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healthy meals. The Healthy Eating Plate is made up of one-half vegetables and fruits, one-quarter whole grains, and one-quarter healthy protein. “Whole” and “healthy” are important words here. Refined grains (think white breads, pastas, and rice) have less fiber and fewer nutrients than whole grains, such as whole-wheat bread and brown rice (see No. 4). Healthy proteins include fish, poultry, beans, and nuts—but not red meats or processed meats. Many studies have shown that red meats and especially processed meats are linked with colorectal cancer—and that you can lower your risk for heart disease by replacing either type of meat with healthier protein sources. So eat red meats sparingly (selecting the leanest cuts), and avoid processed meats altogether. *Hint:* To learn more about the Healthy Eating Plate, go to [www.health.harvard.edu/plate](http://www.health.harvard.edu/plate).

**2 Pile on the vegetables and fruit.** Vegetables and fruits are high in fiber and contain many vitamins and minerals as well as hundreds of beneficial plant chemicals (phytochemicals) that you can't get in supplements (see No. 8). Diets rich in vegetables and fruit can benefit the heart by lowering blood pressure, cholesterol levels, and inflammation and improving insulin resistance and blood vessel function. In long-term observational studies, people who eat more fruits and vegetables have a lower risk of heart disease, diabetes, and weight gain, and those who eat more fruit also have a lower risk of stroke. *Hint:* Fresh fruits and vegetables are great, but don't avoid the frozen kind (or dried fruit or canned fruits and vegetables minus the heavy syrup or salt) when they're more convenient.

**3 Go for the good fats.** At one time, we were told to eat less fat, but now we know that it's mainly the type of fat that counts. The most beneficial sources are plants and fish. You can help lower “bad” LDL cholesterol by eating mostly polyunsaturated fats (including vegetable oils and omega-3 fatty acids, found in fish, seeds and nuts, and canola oil) and monounsaturated fats (in avocados and many plant-based oils, such as olive oil and canola oil). Saturated fats (found mostly in dairy and meat products) and trans fats

(hydrogenated fat found in many fried and baked goods) boost LDL cholesterol and triglycerides, increasing your risk of heart disease. Worse still, trans fats reduce your “good” HDL cholesterol. *Hint:* As long as you replace bad fats with good ones, you can get up to 35% of your calories from fat.

**4 Replace refined grains and potatoes with whole grains.** Whole grains retain the bran and germ of the natural grain, providing healthful fiber, vitamins and minerals, antioxidants, and phytochemicals. Many of these substances are removed from refined grains, such as white bread and white rice, and are barely present in starches such as potatoes. Starches and refined carbohydrates are digested quickly, causing surges in insulin and blood sugar, boosting triglycerides, and lowering HDL cholesterol. These changes increase the risk of heart disease and diabetes. The rapid rise and fall of blood sugar and insulin can also make you hungry, raising the risk of weight gain. Potatoes aren't all bad; they're a good source of vitamin C, potassium, and fiber. But eat them only occasionally, in small amounts, and with the skins on (that's where the fiber is). *Hint:* Be adventurous. In addition to whole wheat and brown rice, try quinoa, millet, farro, and amaranth. Some of these whole grains can be cooked like hot cereal or rice, and some are ground into flour for baking.

**5 Eliminate liquid sugars.** Sugar-sweetened beverages—non-diet sodas, sugary fruit drinks, iced teas with added sugar, and sports drinks—provide calories and little else. There's good evidence that these drinks can raise the threshold for satiety (feeling full), thereby increasing the amount you eat and promoting weight gain. A 2011 Harvard study found that sugar-sweetened beverages were one of the dietary components most strongly linked to long-term weight gain among healthy women and men. What about 100% fruit juice with no added sugar? Even all-natural fruit juice has a lot of calories. The Healthy Eating Plate guidelines suggest you drink no more than one small glass a day (say, 4 to 6 ounces). *Hint:* Add carbonated water to your “one small glass” for full-glass satisfaction.

**6 Drink enough water.** Many foods contain water, so you may get enough every day without making a special effort. But it can be helpful to drink water (or another no-calorie liquid, such as black tea, coffee, or carbonated water) with meals or as an alternative to snacking. A reasonable goal is 4 to 6 cups of water a day. *Hint:* As you add whole grains to your diet, water helps move the fiber smoothly through your digestive tract, reducing the chances of constipation.

