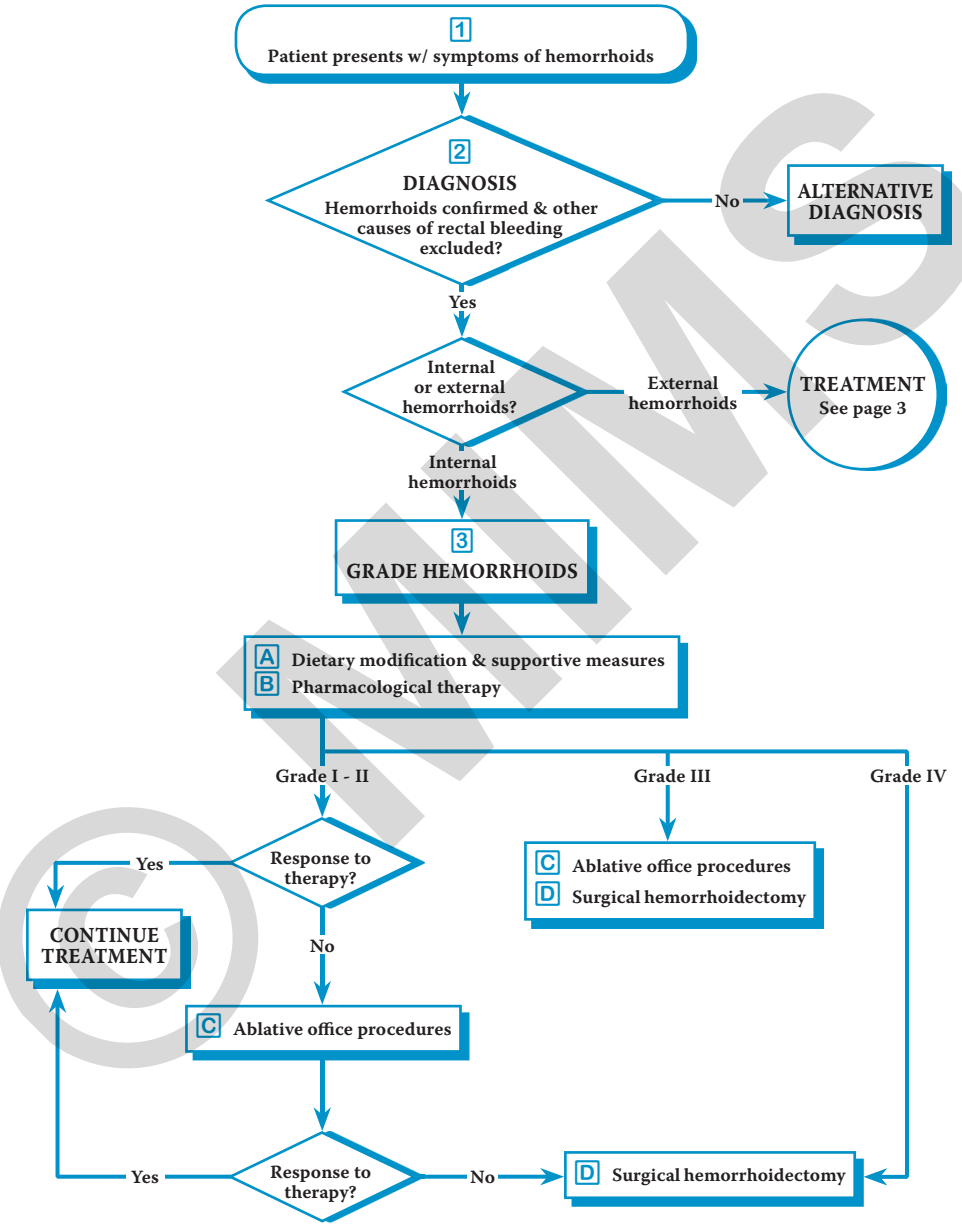
# Hemorrhoids (1 of 8)



## 1 SYMPTOMS ATTRIBUTED TO HEMORRHOIDS

- Rectal bleeding
  - Most common presenting symptom
  - Bright red blood which may drip or squirt into the toilet bowl or scanty amounts may be seen on toilet tissue
- Discomfort due to rectal protrusion or lump
- Anal pain
- Anal itching

