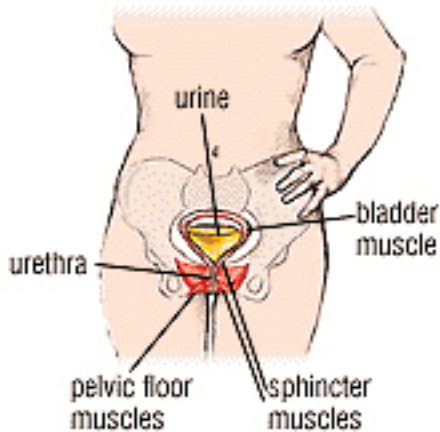




## URINARY INCONTINENCE

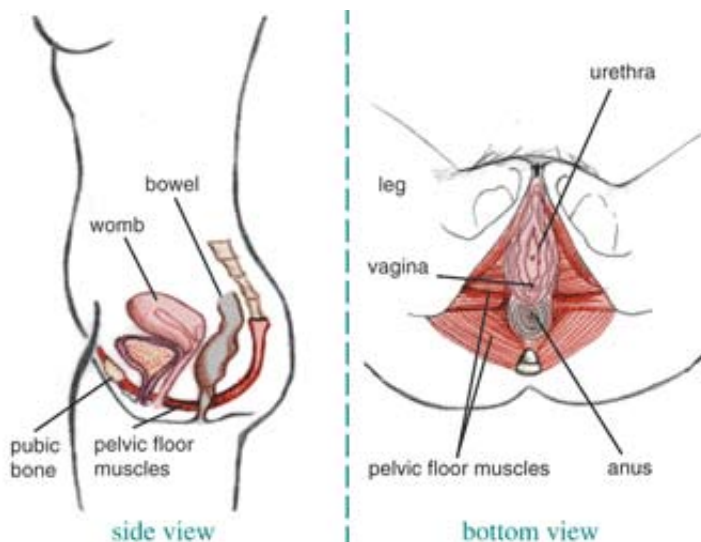
### What does the bladder control system look like?



Parts of the bladder control system

Most of your bladder control system lies inside your pelvis. Stand with your hands on your hips. The bones under your hands are the pelvic bones. Your pelvis is shaped like a big bowl.

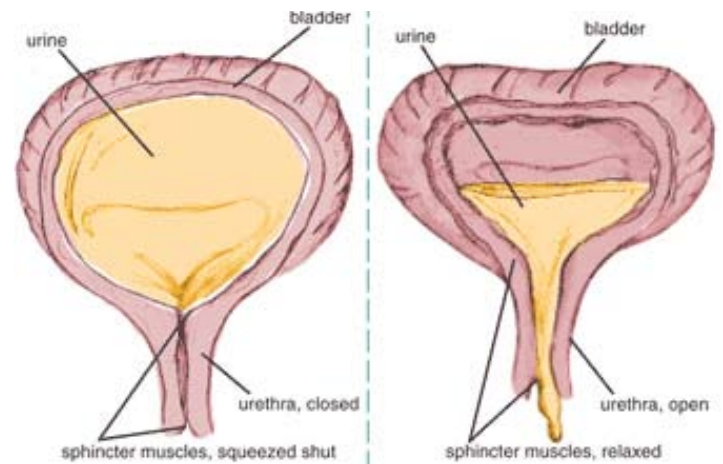
The bottom of this "bowl" is the area between your legs. The striated and voluntary muscles across this area are the pelvic floor muscles. Your bladder is a smooth muscle



Parts of the bladder control system

not under volitional control. It is a balloon-shaped organ inside your pelvis, just below your belly button. Your pelvic floor muscles should be strong and tight to hold up your bladder in its proper place.

Your bladder should stay relaxed when it is full of urine. But when you go to the bathroom, the bladder muscle should tighten. This squeezes urine out of the bladder.



Parts of the bladder control system

The sphincter (SFINK-tur) muscles are two muscles that surround the tube that carries urine from your bladder down to an opening in front of the vagina. The tube is called the urethra (yoo-REE-thrah). Urine leaves your body through this tube.

The sphincters keep the urethra closed by squeezing like tight rubber bands. The pelvic floor muscles also keep the urethra closed. Urine stays inside your body when the pelvic floor and sphincter muscles are tight and the bladder is relaxed.

Continued on next pages

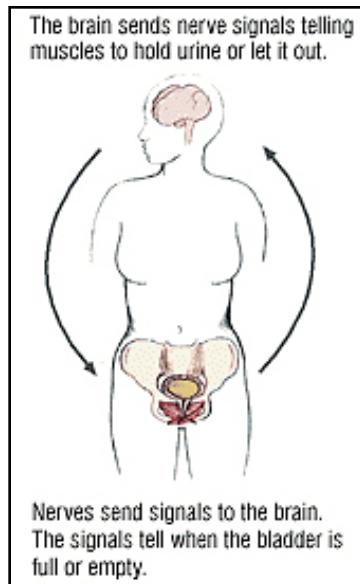
## URINARY INCONTINENCE (cont'd)

When the bladder is full, nerves in your bladder signal the brain. That's when you get the urge to go to the bathroom. Once you reach the toilet, your brain sends a message

down to the sphincter and pelvic floor muscles. It tells them to relax. The brain signal also tells the bladder muscles to tighten up. That squeezes urine out of the bladder.

