

HEMORRHOIDS

Thousand Oaks Proctology

341 South Moorpark Road - Thousand Oaks, CA 91361

(805) 230-BUTZ (2889) | www.toproctology.com



David B. Rosenfeld, M.D., F.A.S.C.R.S.

Dr. Rosenfeld has been in private practice since 1998 and spent 7 years at Cedars Sinai Medical Center. He was an active professor in the colorectal surgery fellowship program. Dr. Rosenfeld is now practicing in Thousand Oaks California. He is board certified in colon and rectal surgery

Dr. Rosenfeld finished his fellowship at USC in colon and rectal surgery in 1998. Dr. Rosenfeld is an expert in colonoscopy and proctology and has published a chapter on laparoscopic colectomy [Modern Management of Cancer of the Rectum: Chapter 9 : Laparoscopic Resections for Large Bowel Malignancy, Springer-Verlag Publications, London].

Dr. Rosenfeld specializes in colonoscopy and proctology including:

- Colonoscopy - Diagnostic and Surgical
- Hemorrhoid Disease
 - Burning
 - Itching
 - Bleeding
 - Pain
 - Lump in the rump
- Painless office hemorrhoid treatment
 - Sclerotherapy
 - Rubber band ligation
- Anal fissures and fistulas
- Perirectal abscess
- Pilonidal cyst and abscess
- Anal cancer and pre-malignant diseases of the anus
- HIV and AIDS associated anorectal diseases
- Hidradenitis

@TUSHYDOC

DR. DAVID ROSENFELD



HEMORRHOIDS

Written by: David B. Rosenfeld, M.D., F.A.S.C.R.S.

Hemorrhoids are veins which reside inside and outside of the anus. They are organs just like lungs, heart, kidneys and spleen are organs. Hemorrhoids are venous cushions which have a blood supply (artery which pumps blood into the hemorrhoid) and a venous return (veins which return the blood to the body). They are a part of our anatomy just like our eyes, nose, ears, toes, etc. We are born with at least 6 hemorrhoids, three within the anus (internal hemorrhoids) and three outside the anal opening (external hemorrhoids). External hemorrhoid veins live under skin which is abundant in nerve endings. The internal hemorrhoids live under mucosa which lack pain fibers. Internal and external hemorrhoid veins are like apples and oranges. Although they are both venous cushions, their symptoms and treatment are completely different. Though we have theories as to the function of hemorrhoids, there is no real scientific evidence of their purpose. It is proposed that the function of hemorrhoids is to aide in keeping stool from leaking out of the anus.

When hemorrhoid veins become inflamed and enlarged, they can become symptomatic. The blood pumped into the hemorrhoid is thin and normal, however; when the blood enters the inflamed hemorrhoid the inflammatory proteins made by the body thicken the blood making it difficult to leave the hemorrhoid. This is called chronic venous insufficiency (CVI). With CVI there is more blood entering the hemorrhoid than returning to the body. Think of a water balloon on a faucet but the balloon has tubes allowing water to flow back to the system. If the water coming into the balloon becomes thick like maple syrup, more water will enter the balloon than will leave the balloon, so the balloon becomes bigger. Furthermore, the inflammatory proteins cause fluid to flow into the hemorrhoid and weaken the muscle surrounding the hemorrhoid both of which increase the hemorrhoid swelling. As hemorrhoids become larger, they start to cause symptoms.

- All bumps around the anus which cause pain and bleeding are hemorrhoids.
- Laser hemorrhoidectomy hurts less than cold scalpel hemorrhoidectomy
- Hemorrhoids are hereditary (don't forget we are all born with hemorrhoids)
- All hemorrhoids require surgery to treat the problem.

- Pain (throbbing, aching)
- Itching
- Painless bleeding
- Anorectal pressure
- Prolapse (protrude outside of the anus)
- Urgency (feeling of having to have a bowel movement butt no stool comes out)
- Mucous discharge
- Necrosis (the hemorrhoids become trapped outside the anus and the hemorrhoid tissue starts to die). This is a surgical emergency.

