

MAYO CLINIC HEALTH LETTER

Reliable Information for a Healthier Life

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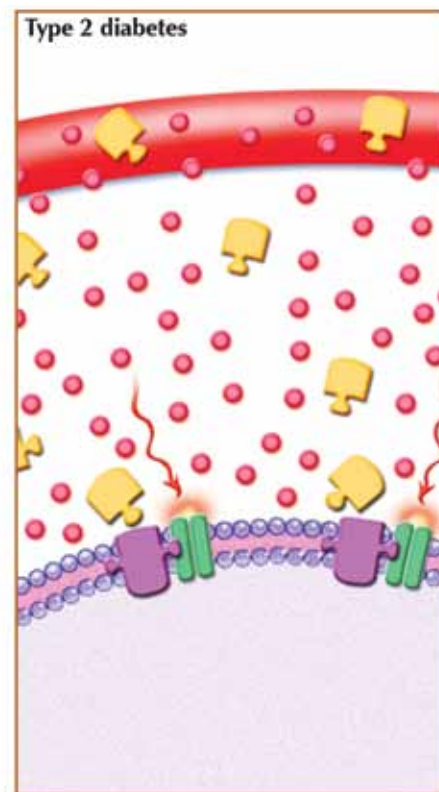
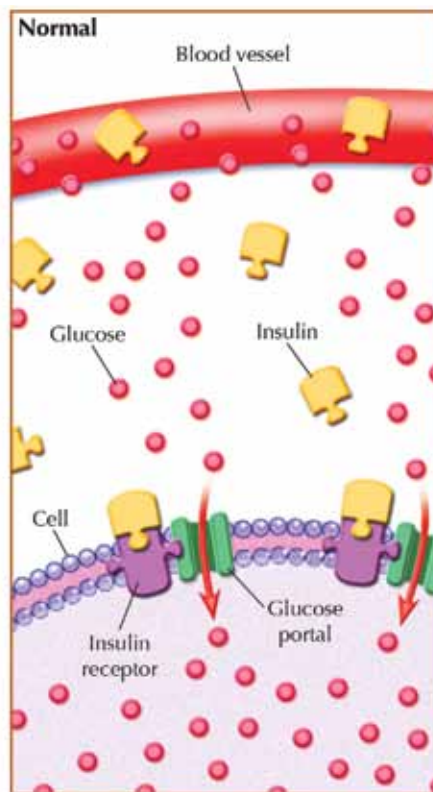
Controlling diabetes

Drug choices for blood sugar

After your diagnosis of type 2 diabetes, your doctor sat down with you to discuss possible drug options for controlling blood sugar, which thankfully hadn't yet risen to severe levels. What surprised you most was that insulin wasn't one of the drugs on the list.

The hormone insulin is probably the drug most commonly associated with diabetes. And for people who have type 1 diabetes — in which the pancreas produces little if any insulin naturally — injections of insulin are the only way to help the body use and regulate digested food energy in the form of blood sugar (glucose).

With type 2 diabetes, it's a different story. The pancreas produces insulin, but cells throughout the body become resistant to insulin's ability to unlock cellular gates that allow blood glucose to enter cells. ♦



Insulin unlocks portals on cells that allow passage of glucose energy from the bloodstream. With type 2 diabetes, the body still produces insulin, but cells become resistant to it, making it difficult for glucose to enter cells. Drugs for type 2 diabetes work in several ways to address this problem, including reducing spikes of glucose in the bloodstream, increasing insulin production or making cells more receptive to insulin.



People with type 2 diabetes may require insulin injections. However, the disease can be successfully managed with changes in diet and exercise — and with one or more drugs that help your body to better utilize and regulate blood sugar.

Lifestyle as medicine

With diabetes of any type, keeping your blood glucose levels in control is important because over the long term, excess glucose in the bloodstream damages blood vessels and nerves, leading to problems such as heart disease, stroke, kidney disease, eye damage and nerve damage.

Since good control — as measured by a glycated hemoglobin (A1C) test — is associated with a decreased risk of diabetes-related complications, it's important to tackle blood glucose control right away.

Improvements in diet and physical activity — with an additional goal of modest weight reduction — is the foundation of type 2 diabetes therapy. A serious commitment to these changes may allow some people to delay drug therapy or forgo it altogether.

