

## **HEMORRHOIDS**

**Joshua A. Katz, MD, FACS, FASCRS**  
**Montgomery Colorectal Surgery**  
**Rockville, Maryland**

Hemorrhoids describe the blood vessels lining the inside and outside of the anus. Hemorrhoids are part of normal anatomy. They may be external, internal or both. Critical to assessing hemorrhoids is for both patient and doctor to identify what symptom is bothering the patient. Hemorrhoids are not a symptom; they cause symptoms such as pain, mass, irritation, bleeding, etc.

Patients with anorectal bleeding should consider colonoscopy in order to be sure that they are bleeding only from the anal area and not from a polyp or tumor farther up in the colon. (See the MCRS handout “Colonoscopy” located at [www.mcrrllc.com](http://www.mcrrllc.com))

Many other conditions are thought to be hemorrhoids; these include fissure, abscess, fistula, pruritis, hidradenitis, condyloma, anal ulcer, or infection. Therefore a careful evaluation, including inspection, digital rectal examination, anoscopy, and if necessary colonoscopy should be performed in individuals complaining of hemorrhoid related symptoms

### **Why do hemorrhoids cause these problems?**

The current understanding is that hemorrhoids are blood vessels that gradually lose support of surrounding connective tissue. This may occur with age or excessive straining. It is therefore useful to ask patients about frequency, consistency of bowel movements, and if the patient reads or engages in other activities while on the toilet. (Patient may report keeping a telephone, radio, or even a television in the bathroom, along with volumes of reading material). Anatomically, while seated on a commode, the pelvic bones rest on the toilet seat with the pelvic floor suspended over the opening. This allows pressure from the abdomen to bear directly upon the anal canal and hemorrhoids. Sitting on the commode for more than five minutes at a time should be avoided, as should all nonessential activities.

### **Water, Fiber, and Constipation**

The small bowel delivers approximately two to three liters of liquid stool to the colon which can absorb most if not all of the water contained in the stool. Failure to consume sufficient fluids, together with consumption of caffeine and alcohol, can lead to a chronically dehydrated patient. Stool can become hard, and dry, forcing the patient to strain to pass them. Diets insufficient in fiber similarly lead to the product of small volume hard stools that do not pass easily, leading to straining and prolapse. Therefore, correction of unhealthy diet and bowel habits is the first step in hemorrhoid treatment.

Some patients may complain that the hemorrhoids are causing them to be constipated. This is a misunderstanding. Usually it is constipation that causes hemorrhoids. Patients who have constipation, and who strain to have bowel movements, should notify the doctor and consider further evaluation.

### **Female Pelvic Disorders**

Many women experience hemorrhoids with pregnancy and childbirth. The displacement by the pregnant uterus, its mass, and the trauma of birth all exert much

stress on the female pelvis. Pelvic floor dysfunction refers to anatomic and physiologic changes in the female pelvis that occurs with childbirth, menopause and pelvic surgery such as hysterectomy. These disorders include dyssynergia, rectocele, intussusception, and rectal prolapse, all of which can result in constipation. An obstructed defecation score exists, which attempts to measure these symptoms. (See “Severity Score for Incontinence and Constipation” at [www.mcrsllc.com](http://www.mcrsllc.com)) Often what are thought to be hemorrhoid issues are in fact due to constipation.

### **The Mind-Gut Connection: Stress, Anxiety and Hemorrhoids**

Frequently, patients who present with what appear to be hemorrhoidal complaints have underlying stress, anxiety, or medication issues. Stress from home, work, family, as well as history of prior trauma, abuse, or surgery can lead to maladaptive dietary and bowel habits. These should be discussed openly. Furthermore, psychotropic medications may have side effects that contribute to constipation and straining. Symptoms ascribed to hemorrhoids in these situations are more likely to be the result of more complex psychological and neurological issues. These should be addressed and management optimized prior to any intervention other than medical management.

### **External Hemorrhoids**

External hemorrhoids line the outside of the anal canal and are covered by skin sensitive to touch. As one bears down to pass stool, or strains to lift something, pressure in the belly can cause the blood vessels in the external hemorrhoids may bleed under the skin, causing swelling and pain. The blood may clot, and these are called thrombosed external hemorrhoids. These may rupture and bleed, usually with relief of pain. In most cases, thrombosed external hemorrhoids will resolve over 7-10 days by alternating with warm baths and topical cold compresses to relax the sphincter and decrease swelling. The alternative is excision of the hemorrhoid, under local or general anesthesia. This removes the hemorrhoid, but again requires 7-10 days to recuperate from the pain of the procedure. Risk of surgery includes bleeding, infection, urinary retention, and pain.

External hemorrhoids should not be treated with rubber band ligation or infrared coagulation because this will be very painful.

