

## Urinary Incontinence

One of the most common problems that providers of women's health care encounter is urinary incontinence. Years ago women were so embarrassed by this that they rarely spoke of it and did not complain about it although they were terribly vexed by it. Today's women are very active well into the menopause years and are not content to simply tolerate a problem that makes hygiene and activities difficult. Many women leak small amounts of urine at times. These leaks can occur with certain physical activities such as coughing, laughing, sneezing or straining. Others leak only when pregnant. When these leaks become severe enough to be a problem that causes reduction in activities, embarrassment from being wet or irritation it is called incontinence. It can be treated with success once the correct diagnosis is made.

One in ten women are bothered by this and half of them do not tell their provider or spouse. They change their lifestyle and rely upon absorbent garments to deal with the problem. Some are so depressed that they avoid social or work events. Some women believe that leakage is a normal part of the aging process and think that nothing can be done to treat it. The physiologic process of voiding is complicated. Normal urination (voiding) occurs when a woman is able to empty her bladder when she has a natural need to do so. The muscles around the urethra relax, urine flows out of the bladder and when the bladder is almost empty the muscles contract and the stream stops.

There are five types of incontinence: 1.) stress, 2.) urge, 3.) mixed, 4.) overflow, 5.) functional. Stress incontinence is the most common and occurs when the pressure in the bladder is greater than the pressure in the urethra. This frequently occurs when the angle between the bladder and urethra changes due to childbirth, weight, aging, and previous gynecologic surgery such as hysterectomy. Sneezing or aerobics or just laughing cause leakage. In urge incontinence a woman has a strong sudden urge to urinate and leaks before going to the bathroom. Frequently this is called overactive bladder and the many television commercials portraying this problem and its treatment attest to the fact that this is common. It can be a normal quirk of some women or can be caused by problems with the nerves that send signals to the bladder. Mixed incontinence occurs when women has both stress and urge symptoms. Overflow incontinence occurs when the bladder does not empty completely during voiding when the bladder muscle is not active enough during voiding such as in diabetes or when the urethra is blocked. Functional incontinence causes leaks to happen when other health problems keep a woman from going to the toilet on time and might be secondary to arthritis, stroke, and nervous system disorders such as multiple sclerosis or spinal cord tumors. Having now defined the types of incontinence, what are the causes? Loss of bladder control may be caused by urinary tract infection even in the absence of pain and frequency. Pelvic support problems occur when the pelvic organs are stretched by pregnancy, childbirth and aging that causes the bladder and/or urethra to sag out of place. Urinary tract abnormalities such as a fistula which is an abnormal opening of the bladder into the vagina can be due to pelvic surgery, childbirth, radiation treatment and advanced cancer of the pelvis and cause uncontrolled

urinary leakage. Neuromuscular disorders can cause leakage when the signal from the brain and spinal cord do not connect properly with the bladder and urethra. This can be caused by diabetes, stroke, or multiple sclerosis. Medications such as diuretics might also cause a loss of bladder control.

To determine the mode of treatment, the exact cause must be ascertained. Not all incontinence is treated by surgery and in fact most surgical failures are because the correct diagnosis was not made. Tests will include a urine culture to rule out infection, a pelvic exam to detect physical conditions that might be linked to the problem.

Urodynamic and urine flow studies in the office are done to measure filling pressure, leak point pressures and bladder capacity. Sometimes a scope might be insert into the bladder (cystoscopy) to look for bladder abnormalities such as stones, fistulas, tumors or infection.

Treatment depends upon the diagnosis and sometimes can be behavioral modification. These would include weight loss, avoidance of constipation; avoid heavy lifting, drinking less caffeine, smoking cessation to avoid coughing. Physical therapy that includes Kegel exercises is sometimes beneficial. Kegels tone the pelvic muscles and involve squeezing the muscles that are used to stop the flow of urine. This should be done for ten seconds 10-20 times a day. A pessary which is vaginal ring that supports the bladder and urethra can be used but many women find this uncomfortable and would prefer definitive surgery. There are medications that help control bladder spasms that are diagnosed by the previously mentioned urodynamics but do have side effects such as dry mouth, constipation, nausea, blurred vision and change in sleeping patterns. They can cause increased intraocular pressure and should be avoided in women with glaucoma. When studies show that the bladder or urethra is dropped surgery is an option. For years sling procedures were done to support the urethra through various procedures both abdominal and vaginal that attempted to recreate the anatomy that a woman was born with. They required an hour long operation, a week in the hospital and a six week recovery. 90 percent of women were 90 percent cured. Most had long term relief unless weight gain or lifestyle changes precluded against it. Recently a new procedure called “tension free vaginal tape” has been introduced which involves outpatient surgery, immediate return to normal activities and minimal discomfort. Since this is relatively new, long term success has not been ascertained.

The key to all of this is to make the correct diagnosis through the above methods and to tailor the treatment to the diagnosis, age and lifestyle of the patient. No guarantee of absolute dryness or success is ever made and each patient must be counseled about possible side effects and long term complications. In most cases, urinary incontinence can be greatly improved with treatment.