Research suggests that lifestyle changes have a greater effect on long-term blood glucose control. This is especially true for adults older than 60. Even if you do need medication, lifestyle improvements still provide a major boost in terms of blood glucose control, helping you keep the use of medication to a minimum.

Low blood glucose

Diabetes drugs can sometimes cause or contribute to causing low blood glucose (hypoglycemia), a condition in which you may start to feel weak, dizzy, nervous, sweaty, nauseated or have other signs and symptoms. This can progress to confusion, slurred speech and drunken-like behavior, and eventually collapse, convulsions or coma.

Avoiding hypoglycemia — and being cautious with drugs that may cause it — is a particular concern with older adults, as even minor cases can lead to falls, and more-serious events can increase risk of heart problems.

Mainstays of drug therapy

If lifestyle changes aren't adequate or can't be sustained, drug therapy is typically initiated. Usually, metformin (Fortamet, Glucophage, Riomet) is the first line choice for keeping blood sugar levels in check with type 2 diabetes.

Metformin works by reducing glucose release between meals. An important advantage with metformin is that it doesn't cause low blood glucose (hypoglycemia). In addition, it may promote weight loss and improve cholesterol and triglyceride levels.

Side effects of metformin include nausea, upset stomach and diarrhea. These often get better with time or with dose adjustments. Although rare, lactic acid buildup (lactic acidosis) is a serious side effect that's more common in older adults and in those who regularly drink alcohol.

Which medication comes after metformin is more of a difficult choice and depends on a number of factors such as cost, side effects and your risk factors. Drugs in the sulfonylurea class are often the primary second line choice for controlling blood glucose because they're effective, have a predictable track record and are relatively inexpensive. These drugs stimulate insulin release. Sulfonylureas include glimepiride (Amaryl), glipizide (Glucotrol) and glyburide (DiaBeta, Glynase). They may be added to metformin therapy or sometimes used alone.

A disadvantage of sulfonylurea drugs is they can cause hypoglycemia, par-

ticularly in those who have liver or kidney disease. However, short-acting versions of the drugs are less likely to cause this. Another potential disadvantage is that taking a steroid drug reduces sulfonylurea effectiveness.

Newer add-ons

A number of newer oral or injectable drugs also have come on the market to further improve blood sugar control. These are listed in the chart on the next page. Each of these drugs has its own side effects. Some have the added benefit of weight loss in addition to better glucose control.

Overall, there's no "best" drug for everyone. Through a careful review of your circumstances and how your body responds to a drug, your health care team will be able to find the best combination for you.

MAYO CLINIC HEALTH LETTER

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Drug class Drug names ■ Mechanism of action	Advantages	Side effects
Oral drugs		
Alpha-glucosidase inhibitors acarbose (Precose), miglitol (Glyset) ■ Slows absorption of glucose from digestion	■ Although less effective at lowering blood glucose than are other drugs, the unique mechanism of action may make it a good add-on option	■ Gas, bloating and diarrhea, which may be reduced by starting with smaller doses
Thiazolidinediones pioglitazone (Actos), rosiglitazone (Avandia) ■ Makes body tissues more sensitive to insulin	■ Despite certain important side effects, these are generally well-tolerated by older adults ■ Can be taken by those with kidney disease, and doesn't cause hypoglycemia if used alone	■ Fluid retention ■ May cause or worsen heart failure ■ Associated with increased weight gain, fracture risk and bladder cancer, which often limit use
Meglitinides nateglinide (Starlix), repaglinide (Prandin) ■ Stimulates production of a quick burst of insulin	■ Less likely than sulfonylureas to cause hypoglycemia ■ repaglinide can be taken by those with kidney disease	■ Upset stomach ■ Hypoglycemia is still a risk
Dipeptidyl-peptidase 4 (DPP-4) inhibitors alogliptin (Nesina), saxagliptin (Onglyza), linagliptin (Tradjenta), sitagliptin (Januvia), ■ Stimulates insulin production when blood sugar rises	■ Not as effective at lowering blood glucose as other drugs, doesn't cause hypoglycemia if used alone ■ Doesn't cause weight gain	■ May increase risk of colds and headache ■ May increase risk of pancreas inflammation (pancreatitis)
Sodium glucose cotransporter 2 (SGLT-2) inhibitors canagliflozin (Invokana), dapagliflozin (Farxiga) ■ Causes excess blood glucose to be excreted in urine	■ Low risk of hypoglycemia when taken alone ■ May cause weight loss	■ Urinary tract and yeast infections ■ Dehydration ■ May cause feeling of light-headedness
Injectable drugs		
Incretin mimetics albiglutide (Tanzeum), exenatide (Byetta, Bydureon), Liraglutide (Victoza) ■ Mimics the gut hormone incretin, causing insulin release with high blood glucose	■ Works when blood glucose is high, unlike other drugs in which insulin secretion is stimulated regardless of blood glucose levels ■ May decrease appetite, contributing to modest weight loss	■ Nausea, which often improves with time ■ Vomiting, loss of appetite, dizziness, constipation and upset stomach ■ Associated with increased risk of pancreatitis and altered kidney function
Amylin mimetics pramlintide (Symlin) ■ Mimics action of pancreas hormone amylin, slowing digestion	■ May contribute to modest weight loss ■ Can help those with type 1 or type 2 diabetes	■ Vomiting, abdominal pain, diarrhea, dizziness, headache and fatigue ■ Adjusting insulin dose is necessary to avoid hypoglycemia

