tissues and return the bladder as close to its original position as possible.

What Can Be Done If The Rectum Is Bulging?

Repair of a bulging rectum is also a common operation. Childbirth sometimes can injure the supporting tissues of the rectum. Weakened or torn tissue will not hold the rectum down in its proper place, and the rectum bulges up inside the vagina. Surgery can repair these weakened or torn connective tissues. The repair follows a similar design as the bladder repair. The wall between the vagina and the rectum is opened, and the doctor can actually see and feel the tears just as you can feel a tear in a piece of cloth. Each tear is sutured and closed individually, in a procedure called a site-specific rectocele repair. Once the tears have been fixed, the connecting tissue should be strong enough to keep the rectum in its proper place.

This site-specific repair may be an improvement over the previous rectocele repair technique that depended on thick and inflexible scar tissue forming over the rectum as a result of the surgery. The idea was that this strong scar tissue would reinforce the tissue and hold the rectum down. However, scar tissue in the vagina commonly leads to painful intercourse. One study found that 30% of women had stopped having intercourse after a rectocele repair surgery. And, once the scar tissue forms, it is almost impossible to remove or fix it. The site-specific repair fixes only the torn parts of the connective tissue and results in much less scar tissue and a decreased chance of painful intercourse. This is a fairly new procedure, so not every doctor is aware of it. The good news is that it is technically easy to learn. If you need repair of rectal bulging, ask your doctor about site-specific repair.

What Can Be Done If The Uterus Is Coming Down?

Many gynecologists feel the best way to treat a falling uterus is to remove it, with a surgery called a hysterectomy, and then attach the apex of the vagina to healthy portions of the ligaments up inside the body. Other gynecologists, on the other hand, feel that hysterectomy is a major operation and should only be done if there is a condition of the uterus that requires it. Along those lines, there has been some debate among gynecologists regarding the need for hysterectomy to treat uterine prolapse.

Some gynecologists have expressed the opinion that proper repair of the ligaments is all that is needed to correct uterine prolapse, and that the lengthier, more involved and riskier hysterectomy is not medically necessary. To that end, an operation has been recently developed that uses the laparoscope to repair those supporting ligaments and preserve the uterus. The ligaments, called the uterosacral ligaments, are most often damaged in the middle, while the lower and upper portions are usually intact. With this laparoscopic procedure, the surgeon attaches the intact lower portion of the ligaments to the strong upper portion of the ligaments with strong, permanent sutures. This accomplishes the repair without removing the uterus. This procedure requires just a short hospital stay and quick recovery. A recent study from Australia found this operation, that they named laparoscopic suture hysteropexy, has excellent results. Our practice began performing this new procedure in 2000, and our results have, likewise, been very good. However, as is the case with all repairative procedures, the goal is the success of the procedure over the long-term. Since long-term evaluations are ongoing, ask your doctor his or her opinion about this operation and be sure you understand the reasons for their recommendation.

This same uterine preserving procedure may also be accomplished through the vagina making a small entry into the abdomen behind the cervix and reattaching the ligaments to the uterus and cervix. This would be called a vaginal-uterosacral hysteropexy and leaves no abdominal scars.

Can Prolapse Occur After A Hysterectomy?

In some women who have had a hysterectomy, the upper portion of the vagina can detach over time from the ligaments that hold it in the pelvis. As a result, the top of the vagina can drop down towards the opening. We call this condition vaginal prolapse.

There are a number of ways to reattach the top of the vagina to the suspending ligaments on the inside of the pelvis and re-establish the normal position of the vagina. These ligaments,

called the uterosacral ligaments, are often stretched or torn close to the attachments to the cervix. However, stronger, healthy ligaments are usually present higher up in the pelvis. In this area the ligaments are firmly attached to the sacral pelvic bones. One method of suspension uses sutures placed in the ligaments near the sacrum and then pulled through the vagina and tied. As the sutures are tied, the top of the vagina is drawn upwards towards the sacrum, back to its normal position. This operation, called uterosacral vaginal suspension, is very effective and can be done entirely through the vagina. It requires no abdominal incisions.

Another method of repair sews the apex of the vagina to a strong ligament, called the sacrospinous ligament. However, this ligament is off to the side of the pelvis and, as a result, the vagina is pulled at a slight angle, usually a little bit down and to the right. This is not noticeable to the patient and does not interfere with intercourse. However, the unusual position can lead to weakening of other supporting tissues over time. Some surgeons still perform this procedure because this is what they were trained to do. However, most gynecologists are now performing the uterosacral suspension because it puts the vagina back in a more natural position.

