Bladder control

Treatment can help

If it weren’t for the uncertainty of locating the next restroom, traveling would top your list of favorite activities. What if you had one of those portable global positioning systems that include restrooms as points of interest? Even better — what if you could find a treatment that made this less of a concern?

Bladder control issues are more common than you might realize, affecting millions of Americans. More women are affected than men.

For many, urinary incontinence may be due to an overactive bladder, which stems from a bladder function problem that causes a sudden and unexpected urge to urinate (urge incontinence). Others deal with stress incontinence — which means that unless you’re really prepared, jumping, coughing or sneezing are practically guaranteed triggers for an unintentional loss of urine.

Rather than adjust your life around your bladder’s behavior or cut back on activities that you enjoy, talk with your doctor. Types of bladder dysfunction problems include what are known as stress incontinence and overactive bladder.

The bladder is a muscular balloon that stores urine (left). Normally, when the muscle surrounding the bladder contracts (right), and when the urethral sphincter at the base of the bladder relaxes, urine flows out through the urethra.
Stress incontinence

Stress incontinence is more likely to occur in women. Weakened pelvic floor support makes it more likely that temporary increases in pressure on top of the bladder will allow urine to slip past the sphincters, resulting in leakage. This happens when you laugh, lift something heavy, cough, sneeze or exercise.

In women, weakened pelvic floor support often starts with tissue damage and nerve stretching at the time of childbirth. Loss of estrogen with menopause also may reduce tissue tone and strength. The development of stress incontinence is also associated with removal of the uterus (hysterectomy). In men, the most common risk of exercise-induced urinary leakage is related to operations on the prostate gland.

Many other factors may contribute to worsening stress incontinence. They include chronic coughing or sneezing, obesity or diabetes.

Overactive bladder

Overactive bladder, also known as urge incontinence, involves involuntary contractions of the bladder muscle. It’s associated with an urgent need to urinate that often can’t be stopped or delayed.

Neurological disorders — such as Parkinson’s disease, strokes, multiple sclerosis, injury to the brain, spine or nerves serving the bladder — often are associated with an overactive bladder.

Symptoms of an overactive bladder — urinary urgency, frequency and incontinence — also can be the result of other conditions. These conditions include urinary tract infection, enlarged prostate, bladder stones or bladder cancer. A specialist in urology (urologist) knows how to evaluate and treat these problems.

Sorting out treatments

Treatment depends on your type of incontinence. For example, if your leakage is from a urinary tract infection, the infection is treated. If it’s due to an overactive bladder, the overactive bladder is treated. The severity of your symptoms also factors into therapy decisions.

A medical history, physical exam, urine sample and sometimes blood tests are the usual starting points for diagnosis. A bladder diary — in which you track what you drink, and when, and how much you urinate — is helpful in making a diagnosis. Tests to assess your bladder’s function (urodynamic tests) also may be done.

Whether you have stress incontinence or an overactive bladder, less invasive treatment approaches — such as behavioral interventions — are usually tried first. This often is the only treatment needed.

Behavioral strategies may include timing and regulating fluid consumption, training your bladder to delay voiding, scheduling regular times to void, and increasing fiber intake or taking fiber supplements to help manage constipation that’s commonly associated with bladder problems.

Pelvic floor muscle exercises (Kegels) also may help strengthen
the urinary sphincter and pelvic muscles that help control urination (see our August 2008 article).

Although there are no approved medications to prevent stress incontinence, there are drugs that may help alleviate symptoms of an over-active bladder and reduce urge incontinence. These drugs work best in combination with other therapies.

Anticholinergics may help calm abnormal bladder contractions by blocking a chemical messenger that prompts the contractions. There are several, including darifenacin (Enablex), fesoterodine (Toviaz), oxybutynin (Ditropan), solifenacin (Vesicare), tolterodine (Detrol) and trospium (Sanctura). Some are available in long-acting formulations. Oxybutynin is also available as a patch (Oxytrol) and a topical gel (Gelnique).

Incontinence drugs are generally prescribed with caution for older adults due to the potential for side effects, which may include dry mouth, constipation, heartburn, blurry vision, urinary retention, dizziness and confusion.

Many women with stress incontinence also have a prolapsed bladder, meaning the bladder sags from its normal position. In that case, your doctor may suggest using a ring-shaped device (vaginal pessary) that’s fitted and put in place to help support the bladder and prevent urine leakage. Another measured-to-fit device that may be inserted in the urethra’s opening is a disposable urethral plug. These can prevent leakage during high-impact activities, such as tennis or running.

