Reliable Information for a Healthier Life

Macular degeneration

Early treatment important

Other than minor changes to your eye-glass prescriptions, your annual eye exams have been uneventful. However, this year was another story. Your doctor said there are early signs of age-related macular degeneration.

Age-related macular degeneration (AMD) is a chronic eye disease that can affect the central area of your field of vision. It occurs when there’s deterioration of the tissue in the macula, the part of your retina responsible for central vision and your ability to clearly see fine details. The retina is the light-detecting layer of tissue on the inside of your eyeball’s back wall.

Although macular degeneration is a leading cause of vision loss in older adults, early detection and improved treatment options make it possible to delay it and potentially preserve vision.

Sight unseen

For many people, macular degeneration comes on gradually, usually

Early on in macular degeneration, several mostly small yellow deposits (drusen) form in and around the macula. Generally, there’s no significant vision loss at this stage. In the advanced stage, larger drusen surround the macula. Extensive breakdown of the deep pigment layer and the overlying light-sensitive cells in the macula cause blurring and a distinct blind spot in your central vision, as illustrated in the image at right.
affecting both eyes. In addition to aging, risk factors for macular degeneration include a family history of the disease, being white, smoking, a history of stroke or coronary artery disease, high blood pressure, and elevated cholesterol. Research also suggests obesity may increase the risk of macular degeneration.

Symptoms of macular degeneration may be absent or slight even when it’s detected during a routine eye exam. The first symptoms may be blurriness — printed material may become harder to read and street signs more difficult to recognize. Colors may appear less bright, and you may find an increasing need for brighter light to see up close. Recognizing faces may become difficult as a gray or blank spot gradually develops in your central vision. Distorted vision may develop so that straight lines appear bent or irregular. Some people experience rapid progression.

Macular degeneration generally doesn’t affect peripheral vision, so it rarely causes total blindness, but it can result in what’s called legal blindness. See your eye doctor if you notice changes in your vision, such as difficulty seeing fine detail, and especially if you notice any distortion in your vision that makes it appear as though straight objects are crooked.

Dry vs. wet

There are two forms of age-related macular degeneration — dry and wet. The dry form is much more common and occurs as the tissues of the macula age and become thinner. In dry macular degeneration, yellow deposits (drusen) form under the retina in a range of sizes. Although vision loss is usually gradual with the dry form, it’s possible for the disease to suddenly take a turn for the worse and become wet macular degeneration. Your eye doctor is able to detect signs of the disease during a dilated eye exam or with specialized imaging of the retina.

The wet (neovascular) form develops when abnormal blood vessels grow from the choroid — which is the normal layer of blood vessels between the retina and the eye’s outer firm coat (sclera). These fragile, new vessels cause problems when they grow into the macular portion of the retina. Fluid or blood may leak into and beneath the retina, damaging this delicate neurosensory tissue. In the most-advanced stages, a scar or atrophy can lead to irreversible loss of visual function.

While the wet form affects only 10 to 15 percent of people with macular degeneration, it’s more apt than the dry form to result in rapid distortion and loss of central vision. Wet macular degeneration accounts for more than 80 percent of severe vision loss from the disease.

Treating the wet form

Symptoms of wet macular degeneration usually appear suddenly and may progress rapidly, making it critically important to seek attention urgently and initiate treatment promptly if appropriate. Although macular degeneration can’t be cured, treatment may help slow the disease progress and preserve — and sometimes improve — vision if treated before severe vision loss occurs.

Therapy options include:

- Medications to stop growth of abnormal blood vessels — These drugs are administered directly into the eye and block the effects of growth signals that prompt new blood vessel growth. The most effective of these include bevacizumab (Avastin), ranibizumab (Lucentis) and aflibercept (Eylea). These injections often are performed in an office or as an outpatient procedure and are generally needed on a monthly basis over an extended period of time — often years — to maintain the beneficial effect.

In recent years, the development of injection therapy has been a tremendous advancement. However, dry macular degeneration or atrophic changes may be a problem even when the injections are working for wet AMD.