News and our views

Mayo breakthrough: Virus may destroy bone marrow cancer

Throughout recorded history, the measles virus has taken — and in some places continues to take — a serious toll on human health. However, researchers at Mayo Clinic have recently proved that the infectious, cell-destroying powers of the measles virus can be used in the fight against cancer.

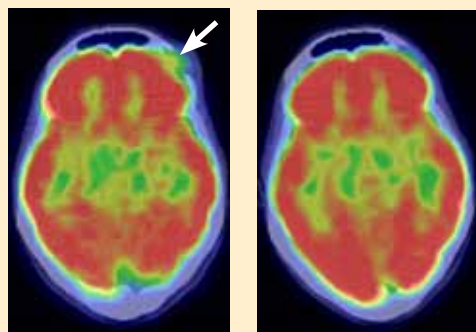
Using a weakened, re-engineered version of the measles virus — at a dose large enough to overwhelm the immune system's ability to mop up the virus — Mayo researchers achieved the world's first documented case of a virus successfully wiping out bone marrow cancer (multiple myeloma). This occurred in a woman with advanced myeloma whose disease had progressed after multiple types of standard therapy. Her disease continued to be in remission nine months after the virus therapy, except in one tumor area that was subsequently treated with radiation. A second woman also was treated in the study. She had some response to the therapy, but didn't experience cancer remission.

The virus infusion took about an hour and caused some side effects, including severe headaches in both women, as well as a very high fever. These were treated quickly, but sporadically recurred over the next week and then went away.

Virus therapies have been studied extensively in the laboratory and have been used on thousands of people to reduce tumors. A key discovery has been that cancer cells can't ward off infection as effectively as healthy cells. Scientists have learned to engineer viruses that are weak enough for healthy cells to fight off, but strong enough to destroy cancer cells. The measles virus in particular is attracted to a certain receptor that's very common on myeloma cancer cells, making it a potent seek-and-destroy weapon.

Unique to the Mayo study were viruses engineered with a marker that could be seen using high-tech imaging. Mayo researchers watched as the virus accumulated at tumor sites throughout the body, confirming that the therapy was working as intended. A dramatic example of the effect of the therapy involved a nearly golf ball-sized skull tumor bulging at the forehead of the woman who experienced remission. Within a day and a half of virus administration, the tumor began shrinking. It was completely gone after six weeks.

Although this study is a major milestone in viral cancer therapy, Mayo doctors involved in research say there's a long way to go before this single, experimental success might someday become a more standard therapy. Still, the promise of one day having a one-shot cure for cancer is one large step closer to perhaps becoming a reality. □



A dramatic example of the effect of the therapy is seen in these computerized tomography-positron emission tomography (CT-PET) scans. In the image at left, a nearly golf ball-sized tumor appears on the woman's forehead (see arrow). In the image at right, the tumor has disappeared.

Anxiety disorders

Understanding, healing

Feeling anxious is a normal, healthy human response to stressful circumstances. It can help you prepare for events and protect you from real danger. For example, a healthy fear of getting hit by a car will ensure you look both ways before crossing a street. But sometimes fears and worries become excessive, overwhelming your thoughts, causing intense physical reactions and disrupting your quality of life.

Anxiety disorders are sometimes mistakenly dismissed as part of the aging process. In addition, anxiety is often complicated or overshadowed by illnesses such as depression, heart disease, chronic obstructive pulmonary disease (COPD), diabetes and others. These illnesses need to be treated for their own sake, but so does an anxiety disorder. Treatment might include learning new coping skills, talking to a counselor or therapist, or taking medications.