Interventional therapies to reduce stress incontinence leakage include injecting a bulking material into tissue surrounding the urethra’s outlet. Another procedure involves implanting a pacemaker-like device (sacral nerve stimulator) under the skin near the base of the spine. The device uses painless electrical pulses to stimulate the sacral nerve, which controls the bladder.

Surgical treatments generally are used only for stress incontinence. Specialized procedures involve strengthening support of the urethra and bladder neck (see our August 2008 page 1 article). Surgery may be considered if conservative treatments aren’t working or if your symptoms keep you from participating in daily activities.
Aging without getting old

Vitality for life

What's old age? It may never have occurred to you that there's no defined point at which someone is considered old. After all, some people seem old in their 50s or 60s, while others waltz through their 80s, 90s and beyond with a spring in their step and purpose in their life.

Certainly, some diseases over which you may not have much control can lead to diminished quality of life and a shorter life span. However, for the majority of older adults, age is what you make of it.

Bodywork

Many older adults are discouraged by the fact that they're slowing down. They don't have the energy they used to, they tire easily — and may have a condition such as arthritis that limits activity.

You've heard it before, but being active and getting regular, moderately intense exercise is probably the number one thing you can do to slow the aging process and improve your vitality. In addition to the many health benefits of exercise — such as lowering your blood pressure, improving bone strength or cholesterol numbers — people who begin to exercise may find they have increased energy and strength, often within just a few sessions of physical activity. Exercise also can boost your mood, reduce stress and improve your sleep.

Come up with a plan that helps you work up to doing 30 minutes of moderately intense exercise — such as walking at a brisk pace — on most days of the week. Add simple strengthening exercises two or three times a week, and the benefits are even greater.

Reducing the risk of delirium after major surgery

The confusion, sleep problems and disturbances of perception that often define delirium are all-too-common problems for older adults after major surgery. Although most postsurgical delirium usually goes away within a couple of days, it can significantly slow recovery.

A recent study suggests anesthesia adjustments may reduce the risk of postoperative delirium in certain procedures by up to 50 percent. The study, published in the January 2010 issue of Mayo Clinic Proceedings, involved 114 adults age 65 or older requiring major surgery to repair a hip fracture. None had delirium or severe cognitive impairment before surgery.

In about half of those adults, anesthesia involved a spinal block that temporarily blocked the sensation of pain from the waist down, with a common sedative drug to induce unconsciousness. The other half also received a spinal block, but a lesser amount of the sedative drug was used.

After surgery, both groups used similar medications to control postoperative pain — including opiate medications, which are known to increase risk of delirium. Still, 40 percent of those in the more heavily sedated group experienced delirium, while only 19 percent of those in the group given lighter sedation experienced delirium.

Mayo Clinic anesthesiologists say this study suggests that using lighter levels of sedation may decrease the risk of delirium among people having a spinal block to prevent pain during surgery.

A new look at stress disorder

Researchers looking for an objective way to identify and diagnose post-traumatic stress disorder (PTSD) have found a distinct brain activity pattern in those with the disorder. Their findings are reported in the January 2010 issue of Journal of Neural Engineering.

PTSD is an anxiety disorder triggered by a traumatic experience. It occasionally may take several months or even years before signs and symptoms of PTSD — such as flashbacks, emotional numbness and self-destructive behavior — surface.

Researchers conducting the study used a highly sensitive brain imaging device called magnetoencephalography (MEG) that measures magnetic fluctuations as the brain processes information. Seventy-four military veterans with PTSD, but not on medication treatment, were asked to stare at a dot for up to a minute while magnetic signals were collected. The signals were compared with the signals from 250 volunteers who didn’t have PTSD. Upon reviewing the brain scans, researchers accurately spotted those with PTSD 90 percent of the time.

Mayo Clinic experts say the study, though small, may have implications for more easily diagnosing PTSD. They add that larger studies are needed, not only with veterans but also with other susceptible groups. For now, once PTSD is recognized, it’s advisable to start both medication and talk therapy treatments as early as possible.
Healthy eating also is critical to feeling your best physically. In short, a healthy diet is one that emphasizes portion control, a wide variety of plant-based foods such as fruits, vegetables, legumes and whole grains — and lean protein sources such as fish and skim milk. People who have a healthy diet generally are at less risk of many diseases, including heart disease, diabetes, many kinds of cancer and osteoporosis.

In addition, a healthy diet in conjunction with regular exercise and physical activity is the foundation of maintaining a healthy weight or losing weight if you are overweight or obese. If you are overweight, weight loss from even a small reduction in body fat — about 5 to 10 percent — may reduce your risk of developing weight-related diseases such as heart disease, diabetes and cancer. Losing weight can also increase your confidence and enable you to be energetic, strong, active and independent.