- Photodynamic therapy — This procedure is done to slow the rate of vision loss but has been less frequently used as a stand-alone therapy since the development of intraocular injections. It involves injecting a medication called verteporfin (Visudyne) into a vein in your arm.

Verteporfin is a light-activated drug. After the injected verteporfin reaches the blood vessels in your eyes, a low-power, or “cold,” laser is directed at the abnormal blood vessels to activate the verteporfin. The activated verteporfin can sometimes close these abnormal blood vessels that are leaking. Over time additional treatments may be needed as abnormal blood vessels may reopen.

- Laser (thermal) photocoagulation — This uses a high-energy laser beam to treat abnormal blood vessels under the retina. While laser photocoagulation remains the standard of care for a variety of other retinal problems, this treatment is only used in selected cases.
Health tips

Reducing colorectal cancer risk

Colorectal cancer is the second leading cause of cancer-related death in the U.S. To reduce your risk, take the following steps:

■ Get screened — Colonoscopy can identify and remove precancerous polyps before they turn cancerous. Early detection greatly improves the outcome. Most people begin screening at age 50, but talk to your doctor.

■ Minimize meats — Animal fat and compounds found in red, charred or processed meats are associated with increased risk.

■ Eat plant-based foods — Whole grains, beans, fruits and vegetables provide antioxidants and fiber, both of which may reduce colon cancer risk.

■ Limit alcohol and don’t smoke — Limit alcohol to no more than two drinks a day for men under age 65, and one drink a day for women and anyone 65 or older.

■ Maintain a healthy weight — Obesity — particularly around the midsection — is related to increased risk of polyp development and higher risk of dying of colorectal cancer.

■ Exercise for at least 30 minutes most days — Studies have shown a 50 percent reduction in incidence of colorectal cancer in those who are physically active.

■ Get adequate calcium and vitamin D — In addition to bone health, some research links this to colorectal cancer prevention.

■ Consider aspirin or other pain relievers if you’re at high risk — Discuss with your doctor the benefits and risks of taking aspirin or aspirin-related pain relievers.

Managing the dry form

Although current treatments can’t reverse dry macular degeneration, that doesn’t mean you’ll eventually lose all of your sight. Generally, this form progresses slowly and many are able to carry on relatively normal lives.

Along with eye exams to monitor your condition, your doctor may recommend daily home monitoring of the vision in each eye, which can be done with the use of a chart called an Amsler grid. If any area of the grid looks wavy, blurred or dark, those visual changes may indicate the dry form has turned into wet macular degeneration.

In addition, your doctor may recommend a special vitamin and mineral supplement if you’re found to have intermediate- or advanced-stage AMD in one of your eyes. In 2001, research from the National Eye Institute (NEI) found that taking a high-dose formulation of certain antioxidants and minerals could reduce progression to more-advanced-stage macular degeneration — reducing risk by about 25 percent. This original formulation included higher doses of vitamin C, vitamin E, beta carotene, zinc and copper than what’s found in most standard daily multivitamins.

However, certain vitamins in the incorrect amounts can be harmful. High doses of beta carotene, for example, have been linked to higher rates of lung cancer in people who have smoked. In May 2013, an updated NEI study reported that a revised formula — which removed beta carotene — is as protective as the original formula. The researchers suggest that lutein and zeaxanthin may be used instead of beta carotene. In addition, the study found that adding omega-3 fatty acids produced no additional benefits for those who have intermediate- or advanced-stage macular degeneration. Based on current evidence, the following formulation is suggested:

- 500 milligrams (mg) vitamin C
- 400 international units (IU) vitamin E
- 10 mg lutein
- 2 mg zeaxanthin
- 25 to 80 mg of zinc (zinc oxide)
- 2 mg copper (cupric oxide)

Although there’s no evidence that the NEI formulation is beneficial if you have early-stage disease or family members with AMD, it modestly reduces the risk of vision loss if you have moderate macular degeneration or advanced disease in one eye already.

A variety of potential treatment options for dry macular degeneration are being studied in clinical trials, including the use of antioxidant eyedrops and the possible use of stem cell transplantation within the affected eye.