**7 Learn to like less sodium.** The body needs sodium for proper muscle and nerve function and fluid balance, but excessive amounts can increase blood pressure and the risk of heart disease and stroke. The dangers of a salty diet (salt is 40% sodium) are greatest in people over age 50, African Americans, and women. You'll do yourself a favor if you wean your taste buds from a yen for salt. Limit your daily sodium intake to 2,300 milligrams (mg)—the amount in one teaspoonful of salt. If you have high blood pressure or are at risk for it, get no more than 1,500 mg per day. *Hint:* Most of the sodium Americans consume comes from processed and restaurant foods. Instead, choose fresh, unprocessed foods, and prepare them yourself. Read the nutrition content on labels and make sure that the per-serving sodium content is less than the calories per serving.

**8 Rethink supplements.** It's best to get your vitamins and minerals from food rather than supplements, but this can be hard, especially if you're cutting calories or your energy needs are low. In the July 2009 issue of *Harvard Women's Health Watch*, we showed how to meet almost all your nutrient needs through food alone, even if you're consuming 1,500 calories or less per day (see [www.health.harvard.edu/vits](http://www.health.harvard.edu/vits)). The key is choosing nutrient-dense foods, such as leafy greens, low-fat yogurt, dried beans, whole grains, and salmon. The only problem is vitamin D. Here a supplement is probably a good idea, because it's difficult to get the recommended daily intake (600 to 800 IU) through foods. *Hint:* You can get enough calcium on a 1,500-calorie-a-day diet by eating low-fat dairy products and nondairy foods such as canned salmon, tofu, sesame seeds, dark leafy greens like collards and kale, and legumes such as pinto and kidney beans.

**9 Dine mindfully.** Taking time to savor your food not only makes eating more enjoyable, it can also help control your appetite. Your sense of fullness and satisfaction depends on hormonal signals from your digestive tract. If you eat too quickly, your brain may not receive the signals that say you're full. Try putting down your fork between bites and chewing more slowly. Tune in to your food's aroma, taste, and texture, and stop eating when you feel full. Some small studies suggest that this approach may help some people make healthier food choices. *Hint:* To start, try taking one mindful bite at the beginning of each meal—a sort of eating speed bump.

## "Carb-check" your breads and cereals

Some carbohydrates are good for health and others aren't. The worst carbohydrate sources use highly refined grains and sugars. The best have whole or minimally processed grains. One way to identify a good carb source is to divide the number of grams of carbohydrate per serving by the number of grams of fiber. Aim for less than 10 for breads and under five for cereals.

**10 Keep alcohol under control.** Many studies link moderate alcohol consumption (for women, no more than one drink per day) to heart benefits, including a reduced risk of heart attack, increases in "good" HDL cholesterol, and reduced risk for type 2 diabetes, gallstones, and dementia. One drink per day also slightly increases your risk for breast cancer, and the risk increases steadily the more alcohol you consume. There are plenty of other ways to get heart benefits, so if you don't like alcohol, don't have it. But if you enjoy an occasional cocktail or a glass of wine with dinner, you need to weigh the risks and benefits in light of your own situation. *Hint:* If you find that one drink often turns into two or more, consider quitting or getting help to cut back. For help, go to <http://rethinkingdrinking.niaaa.nih.gov>.)

**11 Eat breakfast.** It's easy to skip breakfast when you're in a rush, aren't hungry, or want to cut calories. But a healthy morning meal makes for smaller rises in blood sugar and insulin throughout the day, which can lower your risk of overeating and impulse snacking. (Eating breakfast every day is one characteristic common to participants in the National Weight Control Registry, who've lost at least 30 pounds and kept the weight off longer than a year.) *Hint:* A healthy, balanced breakfast is moderate in size and includes healthy protein, whole-grain carbohydrates, and fruit—for example, an egg, whole-wheat toast, and strawberries. If you like cereal, have whole-grain cereal with fruit and low-fat yogurt or milk.