Developing a good working relationship with your health care provider also is important for safeguarding your physical health. Regular visits to your doctor allow for disease-preventing action, such as screening for certain cancers and other problems. Your doctor can also help monitor or treat ongoing medical problems. This includes helping you manage medications so that you’re taking only drugs that are helpful and at appropriate dosages.

State of mind
Your mental ability also will likely undergo normal change with age. It may take a little longer to learn new things, you may have occasional memory lapses and you may need to focus more on one task at a time in order to do it well. This doesn’t mean you’re developing dementia or Alzheimer’s disease, as these involve much more than occasional forgetfulness.

Research shows that older adults with normal brain aging can learn just as well as younger adults — and it’s possible to increase brain cell connections, regardless of your age. A key step to staying mentally fit falls into the “use it or lose it” category. Having an actively engaged lifestyle, especially one that involves learning new ideas and concepts, appears to be associated with a higher level of mental function over time.

Try challenging your brain regularly by reading, taking classes, learning new skills, doing crossword puzzles, playing cards or other brain stimulating games, and engaging in active conversations. In addition, being physically active, getting enough sleep and limiting alcohol consumption all contribute to keeping your brain at its best.

Many factors that aren’t normal, age-related changes can affect mental function. Depression and chronic stress are two of the most common, and it’s important to work with your doctor to address these problems if you experience them.

Dealing with change
Aging is also a time of transition and change — retiring, the death of a loved one, moving to a smaller home — which can be very hard to deal with. But regardless of how change occurs, the way you handle it is often the most influential factor in how it impacts your health.

Social connections play a vital role in your health and well-being, especially during times of change and transition. Whether support and companionship comes from relatives, friends, a religious group — or even a pet — these ties remain a constant force when there’s upheaval in another area of life. In addition, social support can help:

- Motivate you to be healthy, whether it’s getting out and exercising and being active or motivating you to recover from illness
- Reduce stress and anxiety
- Protect against mental decline, as interpersonal relationships help sharpen the mind
- Accomplish practical tasks, such as helping you get medical care or providing help with chores or transportation
- Give you a sense of purpose as you help support others and others support you

There are important steps you can take to help you cultivate social connections (see our Health tips column on page 3: “Maintaining a support network”). However, beware of social connections that are unhealthy, oppressive, rigid or manipulative. These can be just as damaging as no connections at all.

Although pessimism can be deeply ingrained in your personality, it’s never too late to examine thoughts, viewpoints and actions that sour your outlook on life and make you crabby. Bad things happen to everyone, but rather than dwell on the negative, optimists tend to look for the positive, count their blessings, forgive, savor good times and simple pleasures, and practice kindness to others as a way to direct thoughts beyond themselves.
Vulvar cancer

Skin changes not to be ignored

Although not a common form of cancer, vulvar cancer is a potentially deadly form of skin cancer that's more commonly seen in older women. It affects the external area of a woman’s genitals (vulva) and accounts for less than 1 percent of all cancers in women.

However, it's often overlooked or mistaken for something else. Delayed detection of vulvar cancer jeopardizes the possibility of timely treatment. As a result, other more extensive treatments may be needed. That's why it's important to be aware of any skin changes in the vulvar area. It's also important to have yearly pelvic exams that include an exam of the vulva.

Susceptible cells

Most cancers of the vulva originate in squamous cells, the main type of skin cells. Cancers in these cells are usually slow growing over many years. They're usually preceded by precancerous changes that are confined to the skin's surface layer. These precancerous, noninvasive skin changes are called vulvar intraepithelial neoplasia (VIN).

A small percentage of vulvar cancers begin in the skin’s pigment-producing cells, resulting in malignant melanoma, the most serious form of skin cancer. Another small percentage originates in the glands of the vulva. These are adenocarcinomas. Even less common are vulvar cancers that originate beneath the vulvar skin as tumors in connective tissue (sarcomas).

A good offense

Although many signs and symptoms associated with vulvar cancer can be due to conditions other than cancer — such as an infection, cyst or some other skin irritation — don't ignore them. See your doctor if you encounter any of these vulvar skin changes or associated symptoms:

- Persistent vulvar itching lasting more than a month
- An abnormality in vulvar skin that you can see or feel, including skin that is lighter or thicker, reddish or darker, or white and rough-feeling; bumps that are red, pink or white with a warty or raw surface; reddish scaly skin or a sore that won't heal
- Pain, painful urination, painful intercourse, bleeding or discharge not associated with menstruation
- Change in an existing mole in the vulvar area or the appearance of a new mole
- A persistent lump in the opening of your vagina

Early diagnosis of vulvar cancer is important. However, early diagnosis can be missed because many women are given topical steroids or anti-inflammatory creams for many months instead of first having a biopsy, which involves removing a small skin sample for evaluation. As a general rule, it's best if a visible skin change is biopsied.

