

Endometriosis

PHYSICIANS COMMITTEE FOR RESPONSIBLE MEDICINE

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Many women experience menstrual pain, and one of its common causes is endometriosis. In this condition, some of the lining cells from the inside of the uterus end up in the wrong place. They are attached to the ovaries, intestinal tract, bladder, or elsewhere. And just as the cells inside the uterus swell and are shed each month, these misplaced cells do exactly the same thing. They swell and bleed, causing pain and sometimes infertility.

Endometriosis starts with cells that are wandering in the wrong direction. Normally, the uterine lining cells pass downward and out of the body during menstruation. But sometimes these cells slip through the fallopian tubes that lead to the abdominal cavity. From there, they can end up virtually anywhere.

An estimated 5 percent to 10 percent of women who are of reproductive age have been diagnosed with endometriosis.¹ It runs in families to a degree, but genetic factors are not strong, although, if you have endometriosis, there is a chance that your mother or a sister has also had it.²

After menopause, endometriosis is rare, except in women who take supplemental estrogens as part of hormone “replacement” therapy.

Some evidence suggests that the immune system may play a role in preventing endometriosis. Specifically, a well-functioning immune system may be able to eliminate the growth of the endometrial tissue that pushes outside of the uterine cavity.³

The only way to diagnose endometriosis is by making a small incision below the navel and actually looking into the abdominal cavity with a slim tube called a laparoscope. Doctors who have not done this sometimes dismiss the pain or misdiagnose it. The Endometriosis Association, based in Milwaukee, reports that 70 percent of women diagnosed with the condition were first told by their doctors that there was no physical reason for their pain. Among African-American women, 40 percent were told that their pain was caused by a sexually transmitted disease.

Do Foods Cause Endometriosis?

Certain foods appear to make endometriosis more likely. According to researchers at the Harvard School of Public Health, women who have two or more cups of caffeinated coffee (or four cans of cola) per day were found to be twice as likely to develop endometriosis as other women.⁴ The reason why caffeine has this effect is unknown.

Some studies suggest that frequent red meat and ham consumption is associated with endometriosis risk, while

fruit and vegetable intake appears to be protective. In an Italian population, women who ate at least seven servings of red meat per week had twice the risk of endometriosis compared with those who ate fewer than three servings of red meat weekly. Women having 14 or more servings per week of green vegetables had a 70 percent lower risk of endometriosis compared with those ate fewer than six servings per week. And those eating 14 or more servings of fruit per week had a 20 percent lower risk compared with women having fewer than six servings per week.⁵

Alcohol may also be a factor in endometriosis. Compared with healthy women and women with other gynecological problems, women who drink alcohol appear to have a greater incidence of endometriosis.⁶ In women with infertility, the risk of endometriosis was 50 percent higher in individuals who drank alcohol compared with control subjects.⁷

Foods tainted with certain chemicals appear to encourage the implantation of cells in the abdomen. Those chemicals include polychlorinated biphenyls (PCBs), which were commonly used in electrical equipment, hydraulic fluid, and carbonless carbon paper, and organochlorine pesticides, which were commonly used in agriculture. Data from a 2005 study show that women exposed to PCBs may have a higher prevalence of endometriosis. Organochlorines bind to estrogen receptors and mimic hormones that in turn can affect endocrine pathways and alter hormonal function.⁸

These chemicals presumably do their dirty work by impairing the immune defenses against abnormal cells. Indeed, the natural killer cells and other white blood cells that are supposed to maintain a constant lookout for any abnormal cells have been shown to be weakened in women with endometriosis.⁹

These toxins tend to accumulate in animal fat, and the major route of human exposure is through food, particularly fish, as well as other meats and dairy products.¹⁰ Chickens, cattle, pigs, and other animals fed grains treated with pesticides and sometimes contaminated with other organochlorines tend to concentrate these compounds in their muscle tissues and milk. While there may also be organochlorine pesticide residues on nonorganic fruits or vegetables, they are less concentrated and easier to remove. Organic produce is grown without chemical pesticides.

