

# COLON AND RECTAL SURGICAL ASSOCIATES

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## Pelvic Floor Disorders

### Rectal Prolapse, Rectocele, Enterocele

#### WHAT, WHERE AND WHY

Located at the most inferior part of the abdominal cavity, the pelvic floor is a network of muscles, ligaments, and tissues that act like a hammock to support the organs of the abdomen and pelvis. Caused by weakness or injury to this pelvic sling, pelvic floor disorders result in a prolapse of the rectum, small bowel, bladder, or uterus. If the muscles become too weak, or if the ligaments are overly stretched or damaged, the pelvic organs or small bowel may herniate into the wall of the vagina, creating an **enterocele**. The protrusion of the rectal mucosa through the anal canal is termed a **rectal prolapse**. A **rectocele** results from the herniation of the rectovaginal septum into the posterior wall of the vagina.

Symptoms such as rectal pain, constipation, seepage, dyspareunia, protrusion, or vaginal prolapse with pain may be quite debilitating.

The most important study used to evaluate the pelvic floor is defecography. Defecography involves the oral intake of contrast in order to outline the small bowel. A semi-solid contrast medium is also introduced into the rectum. The patient is then seated on a radiolucent commode. Fluoroscopic observation of the con-

trast agent is used to observe the passage of the contrast. With this technique, the rectum and anal canal are outlined and the pelvic floor disorders are well delineated. The small bowel motion is also noted and an enterocele may be observed.

#### RECTAL PROLAPSE

**Rectal prolapse** occurs when the circumferential full thickness of the rectal wall protrudes through the anal canal. The condition is most commonly observed in older females, but may occur in either gender or at any age.

The pathophysiology of rectal prolapse centers around a lack of fixation of the rectum in the pelvis. The rectum is normally stabilized within the pelvis in three ways; The first is the puborectalis muscular sling. This acts like a hammock to support the rectum. The second support network consists of the rectal lateral ligaments on either side of the rectum. The third support mechanism consists of the fibro-fatty recto-sacral fixation.

Disruption of this support network may occur for a variety of reasons. In younger patients with rectal prolapse, a congenital lack of rectal fixation may result in full-thickness rectal protrusion. In the older female population,

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this lack of rectal fixation is usually secondary to the chronic ligamentous and muscular stretching of vaginal child-birth, or after an hysterectomy. The risk may increase with an increasing number of vaginal deliveries.

The repair of a rectal prolapse is performed by either a perineal or abdominal approach.

A prime benefit of the perineal approach is that it can be performed using local anesthesia and intravenous sedation. Popularized in the 1960's, the Altemeier repair involves the resection of the prolapsing segment of rectum and colon, followed by a levator muscle repair. Recurrence rates range from 5 to 20%. The perineal approach is reserved for those patients with concomitant medical problems (usually the elderly), and for those people unwilling to undergo an abdominal operation.

The abdominal repair of the prolapse (rectopexy) involves the mobilization and subsequent re-fixation of the rectum along the sacral promontory using suture or a prosthetic material. A laparoscopic technique may be used: however, this approach must be performed by surgeons specifically trained in this technique. **Our experience with the laparoscopic repair of an enterocele or of a rectal prolapse has resulted in much less postoperative discomfort and has reduced the length of patient hospitalization.** Abdominal procedures for rectal prolapse are generally associated with a recurrence rate of about 5 to 10%. The abdominal approach is favored because of its lower recurrence rate.

## RECTOCELE

A **Rectocele** is a herniation of the rectovaginal septum into the lumen of the vagina. It includes the anterior rectal wall as well as the posterior aspect of the vaginal wall. A rectocele results from the chronic stresses associated with straining with bowel movements and the musculo-fascial stretching associated with vaginal delivery. Women with a symptomatic rectocele will complain of difficulty or inability to empty the rectum during defecation, and protrusion of tissue into the vagina during straining. Patients often describe the need to manually push upward on the perineal body, or to apply backward pressure on the posterior wall of the vagina in order to aid in rectal emptying.

Dyspareunia is not uncommon.

Because the presenting complaint is usually difficulty with defecation, the first step in treating patients with a rectocele is conservative treatment with bulk laxatives. Defecography is helpful in defining the size of the rectocele,

and in delineating other associated abnormalities such as an occult intusseption, a nonrelaxing puborectalis or an enterocele.

The operative approach to a rectocele is either transvaginal or transrectal. Both repairs essentially separate the overlying mucosa on the vaginal or rectal side with subsequent strengthening of the recto-vaginal septum. Both techniques have excellent results, with 79% to 98% percent of patients having resolution of symptoms. There is usually minimal postoperative morbidity. The repair may be performed as an outpatient. Studies have shown, and experience has confirmed that the use of the PPH Hemorrhoidal Stapler is a more efficacious technique in the repair of a rectocele. It is also associated with much less postoperative discomfort and a faster return to work or the activities of daily living.

## ENTEROCELE

An Enterocele develops when the small intestine herniates through the inferior confines of the abdominal cavity, into the space anterior to the rectum. It results from either a weakening of the connective tissue and ligaments supporting the uterus, or after an hysterectomy. Enteroceles may be asymptomatic. However, when a large enterocele develops, the small bowel can herniate into the pelvis and cause constipation-type symptoms or pelvic fullness and pressure.

Enteroceles are often associated with other pelvic floor abnormalities and a thorough investigation of the pelvic floor is warranted in order to fully assess the extent of the pelvic floor prolapse.

Failing conservative management, the transabdominal surgical approach is highly successful in obliterating the pre-rectal space, and thus preventing the herniation of the small bowel into the pelvis. Symptoms are usually instantly relieved and the patient response is most gratifying.

## THE BOTTOM LINE

Pelvic floor disorders are caused by a lack of fixation of the pelvic organs, and by weakness in the pelvic musculature. Patients often present with symptoms of rectal or vaginal prolapse, dyspareunia, or difficulty with bowel movements. The work-up consists a general medical evaluation and a thorough assessment of the pelvic floor via physical exam and selected radiographic studies. Communication between the surgeon and the radiologist is essential. Surgical repair of an enterocele, a rectocele, or a rectal prolapse has a high success rate and is usually gratifying to both the patient and the surgeon.