Viewing an Amsler grid in the advanced stages of macular degeneration, right, you may see distorted grid lines or a spot near the center of the grid.
News and our views

Concerns over how much salt is too little
A recent report from the Institute of Medicine (IOM) concluded there’s not enough data that shows reducing sodium below the current upper limit of 2,300 milligrams (mg) is beneficial for cardiovascular health. The report also raised concerns about potential health risks related to consuming too little salt.

Most Americans consume an average of 3,400 mg or more of sodium a day. In general, the greater the salt intake, the greater the risk of high blood pressure and cardiovascular disease. To address this, the most recent dietary guidelines recommended that most people ages 14 to 50 reduce their daily sodium to less than 2,300 mg. Those same guidelines recommended even greater salt reduction — no more than 1,500 mg a day — for more than half of all Americans, including those age 51 or older, blacks, and people with high blood pressure, diabetes or chronic kidney disease.

The IOM report agrees that there are benefits for everyone to lower their daily sodium intake to 2,300 mg. However, evidence of health benefits below that level is thinner, and there may be potential harm for some — specifically, people with congestive heart failure who take diuretics and other medications, and possibly other groups.

Mayo Clinic experts say it’s reasonable for people to help decrease their risk of high blood pressure and cardiovascular disease by reducing daily sodium intake to 2,300 mg. It’s important to become aware of sodium content in processed foods and in specific foods that contain a lot of sodium.

Newest stem cell technology helps with heart failure
Researchers in the field of regenerative medicine have been working to restore the function of damaged hearts in those with heart failure. A recent study — published in the Journal of the American College of Cardiology and based on a Mayo Clinic innovation — documents a big step forward in that process.

The study, which was a collaborative effort of an international team of researchers, involved injecting regenerative stem cells directly into the hearts of study participants with heart failure. Those who were treated with stem cells also received standard medical care for heart failure and were compared with a group that received only standard medical care.

The participants’ own bone marrow stem cells were harvested then treated with a cocktail of proteins to generate a specialized stem cell optimized to ensure heart tissue repair. This study marks the first time that guided stem cells have been used to regenerate a failed organ.

In those receiving stem cells, the ability of the heart to pump blood improved significantly within six months. The group receiving only standard medical care saw no such improvement. The stem cell group also experienced improved overall fitness.

The Mayo Clinic team involved in this research is excited by the promising results. It’s a potentially new treatment for heart failure that uses readily accessible stem cells. However, further research with larger numbers of people need to be performed before firmer conclusions can be drawn about therapeutic benefit. Still, the prospect of repairing damaged and failing organs with stem cells appears to be an important step toward using regenerative medicine solutions to address unmet needs.

Laxatives
Making sense of choices
Constipation has always been an occasional bother for you. But as you’ve gotten older, it seems to be occurring more frequently. Because of that, you’ve found yourself pondering the selection of laxatives at the drugstore.

Constipation is common among older adults. Signs and symptoms commonly include straining, passing lumpy or hard stools, a sensation of incomplete evacuation, or a sensation of blockage. Frequency of bowel movements isn’t always a reliable indicator of constipation, as healthy adults can have anywhere from three bowel movements a week to three bowel movements a day.

In most cases, you can improve or relieve constipation by gradually increasing fiber in your diet, making sure to drink plenty of noncaffeinated fluids, and taking 1 to 2 tablespoons daily of a fiber supplement containing psyllium (Metamucil, others) or methylcellulose (Citrucel). These are also good long-term habits, as are staying physically active and heeding the call of nature, even if it’s at an inconvenient time.

Short-term, occasional use of an osmotic laxative may help get things moving. If osmotic laxatives aren’t effective, your doctor may recommend a stimulant laxative.

When to see your doctor
Talk to your doctor if your constipation isn’t responding to self-care within three weeks or if it’s a persistent problem that you attempt to manage with nonprescription laxatives. See your doctor sooner if you have to strain severely to have a bowel movement, have blood in your stool or have an abrupt change in bowel patterns.