What increases risk?

There are several factors that may increase your risk of developing vulvar cancer. These include:

- **Age** — Risk goes up with age. More than half of vulvar cancers occur in women over age 70, but about one-fifth of vulvar cancers occur in women younger than 50.
- **Precancerous changes** — The presence of VIN in vulvar skin increases the risk of cancer development. However, with treatment or close medical follow-up, most precancerous changes don’t progress to cancer.
- **A history of cervical changes** — Vulvar cancer in younger women tends to be associated with cervical changes due to human papilloma virus (HPV) infection.

- **Smoking** — Women who smoke and have a history of genital warts are at greater risk of developing vulvar cancer. Women who smoke and are infected with “high risk” HPV infections — meaning HPV types that are linked with genital cancers — have a much higher risk of vulvar cancer.

- **Human immunodeficiency virus (HIV)** — Women infected with HIV are more susceptible to persistent HPV infections, which can increase VIN risk and vulvar cancer.

An increased risk of vulvar cancer is also associated with a family history of melanoma or having had cervical cancer or melanoma.

Treatment options

If your doctor determines that precancerous changes are present, laser surgery may be used to remove precancerous VIN. Another approach involves surgically cutting away (excising) the VIN tissue. In some instances, the topical drug imiquimod (Aldara) may be applied to the area where VIN is present.

For larger areas of abnormal tissue or advanced vulvar cancers, varying degrees of surgical tissue removal can be done, including possibly the removal of lymph nodes in the groin area. Skin grafts and plastic surgery may be necessary if tissue removal is extensive.

A combination of chemotherapy and radiation therapy typically is used if tumors are large and lymph nodes show signs of cancer spreading. These may also be treatment options for women who aren’t candidates for surgical procedures.

Not to be ignored

Vulvar cancer is highly curable when detected early. That's why it's important to have a biopsy done if there's a visible skin change in vulvar tissue.
Hammertoe

Correcting a painful problem

The annual black-tie ball is over, and it couldn't have ended too soon. Your curled hammertoe is acting up again, and it's so painful that you had to sit on the sidelines while everyone else enjoyed the dancing.

Hammertoe is a deformity that can cause one or more of your toes to cock up at the middle joint. The condition can cause pain from rubbing on your shoes — and can cause painful calluses or corns to form on the affected toe.

For many, proper footwear and simple toe coverings may be enough to relieve pain. If more conservative treatment doesn't relieve pain, surgery may help.

Toe room

A common contributing cause of hammertoe is wearing shoes that are too small, are too tight in the toe box or have high heels. The feet of older adults tend to get wider and longer with age. Some older adults may not think to adjust their shoe size and may inadvertently be wearing shoes that are too tight.

For a while, a hammertoe may maintain some flexibility. However, if the toe is forced into a bent position for too long, the muscles and tendons that allow you to flex and straighten your toe may tighten, resulting in a rigidly bent toe.

Pain caused by hammertoe most commonly results from the pressure and friction of the hammertoe pressing against the inside of your shoe. The top of your toe can press against the top of your shoe, causing pain or formation of a hard growth of skin (corn). Pain may also occur from calluses that develop at the end of your toe or on the ball of your foot. Less commonly, a more rigid hamme-

toe can drive the bone on the ball of the foot into the ground, causing pain. Arthritis in toe joints related to hammertoe is another potential cause of pain.

Wearing roomy, comfortable shoes is the primary step you can take to prevent the development of hammertoe. Still, tight footwear often isn't the only cause. Other contributors may include:

- An injury to the toe such as a broken bone
- Damage or weakening of the nerves, ligaments, muscles and tendons that hold the toe straight may occur as a result of diabetes, arthritis or a stroke
- Inflammatory diseases such as rheumatoid arthritis
- Having a bunion on your big toe joint, as this can cause your big toe to crowd your second toe and raise it, leading to hammertoe

Relieving pain

It usually isn't possible to straighten a hammertoe using conservative, nonsurgical treatments. But a few simple treatment methods can often eliminate any pain and discomfort.

