

# We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

**4,800**

Open access books available

**122,000**

International authors and editors

**135M**

Downloads

Our authors are among the

**154**

Countries delivered to

**TOP 1%**

most cited scientists

**12.2%**

Contributors from top 500 universities



**WEB OF SCIENCE™**

Selection of our books indexed in the Book Citation Index  
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?  
Contact [book.department@intechopen.com](mailto:book.department@intechopen.com)

Numbers displayed above are based on latest data collected.

For more information visit [www.intechopen.com](http://www.intechopen.com)



# Uterine Fibroids: Clinical Presentation

*Felix J.M. Oindi, Mukaindo A. Mwaniki*

## Abstract

The signs and symptoms of leiomyoma are varied. Most patients with uterine fibroids are asymptomatic and require no treatment. This is especially so in patients with small subserosal and intramural leiomyomas. Such patients may have the leiomyomas discovered incidentally during workup for other medical condition such as pregnancy. Some of them are also incidentally discovered in hysterectomy specimens for other pelvic masses. The common symptoms associated with leiomyomas include menorrhagia, pelvic pain or pressure, and subfertility. These symptoms vary from one patient to another and do not necessarily correlate to the size of the fibroids. Abdomino-pelvic examination may be normal if the fibroids are small. However, findings of a suprapubic mass and tenderness are not an uncommon finding for bigger myomas.

**Keywords:** leiomyoma, asymptomatic, menorrhagia, pelvic pain, pressure symptoms

## 1. Clinical presentation of uterine fibroids

Uterine fibroids present with a variety of signs and symptoms. The majority of women are asymptomatic, and the fibroid masses often remain undiagnosed [1]. Among such women, the myomas may be discovered during investigation for other conditions [2–4]. More than 50% of patients with uterine fibroids have no symptoms. This is common for small myomas especially when subserosal. For instance, a patient would be discovered to have fibroids during an antenatal ultrasound assessment of the foetus or during imaging for assessment of other pelvic pathologies such as appendicitis or ovarian masses. Fibroids would also be discovered in hysterectomy specimens done for other gynaecological conditions such as cervical and ovarian malignancies.

Among symptomatic women, abnormal uterine bleeding is the commonest complaint [1]. This could be described as heavy, prolonged, bleeding between menses or painful bleeding. The other symptoms associated with leiomyomas include pelvic pain, pelvic pressure and subfertility.

## 2. Abnormal uterine bleeding

Menorrhagia, defined as an increase in the amount of blood loss per month, is the most common symptom of uterine fibroids [1]. Majority of women with fibroids describe an increase in the amount of menstrual flow with some either needing to use more pads than before, using ‘heavier pads’ or even using both a

tampon and a pad simultaneously. Some report flooding whereby the bleeding flows beyond the containing pad/tampon. This kind of bleeding may cause anaemia, one of the commonest complications of menorrhagia.

The mechanism by which fibroids cause menorrhagia has not been clearly established. However, a few theories have been fronted [4]. These include an increase in the endometrial surface area especially from fibroids with a submucosal component. Heavy menstrual flow may also result from increased vascularity of the uterus due to the increased endothelial growth factors, principally VEGF [3, 5]. Other probable mechanisms include interference with normal uterine contractility and endometrial ulceration over the myomas [6]. Menorrhagia may also result from venous congestion due to compression of venous plexus within the myometrium and endometrium with resultant endometrial venule ectasia leading to profuse bleeding.

Menorrhagia since menarche implies a possibility of other mechanisms of menorrhagia [7]. These patients should be evaluated for coagulopathies as up to 13% may have von Willebrand disease. Occurrence of myomas in such patients serves to worsen the already existing heavy uterine bleeding. These patients should be evaluated and managed by a multidisciplinary team including physicians, haematologists and gynaecologists.

Other bleeding abnormalities commonly reported include prolonged bleeding, bleeding between menses, frequent periods and irregular and unpredictable periods [1]. Intermenstrual bleeding is more likely for cervical fibroids especially when close to the endo-cervical canal. Ulceration of fibroids with a submucosal component may also cause intermenstrual bleeding.