There are many underlying causes of constipation. Diagnosing and managing an underlying problem and prescription laxatives may be part of a long-term plan to address chronic constipation.
### First line options for constipation

<table>
<thead>
<tr>
<th>Laxative</th>
<th>Types</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk-forming options</strong></td>
<td>High-fiber diet emphasizing fruits, vegetables and whole grains. Aim for 20 to 25 grams of fiber a day.</td>
<td>An excellent dietary foundation for overall health.</td>
<td>Slow acting, may cause gas if you abruptly switch to this type of diet.</td>
</tr>
<tr>
<td></td>
<td>Prunes or prune juice.</td>
<td>Organic, provides antioxidants.</td>
<td>High in calories, slow acting, may cause gas.</td>
</tr>
<tr>
<td></td>
<td>Fiber supplements such as psyllium (Metamucil, others) or methylcellulose (Citrucel).</td>
<td>Psyllium helps lower cholesterol and blood sugar.</td>
<td>Slow acting, mild effects, may cause gas.</td>
</tr>
<tr>
<td><strong>Osmotic laxatives and stool softeners</strong></td>
<td>Saline laxatives such as magnesium hydroxide (Phillips’ Milk of Magnesia) and Epsom salts.</td>
<td>Effective, these often work within a few hours.</td>
<td>Shouldn’t be used regularly by people with kidney problems.</td>
</tr>
<tr>
<td></td>
<td>Lactulose (Enulose), sorbitol.</td>
<td>May taste better than other laxatives, but very sweet.</td>
<td>Costly, takes a day or two to work, often causes gas and bloating.</td>
</tr>
<tr>
<td></td>
<td>Polyethylene glycol (Miralax)</td>
<td>Very safe at recommended dosages, causes less gas and bloating than lactulose and sorbitol.</td>
<td>Mild to moderate effect. Prolonged or excessive use may result in electrolyte imbalances.</td>
</tr>
<tr>
<td><strong>Stool softeners (emollients)</strong></td>
<td>Docusate calcium (Surfak), docusate sodium (Colace).</td>
<td>Effective at adding lubrication to stool, but doesn’t cause a bowel movement.</td>
<td>May take a day or two — or longer — to work.</td>
</tr>
<tr>
<td><strong>Stimulants</strong></td>
<td>Senna extracts, sennosides (Ex-lax, Senokot), bisacodyl (Dulcolax, others).</td>
<td>Effective, available in pill form and often as suppositories.</td>
<td>Cramping, should be used under the supervision of your doctor.</td>
</tr>
</tbody>
</table>

### Options for chronic and more-severe constipation

<table>
<thead>
<tr>
<th>Laxative or therapy</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubiprostone (Amitiza), Linaclotide (Linzess)</td>
<td>May help with chronic constipation and constipation caused by irritable bowel syndrome (IBS). May improve abdominal bloating and discomfort.</td>
<td>Side effects including nausea and headache can be a problem with lubiprostone. Diarrhea can be a side effect of both. Effects of long-term use unknown.</td>
</tr>
<tr>
<td>Biofeedback therapy for pelvic floor dysfunction</td>
<td>Doesn’t require taking a drug. Involves an intensive training program where sensors show contraction and relaxation patterns of pelvic floor muscles on a screen. With a therapist, you relearn how to control muscles necessary for bowel movements.</td>
<td>Time-consuming and not widely available. Results can be excellent, but may vary depending on where your therapy is performed.</td>
</tr>
</tbody>
</table>
Flu vaccine

Roll up your sleeve

With autumn approaching, the public health push is on to get as many people as possible vaccinated with this year’s flu shot for the influenza season ahead.

Seasonal flu can be serious, even deadly. Typical influenza signs and symptoms tend to come on suddenly and may include fever with chills and sweats, muscle aches, headache, coughing, and weakness or fatigue.

People older than 65 account for more than half of flu-related hospitalizations and 90 percent of flu-related deaths. Among older adults, flu vaccine can reduce hospitalization by more than 60 percent.