**12 Plan for a snack attack.** Snacking isn't an essential part of a healthy eating plan, but try telling that to a rumbling stomach at midafternoon. A healthy snack can boost energy levels by stabilizing blood sugar while giving you an added dose of healthful nutrients. But unplanned, impulsive snacking often takes the form of cookies, chips, or candy bars. So prepare healthy snacks ahead of time, and keep them handy at home or in your office. Limit calories to about 100 to 150 per snack. Good choices include a small bunch of grapes, a banana, or other fruit; a handful of unsalted nuts or sunflower seeds; and plain nonfat yogurt with a few raspberries or strawberries tossed in. *Hint:* Before giving in to a snack attack, drink an 8-ounce glass of water and wait 10 to 15 minutes to see if you're still hungry. ♥

# Sex and the older woman

*Women over age 50 are having sex—and developing STIs—at a higher rate than commonly believed.*

**T**he notion that women lose interest in sexual activity after menopause has collapsed under scientific scrutiny. In a survey of 27,000 women enrolled in the Women's Health Initiative (WHI), more than 60% of women in their 50s, 45% of those in their 60s, and 28% of women in their 70s reported that they were sexually active, and almost two-thirds said they were happy with their level of sexual activity. Of those who were dissatisfied, more than half said they would prefer having sex more often. The study was reported in *Menopause: The Journal of the North American Menopause Society* (November 2011).

Many recent, smaller studies corroborate the WHI results. All in all, it's become clear that older women are more sexually active than is commonly believed. For example, a 2003 survey of 2,000 women conducted at the University of Michigan found that 46% of women in their 50s and 20% of women ages 60 and over were sexually active. A 2009 survey by researchers at the University of California at San Francisco indicated that 60% of 1,977 women ages 45 to 80 were sexually active.

*"Older women are often not tested for STIs, in part because we are not seen as sexual. It's important to let your health care provider know if you are starting a new relationship, if you have more than one sexual partner, or if you think you should be tested for STIs for any reason."*

— *Our Bodies, Ourselves*, 2011

These findings probably come as little surprise to older women themselves. After all, women who are now in their 60s and 70s came of age during the so-called sexual revolution, when sexual stigmas and inhibitions were falling away, especially for women. And menopause has brought additional freedom from worries about pregnancy. Topical estrogen and lubricants for treating vaginal dryness—as well as sildenafil (Viagra) and other medications for erectile dysfunction—have helped couples continue their sex lives longer and improved the opportunities for women who are widowed, divorced, or otherwise single to enter into sexual relationships later in life.

But apparently, many of these women believe they have outgrown the need for safer sex practices. For example, the 2003 study cited above found that few of the women questioned—even those who were in new relationships or had multiple partners—were having protected sex. Only 13% of single women over age 60 reported using condoms. Perhaps it's because in the 1960s and '70s, before the advent of AIDS, most women thought about condoms only in con-

nection with birth control. Low rates of condom use might also reflect women's hesitancy about broaching the topic of safer sexual practices with partners who might be reluctant. And women who've been in long-term monogamous relationships may be unaccustomed to thinking about taking such precautions when their circumstances change. Finally, public health messages about safer sex practices are targeted mainly at younger women.

## Unprotected sex: Still risky after all these years

With many older women enjoying sex and few using condoms, it's not surprising that some are acquiring sexually transmitted infections (STIs). According to the Centers for Disease Control and Prevention (CDC), 3,580 women over age 45 were diagnosed with AIDS in 2009—more than the number of new diagnoses among women ages 35 to 44 (2,796) and nearly twice the number of new cases among women ages 25 to 34 (1,916). (It's important to note that this doesn't necessarily mean that they acquired the infection after age 45.)

There's also been an uptick in other STIs in postmenopausal women. At the July 2011 meeting of the International Society for STI Research, a Johns Hopkins team studying trichomoniasis, or "trich," reported that the highest rate of infection among the 7,593 participating women—13%—occurred in those over age 50. In comparison, 11% of women in their 40s and 8.3% of women in their 20s had trich.

Condom use may be especially important for postmenopausal women, because they are more vulnerable to STIs than younger women, for several reasons. As estrogen levels drop off after menopause, the vaginal and cervical tissues thin. This condition, called vaginal atrophy, makes the vaginal lining vulnerable to small tears and abrasions, which provide points of entry for viruses and bacteria. In addition, age-related decline in immune response may make it harder to fight off an STI. And STIs in older women may go undetected because they are often without symptoms, and clinicians aren't always tuned in to screening older women.