### **3. Pelvic pain**

This is a less common symptom than abnormal uterine bleeding, and patients rarely present with pain as the sole complaint [4, 6]. Intramural fibroids may present with dysmenorrhea alongside the menorrhagia. However, the dysmenorrhea may not always be associated with menorrhagia. Degenerative changes, common in pregnancy, may also cause pelvic pain. This is usually managed conservatively by analgesics and rest. Dyspareunia is less common.

Some patients may present with chronic pelvic pain and dyspareunia [1].

Acute pain may result from torsion of a pedunculated myoma's pedicle, incarceration of a myoma within the pelvis or even cervical dilatation by a submucous myoma [4]. Cervical torsion may result in catastrophic intra-abdominal bleeding necessitating emergency laparotomy/laparoscopy.

### **4. Pressure-/bulk-related symptoms**

Depending on the size and location, uterine fibroids may compress the urinary bladder or rectum [4, 6]. Compression of the urinary bladder may present with urinary frequency, difficulty emptying the bladder and even acute urinary retention. When large, myomas may cause ureteric obstruction and hydronephrosis, which is more common on the right.

Fibroids can also place pressure on the rectum and cause constipation.

Patients may also present with feeling of an abdominal mass without any apparent menstrual disturbances or pain. Such patients may be suspected during examination for other conditions. Large fibroids may also cause compression of the inferior vena cava leading to possible deep venous thrombosis of the lower extremities.

## 5. Reproductive challenges

Patients with fibroids may present with subfertility [6, 8]. As the occurrence of both uterine fibroids and subfertility increases with age, so does the risk of aneuploidy and pregnancy loss. Therefore, the actual impact of fibroids on fertility is difficult to ascertain. Submucosal and intramural fibroids distorting the uterine cavity compromise fertility. Depending on the number, size and location, fibroids may distort the overall uterine anatomy and compromise fertility. Removal of such fibroids may enhance fertility. Up to 60% of patients have been shown to conceive spontaneously upon myomectomy.

Fibroids may also increase the rates of first and second trimester miscarriages [9]. They have also been implicated as a cause of recurrent pregnancy loss.

## 6. Pregnancy-related complications


Fibroids may present with acute pain in pregnancy due to degenerative changes [6, 8]. They may also cause premature rupture of membranes, preterm labour, abruption placenta, malpresentations, foetal growth restriction and increased operative deliveries. Leiomyomas may also cause postpartum haemorrhage, retained placenta and even puerperal sepsis.

### Author details

Felix J.M. Oindi\*, Mukaindo A. Mwaniki  
Department of Obstetrics and Gynaecology, Aga Khan University Hospital,  
Nairobi, Kenya

\*Address all correspondence to: [droindi@gmail.com](mailto:droindi@gmail.com)

### IntechOpen

© 2019 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. 

## References

[1] Zimmermann A, Bernuit D, Gerlinger C, Schaefer M, Geppert K. Prevalence, symptoms and management of uterine fibroids: An international internet-based survey of 21,746 women. *BMC Women's Health*. 2012;**12**:6

[2] Divakar H. Asymptomatic uterine fibroids. *Best Practice & Research. Clinical Obstetrics & Gynaecology*. 2008;**22**(4):643-654

[3] Bulun SE. Uterine fibroids. *The New England Journal of Medicine*. 2013;**369**(14):1344-1355

[4] Gupta S, Jose J, Manyonda I. Clinical presentation of fibroids. *Best Practice & Research. Clinical Obstetrics & Gynaecology*. 2008;**22**(4):615-626

[5] Flake GP, Andersen J, Dixon D. Etiology and pathogenesis of uterine leiomyomas: A review. *Environmental Health Perspectives*. 2003;**111**(8):1037-1054

[6] Parker WH. Etiology, symptomatology, and diagnosis of uterine myomas. *Fertility and Sterility*. 2007;**87**(4):725-736

[7] Munro MG, Lukes AS. Abnormal uterine bleeding and underlying hemostatic disorders: Report of a consensus process. *Fertility and Sterility*. 2005;**84**(5):1335-1337

[8] Farquhar C. Do uterine fibroids cause infertility and should they be removed to increase fertility? *BMJ (Clinical Research Edition)*. 2009;**b126**:338

[9] Al-Hendy A, Myers ER, Stewart E. Uterine fibroids: Burden and unmet medical need. *Seminars in Reproductive Medicine*. 2017;**35**(6):473-480