Influenza A and influenza B are the two main influenza viruses. In the U.S., both cause seasonal epidemics almost every winter. These viruses are capable of rapid genetic mutations and can evolve into new flu strains. These quick mutations fool your immune system into not recognizing them. For this reason, flu vaccine is recommended every year because flu virus strains vary from one year to the next.

Target audience

Months in advance of the flu season, health authorities worldwide work to determine which influenza virus strains are most likely to infect people. Vaccine production is then ramped up to meet the expected demand.

Flu vaccines in the U.S. typically have contained three inactivated viruses — the usual configuration is two strains of influenza A and one strain of influenza B. For the 2013-2014 flu season, some seasonal vaccines will include four inactivated virus strains.

There’s also an alternative vaccine called FluMist that’s delivered as a nasal spray. FluMist contains four live but weakened virus strains. It’s not recommended for adults older than 49 or those with certain conditions, including anyone who is immunocompromised, especially those taking medications for an autoimmune disease or transplant, and those taking chemotherapy.

The regular seasonal flu shot is intramuscular, which means it’s injected into muscle, usually in the upper arm. It has been used for decades in healthy people, those with chronic medical conditions and pregnant women. An intradermal flu shot uses a much shorter needle and injects the vaccine into the skin. Its use is limited to people 18 to 64 years of age. Other options include:

- High-dose flu shot — The immune system naturally weakens with age. For adults 65 and older, there’s a greater risk of severe illness from influenza. Aging also decreases their immune response after getting the vaccine. Fluzone High-Dose is four times stronger than a regular flu shot. The high-dose vaccine produces a stronger immune response among people 65 and older.

- Egg-free flu shot — For decades, flu vaccine has been manufactured using chicken eggs. As a result, people with egg-allergy concerns have avoided getting flu shots. However, that roadblock is gone. There are two new egg-free flu shots. In late 2012, the Food and Drug Administration (FDA) approved Flucelvax. This vaccine is produced using cell culture technology to grow flu virus strains in animal cells instead of chicken eggs. Flucelvax is approved for use in people age 18 and older.

A second egg-free flu shot — Flublok — received FDA approval in early 2013 for use in people 18 through 49 years of age.

Of interest, allergy experts recently reviewed the evidence of risk associated with flu vaccines that contain egg proteins. They found that flu vaccines containing egg proteins could be safely given to most people with egg allergies without any problems.

No more excuses

The Centers for Disease Control and Prevention (CDC) recommends that everyone 6 months of age and older get the flu vaccine. It’s especially important if you’re at high risk of developing complications, such as pneumonia. This includes pregnant women, adults 65 and older, those with conditions such as asthma, diabetes, heart disease and chronic lung disease, and those who smoke. In addition, those with egg-allergies also can roll up their sleeves for an egg-free vaccine.

If you’re uncertain about which flu shot is best suited to your health, talk with your doctor.

The CDC suggests getting the flu vaccine as soon as it becomes available. Flu season can begin as early as October and continue as late as May.

If you think you’re coming down with flu, whether you’ve been vaccinated or not, contact your doctor. Early treatment with prescribed antiviral medications — if possible, within 48 hours of symptoms — can reduce the severity of influenza and complications.
Vitamin B-12 deficiency

Common, with troubling symptoms

Vitamin B-12 deficiency is a serious condition that can lead to many problems including a tingling or prickly feeling in both legs or hands, difficulty walking, forgetfulness, changes in personality, weakness, and shortage of red blood cells (anemia). It’s more common with increasing age and affects from 5 to 15 percent of adults.

Since vitamin B-12 deficiency develops slowly and the symptoms are similar to many other problems related to growing older, it’s sometimes overlooked. It pays to be alert to symptoms, and—depending on your diet—consider taking a vitamin B-12 supplement or eating food fortified with vitamin B-12. Vitamin B-12—through supplements or fortified foods—is one of the few vitamins Mayo Clinic experts routinely recommend for older adults.