## 2 DIAGNOSIS

**Medical History**
- Assess nature, duration & severity of symptoms
  - Ask about bleeding, its amount & frequency
  - Ask about presence of prolapsing tissue, its timing & reproducibility
- Elicit possible risk factors for development of hemorrhoidal symptoms
  - Low-fiber diets cause small-caliber stools, resulting in straining during defecation & engorgement of hemorrhoids
  - Prolonged sitting on a toilet which may cause a problem in the venous return in the perianal area
  - Pregnancy
  - Advanced age
- The signs & symptoms of hemorrhoids are not specific to the disease, so care must be taken to avoid missing other causes of pathology
- Obtain a good family medical history to assess possibility of familial colorectal neoplastic syndromes, which may indicate a need for a more detailed colonic evaluation

**Physical Examination**
- Perform a careful anorectal evaluation
- Inspect the entire perianal area
  - Reassure the patient & warn him/her before doing any maneuvers
  - Gently spread the buttocks to visualize the anoderm & the distal anal canal
  - Examine for hemorrhoids & its possible complications eg skin tags, thrombosed external hemorrhoids, incarcerated prolapse of the rectal mucosa
  - Inspect area for other lesions eg fissures, perianal dermatitis, abscess, fistula, neoplasms, condylomata
- Perform a digital rectal exam
  - May be able to identify areas of induration or ulceration

**External vs Internal Hemorrhoids**
- If hemorrhoids are present, differentiate between external & internal hemorrhoids
- Hemorrhoids are classified according to their location relative to the dentate line

**External Hemorrhoids**
- Located closer to the anal verge & are covered w/ squamous epithelium
- Produce symptoms only when thrombosed or when they give rise to large skin tags which make hygiene difficult
- Common symptoms are anal pain of acute onset & a palpable lump in the perianal area

**Internal Hemorrhoids**
- Originate above the dentate line & are covered w/ rectal or transitional mucosa
- Do not cause cutaneous pain
- Prolapse of internal hemorrhoids may cause bleeding, mucus discharge, fecal soiling & anal pruritus

**Anoscopy**
- Anoscopy is recommended to establish the diagnosis of hemorrhoids
  - It is compulsory for evaluating internal hemorrhoids
  - Instruct patient to do a Valsalva maneuver to observe prolapse

**Other Visualization Procedures**
- Colonoscopy or barium enema may be needed in the following situations:
  - Bleeding that is not characteristic of hemorrhoids, eg blood admixed w/ feces, dark blood
  - Patient w/ significant risk factors for colonic malignancy
  - No identified anal source of bleeding
  - Anemia
- Some experts recommend that anoscopy or flexible sigmoidoscopy be done for all patients w/ rectal bleeding

## 3 GRADING OF INTERNAL HEMORRHOIDS

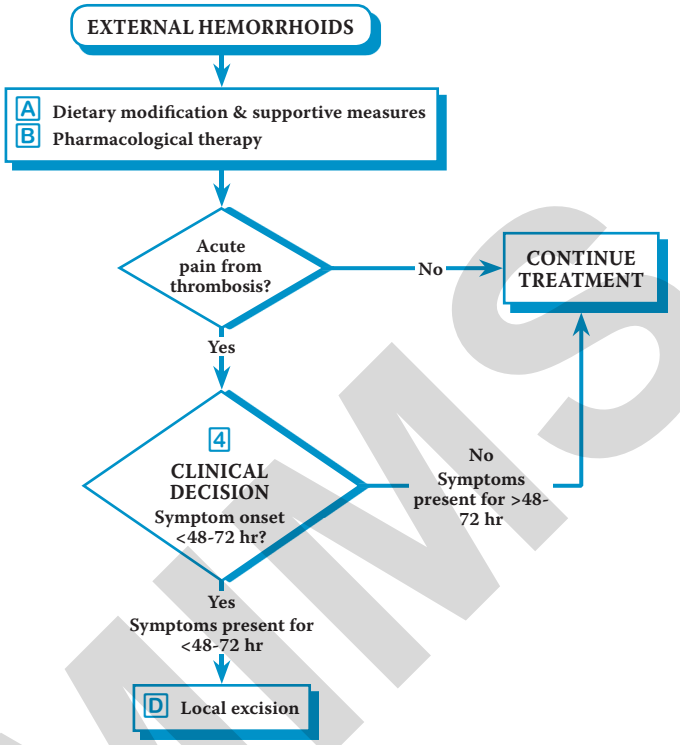
- Internal hemorrhoids are classified based on the severity of symptoms they cause