EXTERNAL HEMORRHOID SYMPTOMS:

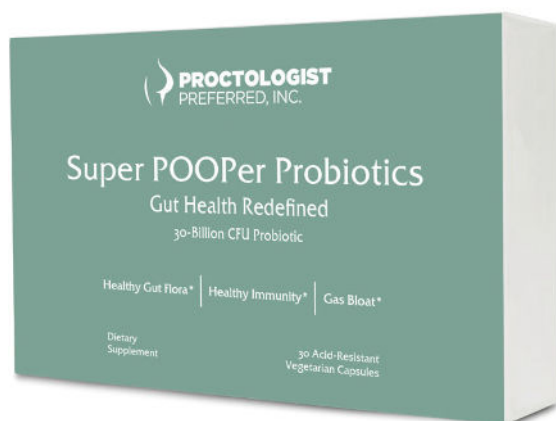
- Thrombosis (clot within the hemorrhoid) causing pain, itching and sometimes bleeding with clots (if the hemorrhoid ruptures). A painful swollen lump that looks like a purple grape is a thrombosed hemorrhoid. 95% of the time thrombosed hemorrhoids will resolve on their own and recurrence in the same spot is unlikely therefore only conservative therapy is needed.
- Necrosis (the external hemorrhoid becomes thrombotic and due to the pressure in the hemorrhoid the tissue starts to die). This is a surgical emergency.
- Swelling without clotting

CAUSES OF HEMORRHOID SYMPTOMS:

- Constipation
- Diarrhea
- Straining to have a bowel movement
- Sitting on the toilet scrolling through social media or browsing the web
- Time - like most tissues, hemorrhoids sag as we get older which increase the chances of hemorrhoid symptoms.

DIFFERENTIAL DIAGNOSIS (CONDITIONS THAT CAUSE THE SAME SYMPTOMS):

- Inflammatory Bowel Disease (Crohn's and Ulcerative Colitis)
- Polyps (bleeding)
- Colon cancer (bleeding)
- Rectal cancer (bleeding)
- Anal Cancer - Squamous Cell Carcinoma or Anal Melanoma- (pain and or bleeding)
- Rectal prolapse (the whole rectal lining protrudes from the anus)
- Anal fissure - a tear of the skin around the anus (pain and bleeding)



Super POOPer Probiotics provides four researched strains of beneficial bacteria, *Lactobacillus acidophilus*, *Lactobacillus plantarum*, *Bifidobacterium longum* and the extensively studied HN019® strain of *Bifidobacterium lactis*. These live microorganisms have proven health benefits and well-established safety, and have been tested for epithelial cell adhesion and/or resistance to low pH.*

Redefine Your Gut Health Today



Scan QR Code to Order

HEMORRHOIDS

Written by: David B. Rosenfeld, M.D., F.A.S.C.R.S.

HEMORRHOIDS IN PREGNANCY:

Return of blood from hemorrhoids passes through the inferior vena cava, which is a large vein that carries blood to the heart. As the fetus grows within the uterus, the uterus becomes larger and heavier. The uterus begins to put pressure on the inferior vena cava making it more difficult for the blood from the legs and pelvic area to drain back into the heart. Since the blood from the hemorrhoids does not drain as well, the hemorrhoids swell causing pain, bleeding, or both. Furthermore, constipation is a precipitating factor to symptomatic hemorrhoids. Many pregnant women become constipated for various reasons. In pregnancy, the treatment of hemorrhoids is most often conservative (see "Non-Surgical Treatment"). Surgery is rarely indicated because of the risks to the mother and the fetus. Conservative therapy consists of steroid creams, specific positioning to move the uterus off of the Vena Cava, sitz baths with a sitz tub, topical anesthetics and avoidance of constipation.

Positioning is also helpful. Lying on the floor, left side down, with pillows under the hips and the legs on a couch will displace the uterus off of the Vena Cava which allows for better venous return from the pelvis and lower extremities.