What Is A Vaginal Mesh Suspension?

In some women, the supporting ligaments of the vagina are so weakened or torn that they are beyond repair. For these women, an artificial material can be used to take the place of the weakened ligaments. There are a number of types of materials used to perform this operation, but the most common is a thin, plastic, non-reactive mesh. This mesh is flexible, much like cloth, and can be cut and tailored to fit each woman's anatomy. The mesh is first sutured onto the top of the vagina as it sits inside the body. The vagina is pulled up to its normal position, and the other end of the mesh is sutured to the connective tissue around the sacral bone to hold the vagina in place. The mesh is very strong, and the operation has a high success rate. However, in rare cases, the body can have a reaction to the mesh since it is foreign material. For that reason, the procedure is reserved for women who have had a previous failed vaginal prolapse surgery and need repeat surgery.

This mesh operation is called a sacral colpopexy and is most often performed through an abdominal incision. However, recent innovations now allow this procedure to be performed laparoscopically by experienced laparoscopic surgeons. In some centers the addition of the Da Vinci Robot has assisted with laparoscopic support surgery. As with other laparoscopic procedures, the hospital stay is shorter and the recovery faster.

Can Laparoscopic Surgery Be Used To Treat Prolapse?

Laparoscopic surgery requires minimal, ½ inch incisions through the navel and lower abdomen. The benefit of this type of surgery is that patients usually have less pain, a short hospital stay (less than a day), and a return to all but strenuous activity in 10-14 days.

Today, almost every operation traditionally performed through abdominal or vaginal incisions can be performed laparoscopically, including pelvic repair surgery. The goal of laparoscopic pelvic reconstructive surgery has been to carry over the same principles and techniques used for abdominal surgery. Laparoscopic pelvic reconstructive surgery can thus be used to repair bladder prolapse, uterine prolapse (with or without hysterectomy), vaginal prolapse and

enteroceles. The only area not yet well suited to laparoscopic surgery is the repair of rectal prolapse.

What About The New Mesh Kits That Are Available For Treating Prolapse?

There are many new kits on the market that involve the placement of the same nylon-like mesh in the TVT but instead used in large sheets between the bladder and the vagina and the rectum and the vagina to reinforce the repair. There is no long term information on these techniques. Therefore we will hold off promoting or criticizing these techniques until there is adequate information available. As these materials are permanent, there is always benefit to waiting to see the long term complications before jumping on the bandwagon of vaginal mesh as the long term complications may include mesh erosion into the vagina, bladder or rectum, painful intercourse, infection or bleeding.

References

- Benson J, Lucente V, McClellan E. Vaginal versus abdominal reconstructive surgery for the treatment of pelvic support defects: a prospective randomized study with long-term outcome evaluation. 1996 American Journal of Obstetrics and Gynecology. 175:1418.
- Iosif C. Abdominal sacral colpopexy with use of synthetic mesh. 1993 Acta obstetrica et gynecologica Scandinavica. 72:214.
- Vancaillie T. Laparoscopic colposuspension and pelvic floor repair. Current Opinion in Obstetrics and Gynecology 1997, 9:6.
- Lyons T, Winer W. Minimally invasive treatment of urinary stress incontinence and laparoscopically directed repair of pelvic floor defects. 1995 Clinical Obstetrics and Gynecology 38:380.
- Maher C, Carey M, Murray C. Laparoscopic suture hysteropexy for uterine prolapse. 2001 Obstetrics and Gynecology 97:1010-14.
- Ross J. Apical vault repair, the cornerstone of pelvic floor reconstruction. 1997a International Urogynecology Journal 8:146.
- Ross J. Laparoscopic Burch repair compared to laparotomy Burch for cure of urinary stress incontinence. 1995 International Urogynecology Journal 6:323.
- Shull B, Benn S, Kuehl T. Surgical management of prolapse of the anterior vaginal segment : an analysis of support defects, operative morbidity, and anatomic outcome. 1994 American Journal of Obstetrics and Gynecology. 171:1429.
- Ulmsten U, Falconer C, Johnson P, et al. A multicenter study of tension-free vaginal tape (TVT) for surgical treatment of stress urinary incontinence. 1998 International Urogynecology Journal 9:210.
- Webb M, Aronson M, Ferguson L, et al. Posthysterectomy vaginal vault prolapse: primary repair in 693 patients. 1998 Obstetrics and Gynecology 92:281.
- Weber A, Walters M. Anterior vaginal prolapse: review of anatomy and techniques of surgical repair. 1997 Obstetrics and Gynecology 89:311.