**Grade I**
- Prominent hemorrhoidal vessels that usually bleed, no prolapse

**Grade II**
- Prolapse w/ Valsalva maneuver or straining but reduce spontaneously

**Grade III**
- Prolapse w/ Valsalva maneuver or straining & require manual reduction

**Grade IV**
- Permanently prolapsed; manual reduction is not effective
- Usually have both internal & external components & are continuous from skin tag to inner anal canal




## 4 CLINICAL DECISION

- Treatment options for painful thrombosed external hemorrhoids include observation or excision
- Excision w/in the 1st 48-72 hr after symptom onset in the office or, if necessary, in the operating room typically results in a more rapid relief of symptoms
- If the pain is not too severe, is resolving, & onset is >72 hr, the patient may be treated expectantly since pain usually resolves in 7-10 days

## A DIETARY MODIFICATION & SUPPORTIVE MEASURES

**Dietary Modification**

- Conservative treatment for all symptomatic hemorrhoids mainly entails increasing dietary fiber & fluid intake
  - Fiber intake should be increased gradually up to 25-30 g/day
  - Fiber & fluid intake increase stool caliber & decrease straining & constipation, which in turn causes hemorrhoids to shrink
- Fiber may also be used to control diarrhea, a condition which can exacerbate hemorrhoids
- Fiber supplements include Psyllium & Methylcellulose

**Toilet Habit Retraining**

- Consists mainly of reminding patients to avoid prolonged sitting or straining when using the toilet
- Reading when using the toilet should be avoided

**Warm Baths & Ice**

- Warm water baths relieve perianal pain by relaxing the anal sphincter mechanism & spasm
- Ice may lessen the pain of acute thrombosis

**Hygiene**

- Patients may be advised to wipe anal area gently after defecation w/ moist tissue
- Discourage excessive scrubbing during shower/bath

**Other**

- Avoidance of medications that promote bleeding eg nonsteroidal anti-inflammatory drugs (NSAIDs)

## B PHARMACOLOGICAL THERAPY

- Several pharmacological preparations for hemorrhoidal relief are available
- More studies are needed to demonstrate their definite role in the treatment of hemorrhoids

**Analgesics**

- Topical analgesics may be used to relieve local pain & pruritus
  - Includes Lidocaine, Cinchocaine
- Oral analgesics (eg Paracetamol) may be used to relieve pain caused by thrombus

**Corticosteroids**

- Topical corticosteroids can reduce perianal inflammation due to poor hygiene, mucus discharge or fecal seepage
- Avoid prolonged use of potent corticosteroids

**Bioflavonoids**

- Oral, micronized, purified, flavonoid fraction derived from citrus fruits have been studied
- Control rectal bleeding, improve symptoms
- **Actions:** Increase venous tone, lymphatic drainage & capillary resistance; normalize capillary permeability

**Other Agents**

- Stool softeners[1] have a limited role in hemorrhoid therapy
- Suppositories may help in lubrication during defecation, thus avoiding straining

[1]Various laxatives & purgatives for hemorrhoids are available. Please see the latest MIMS for specific formulations & prescribing information.