Common signs

Although there are different types of anxiety disorders, all have signs and symptoms that revolve around excessive worry and dread. Although the anxiety may initially be triggered by a real event — for example, falling on a patch of ice — worries increase over time instead of going away. Eventually, fears of falling and breaking a bone may worsen to the point that you avoid leaving the house. Signs of an anxiety disorder fall into three main categories:

- **Thoughts** — Fearful thoughts about what might happen and your inability to cope may come to dominate your thinking. Anxiety can cause you to spend a lot of time speculating about potential threats or catastrophes. For example, you might think that because your daughter hasn't called you today, something terrible must have happened.

■ **Physical sensations** — These may include a pounding heart, sweating, stomach distress, and feeling flushed, lightheaded, agitated or jumpy. Some people may misinterpret these sensations as being associated with a serious medical condition. These physical signs and symptoms can also aggravate existing health conditions, such as migraines or irritable bowel syndrome.

■ **Behaviors** — Anxiety disorders can influence behavior. For example, even though you're independent and mobile, you might avoid going out because you're afraid of crowds. Or you might repeat certain activities, such as checking and rechecking the locks on your door or calling loved ones several times a day to make sure they're safe. Some people try to distract themselves from their anxiety by sleeping a lot or watching TV. All of these behaviors are designed to temporarily decrease anxiety. However, over time, they usually become part of the problem.

Types of anxiety disorders

Although anxiety disorders have a lot in common, there are differences between them. Types of anxiety disorders include:

■ **Generalized anxiety disorder** — With this, you worry excessively about a variety of things, such as your health or that of your loved ones, relationships, finances, current affairs, or maybe nothing you can specifically identify. You might feel agitated, be unable to relax or have trouble sleeping.

■ **Panic disorder** — This involves a sudden, unexplainable feeling of intense fear and anxiety (panic attack) with sensations such as shortness of breath, rapid heart rate, unsteadiness, shaking and sweating, as well as feeling that you're about to jump out of your skin or have a "nervous breakdown." These sensations usually peak within a matter of minutes and then subside, but often leave you afraid that they will come back at any moment. As a result, you might avoid certain situations or places for fear of having a panic attack.

■ **Obsessive-compulsive disorder** — This involves experiencing repeated, unwanted and upsetting thoughts, ideas, or mental images (obsessions) and performing behaviors to reduce the anxiety (compulsions). For example, you might find yourself excessively concerned about germs or becoming ill. To get rid of these thoughts, you might constantly wash your hands or avoid touching things in public.

■ **Health anxiety** — This is ongoing and uncontrollable thoughts of having a serious illness, despite being evaluated and reassured by your doctor that you don't have the illness. You may monitor your symptoms very closely or even search the Internet constantly for information about your feared illness.

■ **Specific phobias** — If a specific fear, such as a fear of bugs or heights, is uncontrollable and negatively impacts your life, you may have a specific phobia. For example, if you have a phobia of tight spaces (claustrophobia), you might get sweaty and shaky when you get in an elevator or even when you think about doing so. Most people with a specific phobia avoid the feared situation, even at great cost to themselves.

■ **Post-traumatic stress disorder (PTSD)** — PTSD involves anxiety caused by memories of a traumatic event. Symptoms often surface many months after the event and may include vivid nightmares, re-experiencing the event as if it were happening again, or intense distress when confronted with reminders of the trauma. Avoiding situations that may trigger reminders is common. Someone who has PTSD might become easily startled, hypervigilant of perceived threats, detached from others and prone to angry outbursts.

■ **Social anxiety disorder** — Social anxiety involves intense worries or concerns about being negatively judged, criticized or evaluated by others. Many people with social anxiety experience panic-like symptoms and dread getting into social situations in which they fear being embarrassed or humiliated. As such, individuals with social anxiety

either feel very nervous in social situations or try to avoid them entirely.

Getting better

If you think you have symptoms of an anxiety disorder, don't dismiss them. Living with chronic anxiety may actually increase your risk of other illnesses, including coronary heart disease and stroke. Consider the following steps:

■ **Seek help** — The first step in reducing anxiety's impact on your life is receiving a complete evaluation and a correct diagnosis. If your worries and fears are upsetting you, talk to your doctor about them. In addition to checking for other problems that might be contributing to your anxiety, your doctor may refer you to a psychiatrist, psychologist or therapist. If you have another condition, such as depression or heart disease, treating it can also improve symptoms of anxiety.