To measure the concentration of organochlorines in a woman’s body, researchers sometimes check samples of breast milk. Organochlorines and PCBs when consumed or inhaled settle in adipose tissue. In women who are nursing, these chemicals are excreted through their breast milk.¹¹ Unfortunately, the

recipient of these chemicals is the nursing baby.¹²

Lipid-rich foods such as fish and meat are major sources of organochlorines and PCBs, while plants have considerably lower levels of these contaminants. Therefore, a vegetarian diet has obvious advantages. By avoiding fish, other meats, and dairy products, women avoid the foods that harbor most organochlorines. Evidence suggests that vegetarian women have much lower levels of pollutants in their breast milk compared with other women. These chemicals have a very long half-life and can remain in the body for up to 15 years; therefore, the earlier in life that one begins a plant-based diet, the better.¹³

Happily, bans on some of these compounds have caused exposures to decrease since the 1970s, although the amount in the body drops very slowly.

Foods as a Treatment for Endometriosis

Some women with endometriosis improve spontaneously, although most find that their symptoms continue or gradually worsen. Medical treatments rely on anti-inflammatory painkillers such as aspirin, acetaminophen, ibuprofen, and naproxen. Hormone treatments such as danazol, gestrinone, GnRH agonist analogs, progesterone derivatives, and progesterone-estrogen combinations are designed to shrink endometrial tissues.

Surgical treatments include removing cell clumps, severing pain nerves, and even hysterectomy, sometimes with removal of the ovaries. In the past, surgery to remove endometrial cells was considered a temporary measure and did not reliably eliminate all of the troublesome cells. Laparoscopy has replaced open surgery as the preferred method in the treatment of endometriosis.^{14,15}

Dietary treatment of endometriosis is based on the fact that, whatever causes endometriosis to start, it is estrogen that keeps it going. Without estrogen, the clumps of cells do not grow each month; they soon wither away.

That means that the dietary approach that reduces estrogens can also be used for endometriosis. In discussions with gynecologists who have tried this approach, it is clear that, for some patients at least, it can make a big difference.

Ronald Burmeister, M.D., a gynecologist in Rockford, Ill., describes the case of a 24-year-old woman who had terrible menstrual pain every month since her periods began. She had laparoscopic surgery twice, but her pain continued. She tried birth control pills, but they caused depression and other side effects. Hormone-blocking medications were helpful, but the medicine was very expensive and, in any case, could be prescribed for only six months without an increased risk of osteoporosis. After the prescription ran out, her pain returned. A progesterone derivative helped some but did not abolish the pain. One of her doctors recommended hysterectomy, but she wanted to avoid such a drastic solution.

Dr. Burmeister suggested trying a hormone-balancing diet. Using low-fat, purely vegetarian foods, which are known to reduce estrogen levels in the blood, she could reduce her

hormone shifts, and, unlike medicines or a hysterectomy, it would not interfere with her efforts to get pregnant. He gave her a set of recipes and recommended several books for further information.

Within three months she was noticeably better, and at six months, her pain was gone.

Based on this success, Dr. Burmeister made the same recommendation in three other cases, and found that it was helpful in reducing pain. One patient reported that if she deviated at all from the diet, by having some dairy products or a bit of chicken, her pain came right back, just as skipping one or two pills can make a prescription fail.

No one has yet done a clinical study on the use of a low-fat, vegetarian diet for endometriosis. However, the demonstrable health benefits indicate one should be done. Unlike hormone treatments, a diet does not interfere with efforts to conceive. It is also inexpensive and safe.

In addition to changing their diets, women who exercise have a much lower risk for endometriosis, and those who engage in frequent strenuous exercise have at least 75 percent lower risk for endometriosis, compared with those who do not engage in high-intensity activity.¹⁶ The reason, presumably, is the well-established ability of exercise to reduce hormone activity. Exercise also strengthens the immune system.

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