Warm to hot baths can cause labor and are not recommended in pregnancy. A sitz tub is a special plastic tub which sits directly on the toilet. Fill the sitz tub with warm to hot water and place on the toilet seat. Sitting in the hot water only submerses the buttock and therefore does not increase the risk of causing labor. This will help to relieve the pain. (see "sitz bath" in Non-Surgical Treatment"). If defecation is painful I recommend my patients to defecate (have a bowel movement) in the hot sitz tub. This trick can decrease pain with and after defecation by up to 80% or more. Cleaning the tub is simple, just dump the water and feces in the toilet and wash the tub. Put more hot water in the tub and soak another 5 minutes. I understand this seems unconventional, butt when in a lot of pain sometimes you need to do what you need to do even if it means you have to sit in a hot tub of water to poo.

A statement from a journal article on hemorrhoids in pregnancy states that "the prevailing mindset among physicians and patients has been that anorectal complaints are common and expected and, like other 'normal' changes of pregnancy, are to be tolerated and endured." ¹ I feel that this statement is unacceptable as the new treatments available work very well to help relieve the symptoms. As a patient you should not feel that anal problems are something that should be tolerated without therapy.



TREATMENT OF HEMORRHOIDS

Non-Surgical treatment

- **Dietary Measures**

- **Fiber** - A complex carbohydrate, which binds with water, like a sponge, in the colon creating larger, softer, stool (bigger, better bowel movement). Contrary to logical thinking, a larger bowel movement is more advantageous than smaller or looser bowel movements. Larger, softer, stools stretch and relax the sphincter muscles helping the blood to flow. Large, soft, stools also require little pressure to pass. The less one has to bear down to have a bowel movement the less blood is engorged into the hemorrhoids. Personally, the bulking agent I recommend the most is pure psyllium husk fiber. One dose is 5 grams of fiber. I also eat a lot of fiber rich foods. It is important to drink enough water during the day in order for the fiber to work (see "Water" below). Eating fiber without enough water can lead to constipation. It is recommended to eat 30-45 grams of fiber per day. The average daily American diet contains only 10-15 grams of fiber! It is also wise to eat foods lower in fat and cholesterol. Fiber is also known to help regulate blood sugar and lower cholesterol.



Personally the bulking agent I recommend the most is **PERFECT P.O.O.P.®** which is raw psyllium formulated for me to taste better and go down smooth. No sugar, sugar substitutes, flavorings, colorants additives or preservatives. I take this every morning. When shaken (not stirred) with about 4-5 oz of juice or milk alternative it goes down smoothly and comes out long, solid, soft and clean. Other health benefits of psyllium include improving colorectal/anorectal health, lowering cholesterol, weight control, blood sugar control and improved immunity. One teaspoon of psyllium fiber adds 5 grams of fiber. It is important to drink enough water during the day in order for the fiber to work. Eating fiber without enough water can lead to constipation. It is recommended to eat 30-35 grams of fiber per day. The average daily American diet contains only 10-15 grams of fiber! It is also wise to eat foods lower in fat and cholesterol.

Redefine Your Gut Health Today



Scan QR Code to Order

HEMORRHOIDS

Written by: David B. Rosenfeld, M.D., F.A.S.C.R.S.