■ **Be open to treatment** — Your first visit with a mental health care provider likely will focus primarily on your anxious thoughts, physical sensations and behaviors. Once your therapist has determined what type of anxiety disorder you have, the next step is to help you learn ways to overcome your fears.

One of the most effective methods of treating anxiety is through cognitive behavioral therapy. Through repeated practice, you learn to create new habits of thinking and behaving that help you bring your worries and fears under control. In some cases, medications may be recommended to help ease anxiety, especially in the beginning. Once you've learned how to improve your coping skills, medications may no longer be necessary.

■ **Give yourself an edge** — Make sure other aspects of your life are in balance. Eating a healthy diet, exercising regularly, sleeping well and taking time to relax can all help. Actively focus on the world around you (see the October 2013 Special Report, "Mindfulness"). Stay connected to loved ones. A supportive friend or family member can provide invaluable comfort. □

Pre-habilitation

6 tips for surgical success

Your doctor is recommending knee replacement surgery. The idea of having surgery and recovery scares you a little.

Evidence suggests that a process of actively prepping for surgery — pre-habilitation — can help. Here are six tips to help minimize complications and maximize your recovery.

1. Build strength — Increasing fitness before surgery may reduce the length of your hospital stay, as well as your risk of postoperative complications.

In general, people who are able to walk a few blocks or climb several flights of stairs with no problem have fewer complications after surgery than do people who aren't able to do these things. Exercises may include regular walking or cycling and strength training with resistance bands or free weights. One study found that several weeks of walking and performing breathing exercises improved fitness in a group of volunteers awaiting colorectal surgery. The increase in fitness also improved recovery after surgery.

Your doctor may be able to suggest safe exercises. For example, if knee surgery is in your future, gentle exercises

may include swimming or riding a bike that's propelled by the arms.

2. Stop smoking — Smoking is a risk factor for many surgical complications, including problems with the incision, infections, pneumonia and cardiovascular problems. Compounds in tobacco smoke constrict your small blood vessels. You need those blood vessels to be open so that blood can flow freely to the healing wound and other areas.

Even ending tobacco use just a few days before surgery may help. There's clear evidence that stopping three to four weeks before surgery provides benefits. Still, the longer you are smoke-free before surgery, the better. Medications, counseling and even alternative therapies, such as hypnosis, can help. If you're having trouble giving up smoking on your own, talk to your doctor.

3. Control blood sugar — If you have diabetes, getting your blood sugar (glucose) under control can help reduce surgical complications. Surgery and anesthesia create a hormone stress response that increases blood sugar. People who don't have diabetes can compensate for this by producing more insulin. If you have diabetes, your body often can't do this, resulting in hyperglycemia. Having diabetes increases post-surgery risk of slow healing, infections, and heart and kidney problems.

Keeping your blood sugar well-controlled before surgery can help minimize these problems. During the procedure, your medical team will monitor your blood glucose closely to keep it at optimum levels.

4. Manage sleep apnea — Sleep apnea increases the risk of post-surgery breathing and blood oxygen problems. If you have sleep apnea, be sure your surgeon knows that. If you're being treated with a continuous positive airway pressure (CPAP) machine, bring it with you for your hospital stay.

Many times, people don't know they have sleep apnea. If you are overweight, have high blood pressure or diabetes, or experience consistent nasal congestion at night or if your partner

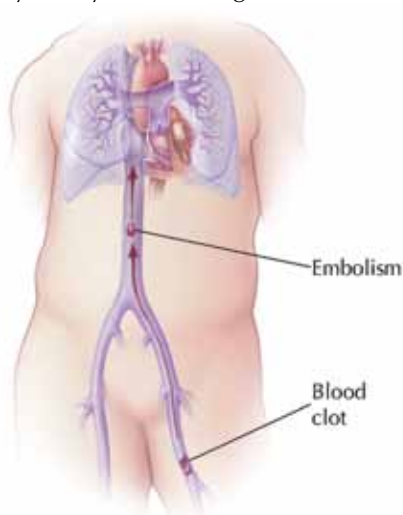
notices that you snore loudly, ask to be tested for sleep apnea before the operation. Knowing that you have sleep apnea may change the type and management of anesthesia you receive for the procedure. It also means you'll be monitored after you awake from anesthesia and while you are receiving pain medicine during your recovery.

