

## Fact Sheet

## Uterine Fibroids

Fibroids (Uterine leiomyomata) — Uterine fibroids are benign (non-cancerous) tumors made up of groups of muscle cells and other tissues that grow within the wall of the uterus. Uterine fibroids can vary in size and number and are more common in African American women. The medical term for fibroids of the uterus (womb) is leiomyomata.

### Thirty Years Ago

- The signs and symptoms of fibroids, which include heavy or abnormal bleeding, pain, pelvic cramping or pressure, and bloating, were of great concern to the many women who suffered from them. Uterine fibroids also were associated with infertility, miscarriage, and early onset of labor.
- Very little was known about fibroids, and how to prevent or medically treat them. The symptoms of fibroids not only resulted in lost days of work but often resulted in surgical treatments such as hysterectomy.
- A recently completed NIH epidemiological study found that by age 50, the cumulative incidence of uterine fibroids was over 80 percent for African-American women and about 70 percent for Caucasian women. These percentages demonstrate that many women do not know they have fibroids, which may remain undetected until symptoms develop.
- Medical therapy is used for many women who have symptoms from fibroids and sometimes medical therapy is used prior to surgery to shrink the fibroids. Drugs that shrink fibroids are called gonadotropin-releasing hormones and they usually cause symptoms of menopause. Anti-hormonal agents like mifepristone can slow or stop the growth of fibroids. Some health care providers may use hormonal or over-the-counter medications to control pain and bleeding.

### Today

- Given the large number of women affected and the large number of hysterectomies that are done for uterine fibroids, they are an important public health concern. The National Institutes of Health (NIH) conducts research on uterine fibroids and supports many new studies at academic institutions as well as interdisciplinary conferences where researchers share and discuss their results.
- The *Second NIH International Congress on Advances in Uterine Leiomyoma Research* (February 2005) reported many new research advances for the prevention, diagnosis and treatment of fibroids. The link to the conference information is: <http://orwh.od.nih.gov/health/fibroidResources.html>
- The Office of Research on Women's Health (ORWH) provides current updates on trans-NIH programs for fibroid research in a report entitled, *The Status of Research on Uterine Fibroids (leiomyomata uteri) at the NIH*. The link to this report is: <http://orwh.od.nih.gov/health/fibroidsrevisedmarch2006.pdf>
- A major basic and translational research program is underway to examine additional biological processes that may lead to the development of fibroids such as hormonal stimulation, molecular and cytogenetic changes, differences in cell regulation and the influence of exposures to environmental agents. This research is helping to determine new alternatives for the treatment of uterine fibroids. Potential long-term consequences of this disorder are also under investigation.
- Investigators based at NIH laboratories are exploring the mechanisms responsible for fibroid development and growth. One important finding is that uterine fibroids have many features in common with a disorder of pathologic wound healing called keloids. The studies revealed that the connective tissue made by the cells in uterine fibroids is markedly abnormal and this may contribute to fibroid growth.

- Based on the discovery that uterine fibroids are largely composed of excessive and abnormally-formed connective tissue, a new NIH study was initiated to test a medication that can reduce such tissue. Women aged 35-50 who have completed childbearing, have symptoms of fibroids, and have at least one fibroid of about 2 inches (>4 centimeters) in size may be candidates for the six-month trial of this investigational medication. The website, [www.Clinicaltrials.gov](http://www.Clinicaltrials.gov), provides details on this study and other active studies for uterine fibroids.
- Surgical treatment continues to provide the most effective relief of fibroid symptoms. Surgical options today include: D & C, myomectomy (removal of just the fibroids), or hysterectomy (complete removal of the uterus); non-surgical medical technologies include uterine artery embolization and magnetic resonance-guided ultrasound therapy. The patient and her physician should discuss treatment options and decide what is most appropriate.
- Most cases of uterine fibroids do not affect fertility. In cases where infertility exists, the woman and her health care provider may seek medical or surgical treatments to improve the likelihood of a successful pregnancy.

### **Tomorrow**

- Future research will support the development of prevention strategies, new drugs targeted at growth inhibition, new devices currently being evaluated, better information on why these cells grow, and more individually tailored out-patient removal/reduction treatments. Quality of life is an important area of research for women experiencing this condition.