Vital role, few sources

Vitamin B-12 plays a role in red blood cell formation, cell metabolism, nerve function and bone health. The primary natural sources of vitamin B-12 are meats, fish, shellfish, eggs and milk. Some foods such as breakfast cereal are fortified with vitamin B-12. Vitamin B-12 is stored in large quantities in the liver, so even if you suddenly stopped getting vitamin B-12 it would likely take years for deficiency to develop.

Deficiency can occasionally occur due to a diet that contains very little vitamin B-12, such as with strict, long-term vegetarians and people who are malnourished, such as some who abuse alcohol. However, it most commonly develops because the body isn’t properly digesting and absorbing vitamin B-12 due to causes that include:

- Aging — With age, the ability to absorb vitamin B-12 often diminishes. Inadequate nutrition and higher risk of digestive diseases also may be an issue.
- Diseases that affect digestion — The most common of these is pernicious anemia, in which your own immune system destroys a protein (intrinsic factor) that’s necessary for adequate vitamin B-12 levels. Celiac disease and Crohn’s disease also can interfere with proper vitamin B-12 absorption, as can gastric bypass surgery for obesity.
- Prolonged use of certain medications — Proton pump inhibitors, such as omeprazole (Prilosec OTC) and H-2 blockers, which reduce stomach acid to treat gastroesophageal reflux disease (GERD) and stomach problems, can interfere with vitamin B-12 digestion. The diabetes drug metformin also is associated with vitamin B-12 deficiency.

Subtle symptoms

Symptoms of B-12 deficiency may come on gradually and can be subtle at first. Early symptoms may include a persistent tingling or prickly feeling in your legs or hands, weakness, numbness, imbalance, and mental problems such as confusion, depression, irritability and forgetfulness. Rarely, vitamin B-12 deficiency is a cause of dementia. Another sign may be having a smooth, shiny and sometimes sore tongue.

Deficiency may begin to affect your bone health early on. It may also cause levels of a substance (homocysteine) related to inflammation to rise, which is a risk factor for heart attack or stroke.

As vitamin B-12 deficiency becomes more advanced, a shortage of red blood cells (anemia) or even white blood cells and platelets may develop. Deficiency often is caught before it reaches this level. If anemia occurs, you eventually start to look pale, feel tired, weak or lightheaded, and you may experience a fast heartbeat, chest pain or shortness of breath, especially when active.

Diagnosis of vitamin B-12 deficiency typically involves several blood tests. Testing for anemia may be one of them, but just because you’re not anemic doesn’t automatically mean you’re not vitamin B-12 deficient. If vitamin B-12 deficiency is diagnosed, additional testing is sometimes performed to look for an underlying cause.

Getting enough B-12

Getting vitamin B-12 back up to adequate levels may involve:

- Correcting or treating an underlying problem, if possible.
- Injections of high-dose vitamin B-12 if your deficiency is severe or if you have an underlying problem such as pernicious anemia in which your body poorly absorbs vitamin B-12. Injections may occur several times a week at first, then be reduced to once-weekly injections and finally to once-monthly injections if the underlying cause can’t be corrected.
- Taking high-dose oral vitamin B-12. This may sometimes be an alternative to injections. However, it may be better used as long-term maintenance therapy after vitamin B-12 levels have been stabilized with injections and your absorption is adequate.
- Additional treatment for anemia, if it has developed.

The body responds rapidly to high-dose vitamin B-12, with nerve symptoms subsiding over weeks to months. However, the degree of improvement of nerve problems is typically influenced by how severe and long lasting the nerve problems were before treatment. In advanced cases, nerve problems can be irreversible.

Prevention

If you eat meat or eat a breakfast cereal fortified with vitamin B-12, you’re likely getting the recommended daily intake of 2.4 micrograms (mcg). However, older adults may want to take a daily supplement to prevent deficiency. You can’t overdose on vitamin B-12, as it’s not toxic. If you have a disease or take a drug that increases risk of vitamin B-12 deficiency—or eat a strict vegetarian diet with no animal products—talk to your doctor about appropriate supplementation levels or about screening for deficiency.
I’d like to get the calcium I need from foods rather than supplements. What foods are high in calcium?