- **Water** - Water is very important as it is soaked up by the fiber making the stools bulky and soft. Water also is a natural lubricant and is extremely important for good bowel regularity. Think of the colon as a 6 foot water slide. Remember the days of sitting on a dry slide at the pool? You were stuck at the top because both the slide and the skin were dry and sticky. Pour one bucket of water on the slide and down we went. This is what happens in the colon if we are dehydrated. Water is removed from the colon to replenish our cells. This makes the stool and lining of the colon dry and sticky so it becomes hard to pass the stool. Drinking extra water bulks the stool and lubricates the colon making the stool slide through the colon smoothly and easily. Passing the large volume of stool is a breeze when we eat a lot of fiber and drink a lot of water. Caffeine and liquor are diuretics which increase urination causing dehydration. The colon's function is to reabsorb more water during times of dehydration. When this happens the stool becomes harder. Therefore, coffee, teas, caffeinated sodas and liquor do not count as water. My advice to patients to improve their water intake is to drink only water with each meal. This will add 3 glasses of water a day. At least four 8 ounce glasses are necessary per day. Eating vegetables also adds water to the diet as vegetables are composed of water as well. As we get older and lose muscle mass it is important to drink even more water. Muscle holds water and as we lose muscle mass we can't use our muscle stores to recoup the water as the stores are too small. Therefore seniors are usually more dehydrated and must drink more water on a regular basis to keep hydrated.
- **Probiotics and Prebiotics** – Most Americans can benefit from probiotics. Firstly, probiotics improve our immunity (proven in the literature). Secondly, most Americans have bacterial dysbiosis or imbalance with more bad than good bacteria. Probiotics are good bacteria which are needed for normal intestinal health and for normal bowel movements. Start taking probiotics either with over the counter pills or yogurt. Prebiotics are the food that feed the bacteria. Inulin and Fructooligosaccharides are prebiotics. When the good bacteria eat food (prebiotics) they produce amino acids which fuel the colonocytes (colon cells) allowing them to proliferate and re-establish continuity of the lining of the colon. The amino acids also mildly acidify the stool which prevents the bad bacteria from growing as they do not like an acidic environment. This keeps harmony between the good and bad bacteria. This is beneficial for colorectal and anorectal health.
- **Micronized Diosmin** – Diosmin is an antioxidant and the active ingredient in immature (green) orange peels. In prospective randomized trials in humans and animals, Diosmin increased venous and lymphatic vascular tone which improved symptoms of both varicose veins and hemorrhoids. Diosmin binds to inflammatory proteins (Prostaglandins, Leukotrienes and Thromboxanes) reversing their function of causing inflammation, swelling and chronic venous insufficiency (CVI). Reduction of CVI allows for better blood flow through the hemorrhoids which further decreases their size. Diosmin also increases the concentration of localized Epinephrine which increases contraction of the muscle around the hemorrhoid which helps to shrink its size. Because Diosmin is a bioflavonoid or plant metabolite and not a medicine it is safe to use on a daily basis. Micronized means broken down into smaller particles. Micronizing the Diosmin improves its bioavailability (makes it easier to absorb from the GI tract).



- **R.H.O.I.D. – AID®** is my private label which is developed and manufactured with the exact ingredient combination and same physical parameters of the ingredients found in Daflon, the pill used in the prospective randomized trials. Children, pregnant or lactating women and individuals using blood thinners should consult their healthcare practitioner prior to use. If you are using Diosmin make sure it is micronized to less than 4 microns. Diosmin tablets have a combination of Diosmin 90% and Hesperidin 10%. There are other micronized Diosmin products which are knock offs and use a Diosmin Salt which only micronizes the Diosmin to 50 Microns (10 times the size of the Diosmin in R.H.O.I.D. – AID®). It can help to reduce fissure symptoms by lowering anal pressure.
- In studies it takes about 4 days for Micronized Diosmin to decrease the size of hemorrhoids. For itching, in my experience, it takes 4-6 months for the itching to resolve when using micronized Diosmin.

Redefine Your Gut Health Today



Scan QR Code to Order

- **Sitz Bath** - A sitz bath can be done using your bath tub or by purchasing a sitz tub. A sitz bath is a warm to hot tub of water. After a bowel movement you quickly get into the warm/hot tub of water (not so hot as to scold yourself). The warm/hot water helps to relax the anal muscles. I recommend sitz baths after each bowel movement for up to 2 weeks. If the pain with defecation is extremely severe, and unbearable then I recommend having the bowel movement in the sitz tub. Yes I want you to defecate in a tub of warm to hot water. Just put the sitz tub filled with warm to hot water (not so hot as to scald yourself) on the toilet seat and sit in the tub when you have to have a bowel movement. After you finish, turn it over into the toilet, flush and wash out the sitz tub so you can use it again. Sitting in the hot water while having a bowel movement keeps your muscles relaxed. This trick can decrease pain with and after defecation by up to 80% or more. I understand this seems unconventional, but when in a lot of pain sometimes you need to do what you need to do even if it means you have to sit in a hot tub of water to poo.