Options include:

- Wearing shoes with a soft, roomy toe box — Choose shoes that have a wide enough toe box so that the shoes don't crowd or irritate your toes. Avoid wearing shoes with raised heels. Many shoe stores can stretch out a pressure point in an otherwise well-fitting shoe. In addition, some shoes come with very soft leather or even stretch fabric uppers that don't press on your toes.

- Using special devices or other support — Various pads or elastic splints may be recommended to reposition or support your hammertoe so that the tip isn't driven into the ground, or so that the toe lies in a flatter position.

- Treating or covering corns or calluses — Wearing shoes that don't rub on a corn is often enough to allow it to gradually go away. Nonmedicated corn or callus pads or toe sheaths may also help cushion the area. Your doctor may be able to pare down a large corn or callous with a surgical instrument.

Surgical options

If your hammertoe continues to cause pain despite conservative treatment efforts, surgical correction may be an option.

For a hammertoe with some flexibility, lengthening a tight tendon or other soft tissues in the toe may be enough to allow the toe to lie flat. With a rigid hammertoe, a more extensive procedure to cut and realign tendons, remove pieces of toe bone, and temporarily fix the toe joints with a pin during the healing process may be warranted.

If you have a bunion in addition to hammertoe, often the bunion must be fixed in conjunction with hammertoe or hammertoe can recur.

Surgery to straighten a hammertoe is usually an outpatient procedure and is often successful in giving you a straight, but fairly rigid toe.

Still, Mayo Clinic surgeons don't recommend surgery for hammertoe strictly due to cosmetic concerns. Surgery always involves risks such as infection — even if they're only slight. There's also a chance that hammertoe surgery will lead to other problems, such as a toe that flails loosely or becomes misaligned in some other way.

Second opinion

Questions and our answers

Q: Over the last several years, I’ve had several small spots of skin on my shoulder cut out due to skin cancer concerns. Now, my doctor says I have precancerous areas on my face that need treatment, but he’s recommending I use a cream. Is that likely to work?

A: You may be dealing with actinic keratoses. These are common precancerous skin growths brought on by cumulative exposure to the sun. Left untreated and exposed to more sun, a small percentage of these growths can change into a serious skin cancer called squamous cell carcinoma. Early treatment can eliminate almost all actinic keratoses before they become skin cancer.

Topical therapy with a chemotherapy cream or immune-modulating cream can be an effective treatment, especially if a broad area of skin is affected. The most commonly prescribed are the chemotherapy creams 5-fluorouracil (Efudex, Carac) and the immune-modulating cream imiquimod (Aldara). Applications of 5-fluorouracil creams cause skin with precancerous changes to react with significant irritation so that the abnormal skin sloughs off and dies. Normal skin doesn’t react much, if at all. Applications of imiquimod modify the skin’s immune system to stimulate the body’s own rejection of precancerous cells. Response to this cream can vary, with the desirable reaction being inflammation, sloughing off and death of abnormal skin. If no reaction to imiquimod occurs, the treatment probably won’t work.

Although scarring and persistent redness are uncommon side effects of these treatments, they can cause a period of redness, swelling and irritation to areas affected by precancerous changes.

Q: I have heart surgery scheduled, and it has given me a wake-up call to stop smoking. However, I’ve heard that stopping before surgery might cause more harm than good. Is this true?

A: No. Research doesn’t support this idea. Stopping smoking at any time is a good idea, and it will be particularly beneficial if you’re about to have surgery.

Smoking contributes to overall health problems that make surgery more risky, including chronic obstructive pulmonary disease (COPD) and cardiovascular disease. In addition, it increases the risk of more specific complications both during and after surgery, including:

- **Lung problems** — Smoking inhibits immune mechanisms that fight off infections after surgery, raising the risk of pneumonia.
- **Heart problems** — Smoking decreases the capacity of your blood to carry oxygen, makes it harder for your heart to pump blood throughout your body, and makes blood more likely to clot, increasing the risk of heart attack and stroke.
- **Poor healing** — Smoking makes it harder for wounds to close and heal, raising the risk of infection and other problems. It also makes it harder for bone fractures to heal and harder for tendons such as the rotator cuff to heal.

If upcoming surgery has given you motivation to stop smoking, take advantage of it. Studies suggest that if you can stop smoking two to three months before surgery, your risk of surgical complications decreases to close to that of a nonsmoker. Still, stopping for shorter periods before surgery can be helpful. Even stopping for a day may be beneficial as it allows carbon monoxide and nicotine to clear from your system.

The first week after surgery is a particularly important time to avoid smoking so that your incision has a better chance to heal. However, there’s no one thing that would provide more long-term benefit than stopping for good. Talk to your doctor about the many tools that are available to help you stop.