## C ABLATIVE OFFICE PROCEDURES

**Principles of Therapy**

- Patients w/ intractable grade I, II or III hemorrhoids are the usual candidates for office-based (outpatient) procedures
- The need for treatment of hemorrhoids is based on the patient's symptoms & not on the appearance of the hemorrhoids
- Ablation of the mucosal portion of the hemorrhoidal complex does not require anesthesia
- Goals of therapy: Decrease vascularity, decrease hemorrhoidal volume & increase fixation of the fibrovascular cushion to the rectal wall
- Choice of procedure depends partly on the physician's experience & preference

**Rubber Band Ligation**

- Most commonly used for grade I, II or III hemorrhoids
- Usually the most effective option
- Redundant mucosa, connective tissue & hemorrhoidal complex blood vessels are tightly encircled well proximal to the dentate line
- Scar that forms fixes connective tissue to the rectal wall & resolves the prolapse
- Single or multiple banding may be done per session
  - Up to 3 hemorrhoids can be banded in one session
- Limitation of the procedure: Does not address the external hemorrhoidal component
- Most common complication is minor pain
- Recurrent symptoms may be relieved by repeat ligations
- Avoid in patients w/ bleeding diathesis or those receiving antiplatelet or anticoagulant agents

**Sclerotherapy**

- Used for grade I or II hemorrhoids
- A sclerosing agent is injected into the apex of the hemorrhoid
- Vessel thrombosis, w/ sclerosis of connective tissue & fixation of overlying mucosa, results
- Minimally invasive nature is an advantage
- Complications include pain, bleeding w/ injection, impotence, urinary retention & abscess

**Bipolar Diathermy or Cautery**

- May be used for grade I, II or III hemorrhoids
- 1-sec pulses of 20 W are applied until underlying tissue coagulates resulting in fibrosis & fixation of tissue
- Usually requires multiple applications to the same site
- About a fifth of patients still require excisional hemorrhoidectomy
- Complications include pain, bleeding, fissure or spasm of the internal sphincter

*Not all products are available or approved for above use in all countries.*
*Specific prescribing information may be found in the latest MIMS.*

## C ABLATIVE OFFICE PROCEDURES (CONT'D)

**Direct Current Electrotherapy**
- May be used for grade I, II or III hemorrhoids
- Involves prolonged application of 110 V direct current to the base of the hemorrhoidal complex
- Requires multiple applications to the same site in about a third of patients
- Disadvantages are extended treatment time & limited control of prolapse in more severe disease

**Infrared Coagulation**
- May be used for grades I or II hemorrhoids
- Infrared waves are applied directly to the base of hemorrhoidal tissue, resulting in protein necrosis
- Recurrence is common in hemorrhoids w/ marked prolapse

**Cryotherapy**
- Employs cold coagulation
- Rarely used because of significant adverse effects

## D SURGICAL HEMORRHOIDECTOMY

**Principles of Surgical Therapy**
- The need for treatment of hemorrhoids is based on the patient's symptoms & not on the appearance of the hemorrhoids
- Surgical hemorrhoidectomy is considered the most effective treatment for hemorrhoids in general & particularly for grades III-IV hemorrhoids
- Outpatient ablative (non-surgical) procedures are preferred when possible because surgery is associated w/ more complications, pain & postoperative disability

**Indications for Surgical Hemorrhoidectomy**
- Patients that do not respond to or cannot tolerate ablative office-based procedures
- Patients w/ large grade III or IV hemorrhoids, symptomatic external hemorrhoids including those who have symptoms from skin tags
- Acutely incarcerated & thrombosed hemorrhoids
- Combined external & internal hemorrhoids (grade III-IV) w/ significant prolapse

**Options for Surgical Therapy**

**Open or Closed Hemorrhoidectomy**
- May be performed using a surgical scalpel, laser, ultrasonic scalpel or diathermy
- Involves any of the following:
  - Excising internal & external components
  - Suturing or banding internal hemorrhoids & excising external component
  - Performing a circular excision of internal hemorrhoids & prolapsing rectal mucosa proximal to the dentate line
- Thrombosis of external hemorrhoids which has been present for <48-72 hr is best treated by local excision of the external component
  - May be done as an office procedure but may sometimes require an operating room setting because of large hemorrhoid size, extension w/in the canal or patient anxiety
- Complications of surgery are usually minor but may occur frequently
  - These include bleeding, incontinence, urinary retention, infection, & anal stenosis