HEMORRHOIDS

Written by: David B. Rosenfeld, M.D., F.A.S.C.R.S.

- **Heating Pad**

- Sitz baths are great, but we can't sit in the tub all day. Sitting on a heating pad while at work, while watching television or while in a chair on the computer has the same effect on relaxing the muscles as sitting in a hot tub and is more convenient. Be careful not to fall asleep while sitting on the heating pad because long term contact of even a warm heating pad on the skin risks burning the skin. I still recommend a sitz bath once a day during times of hemorrhoid flares.

- **Ointments and Suppositories**

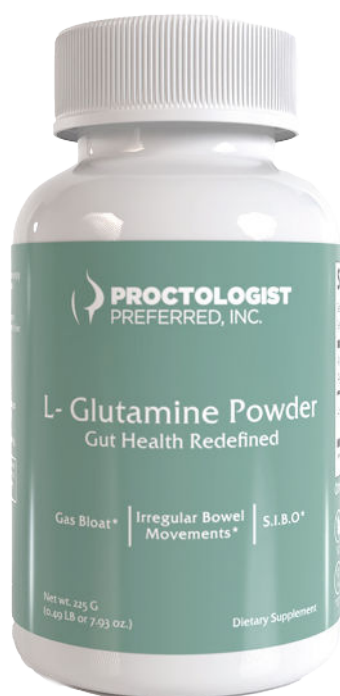
- **Preparation-H** - A topical ointment which soothes the outside of the anus. Though it is believed that Preparation-H will shrink the tissue, there is no scientific evidence (that I am aware of) proving this phenomenon. I believe it is the soothing nature of the ointment that helps the symptoms. Since the ointment is steroid free it is safe to use on a daily basis. My philosophy on Preparation H is that if it is working keep using the ointment as it is a benign ointment.
- **Steroids** - Steroids are known to decrease inflammation and therefore shrink the swelling. It can be used as creams, ointments or suppositories. I prescribe a 2.5% hydrocortisone cream with Parnexine HCL (Analpram) for external hemorrhoid symptoms. I use steroid suppositories for internal hemorrhoid symptoms. Suppositories melt within the anus and can coat the anal skin which can help to shrink external hemorrhoids as well.

For external thrombosed hemorrhoids I prescribe a steroid cream as 95% of all thrombosed hemorrhoids resolve without surgery. Adding fiber and warm bath also helps to resolve the thrombosis. If not better in 4 weeks or if it recurs in the spot I will recommend surgery to excise the external hemorrhoid and the clot.

- **Balneol** - Another non-steroid soothing lotion. It is safe to use on a daily basis and I find it useful for patients with anal itching. My philosophy on Balneol is that if it is working keep using the ointment as it is a benign ointment.
- **Stool Softeners** - Most are soap in a pill to help emulsify (soften) the stool. If the stool is still firm after eating fiber like PERFECT P.O.O.P. and getting plenty of water I will recommend a stool softener such as Colace as directed.