5. Improve your diet — If you're about to have surgery, having a healthy weight is better than being underweight or morbidly obese. Being underweight — especially if you have experienced significant, rapid weight loss — deprives your body of the reserve of energy and nutrients it relies on during and after surgery. After any type of surgery, obesity increases the risk of a blood clot developing in your legs and traveling to your lungs (pulmonary embolism), a condition that can be fatal. Being very overweight can increase the risk of complications after heart surgery.

In some cases, surgery may be delayed to allow for nutrition interventions, such as tube feedings to help correct undernutrition or bariatric surgery to help with weight loss. If you have a very limited diet due to intolerances, you may need to have your nutrition issues addressed. If surgery can't be delayed — or interventions aren't realistic — eating a healthy diet can help.

In general, try to increase your intake of proteins — lean meats, low-fat dairy, fish, nuts and legumes — and reduce the amount of fat, sugar and salt you consume. Some types of surgery may require a short-term, preoperative dietary restriction — such as a low-fiber diet before surgery on the intestines.

6. Manage stress — Learning stress management skills can help you cope with anxiety about your surgery and the recovery. Techniques such as deep breathing and guided imagery can reduce the need for pain medication, lower blood pressure, enhance immune activity and even improve quality of life. Pacing your activities after surgery and accepting support from family and friends can all have a positive impact. □



Obesity increases the risk of a blood clot developing in your legs and traveling to your lungs (pulmonary embolism), a condition that can be fatal.

Surviving cancer

Managing emotions

Your treatment is over and your cancer is in remission. Others may expect this is a time to celebrate and be thankful. Time to get back to normal.

However, adjusting from being a cancer *patient* to a cancer *survivor* isn't always easy or smooth. In addition to dealing with fatigue and other side effects of surgery or chemotherapy, you may be surprised by the feelings you may have — such as anxiety, sadness, irritability, fear and uncertainty — as the focus of your life shifts away from the treatment of a disease toward getting back to a more normal life.

Sources of distress

Most transition in life is bound to cause stress and worry, and moving on after cancer treatment is no exception. Common areas of distress may include:

■ *Fear that the cancer will return* — Many survivors describe a roller coaster of fear before medical checkups followed by feeling great after “clear” checkups. Journaling about your worry, practicing mindful meditation and focusing on enjoyable activities can help you come to terms with this. It's important to have a balance between moving forward, while honoring the enormity and emotion of surviving cancer. Talking to supportive others, cancer survivor groups and online communities can help. Anxiety can actually help you maintain healthy lifestyle choices and respond to new symptoms in a timely manner.

It's common to see your cancer doctor less frequently after an intense course of treatment. Going from frequent visits to being seen every three to six months may cause you to feel abandoned. Your doctor can tell you what new symptoms are significant or less concerning or that may not need attention.

■ *Expectations as a survivor* — Some people embrace the role of cancer survivor by participating in public events, wearing colored ribbons or talking to others about their disease. Others would rather distance themselves from the disease and not be reminded of it. Your cancer journey is personal. You don't need to conform to someone else's standard of what it means to be a cancer survivor.

■ *Return to normal activities* — This can be a relief after devoting so much focus on cancer. But it can also be frustrating if you don't have the energy you used to have or if you have difficulty focusing. Eating a healthy diet, staying active, getting good sleep, avoiding tobacco and maintaining a healthy weight will help support your goals and return to more familiar energy levels.

Give yourself permission to ease back into things gradually. Your treatment team can help you write out a realistic plan of flexible goals so that you can define success at each stage. This can counter common unrealistic expectations of returning to all normal activity, and the emotional distress associated with not meeting those expectations. Balance tasks with short naps or breaks. Look for ways to conserve energy, such as by sitting on a stool when working in the kitchen.

■ *Return to sexual intimacy* — Fatigue, lingering treatment side effects, anxiety and depression all can limit sexual desire. Erectile dysfunction, mastectomy, hormonal changes, vaginal dryness, ostomies or other physical changes also can affect sexuality.

It often takes time, effort and mutual understanding between partners to rekindle sexual intimacy. Communication — including talking and listening — is one of the best ways to let your partner know your desires and fears. It will be important to broaden your definition of intimacy. Physical or sensual intimacy, such as touching, holding, hugging and caressing, may lead to greater closeness. Talk to your doctor if you have a sexual health concern.

