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"Men Wearing Diapers who Should Not"

Leaking urine (incontinence) is not uncommon in adult men and women; and for a variety of factors, increases with aging. Having to wear pads or diapers is a humiliating problem, replete with low self-esteem/depression/frustration; hygienic issues including skin breakdown and rarely contribution to bedsores; loss of socialization; and cost.

I will limit my discussion this time to <u>incontinent men</u>. There are two general causative factors :(1) aging/neurological issues, and (2) specific urologic conditions and treatments (including surgeries) thereof.

Hyperactivity of the bladder with high bladder pressures (both during filling with and elimination of urine) can overcome even the most competent sphincter (control mechanism) and lead to leakage, sometimes sensed strongly as urge and at other times imperceptible to the man. Especially with neurological (brain, spinal cord and peripheral nerve) diseases, one may not even feel the need to urinate, let alone leakage. Such neurologic diseases include but are not limited to: diabetic neuropathy, multiple sclerosis, stroke, Parkinson's disease and spinal cord injury. Hyperactivity includes spontaneous unwanted contractions of the bladder--as well as poor "compliance" in which the bladder, like a balloon, becomes more rigid and less stretchable given the same amount and rate of urine entry from the kidneys, where it is produced.

Some neurologic conditions have no affect on bladder pressures, but weaken the pelvic floor musculature--of which the urinary sphincter is an important part. Men have two areas of resistance to leakage: (1) the prostate (if it has not been surgically altered or eliminated) and (2) the "muscle" sphincter as mentioned, an opening in the "multi-ply carpet" of muscles comprising the pelvic floor. For example, neurological weakness of the "lower" muscular sphincter (only part of which a man can voluntarily contracted, thus "stopping" urination on mid-stream) would, if it were known in advance, place the prostate surgical patient at higher risk for prolonged or more severe incontinence.

It should be pointed out that yet other (and variants of the abovementioned) neurological conditions can increase bladder pressures and simultaneously lessen sphincter "guarding" against leakage; or in an uncoordinated fashion, increase bladder pressure while not reflexively allowing sphincter relaxation—this can increase both incontinence, retention, and proneness to urinary infections.

Radiation to the prostate for cancer seldom reduces the resistance of the sphincter mechanism--but can lead to a stiff poorly compliant bladder as well as chronic irritability and inflammation of the bladder leading to higher urinary storage pressures and thus, a tendency to leak. TURP (transurethral resection of prostate) for enlargement with blockage symptoms rarely damages the sphincteric mechanism but needs to be used cautiously in men with pre-existing bladder instability sometimes manifested by urinary urgency and urge incontinence. Urodynamic testing can sometimes help us to sort out

these potential problems in advance. Radical prostatectomy, done robotically or open, has small chance of inducing prolonged and significant incontinence; the overall rate in less the 2-4% and many men will slowly recover their continence function over the 1st postoperative year.

Behavioral modifications can improve male incontinence "at the edges" where leakage is neither profound not especially bothersome. Reducing oral intake, eliminating beverages that promote more urine output (caffeine, alcohol, diuretic drugs) and timed voids (urinating, e.g., every 2 hours especially before leaving the house whether you feel the need to do so or not) can lessen unwanted leakage. Medications ("cholinolytics", e.g., Oxybutinin-ER, Detrol-LA, Vesicare, and Enablex) are more intended for urgency leakage related to high pressure bladders without sphincter weakness. Side effects especially in the elderly can limit their use: these include dry mouth, constipation, and sometimes mental confusion. Physical therapy to the pelvic floor, biofeedback, and neurostimulation (e.g., implantation of an Interstim device) may again help for patients who are refractory to medications germane to the treatment primarily of urge or mixed (combination of urge and stress) incontinence.

Surgical treatment of male incontinence, in which this urologist has a special interest, is ideal for the normal bladder with weak sphincter. Most commonly this results from prostate cancer surgery, but can also be seen rarely after TURPs, as well as from aging and neurologic-related pelvic floor problems. The urologic device company AMS (American Medical Systems) makes two "male" devices for this problem, each with a 90+% satisfaction rate. The male sling ("Advance" sling), similar to those manufactured by the same and

other companies for female stress incontinence, is a permanent ribbon-like mesh placed through the perineum (space between scrotum and rectum) via small incisions. The sling is not placed in direct contact with the urethra and is pulled up snugly, thus upwardly re-positioning the proximal part of urethra below the prostate area, to where the sphincteric mechanism works better. The procedure is done as an outpatient and seldom causes trouble voiding. It is most effective with mild to moderate under 2 pad-per-day leakage (we can discuss in person what that means). For moderate to severe leakage greater than 2 pad-per-day leakage, an artificial sphincter (AUS) made of synthetic materials is a better choice. One or two cuffs are needed and are surgically placed around the urethra. These plastic donut-like devices use saline fluid to compress the urethra; the entire fluid system is a compact hydraulic engineering system for transfer backand-forth fluid between the cuffs and a reservoir below your pubic bone by way of an easily detectable/self-controllable intrascrotal pump. Rare problems include less-than-optimal function, infection, and early-vs.-delayed erosion of the cuff(s) into the inside of the perineal urethra, necessitating removal and the hope to "try again later". Having had radiation as a primary or secondary treatment of prostate cancer does increase the chance of local complications--but irradiated patients who do not have a high pressure bladder may nonetheless be surgical candidates.

Men who wear diapers should have hope; appropriate treatment depends on careful assessment by a qualified urologist as to the underlying cause, condition of the patient and his tissues and the likely outcomes for various therapies. Come to a good urologist 1st before investing in a company specializing in paper products! "I can't

hold it", in most cases, should not lead to a life of social isolation and despair.

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