**Stapled Hemorrhoidectomy**
- Newer alternative for patients w/ significant prolapse
- Goals are the re-suspension of prolapsing tissue back w/in the anal canal & interruption of arterial blood flow that goes through the excised segment of redundant rectal mucosa
- Uses a modified, circular, anastomotic stapler
- Ineffective against large external hemorrhoids & skin tags or thrombosed hemorrhoids
- Rates of complication are similar w/ excisional hemorrhoidectomy

# Dosage Guidelines

| CORTICOSTEROID HORMONE | | |
|---|---|---|
| **Drug** | **Dosage** | **Remarks** |
| Hydrocortisone | 100-500 mg slow IV inj or infusion 6-8 hrly | **Adverse Reactions**<br>• Gastritis. If administered long-term: Adrenocortical insufficiency, osteoporosis, muscle wasting, pain or weakness, increased susceptibility to infection, impaired wound healing, electrolyte imbalances, wt gain, diabetes, skin thinning leading to striae & easy bruising, cataracts, glaucoma<br>**Special Instructions**<br>• Take w/ food<br>• Patients on long-term corticosteroids should receive preventive treatment for osteoporosis<br>• Use w/ caution in patients w/ heart failure, acute MI, DM, GI diseases, hepatic/renal impairment, myasthenia gravis, osteoporosis, seizure disorder, thyroid disease<br>• Long-term treatment is not recommended due to its side effects |

| HEMORRHOIDAL PREPARATIONS (ORAL)[1] | | |
|---|---|---|
| **Drug** | **Dosage** | **Remarks** |
| **Bioflavonoids** | | |
| Aescin (Amorphous aescin) | **Initial dose:** 40 mg PO 8 hrly **or** 180 mg PO 8 hrly<br>**Maintenance dose:** 20 mg PO 8 hrly **or** 90 mg PO 8 hrly | **Adverse Reactions**<br>• GI complaints<br>**Special Instructions**<br>• Avoid in patients w/ renal failure or renal disease |
| Diosmin | **Acute attack:** 1800 mg/day PO x 3 days followed by 600 mg/day PO | **Adverse Reactions**<br>• Mild GI disturbances, headache, flushing, skin rashes, itching, neurovegetative disorders |
| Diosmin/Hesperidin (Micronized purified flavonoid fraction) | 450 mg Diosmin/50 mg Hesperidin, 6 tabs or caps/day PO x 4 days then 4 tabs or caps/day PO x 3 days then 2 tabs or caps/day PO | |
| Hesperidin/Vit C/ *Ruscus aculeatus* extr | 4-5 caps/day PO | |
| Hydrosmin | 400 mg PO 8 hrly | |
| Rutin/Curcumae extr | 1 cap PO 8-24 hrly | |
| Troxerutin (Hydroxyethylrutoside, Trihydroxyethylrutoside) | **Initial dose:** 200-300 mg PO 8-12 hrly **or** 500 mg PO 12 hrly<br>**Maintenance dose:**<br>200-300 mg PO 12 hrly | |
| **Other Sclerosing Agent** | | |
| Calcium dobesilate | 500-1000 mg/day PO | **Adverse Reactions**<br>• GI disturbances, nausea, diarrhea, skin rash, fever<br>**Special Instructions**<br>• Use w/ caution in severe renal failure |

[1]Various combination products are available. Please see the latest MIMS for specific formulations.

***All dosage recommendations are for non-pregnant & non-breastfeeding women, & non-elderly adults w/ normal renal & hepatic function unless otherwise stated.***
*Not all products are available or approved for above use in all countries.*
*Products listed above may not be mentioned in the disease management chart but have been placed here based on indications listed in regional manufacturers' product information.*

