

Included in this article

- What is a Urinary Tract Infection
- Who gets UTIs
- Preventative Measures
- Contact a Dietitian



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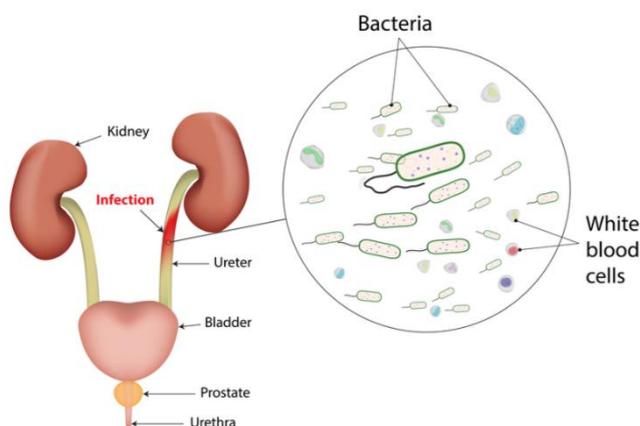


5 Star Services for Aged Care, Childcare & Retirement Living

Preventing UTIs in the Older Population

By OSCAR Care Group Dietitian Nilofar Dorani

Urinary Tract Infection



Age-associated changes in people 65 and over are likely to increase susceptibility to infections such as urinary tract infections (UTI). UTI is one of the most commonly diagnosed infections amongst older adults.

What is UTI?

UTI is defined as the presence of localized genitourinary symptoms (urgency to urinate, dryness, itching, discomfort and burning with urination, vaginal discharge), urinary tract inflammation as demonstrated by pyuria (presence of abnormal high white blood cell in midstream urine sample collection), & urine culture with an identified urinary pathogen or bacteria.

UTI can be life threatening if not diagnosed & managed in time, causing sepsis and even death in older people.

Who gets UTIs?

UTI accounts for approximately 30% to 40% of all infections in long-term care facilities.

According to an American study, higher occurrence of UTI were apparent in:

- Women over 65 (16.5% over a 6-month period)
- Women over 85 (30% within a 12-month period)

When compared to men.

Why do older women have more UTIs?

A variety of predisposing factors including postmenopausal state, worsening incontinence and disability, and greater exposure to antibiotics, changing the vaginal microorganism of older women are responsible for development of UTI in this population group.

The reason for increased incidents of UTI in the older population is likely due to significant functional decline & cognitive impairments.

Disorders such as dementia, Parkinson's disease, and stroke were often associated with involuntary voiding abnormalities, hindering adequate self-hygiene, increased risk of hospitalization, in addition the need for invasive procedures, prosthetic devices, short and long-term urinary catheterization.

Studies have also shown a link between the persistent presence of higher concentration of bacteriuria (reflects to the presence of a significant amount of bacterial colony in two consecutive urine sample collections) and the progression of dementia in older women.

Since older adults in a nursing home or long-term care facility often depend on others to take preventive measures against the UTI for them, therefore, it puts them at higher risk of exposure to nosocomial or antibiotic resistant infections and acquiring UTI.



Dehydration

Aging populations are prone to dehydration due to physiological changes, physical and cognitive impairments, hence, making them more susceptible to developing UTI. A systematic review supported from the evidence demonstrated, low fluid intake and dehydration are associated with the development of UTI in older people.

Fluid Intake

Recommended baseline fluid intake of 1.5L/day was linked to effectively prevent the occurrence of UTI in the study population. However, the study indicated, not enough evidence to support its findings. It concluded that the recommended daily water/fluid intake is likely to be responsible in diluting the urine concentration and the accumulated bacteria present in the urinary tract. Subsequently, resulting in frequent voiding which can potentially lead to elimination of the bacteria from the urinary tract.

Therefore, infection increases the demand for prevention, optimization of body requirements such as hydration status, protein, & energy requirements, supporting an ideal internal body environment for the older population, potentially aiding in reduction of bacterial spread in the bladder.

The primary step in taking a preventive measure for UTI in an Aged Care setting is to monitor residents':

- Adequate nutrition (preventing malnutrition)
- Adequate hydration (considering individual's body requirement and comorbidities)
- Incontinence pads or underwear and promptly changing when wet
- Personal hygiene
- Symptoms of UTI (fever, burning, frequent urination, discharge, loss of weight and appetite)



Meeting Nutritional Requirements of the Elderly

Energy: Malnutrition or low body weight is associated with reduced immune response, leading to an increased rate of infection. Therefore, it is critically important that residents are within a healthy weight range, meeting their daily energy requirements through diet and if malnourished, making sure their meals are fortified with extra high energy food options such as oils, butter, cream, cheese, recommendation of extra high energy supplements to meet the body's daily energy requirements to reduce the infection rate.

Protein: Inadequate protein intake from diet is associated with impaired immune response and inability to fight infections in older adults. Older adults require more protein/kilogram body weight than younger adults (at least 1.0 gram/kilogram body weight) due to loss of lean body mass and immobility. High-quality protein sources are meat, poultry, seafood, eggs, milk, skim milk powder, cheese, yoghurt, custard, tofu, legumes, beans and grains. If adequate protein is not achieved through diet, supplementation of protein drink is recommended to compensate for the increased body requirements of frail and older adults.

Fluid: Recommendation of adequate daily hydration and fluid intake such as water, juice, tea will play a vital role in washing away the bacterial growth present in the bladder.



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- UTI is one of the most commonly diagnosed infections amongst older adults.
- UTI can be life threatening if not diagnosed & managed in time, causing sepsis and even death in older people.
- Adequate nutrition, hydration & hygiene can assist in preventing Urinary Tract Infections



Do you need further information about assisting someone to prevent UTIs?

This article was written by Nilofar Dorani, **OSCAR** Care Group Dietitian.

Please call or email our Allied Health professionals via the contact details below.

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