- **Office Procedures (internal hemorrhoids only!)**

- **Hemorrhoid injections (Sclerotherapy)**: In my experience this is the best first line therapy for symptomatic internal hemorrhoids. A substance (5% phenol mixed with olive oil) is injected into the internal hemorrhoids causing them to shrink. The procedure takes about 5 minutes and is painless. Yes, it sounds painful but the internal hemorrhoid veins lack nerve endings which sense pain, so it doesn't hurt! I know this because not only have I injected over 15,000 hemorrhoid veins, I have had hemorrhoid sclerotherapy performed on my hemorrhoid veins for anal itching (yes we are all sufferers butt no one want to admit this). It worked very well. Symptomatic relief from itching, bleeding and discomfort begins as soon as the following day, butt it takes about 2 weeks for the injections to take full effect. The treatment typically lasts up to about 6-12 months, so repeat treatments are usually necessary.
- **Rubber Band Ligation**: Placing a rubber band on the internal hemorrhoid in the office which removes a portion of the hemorrhoid over 2-3 days. This procedure is more uncomfortable than injection butt has a longer lasting effect. Due to the amount of discomfort or pain associated with banding 3 hemorrhoids, it is recommended to only band, at most, 2 hemorrhoids and band the remaining hemorrhoid in 6 weeks. Banding typically lasts longer than a year. The risks of banding are very small and include severe bleeding, severe infection and even death.
- **Infrared Coagulation**: An office procedure where a focused infrared beam is used to burn the internal hemorrhoids. The burning causes a scarring reaction, which shrinks the hemorrhoids. This procedure is uncomfortable but not painful. It has a longer lasting effect than injections. I do not perform this procedure as I do not feel it works better than sclerotherapy.



L-Glutamine amino acid supplement for gas bloat with constipation, sticky stool or diarrhea. Gas Bloat with diarrhea or constipation is a very common problem in America. It comes from Irritable Bowel Syndrome (IBS), now felt to be Small Intestinal Bacterial Overgrowth (SIBO) or "Leaky Gut". The small bowel cells (Enterocytes) become inflamed and need nutrition to heal. L-Glutamine is the fuel or food for the enterocytes which leads to their healing. Once the cells heal the gut seals resolving the issues. My formula is pure L-Glutamine with tremendous gut healing, sealing potential. Take 2 grams twice a day and see the amazing results within 2 weeks.

Redefine Your Gut Health Today



Scan QR Code to Order

HEMORRHOIDS

Written by: David B. Rosenfeld, M.D., F.A.S.C.R.S.

Surgical Treatment For Internal Hemorrhoids

- **Excisional hemorrhoidectomy:** The old fashioned surgical excision of hemorrhoids. The surgery is done as an outpatient at a same day surgery center or hospital. Though painful, we now have a new injectable numbing agent called Exparel which keeps the anus numb up to 2-4 days. There is still pain post surgery but it is much less than prior to using Exparel. My experience is that Exparel works very well and the recovery is 10-14 days. Due to Exparel I have been offering this surgery for all of my patients as the recovery is much more tolerable and the surgery usually lasts 10-15 years. This therapy is reserved for patients who have failed conservative therapy or whose hemorrhoids prolapse (protrude) so much that they will not go back inside. Risks are small and include; severe bleeding, severe infection, abscess, fistula, recurrence, incontinence and anal stenosis (narrowing of the anus).
- **Doppler Guided Hemorrhoid Artery Ligation and Rectoanal Repair (DGHAL/RAR):** This is a procedure first developed in Europe in 1995. This surgery uses a Doppler guided anoscope to identify the feeding arteries to the hemorrhoids. Once identified the arteries are sutured to cut off the blood supply to the hemorrhoids. There are usually 6 arteries. Once performed the hemorrhoids begin to decrease in size. To perform the internal hemorrhoidopexy (hemorrhoid lift), the anoscope identifies the enlarged hemorrhoid and a stitch is placed at the top of the hemorrhoid. Using a continuous running stitch, the tissue is sutured all the way down to the bottom of the hemorrhoid stopping at an area before the nerve endings begin. The final stitch at the bottom is tied to the beginning stitch at the top of the hemorrhoid lifting the enlarged hemorrhoid upward (hemorrhoidopexy). Since the internal and external hemorrhoids lay along the same plane of tissue, this procedure also pulls the external hemorrhoids up which can markedly reduce the symptoms of external hemorrhoids. Because the whole procedure is done above the nerve endings there is no sharp pain, just a dull ache for about 5-7 days. Due to my experience of over 500 procedures felt the short term recurrence rate was too high so I stopped performing this procedure and perform the excisional hemorrhoidectomy (see above).
- **Transanal Hemorrhoid Dearterialization:** Same as DGHAL/RAR (Different manufacturer of similar product).
- **Procedure for Prolapse and Hemorrhoids A.K.A Stapled Hemorrhoidectomy:** The stapled hemorrhoidectomy, or more accurately, stapled hemorrhoidopexy uses cutting and stapling to treat hemorrhoids. A special instrument is used to cut and remove a Transanal Hemorrhoid Dearterialization: Same as DGHAL/RAR (Different rim of tissue at the top of the internal hemorrhoids which cuts off the blood supply to these hemorrhoids making them shrink. This procedure is not indicated for large external hemorrhoids. The risks are small but can be severe such as; hemorrhage, severe pelvic infection (sepsis), vaginal fistula formation, and anal stenosis. Newer literature on this procedure indicates the surgery does not work as well as originally anticipated. Due to the risks and the higher than expected recurrence rate I abandoned performing this procedure in 2005. For internal hemorrhoid surgery I perform the excisional hemorrhoidectomy (see above).

