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Ageing Changes in Urinary System

- Alternative Names
- Definition
- What is the information for this topic?

Alternative Names Age-related changes in the urinary system

Definition Normal changes occur in the urinary system as a person gets older.

What is the information for this topic?

The job of the urinary system is to get rid of waste and extra fluid in the body by making and excreting urine. The kidneys make urine by filtering the blood. This removes waste products and extra body fluid from the blood. Important substances can be returned to the blood after it is filtered.

The kidneys are the first part of the urinary system. Next are the ureters, tubes that carry urine from each kidney to the bladder. Another tube called the urethra allows urine to pass from the bladder out of the body. All of this system can be affected by aging.

Each kidney is made up of millions of filtering units called nephrons. At birth, babies have extra nephrons. However, the number of nephrons slowly decreases with age. When this number dips below a certain point, the kidneys start to lose function. This means waste and extra fluid are not filtered out of the body as well in older people.

The kidneys gradually get smaller with age, partly due to the loss of nephrons. Blood flow to the kidney is also reduced. This also impairs the filtering process. Another function of the kidneys is to balance the amount of salt and acid in the body. This function also declines with age, making it harder for the body to correct salt and acid imbalance problems.

Bladder tissue becomes much less elastic or stretchable with age. This decreases the amount of urine the bladder can hold. The muscles of the bladder also become weaker. This makes the bladder unable to squeeze hard enough to get rid of all the urine it contains. This means that more urine is left in the bladder after a person urinates. These two changes may cause an older person to have to urinate more often.

The sensation of needing to urinate is often delayed in older people. Normally, when the bladder gets to be nearly full, a person starts to feel the need to urinate. In older people, this need may be delayed. When an older person finally feels the need to urinate, the need may be sudden and urgent.

The pelvic floor muscles normally get weakened with age, especially in women. Childbirth contributes to this weakness. In fact, these pelvic muscles sometimes grow so weak that the bladder and urethra prolapse, or fall into the vagina. The end result is that older people may become incontinent, or lose urine involuntarily. The normal delay in feeling the urge to urinate adds to this problem to make incontinence quite common in the elderly.

Urine flow can also be blocked by an enlarged prostate gland in men. This condition is called benign prostatic hyperplasia or BPH, and is common in aging men. The prostate lies just under the bladder and surrounds part of the urethra. BPH may cause difficulty starting the urine stream, a weak urine stream, and dribbling of urine. An enlarged prostate also causes incomplete voiding of urine from the bladder. A man who has BPH symptoms should discuss it with his healthcare provider.

Many other problems with the urinary system are more common with age, but are not considered normal changes. For example, cancer, high blood pressure, diabetes, heart disease and other conditions can all lead to urinary system problems.