## A refresher course on STIs

STIs are infections that can be passed between women and their partners of either sex through vaginal, oral, or anal sexual activity. These infections pass more readily from men to women than vice versa; they're also less likely to cause early symptoms in women, making them harder to diagnose before they become a serious problem. STIs of concern include the following:

**Human papilloma virus (HPV).** The most common STI in women is HPV, which causes genital warts and is linked to cervical and anal cancers. Examining nearly 2,000 participants in the National Health and Nutrition Educa-

tion Survey revealed that 20% of women in their 50s were infected with at least one of the 38 HPV strains; about half of these women were carrying one of the high-risk strains associated with cervical cancer. High-risk HPV is detected by a DNA test performed in conjunction with a Pap smear. The virus can't be eradicated with drugs. In younger women, it usually clears from the body on its own within two years of infection. In older women, newly acquired HPV may not clear so readily, and more surveillance is required. Cervical cancer can be prevented by removing precancerous lesions, which are identified by Pap smear followed by colposcopy (an examination of the cervix with a magnifying device) and biopsy.

**Herpes.** Twice as many women as men are infected with herpes simplex virus type 2 (HSV-2), which causes most cases of genital herpes and is spread through sexual contact. Herpes simplex virus type 1 (HSV-1), the type associated with cold sores or fever blisters, can also be transmitted to the genital area, through oral sex. Symptoms of genital herpes in women sometimes include small blisters on the labia or rectum that break and eventually heal. Most infected people have few symptoms, especially after the initial outbreak, although HSV-1 and HSV-2 stay in the body indefinitely and may flare occasionally. It's possible to infect a partner—even without symptoms of an active infection. Condoms reduce but do not eliminate the possibility of transmitting HSV. HSV-2 is usually diagnosed by visual inspection and by taking a sample from a blister and testing it in the laboratory. There's no way to get rid of the virus, but antiviral drugs may reduce the number and severity of outbreaks and lower the risk of transmitting the infection.

**Trichomoniasis.** The most common symptoms of this condition, which results from infection by the protozoan *Trichomonas vaginalis*, are vaginal itching and a yellow-green discharge. It's usually diagnosed during a pelvic exam and can be eradicated with a single oral dose of either metronidazole (Flagyl) or tinidazole (Tindamax). However, you can easily get it again through sex with an infected partner, so, as with all treatable STIs, your partner must also be treated to avoid this.

**Chlamydia.** Chlamydia, which is caused by the bacterium *Chlamydia trachomatis*, affects fewer than one in 2,000 persons (of either sex) over age 50, but it can cause chronic pain and pelvic inflammatory disease if it spreads from the vagina into the fallopian tubes and uterus. Symptoms in women are usually mild—primarily vaginal discharge, burning during urination, or both—while symptoms in men (usually a penile discharge) are more severe. Chlamydia can be diagnosed by a urine or cervical test and eradicated with antibiotics like azithromycin (Zithromax) or doxycycline (Vibramycin).

**Gonorrhea.** This disease, which is caused by a bacterium, can affect the entire reproductive tract as well as the anus, mouth, throat, and eyes. It is rare in older people, affecting about one in 2,000 men and one in 10,000 women over age 50. The symptoms resemble those of chlamydia and can include pelvic inflammatory disease. Gonorrhea can be cured with antibiotics if it is caught early, but antibiotic treatment will not always reverse pelvic inflammatory disease, arthritis, and other complications of advanced gonorrhea.

**HIV/AIDS.** Women are far more likely than men to acquire HIV through heterosexual activity. The rate of HIV infection is holding steady over all for people over age 45, but there is some evidence that it's increasing in older women. In the early stages, AIDS symptoms like

fatigue, aches and pains, and short-term memory loss may be overlooked because they resemble common complaints of aging. HIV infection is diagnosed with a blood test and treated with a drug regimen called highly active antiretroviral therapy (HAART). Although HAART has transformed HIV infection from a near guarantee to develop AIDS into a chronic condition, both the infection and the treatment may exacerbate bone loss and unfavorable cholesterol levels.

**Hepatitis B and C.** The hepatitis B virus (HBV) and, to a lesser extent, the hepatitis C virus (HCV) can be sexually transmitted. Both forms of hepatitis begin with flulike symptoms that eventually go away, and both can be detected by blood tests. If the virus isn't eliminated from the body, it can initiate a chronic liver infection that, over decades, may result in cirrhosis or liver cancer.

