



A Pain In The Pelvis

Spreading Cells Can Cause A Condition Called **Endometriosis**

Pain can be the first sign that something's wrong—cramping pain in the pelvis or pain during sex. But for women of childbearing age, difficulty getting pregnant is most often what leads them to see a doctor. The culprit, endometriosis, is difficult to diagnose and may require a surgical procedure.

Endometriosis, or “endo” for short, is caused by tissue that normally grows along the lining of the uterus that begins to grow elsewhere—on the ovaries, for example. This “unauthorized” growth may be what causes pain.

Researcher Dr. Pamela Stratton is chief of the gynecology consult service at the National Institutes of Health's (NIH) National Institute of Child Health and Human Development (NICHD). She says the really puzzling thing is that the degree of pain is not always related to the amount of endo. A woman feeling low levels of pain might have a number of large endo cell masses, yet a woman in a lot of pain might have only trace amounts.

Treating Endometriosis

Treatments may reduce her pain and improve fertility. The good news is that endo can often be treated while it is being diagnosed. There are two types of tests that can show images of unauthorized tissue growth—ultrasound and MRI—but only a surgical procedure called laparoscopy can confirm that the growth is endo. After masses are removed during the procedure, a lab determines if they are endo.

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Ultrasound: An ultrasound machine sends out high-frequency sound waves that reflect off the organs within your body. A computer uses these reflected waves to create an image of your insides.

MRI (magnetic resonance imaging): Creates an image of your insides using a powerful magnet and radio waves.

Laparoscopy: Uses a tiny light, or laparoscope, through a small cut to look at the area in question and perform surgery.





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Ending pain permanently, however, can be more difficult, Stratton explains. For many women, the pain returns, signaling regrowth of the tissue. Because endo cells are fed by estrogen, some doctors prescribe estrogen blockers to deprive endo of its food source.

“Treating the pain by altering hormone levels gets much more tricky,” Stratton says. Lowering estrogen can limit endo growth, but it can also cause unpleasant side effects like hot flashes, unwanted hair growth and weight gain.

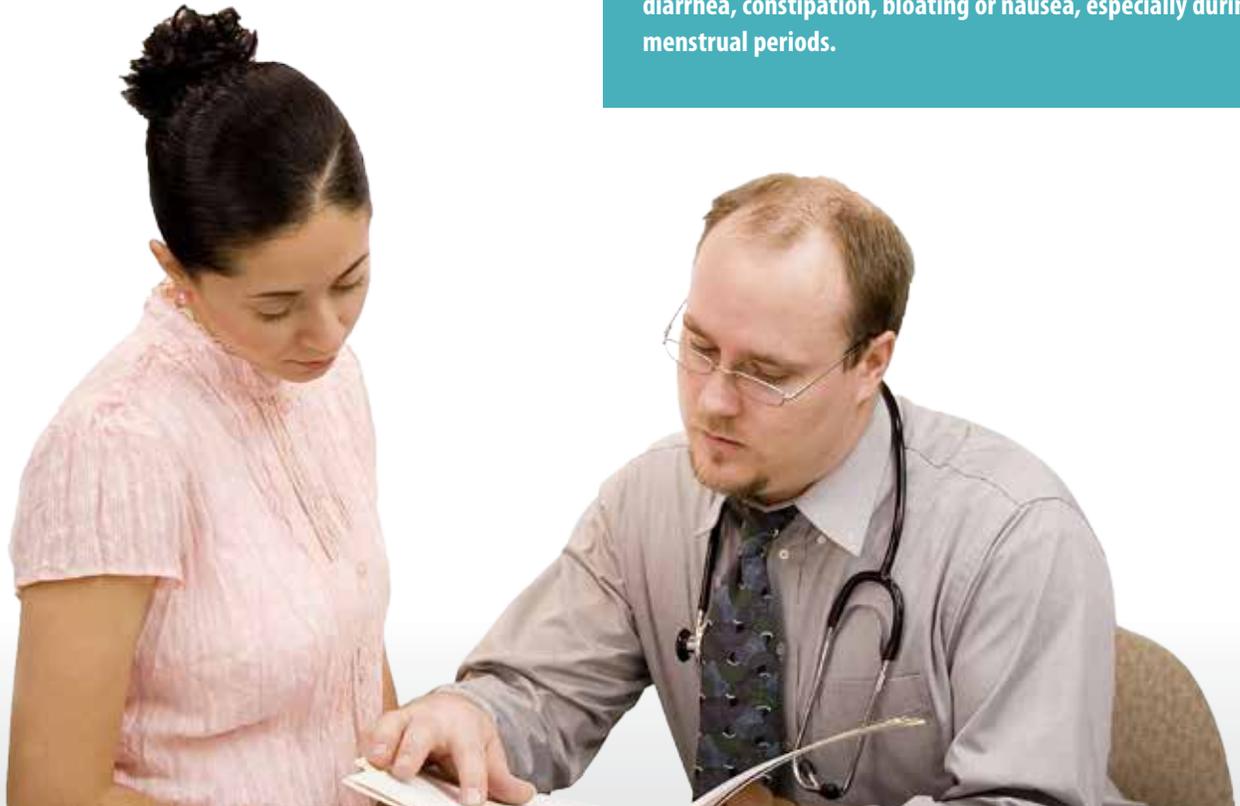
NIH scientists are working on new ways to treat endo. In one study, researchers are hoping an estrogen drug called raloxifene can limit endo growth. Stratton and her colleagues are also working with other specialists to better understand how the brain processes the pain caused by endo. Other factors such as chronic stress may make endo pain worse.