Surgical Treatment For Thrombosed Hemorrhoids

- For external thrombosed hemorrhoids two surgeries are available:
 - **Enucleation:** For the acute phase of the swollen lump, if a patient is having severe pain removing the clot (enucleation) is performed. In the office the hemorrhoid is injected with Lidocaine. A small elliptical incision is made over the lump and the clot is removed. The swelling usually persists for 3-4 weeks, however; the acute pain is gone. If the patient is not having a lot of pain, my philosophy is to leave the thrombosed hemorrhoid alone and treat it conservatively with a steroid ointment, sitz baths, internal hemorrhoid sclerotherapy, fiber and water. The natural course of action for a thrombosed hemorrhoid is complete resolution in 4-5 weeks and the chance of a recurrence in the same spot is highly unlikely so surgery is not necessary unless the patient is in extreme pain.
 - **External hemorrhoid excision:** For thrombosed hemorrhoids which persist for longer than 5 weeks or recur in the same location I suggest excising the whole external hemorrhoid in the office. Lidocaine is injected into the hemorrhoid and the hemorrhoid is excised completely. Recovery is usually 3-7 days.

Surgical Treatment For External Hemorrhoids

- The only cure for external hemorrhoids is to excise them. Because they are surrounded by nerve endings painless procedures cannot be performed. For patients with external hemorrhoid symptoms who want their hemorrhoids removed I do this in the office. The recovery is very tolerable and lasts 3-7 days. Rarely are stitches needed. When a patient wants his/her external hemorrhoids excised I have a long discussion regarding the procedure and the risks which are minimal.

CONCLUSION

It is important to remember that hemorrhoid symptoms when diagnosed properly are not life threatening and can be treated painlessly in the office. Conservative therapies such as PERFECT P.O.O.P. psyllium fiber and R.H.O.I.D. - AID (micronized Diosmin) can also help to alleviate symptoms. Other diseases, which produce the same symptoms, can be more serious. Therefore, if you have symptoms such as an anal lump, bleeding, discharge, pain, prolapse, or itching, it is important to see a specialist for a consultation. Most importantly, if one has bleeding and has not had a recent colonoscopy, a colonoscopy is warranted to rule out polyps and cancer. Colon cancer rates are rising at alarming rates in younger patients.

References

1. Medich D, Fazio V. Hemorrhoids, Anal Fissure, and Carcinoma of the colon, Rectum, and Anus During Pregnancy. *Surgical Clinics of North America* 75:1 77-88, 1995
2. Faucheron J, Ganger Y: Doppler-Guided Hemorrhoidal Artery Ligation for the Treatment of Symptomatic Hemorrhoids: early and Three-Year Follow-up Results in 100 Consecutive Patients. *Disease of the Colon and Rectum* 51:945-949, 2008