**Syphilis.** Syphilis is rare in women over age 45. According to the CDC's most recent surveillance data, 217 cases were reported in this age group in 2010—down from 267 cases in 2009. The first sign of the disease is a small, round, painless nodule (chancre) at the spot where the syphilis bacterium entered the body. The chancre heals within a few weeks on its own, but unless it's treated at this early state with an injection of penicillin, the disease will advance to a second stage, with a rash and flulike symptoms. Untreated syphilis can progress to a late stage in which it can damage the brain, nerves, bones, heart, joints, and blood vessels.

### Safer sex for any age

If you're starting a new relationship with a potential sexual partner, the following suggestions, which you may have heard back in your teens or 20s, are still applicable today:

**Have a talk.** It may feel awkward to bring up the subject of sex and safer sexual practices early in a new relationship, but it's important to discuss the issue well before you're about to have sex (a time when you might make a hasty or risky decision). Let your partner know about any infections you may have had, and expect him or her to respond



### Selected resources

"Sexual Health and Menopause"  
The North American Menopause Society  
[www.menopause.org/sex.aspx](http://www.menopause.org/sex.aspx)

*Our Bodies, Ourselves*, by the Boston  
Women's Health Book Collective and  
Judy Norsigian (Touchstone, 2011).

in kind. Discuss the use of condoms or latex dams (for oral sex). You may also want to think about how you might negotiate if your partner is resistant to having safer sex.

**See your clinician.** Before you start a new sexual relationship, have your gynecologist or internist perform a thorough exam. If you're worried about any STI at all, ask to be tested, and ask your partner to do the same. Get treatment for any bacterial infections, and find out whether you

have any viral infections (such as herpes) that warrant the use of condoms or latex dams.

**Make some plans.** If you are both free of STIs, decide whether you intend to be monogamous and can enjoy unprotected sex at little risk, or prefer to use condoms or latex dams.

**Be prepared.** If there's any chance you might have sex with someone you've just met, carry condoms with you. Don't have sex if your partner refuses to use a condom. ♥



## IN THE JOURNALS

# Yoga and stretching are equally effective for easing low back pain

Low back pain is extremely common; about 80% of us will experience an episode at some time in our lives. The pain usually goes away in a couple of months or so, but it often recurs. Some people develop a chronic form that lasts three months or longer. There are many treatments for chronic low back pain, but none have proved highly effective. Now, a large controlled trial has found that both yoga and stretching exercises are helpful in improving function and reducing symptoms. Results were published in *Archives of Internal Medicine* (Oct. 24, 2011).

**The study.** Researchers at Group Health Cooperative, a large nonprofit health care organization in Seattle, recruited 228 women and men with back pain and assigned them at random to 12 weekly 75-minute classes of yoga (92 patients) or conventional stretching exercises (91 patients), or to reading a self-care book on chronic low back pain (45 patients). The yoga classes were led by experienced instructors of vinyoga, which modifies the traditional postures for people with physical limitations. Licensed physical therapists led the stretching exercise classes. Both the yoga and stretching exercise groups were given handouts and instructional videos and encouraged to practice for 20 minutes on non-class days. Self-care participants were given *The Back Pain Helpbook*, which provides information on back pain and advice about exercising. In telephone interviews with participants at six weeks, 12 weeks, and 26 weeks after the program began, researchers assessed back-related physical functioning with a standardized questionnaire and asked participants to rate their pain on a 10-point scale.

**The results.** Yoga and stretching exercises produced similar improvements in physical function—and were much more effective than the self-care book. The impact on pain levels was less pronounced, but the number of yoga and stretching participants who reported using medications for

their back pain in the week before each of the telephone interviews dropped by a quarter to a third throughout the study (medication use in the self-care group didn't decrease until the final interview). The benefits of yoga and stretching persisted at the final interview—three months after classes had ended. The lead author of the study, Dr. Karen J. Sherman, describes yoga and stretching as “good, safe options for people who are willing to try physical activity to relieve their moderate low back pain.”