Your doctor may prescribe treatments to overcome barriers or may refer you to a sexual health counselor, who can provide individualized recommendations for you and your partner.

■ *Financial difficulty* — Cancer treatment can cause financial hardship. This can contribute to stress and anxiety and cause some people to forgo or delay medical care or skimp on necessities. Let your treatment team know if financial barriers are preventing you from following their recommendations.

Organizations that offer help or guidance include:

■ Patient Advocate Foundation, www.patientadvocate.org, 800-532-5274

■ CancerCare, www.cancercare.org, 800-813-4673. □

Support structure

Fear, anxiety, sadness, irritability and other emotions related to cancer survival usually dissipate as you adjust to life changes. Still, these feelings can persist and interfere with your recovery.

Connections with others are often a key to combating emotional distress. The type of connection that's most helpful is different for everyone. Some may find adequate support from family and friends, and some find they rely heavily on their relationships with their doctors. Talk to your doctor about emotional or physical difficulties.

More-specific counseling or psychological therapy can take several forms. Many cancer center teams include doctors who are health psychologists and sex therapists that specialize in survivorship. There's a good chance that you can benefit from a support group that fits your personality.

The American Cancer Society — www.cancer.org or 800-227-2345 — is a good resource for finding support groups.

Second opinion

Q Are expensive, custom-molded earplugs for hearing protection worth the cost?

A The vast majority of hearing protectors on the market will provide adequate hearing protection in most typical situations of loud noise exposure, if worn in the intended manner. Wearing earplugs covered by earmuffs generally provides the most noise reduction.

It's important that hearing protection is worn correctly the entire time that you're exposed to high noise levels. In this regard, what's most important in selecting hearing protection is whether it's comfortable — and in the case of earplugs, easy to fit into your ears — so that you'll be most likely to wear them.

Generally, if you must raise your voice to be heard by someone an arm's length away, the surrounding noise is loud enough to be potentially damaging to your hearing.

Inexpensive, disposable earplugs may fit just fine into your ear canal and create the desired airtight seal — and be comfortable to wear. They're also convenient to carry around or have stashed in locations where you're likely to need them.

For others, disposable plugs may not fit well enough to create an airtight seal, they may not be comfortable, or they may be difficult to fit or remove. In this case, a custom-molded earplug may be worth the expense if it means the difference between wearing hearing protection, or not.

Earmuffs that contact skin entirely around your ear are an alternative to disposable or custom earplugs. Their

bulkiness can be a limitation in some circumstances. In addition, they can be uncomfortable in hot weather and they may not create a good seal around your ear if you wear glasses. However, they work very well at blocking sound and they're quick and easy to put on and remove in situations where you're intermittently exposed to noise.

More expensive electronic earplugs or electronic earmuffs allow you to protect your hearing while engaging in high-noise-level activities, such as using a firearm. These are intended to allow safe levels of sound to reach your ear — such as sounds of game animals or conversational speech — while filtering out louder noise levels or bursts of sudden noise. Just as with other protection, proper fit is necessary for proper function. □

Q At the grocery store I saw coffee labeled "low-acid." Would this type of coffee be better than regular coffee for my heartburn?

A Not necessarily. The market for such a product may have grown out of the common belief that certain foods and beverages, such as coffee, can cause or trigger heartburn (acid reflux).

Coffee, orange juice and other acidic beverages don't actually cause heartburn. Heartburn occurs when the valve between your esophagus and stomach relaxes, opening when it shouldn't and allowing stomach acid to flow back up into your esophagus.

Certain foods and beverages may trigger heartburn for some people. No studies have been done that prove that



eliminating specific foods and beverages, — such as coffee, caffeine, mint, chocolate, citrus, carbonated beverages and fatty or spicy foods — from your diet improves heartburn. Still, it's a common and logical recommendation.

The decision is up to you and your preferences. If coffee doesn't give you trouble in general, there's no need to buy low-acid coffee specifically for your heartburn. But if every time you drink coffee you have heartburn, then it's best to avoid it. If the low-acid version seems to cause you less trouble, there's probably no harm in drinking it.

On the other hand, losing extra pounds if you're overweight may help reduce the frequency of heartburn. If you often have heartburn at night, it might help to elevate the head of your bed using blocks under the bed posts or a foam wedge under the mattress. Another option is to avoid heavy meals at least two hours before bed. □

Have a question or comment?

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