*Specific prescribing information may be found in the latest MIMS.*

# Dosage Guidelines

| HEMORRHOIDAL PREPARATIONS (TOPICAL)[1] | |
|---|---|
| **Drug** | **Indications** |
| Aescin (Aesculin) | Capillary stabilizing agent |
| Aluminium subacetate | Local antiseptic effect |
| Benzocaine (Ethyl aminobenzoate) | Local anesthetic: Temporarily relieves pain & itching<br>Allergic reactions may occur |
| Betamethasone | Corticosteroid: Reduces inflammation & swelling |
| Bismuth salts (Bismuth oxide, Bismuth resorcinol compound, Bismuth subgallate, Bismuth subnitrate | Protectant |
| Bufexamac | Topical anti-inflammatory effect |
| *Centella asiatica* extr | Wound healing agent |
| Cetrimide | Topical antiseptic effect |
| Cinchocaine (Dibucaine) | Local anesthetic: Temporarily relieves pain & itching<br>Allergic reactions may occur |
| Cocoa | Emollient: Acts as a physical barrier which lubricates the tissues |
| Diphenhydramine | Topical antihistamine, may cause sedation |
| Fluocortolone | Corticosteroid: Reduces inflammation & swelling |
| Framycetin | Antimicrobial agent |
| *Hamamelis virginiana* | Moisturizes & hydrates dry itchy skin |
| Hexetidine | Bactericidal & fungicidal antiseptic |
| Hydrocortisone | Corticosteroid: Reduces inflammation & swelling |
| Hydrosmin | Capillary stabilizing agent |
| Lidocaine (Lignocaine) | Local anesthetic: Temporarily relieves pain & itching<br>Allergic reactions may occur |
| Mucopolysaccharide polysulfate | Reduces swelling |
| Neomycin | Antimicrobial agent |
| Pentosan polysulfate | May be used for its anti-inflammatory & thromboembolic effects |
| Peru balsam (Peruvian balsam) | Mild antiseptic effect |
| Phenylephrine | Vasoconstrictor: Reduces swelling & congestion |
| Prednisolone | Corticosteroid: Reduces inflammation & swelling |
| Resorcinol | Keratolytic: May help to expose underlying tissue to therapeutic agent |
| Ruscogenin | Constricts veins; improves venous tone |
| Rutin | Capillary stabilizing agent |
| Shark liver oil | Emollient: Acts as a physical barrier which lubricates the tissues |

[1] These agents are found in various topical hemorrhoidal combination preparations throughout different countries. They are available as creams, ointments, gels & suppositories. Please see the latest MIMS for specific formulations.

***All dosage recommendations are for non-pregnant & non-breastfeeding women, & non-elderly adults w/ normal renal & hepatic function unless otherwise stated.***
*Not all products are available or approved for above use in all countries.*
*Products listed above may not be mentioned in the disease management chart but have been placed here based on indications listed in regional manufacturers' product information.*

*Specific prescribing information may be found in the latest MIMS.*

# Dosage Guidelines

| HEMORRHOIDAL PREPARATIONS (TOPICAL)[1] (CONT'D) | |
|---|---|
| **Drug** | **Indications** |
| Titanium dioxide | Acts as a protectant |
| Triamcinolone | Corticosteroid: Reduces inflammation & swelling |
| Tribenoside | Reduces capillary permeability |
| Trimebutine | Antispasmodic |
| Zinc oxide (ZnO) | Acts as a protectant |

[1]These agents are found in various topical hemorrhoidal combination preparations throughout different countries. They are available as creams, ointments, gels & suppositories. Please see the latest MIMS for specific formulations.

| SCLEROSING AGENTS | | | |
|---|---|---|---|
| **Drug** | **Available Strength** | **Dosage** | **Remarks** |
| Phenol | 250 mg/5 mL | 3-5 mL submucosal inj at each site<br>For small hemorrhoids, may give 3 inj of 3 mL each | **Adverse Reactions**<br>• Local reactions: Irritation, burns, allergic skin reactions, skin discoloration<br>• For Phenol: Case reports of impotence & urinary symptoms |
| Polidocanol | 1%, 3% soln | Individualize dose based on manufacturer's recommendations | |



***All dosage recommendations are for non-pregnant & non-breastfeeding women, & non-elderly adults w/ normal renal & hepatic function unless otherwise stated.***
*Not all products are available or approved for above use in all countries.*
*Products listed above may not be mentioned in the disease management chart but have been placed here based on indications listed in regional manufacturers' product information.*

*Specific prescribing information may be found in the latest MIMS.*

*Please see the end of this section for the reference list.*