### Limitations and implications.

This study was larger than most, which means the findings are more likely to be accurate. And it was a randomized controlled trial, the kind that allows the strongest

conclusions. But it does have some limitations. The back pain of the participants was moderate, so it's unclear whether yoga and stretching would be equally helpful for people with more severe symptoms or functional limitations. Also, the yoga and stretching exercise regimens overlapped, with both emphasizing the trunk and legs; and the slow, careful stretching may have had some of the same relaxation effects as yoga. “In retrospect,” says Dr. Sherman, “we realized that these stretching classes were a bit more like yoga than a more typical exercise program would be.” A week after this study was published, yoga got another thumbs-up for back pain. A randomized trial involving 313 British adults with back pain published in *Annals of Internal Medicine* (Nov. 1, 2011) found that a 12-week yoga program produced greater improvement in back function than usual care. If you're considering yoga for low back pain, Dr. Sherman cautions that the regimen should be “therapeutically oriented, geared for beginners, and taught by instructors who can modify postures for participants' individual physical limitations.”

**Resources:** You can watch a video about the Seattle study at [www.health.harvard.edu/yogaUS](http://www.health.harvard.edu/yogaUS) and one about the British study at [www.health.harvard.edu/yogaUK](http://www.health.harvard.edu/yogaUK). ♥





## What else can I do for Dupuytren's contracture?

**Q** I have Dupuytren's contracture in both hands. I've had "needle" surgery in one hand, and the fingers straightened. But they seem to want to contract again. What can I do?

**A** Dupuytren's contracture is a disorder that develops when the palmar fascia—the tissue between the skin and tendons in the palm—thickens and contracts due to an abnormal buildup of collagen, causing one or more fingers (usually the little and ring fingers) to bend inward. Over time, Dupuytren's can make it difficult or impossible to grasp objects, button buttons, use a computer, and perform many other everyday activities. The treatment you mention sounds like needle aponeurotomy (also called percutaneous needle fasciotomy), in which a needle is used to sever the cords that are causing the fingers to contract. Unfortunately, recurrence following treatment is common.

In the early stages of Dupuytren's, treatments include steroid injections to help soften tissues and radiation therapy to slow the disease's progression. The next step has traditionally been needle aponeurotomy, and (if hand function is severely impaired) surgery to remove fascial tissue. (Surgery is a last resort because recovery can be lengthy and there is a risk of complications, such as nerve or artery damage.)

Last year, a new nonsurgical treatment became available: injections of an enzyme called collagenase clostridium histolyticum (Xiaflex). It's approved for adults

with Dupuytren's contracture when a cord can be felt in the palm. The enzyme is injected directly into the cords that affect the main joints of the contracted finger or fingers. Twenty-four hours later, the clinician carefully extends the fingers (as far as the patient can tolerate) to break the cord (or cords) and release the contracture. Afterward, the patient must wear a splint at bedtime for up to four months. If fingers remain contracted after four weeks, the procedure can be repeated—up to three times per cord at four-week intervals. The most common side effects are swelling, bleeding, and pain at the injection site. Rarely, a tendon ruptures. This technique should be performed only by a clinician familiar with injection procedures of the hand and skilled in treating people with Dupuytren's.

FDA approval of Xiaflex was based on two randomized trials involving a total of 374 Dupuytren's patients with contractures of 20 degrees or more. In one trial, 64% of those receiving collagenase injections were successfully treated—meaning that contracture was reduced to 5 degrees or less—compared with 7% of those receiving a placebo. In the second trial, 44% of collagenase recipients were successfully treated, versus 5% in the placebo group.

Studies are needed to assess the long-term safety and effectiveness of collagenase injections, but at present, this approach looks promising as an alternative to needle aponeurotomy and surgery. You may want to ask your clinician if it would be right for you.

## What happens to the plastic beads injected during uterine artery embolization?

**Q** Ten years ago, I had uterine artery embolization to get rid of uterine fibroids. How long do the plastic particles they inject into the arteries stay in the body? Do they dissolve?

**A** Uterine artery embolization (UAE), also called uterine fibroid embolization, is a minimally invasive treatment that shrinks uterine fibroids by cutting off their blood supply. During UAE, an interventional radiologist inserts a catheter into the femoral artery through a small nick in the skin at the groin and guides it into one of the two uterine arteries, which supply blood to the uterus. Contrast dye is injected to help visualize the uterine artery as well as the smaller branching vessels that feed the fibroid. The radiologist then injects tiny synthetic particles, or beads, which

concentrate in the smaller vessels, forming a clot that cuts off the fibroid's blood supply. Lacking blood, the fibroid gradually shrinks.