### **Internal Hemorrhoids**

Internal hemorrhoids line the inside of the anal canal and are covered the same lining as the intestine, called mucosa. Mucosa is not sensitive to touch. With straining internal hemorrhoids may prolapse (pop out) from the anus, causing bleeding, pain, and itching. Mucus discharge and irritation from prolapsing hemorrhoids may also occur. Internal hemorrhoids are graded by prolapse:

Grade I hemorrhoids bleed but do not prolapse

Grade II hemorrhoids prolapse and reduce spontaneously

Grade III hemorrhoids prolapse and have to be pushed back with a finger.

Grade IV hemorrhoids prolapse and cannot be pushed back.

First line therapy for hemorrhoids is bowel management with fiber supplements fluid supplementation, mild laxatives and avoidance of straining. Careful hygiene with nonmedicated moistened wipes may be helpful. Topical barrier creams with local

anesthetics may provide relief of itching. There is no role for topical steroids, peroxide, alcohol, witch hazel, or similar substances in the treatment of hemorrhoids.

Decision to proceed with further treatment should be based on frequency, severity, and effect of symptoms on daily function. Patient should keep a chart of their symptoms using a journal to assess this on a daily basis. (See the symptom journal on the website [www.mcrsllc.com](http://www.mcrsllc.com).)

For patients with symptoms unresponsive to conservative measures, office procedures such as rubber band ligation and infrared coagulation may be considered for internal hemorrhoids. Rubber band ligation is the application of a small rubber band around an internal hemorrhoid. This causes the hemorrhoid to clot, and fall off in 3-5 days. Patients must not take aspirin or nonsteroidal agents or anticoagulant medication for 7 days before and 7 days after the procedure.

Infrared coagulation induces a similar clot around the hemorrhoid tissue with the application of infrared energy to the hemorrhoid. It is similar in risk and effectiveness to rubber band ligation. Often several treatments, spaced 1 month apart, are necessary.

### **Anticoagulation, Coagulopathy and Liver Disease**

Patients on coumadin or clopidogrel, those with a genetic or acquired coagulopathy and those with liver disease (cirrhosis, hepatitis) may experience anorectal bleeding. Hemorrhoids may be the cause but a complete evaluation for other etiologies must be performed. If after complete workup, the cause of bleeding is deemed to be hemorrhoidal, therapy other than bowel management should be performed in the hospital and not in the outpatient setting. Patients with underlying cardiac or vascular disease maintained on coumadin or plavix will need to stop their anticoagulation prior to and after the procedure and risk heart attack, stroke, and blood clots in doing so. Thus, the repetitive nature of infrared coagulation or rubber band ligation exposes the patient to repeat risk of thrombosis if anticoagulation is to be stopped each time a procedure is performed. In the authors opinion this risk outweighs any benefit of treating hemorrhoids, unless bleeding results in symptomatic anemia, which then poses a greater risk. In this situation, operative intervention under anesthesia should be pursued.

In all cases, careful consultation with an internist or cardiologist is necessary before proceeding with hemorrhoid treatment. In most cases, the cardiovascular risk is too great to attempt to relieve hemorrhoid related complaints.

Likewise, patients with underlying coagulopathy and liver dysfunction are at greatly increased risk for hemorrhage during and after any surgical procedure. Bleeding can be quite significant from even the smallest of procedures and require transfusion; hence office treatment of hemorrhoids with rubber band ligation or infrared coagulation should not be attempted.

### **Surgery**

Surgery for hemorrhoids is indicated for anemia due to hemorrhoidal bleeding (low blood count) and when symptoms of bleeding, pain, or prolapse compromise quality of life, ability to function, and do not respond to medical management, or office procedures.

We offer two surgical procedures. The first is the standard “open” hemorrhoidectomy. In this procedure, most of the hemorrhoid tissue, external and internal, is removed. This procedure is performed under general or spinal anesthesia and requires about 1 hour. Generally this procedure involves 3 incisions lengthwise from the outside to the inside of the anus. The procedure usually requires two to four weeks to recover and can be very painful and debilitating. Risks include bleeding, infection and urinary retention, requiring catheterization, as well as scar and stricture. Incontinence is rare. (Please see the handouts entitled Preparation for Anorectal Surgery and Care after Anorectal Surgery at [www.mcrsllc.com](http://www.mcrsllc.com) ). Recurrence of hemorrhoid symptoms is less than five percent, if individuals adhere to a high fiber, high fluid diet.

The second, newer procedure is the Procedure for Prolapse and Hemorrhoids, abbreviated PPH, and technically known as a stapled hemorrhoidopexy. Developed for the treatment of internal hemorrhoids, this procedure resuspends the hemorrhoids in the anal canal and interrupts the blood supply by removing a ring of tissue above the hemorrhoids and placing a circular staple line in the anal canal. This treatment requires anesthesia, just like the standard hemorrhoidectomy. The recurrence rate of symptoms after surgery is approximately 10% (twice that of open surgery) but the pain and disability from the procedure is less, approximately 1-2 weeks. (For further information on this procedure see the website [www.pphinfo.com](http://www.pphinfo.com) ).