Often, getting adequate calcium from your diet alone isn’t that difficult. The recommended daily calcium intake for women 51 and older and men 71 and older is 1,200 milligrams (mg). For men 51 to 70, the recommendation is 1,000 mg daily. Your doctor may recommend a somewhat higher intake if you have or are at risk of osteoporosis.

Use the chart at right to identify key sources of dietary calcium. Check nutrition labels of various products, including certain types of orange juice, breakfast cereals and drinks, as they may be fortified with calcium.

I read about infections from the so-called “superbugs.” Is antibiotic resistance increasing?

Those working to control the threat of infectious diseases are very concerned about a growing threat of infections caused by antibiotic-resistant bacteria known as carbapenem-resistant Enterobacteriaceae (CRE).

Enterobacteriaceae are a group of bacteria that are a normal part of a healthy digestive system. This family of bacteria resides in your intestines (gut) and includes Escherichia coli (E. coli) and klebsiella. Sometimes, these bacteria spread outside the gut and cause serious infections, such as pneumonia, urinary tract infections, and bloodstream or wound infections.

Carbapenems are a group of antibiotics usually reserved to treat serious infections. Over the last decade some Enterobacteriaceae have become increasingly resistant to carbapenem antibiotics, hence the name of CRE. In addition, CRE bacteria can pass along their resistance to other bacteria in their family, creating additional life-threatening infections.

Healthy people usually don’t get CRE infections. CRE bacteria have mostly infected people who have had long hospital stays or are in long-term care facilities. CRE most often spreads in health care settings from contact with others who are infected or carry the germs, or from contact with wounds or stool. Another pathway into the body is through devices such as breathing tubes, intravenous (IV) lines and urinary catheters, or through wounds due to injury or surgery. Because treatment options are so limited with CRE, treatment can be very difficult. CRE bloodstream infections are fatal half the time.

The Centers for Disease Control and Prevention (CDC) says that these bacteria aren’t common nationally. CRE infections are more common elsewhere in the world. However, there’s evidence showing it’s possible to control outbreaks. In Israel, for instance, a coordinated effort among its 27 hospitals produced a drop of more than 70 percent in CRE rates.

Still, great concern remains among those treating such infections and monitoring efforts to develop new antibiotics to fight these resistant infections. There are only a handful of drugs in development for these bacteria.

I’d like to get the calcium I need from foods rather than supplements. What foods are high in calcium?

<table>
<thead>
<tr>
<th>Product</th>
<th>Calcium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certain brands of calcium-fortified almond, coconut or soy milk, 8 ounces (oz.)</td>
<td>Up to 450 milligrams (mg)</td>
</tr>
<tr>
<td>Yogurt, plain, low fat, 8 oz.</td>
<td>415 mg</td>
</tr>
<tr>
<td>Sardines, canned in oil, with bones 3 oz.</td>
<td>324 mg</td>
</tr>
<tr>
<td>Cheddar cheese, 1.5 oz.</td>
<td>306 mg</td>
</tr>
<tr>
<td>Milk, fat-free, 8 oz.</td>
<td>302 mg</td>
</tr>
<tr>
<td>Spinach, cooked, 1/2 cup</td>
<td>120 mg</td>
</tr>
<tr>
<td>Serving of kale, turnip greens or almonds</td>
<td>75-100 mg</td>
</tr>
</tbody>
</table>

Have a question or comment?
We appreciate every letter sent to Second Opinion but cannot publish an answer to each question or respond to requests for consultation on individual medical conditions. Editorial comments can be directed to:

Managing Editor, Mayo Clinic Health Letter, 200 First St. SW, Rochester, MN 55905, or send email to HealthLetter@Mayo.edu

For information about Mayo Clinic services, you may telephone any of our three facilities: Rochester, Minn., 507-284-2511; Jacksonville, Fla., 904-953-2000; Scottsdale, Ariz., 480-301-8000 or visit www.MayoClinic.org

Check out Mayo Clinic’s consumer health website, at www.MayoClinic.com