The types of particles most often used in this procedure are trisacryl gelatin microspheres and polyvinyl alcohol particles (a plastic material that resembles coarse sand). Both types are incorporated in the clot that blocks the fibroid's blood supply. The particles are considered biologically inert: they don't dissolve, aren't absorbed by tissues, and don't cause any allergic reactions or inflammation. Since gaining FDA approval more than 20 years ago, embolization particles have been used safely and successfully for fibroid treatment (and other purposes) in thousands of patients. Follow-up studies suggest that the particles remaining in your uterine blood vessels will have no long-term effects.



## What can you tell me about uveitis?

**Q** I'm 64 and have been diagnosed with uveitis in my right eye. What causes it, and what is the best treatment for it?

**A** Uveitis is inflammation of one or more of the parts of the uvea—the layer of tissue that lies between the retina and the white of the eye (the sclera). These three layers—the retina, uvea, and sclera—surround the cavity of the eyeball, which contains the gel-like vitreous humor (see the illustration).

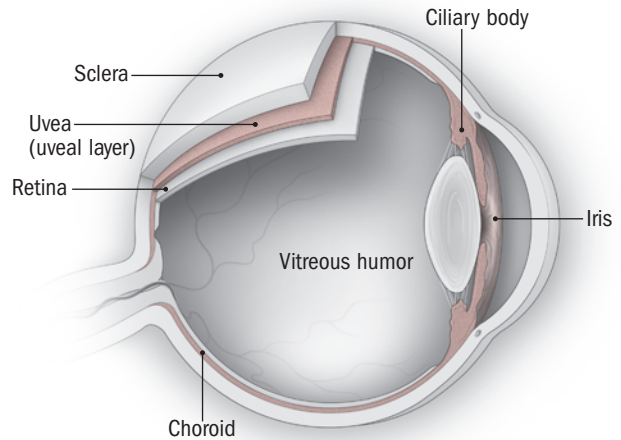
Uveitis may develop suddenly, and one or both eyes may be affected. It can cause painful reddening of the eyeball, blurred vision, light sensitivity, and floaters or other debris in the field of vision. You may have all or none of these symptoms, depending upon the part of the uvea that's affected. It's a serious condition that can result in scarring and even blindness if it's left untreated.

Uveitis has many different causes, including infections, autoimmune conditions, or injury to the eye (including eye surgery). Rarely, medications may cause uveitis, including bisphosphonates (especially when given intravenously), the antibiotics rifabutin (Mycobutin) and moxifloxacin (Avelox), and the antiviral drug cidofovir (Vistide). In about 30% of cases, the cause is unknown. Some patients develop “masquerade syndromes,” which resemble uveitis but have other causes, such as a tear in the retina or a type of lymphoma.

The uvea has three parts: the iris (the colored part of the eye); the ciliary body (the structure near the iris that makes fluid within the eye); and the choroid (a layer of blood vessels that nourish important parts of the eye, including the retina). Anterior uveitis, the most common form, affects the front part of the eye (the iris and ciliary body). In intermediate uveitis, the inflammation affects mostly the vitreous humor. And in posterior uveitis, the retina or choroid at the back of the eye is affected. Sometimes the whole eye is affected.

To diagnose uveitis, an ophthalmologist will examine the eye with a slit lamp, a magnifying instrument that permits a detailed view of the eye structures. Treatment is based on the cause. Infectious uveitis is treated with an antibiotic, antifungal, antiviral, or other medication. (Topical steroid eye drops are often added

### Anatomy of the uvea



The uvea, or uveal layer, lies between the sclera and the retina; it consists of the iris, ciliary body, and choroid.

to minimize the inflammation while the medication is working.) Noninfectious uveitis is usually treated with steroids applied topically in the form of eye drops, injected into the eye, or taken by mouth. A surgical implant that slowly releases steroids within the eye has been approved for severe uveitis. All forms of steroid therapy may cause glaucoma or cataracts. Uveitis can also cause cataracts and glaucoma, but it must be treated to preserve vision. If cataracts or glaucoma develop during treatment, your ophthalmologist will recommend appropriate additional therapy.

Treating uveitis may require both an ophthalmologist and an internist. Once your ophthalmologist has confirmed the diagnosis, it's a good idea to tell your internist or primary care provider. She or he may want to take a detailed history, perform a physical exam, and order laboratory tests to determine whether your uveitis is related to a treatable underlying condition. It's also important to follow up with your ophthalmologist to make sure the treatment is working and to check for complications.

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