Researchers are continuing to work on a variety of new ways to help women with endo pain.

Symptoms of Endometriosis

- **Painful periods (dysmenorrhea).** Pelvic pain and cramping may begin before and extend several days into your period and may include lower back and abdominal pain.
- **Pain with intercourse.** Pain during or after sex is common with endometriosis.
- **Pain with bowel movements or urination.** You're most likely to experience these symptoms during your period.
- **Excessive bleeding.** You may experience occasional heavy periods (menorrhagia) or bleeding between periods (menometrorrhagia).
- **Infertility.** Endometriosis is first diagnosed in some women who are seeking treatment for infertility.

Those with endometriosis may also experience fatigue, diarrhea, constipation, bloating or nausea, especially during menstrual periods.



The Power Of **Love**

How often do you hug? Do you like to sit close and hold each other's hands? Recent research shows it's good for your health. Between loving partners, between parents and children, or even between close friends, physical affection can help the brain, the heart and other body systems you might never have imagined.

For centuries, artists have examined love through poetry, painting, music and countless other arts. And over the years, scientists have begun to understand the chemistry and biology of love.

The Biology Of Love

At the center of how our bodies respond to love and affection is a hormone called oxytocin. Most of our oxytocin is made in the area of the brain called the hypothalamus. Some is released into our bloodstream, but much of its effect is thought to reside in the brain.

Oxytocin makes us feel good when we're close to family and other loved ones, including pets. It does this by acting through what scientists call the dopamine reward system. Dopamine is a brain chemical that plays a crucial part in how we perceive pleasure. Many drugs of abuse act through this system.

Problems with the system can lead to serious depression and other mental illness.

Oxytocin does more than make us feel good. It lowers the levels of stress hormones in the body, reducing blood pressure, improving mood, increasing tolerance for pain and perhaps even speeding how fast wounds heal. It also seems to play an important role in our relationships. It's been linked, for example, to how much we trust others.



One thing researchers can say with certainty is that physical contact affects oxytocin levels. For example, people who get lots of hugs and other warm contact at home tend to have the highest levels of oxytocin in the laboratory. The same holds true for mothers and infants: they both produce higher levels of oxytocin when they have lots of warm contact with each other.

The Benefits of Physical Contact

Much of what we know about oxytocin has come from research in animals. Mother rats, for instance, can stimulate

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oxytocin in their pups by licking and grooming them. This loving care has ong-term effects.

When researchers separate pups from their mothers for 10-15 minutes a day and then reunite them, many mothers are so glad to see their pups that they lick and groom them intensively. If the separation lasts for several hours, however, it can have the opposite effect; the mother won't lick and groom her pups. Some mothers just never lick and groom their pups when they come back.

Research from other animals, including

monkeys, confirms that the quality of care a mother gives her offspring can have long-term effects on their personality characteristics and mental health as well as physical problems like heart disease.