Bladder control means you urinate only when you want to. For good bladder control, all parts of your system must work together.

- Pelvic muscles must hold up the bladder and urethra.



Parts of the bladder control system: nerves and brain

- Sphincter muscles must open and shut the urethra.
- Nerves must control the muscles of the bladder and pelvic floor.

### What causes bladder control problems?

Most bladder control problems happen when muscles are weak or too active. Problems may also happen when nerve signals don't work properly.

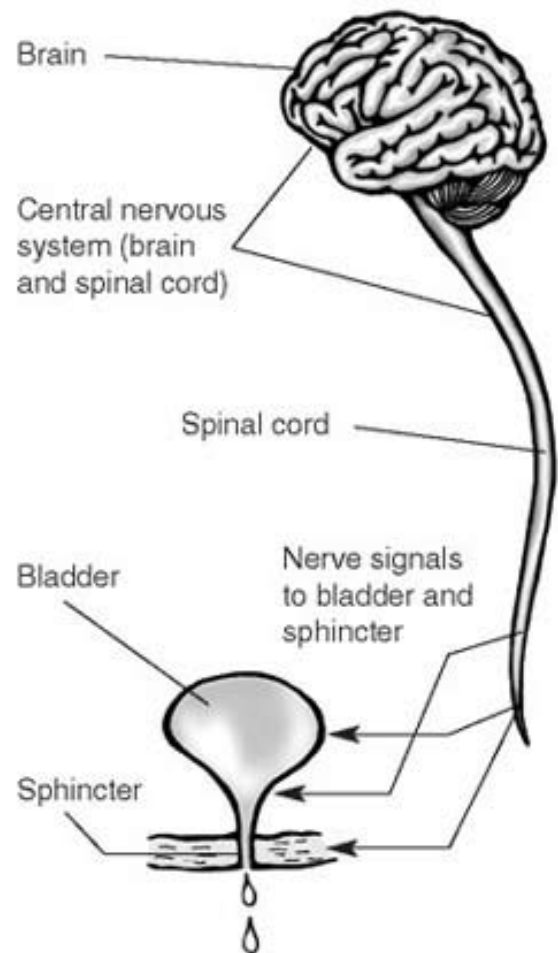
If the sphincter muscles that keep your urethra closed are weak, you may have accidents when you sneeze, laugh, or lift a heavy object. This is called stress incontinence. It is the most common type of bladder control problem. Stress incontinence often occurs after childbirth. The pelvic floor muscles stretch, weaken, or tear after vaginal childbirth. The same muscles become weak after a woman stops having periods (menopause). They weaken because they are no longer used (disuse atrophy) or exercised.

Sometimes, the bladder muscles become too active which causes a different problem. You may feel strong, sudden urges to go to the bathroom, even if your bladder has little urine in it. This kind of bladder problem is called urge incontinence or overactive bladder. Some women with urge incontinence perceive that they are not empty-

ing their bladder effectively because they are going to the bathroom frequently and emptying small amounts. In truth, incontinence from an inability to empty the bladder (overflow incontinence) is rare. You are really experiencing a bladder storage problem. Several things can cause your bladder to be too active such as a bladder infection, nerve damage (sometimes from childbirth), drinking alcohol, and some medicines.

For the urinary system to do its job, muscles and nerves must work together to hold urine in the bladder and then release it at the right time. Nerves carry messages from the bladder to the brain to let it know when the bladder is full. They also carry messages from the brain to the bladder, telling muscles either to tighten or release. A nerve problem might affect your bladder control if the nerves that are supposed to carry messages between the brain and the bladder do not work properly.

### What bladder control problems does nerve damage cause?



Nerves carry signals from the brain to the bladder and sphincter.

Nerves that work poorly can lead to three different kinds of bladder control problems.

### **Overactive bladder**

Damaged nerves may send signals to the bladder at the wrong time, causing its muscles to squeeze without warning. The symptoms of overactive bladder include:

- *urinary frequency*—defined as urination eight or more times a day or two or more times at night.
- *urinary urgency*—the sudden, strong need to urinate immediately.
- *urge incontinence*—leakage of urine that follows a sudden, strong urge.

### **Poor control of sphincter muscles.**

Sphincter muscles surround the urethra and keep it closed to hold urine in the bladder. If the nerves to the sphincter muscles are damaged, the muscles may become loose and allow leakage or stay tight when you are trying to release urine.

### **Urinary retention**

For some people, nerve damage means that their bladder muscles do not get the message that it is time to release urine. If the bladder becomes too full, urine may back up and the increasing pressure may damage the kidneys. Or urine that stays too long may lead to an infection in the kidneys or bladder. Urinary retention may also lead to overflow incontinence.

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