

Lowest

LEVEL OF INVASIVENESS

Highest

Procedure	Watchful Waiting	Hormone Therapy	Focused Ultrasound	Uterine Fibroid Embolization	Hysteroscopic Myomectomy	Laparoscopic Myomectomy	Abdominal Myomectomy	Laparoscopic Supracervical Hysterectomy	Total Laparoscopic Hysterectomy	Vaginal Hysterectomy	Abdominal Hysterectomy
Description	No treatment. Only recommended for patients with little or no symptoms.	Gonadotropin releasing hormone agonists (GNRHa) ex. Lupron, inhibit estrogen secretion, producing temporary menopause. Birth control pills (bcps) can help regulate periods. Mirena can be used to treat menorrhagia in the presence of fibroids up to 5 cm.	Focused waves of ultrasound energy heat and destroy fibroid tissue. MRI images are used to guide treatment and supply temperature feedback.	The uterine artery is blocked with small particles to decrease blood supply to fibroids.	One or more fibroids are removed using a hysteroscope through the cervix.	One or more fibroids are removed through a key hole incision. Procedure may be limited to fibroids up to 6 cm in size depending on location.	One or more fibroids are removed with open abdominal surgery.	Body of the uterus is removed, but the cervix remains intact.	Surgical removal of the body of the uterus and the cervix.	Surgical removal of the uterus through the vagina, without an abdominal incision. Not usually an option, however for an enlarged fibroid uterus.	Surgical removal of the body of the uterus with or without the cervix, through an abdominal incision.
Return to normal activity	N/A	N/A	1 day	3 to 10 days	7 to 14 days	14 to 21 days	21 to 42 days	7 to 28 days	14 to 28 days	21 to 28 days	28 to 56 days
Hospital days	No hospital stay	No hospital stay	Outpatient procedure — no hospital stay	0 to 1 day	0 to 2 days	0 to 2 days	1 to 3 days	0 to 2 days	1 to 2 days	1 to 3 days	1 to 5 days
Procedure time	N/A	N/A	3 to 4 hours	30 minutes to 1.5 hours	1 to 2 hours	1 to 3 hours	1 to 3 hours	1.5 to 3 hours	1.5 to 3 hours	1.5 hours	1.5 hours
Advantages	Fibroid symptoms may decrease with the onset of menopause.	GNRHa can lead to temporary shrinking of fibroids - may be used pre-surgically to decrease blood loss (menstrual and/or surgical).	Outpatient procedure involves no incisions, radiation, or anesthesia. Return quickly to normal life.	Can be used to treat most fibroids and avoids risks of major surgery. Incision is small and uterus is retained. Hospital stay is short and in some cases may be performed as an outpatient procedure.	Only the fibroids are excised. Reproductive potential is spared if uterus is retained and reproductive organs remain intact.	Fibroids will not recur because the uterus is removed. Ovaries can be removed or spared with total laparoscopic, abdominal, or laparoscopic supracervical hysterectomy.					
Disadvantages/ Risks	Fibroids may continue to grow and symptoms may worsen.	GNRHa treatment can lead to menopausal symptoms (often causes significant hot flashes), and increased risk of osteoporosis. Treatment time limited to 12 months. Fibroid symptoms may return.	Fibroids may recur with time. While risks are generally low, there is a small risk of transient leg pain. There are some limits to the volume of the fibroid(s) treated.	Low risk of menopause in women <45, of serious infection, bleeding, and blockage of blood supply to ovaries. Possible surgical risks include adhesions and blood clots.	Only a fraction of fibroids is removed. Symptoms may recur; fibroids may be left behind and/or new fibroids may grow. For hysteroscopic, only a candidate if fibroid is mostly within the uterine cavity. Many patients require additional procedures. Possible surgical risks include adhesions, bleeding and blood clots.	Reproductive potential is lost. Side effects may include: psychological effects, urination and defecation disorders, early menopause, and osteoporosis if ovaries removed before 50. Possible surgical risks include adhesions, bleeding and blood clots.					
Efficacy	N/A	GNRHa decrease estrogen levels, fibroid mass, and pressure symptoms. BCPs may reduce heavy menstrual bleeding, but do not stop fibroid growth.	97% of patients in clinical trials have significant symptom improvement.	UFE relieves heavy bleeding in 90% of women, and relieves pain in 85%. May take 2 to 3 months to improve symptoms.	Myomectomy controls symptoms in about 80% of cases. Complete success is less likely in patients with many fibroids.	Hysterectomy is the most reliable way to prevent recurrence of uterine fibroids.					
Future Fertility	N/A	Unable to conceive while on most hormonal therapy.	Patients who are not family complete can consider MRgFUS but should consult further with the treating physician.	Patients who are not family complete can consider UFE but should consult further with the treating physician.	Safe to conceive and possibility of pregnancy after adequate healing time. Cesarean section may be required for delivery.	Reproductive potential is lost.					