Animal research is also shedding light on oxytocin's role in other social bonds. Mice that lack oxytocin can't recognize other mice, even after repeated encounters. When they're given oxytocin, however, they can recognize other mice again.

Oxytocin and vasopressin aren't miracle compounds, however. Giving these hormones to other animals—even other

types of voles that don't normally form social bonds—doesn't suddenly cause them to form loving bonds. Animals must have the proper genes to respond to these hormones in the first place.

We may not yet fully understand how love and affection develop between people—or how love affects our health—but research is giving us some guidance. Give those you love all the affection you can. It can't hurt, and it may bring a bounty of health benefits.

Feel The Love

To reap the benefits of human contact and affection, it certainly can't hurt to follow the advice the research suggests:

- Mothers should have as much warm contact with their infants as possible, especially during the first few weeks of life. If you can't do this, though—because of illness, a premature birth or other reason—just give all the love and affection you can.
- Mothers who've had a cesarean section may need even more warm contact time, because they haven't had the increase in oxytocin that labor produces.
- Couples that have warm contact several times a day—hugging, holding hands, sitting close, etc.—have higher oxytocin levels than those that don't.
- Some studies have shown a decrease in stress hormones with massage, for both the person getting the massage and the one giving it.



Of Guts & Gluten

A CLOSER LOOK AT CELIAC DISEASE

What if you couldn't eat bread? Or pasta? Or cookies? What if you couldn't eat anything containing wheat, rye and barley because of gluten, a protein found in these grains? You would be among the millions of American who get gas, diarrhea and other symptoms whenever they eat foods with gluten. The condition is called celiac disease, and many people who have it don't even realize it.

Celiac disease shouldn't be ignored, though. It can lead to malnutrition, osteoporosis and other serious problems. The only treatment is to eliminate gluten from your diet.

When people with celiac disease eat things with gluten, their immune system attacks their small intestine. This attack damages and can even destroy the tiny finger-like structures called villi that line the small intestine. Without healthy villi, which normally allow nutrients from food to be absorbed

into your bloodstream, your body can't get enough nutrients no matter how much food you eat. The resulting malnutrition can be a serious problem—particularly for children, who need adequate nutrition to grow and develop properly.

How Do You Know If You Have It?

The symptoms of celiac disease can vary. Symptoms range from gas, diarrhea and belly pain to delayed growth, certain skin rashes, infertility and osteoporosis. The symptoms can be similar to those of several other diseases, so diagnosing celiac disease is sometimes difficult. Some people with the disease don't even have any symptoms. With or without symptoms, people with celiac disease are at risk for the complications of the disease. The longer a person with celiac disease goes undiagnosed and untreated, the greater their chance of developing malnutrition and other serious problems.



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HOW TO RECOGNIZE CELIAC DISEASE

Celiac disease affects people differently. One person might have diarrhea and belly pain, while another may be irritable or depressed. In fact, irritability is one of the most common symptoms in children. Symptoms of celiac disease may include one or more of the following:

- Gas
- Recurring bloating, belly pain
- Chronic diarrhea
- Pale, foul-smelling or fatty stool
- Weight loss or weight gain
- Fatigue
- Unexplained anemia (lower red blood cell counts causing fatigue)
- Bone or joint pain
- Bone loss or weakening
- Behavioral changes
- Tingling numbness in the legs (from nerve damage)
- Muscle cramps
- Seizures
- Missed menstrual periods (often because of excessive weight loss)
- Infertility, recurrent miscarriage
- Delayed growth
- Failure to thrive (in infants)
- Pale sores inside the mouth
- Tooth discoloration or loss of enamel

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If you suspect you have celiac disease, see your doctor for a diagnosis as soon as you can. They can draw blood and measure the levels of molecules made by your immune system that attack your small intestine. Before being tested, continue to eat a regular diet that includes foods with gluten. If you stop eating these foods before being tested, the results may be negative for celiac disease even if you have it.

If your tests and symptoms suggest celiac disease, your doctor will likely perform a small-bowel biopsy, during which a tiny piece of tissue from the small intestine is removed to check for damage to the villi.

Treating Celiac Disease

The good news if you're diagnosed with celiac disease is that following a gluten-free diet will stop symptoms, heal existing intestinal damage and prevent further damage for most people with the illness. Improvements usually begin within days of eliminating gluten. The small intestine usually heals completely within months in children and young adults, and within two years for older adults.

People with celiac disease need to eliminate gluten for the rest of their lives, not just until they're healed. Eating any gluten, no matter how little, can damage your small intestine again, whether or not you have noticeable symptoms. Newly diagnosed people and their families may find support groups helpful as they all learn to adjust to this new way of life. With practice, looking for gluten becomes second nature.





Hidden Persuaders

THE MINDLESS EATING THAT ADDS POUNDS

People seem to gain weight easily but have a hard time taking it off. Americans are continuing to get heavier, increasing the risk of getting type 2 diabetes, heart disease, stroke, cancer and various other health conditions. Healthy eating can play an important role in helping you avoid excess weight. It can also increase the quality and length of your life.

Interesting new research is revealing that part of the reason why it's so difficult to eat healthy is that "hidden persuaders" can lead you to eat more than you think you're eating.

Research Weighs In

For example, the size and shape of containers can as much as double the amount of food you consume. In a field study at a Philadelphia movie theater, researchers gave participants free popcorn in large or extra large sizes. Unknown to the participants, they were randomly

given popcorn that was either fresh or 10 days old. The researchers found that people eating from the extra-large popcorn containers ate 45-50% more than those eating from the large ones. Participants even ate 40-45% more stale popcorn when it was served in bigger containers.

Food descriptions affect your food intake as well. In fact, researchers have been able to help a cafeteria boost its business. Using creative terms that appeal to the senses, "seafood filet" and "chocolate cake" became "succulent Italian seafood filet," and "Belgium black forest double chocolate cake" on the menu. People making selections from these more descriptive menus were overwhelmingly more enthusiastic about the food they received. Those making their selections from non-descriptive menus were mostly disappointed. Research shows that this

Questions For Dining Out

Can you please...

- remove the bread basket?
- serve fat-free (skim) milk rather than whole milk or cream?
- trim visible fat from poultry or meat?
- leave all butter, gravy or sauces off a dish?
- serve salad dressing on the side?
- accommodate special requests?
- use less cooking oil when cooking?

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TIPS TO AVOID MINDLESS EATING

- **Be aware of the size and shape of containers. It's the amount of food that counts, not what it looks like.**
- **Serve food on smaller plates and bowls. Empty plates and bowls cue some people to stop eating.**
- **Use nutrition labels, paying attention to the serving size listed. Consider the facts; don't guess at how many calories you're eating.**
- **Look past the packaging. A food's package or the language on a menu can lead you to actually like a food better, increasing your chance of overeating.**
- **Keep visual reminders of how much you're eating. Keep wrappers, empty containers, bones and other reminders of how much you've eaten nearby.**
- **Think about eating a healthier meal. Don't just focus on separate parts of the meal.**
- **Control your purchases. Don't let signs lead you to buy more than you need.**

common advertising technique, called descriptive labeling, not only attracts customers to selected menu items, but also causes them to eat more.

Losing track of how much you're eating also leads you to eat more. In one study, students at a Super Bowl party in a restaurant were given free all-you-can-eat chicken wings. Plates were bused from some of the tables while bones were left to pile high on others. Those whose plates were not bused ate less. Participants from the bused tables seemed to have a harder time judging how much food they were eating. The researchers concluded that those people who saw reminders of what they were eating consumed less in the end. This conclusion was confirmed by another study showing that people wound up eating less candy when they saw their empty wrappers pile up as they ate.

Strategies To Eat Healthier

Eating healthy begins with what you buy in the first place. Researchers point out that we are highly influenced by quantities listed in signs. Our minds tend to anchor on the numbers that are suggested to us, and we then adjust our purchase from there. That's why signs often list items like "3 for \$3.00" rather than just saying "\$1.00 each." These signs can end up as much as doubling how much we buy, because we tend to focus only on what to buy when we go shopping, not how much to buy. If you bring home more food than you need, you'll be tempted to eat more.

A keen awareness of all these hidden persuaders is an important step in controlling the amount and quality of food you eat.

