



Dementia

Elderly in Assisted Living Facilities Have High Rates of Dementia

In a recent Johns Hopkins study, two-thirds of assisted living residents were diagnosed with dementia. "These high rates indicate that many assisted living residents with dementia go undiagnosed and are not adequately treated," said Adam Rosenblatt, M.D., assistant professor of psychiatry at Johns Hopkins and lead author of the study (*Journal of the American Geriatric Society*, October 2004.)

Supporting Dementia Care

QuietCare® is particularly appropriate for residents who may not be aware of, or able to articulate, changes in their health. It also helps us to keep the senior in their familiar surroundings, which is critical for their well-being and for avoiding the progression of dementia which can result from a change in their environment.

How Does QuietCare Help?

QuietCare recognizes and reports normal, healthy behaviors—and significant changes—during the times the senior is alone in their residence. When there are changes in behavior that indicate potential health problems or dangerous situations, QuietCare alerts caregivers so that they can provide appropriate medical attention. QuietCare is a major step forward in proactive care, helping those with dementia to enjoy a higher quality of life, maintaining their dignity and privacy without compromising safety.

- **Wander (Night Movement and Night Exit):** Caregivers are often concerned that a person with dementia will wander at night, putting themselves or others at risk. QuietCare can immediately alert caregivers to any night-time movement or if they exit their apartment.
- **Night-Time Activity:** Sleep dysfunction is common in persons with dementia. With QuietCare's Night Motion feature and the night activity chart, caregivers are alerted that the senior has gotten out of bed and that they should check on them immediately. Seniors with dementia are at greater risk of night-time falls and accidents due to poor judgment and confusion.
- **Bathroom Visits:** QuietCare allows caregivers to customize a time frame for bathroom visits. If the designated time is exceeded, an alert is automatically sent to the caregiver. The senior may have fallen or is spending too much time in the bathroom and not report illness symptoms such as vomiting, diarrhea, constipation or bladder problems.
- **Meal Preparation:** Frequent refrigerator visits may indicate that the senior is hungry but unable to communicate this. A change in this pattern could also be a significant indicator that there is a progression of the disease.
- **Overall Activity Levels:** Sleep disruption is common in the senior with dementia, who will often nap in the daytime and stay awake at night. QuietCare enables caregivers to schedule services and visits at times appropriate to the individual's body clock so as to not interfere with their much needed sleep. Also, different forms of dementia exhibit unique symptoms that can be detected with QuietCare's overall activity level indicator. For example, Lewy Body Dementia is characterized by hallucinations that often cause an individual to be abnormally active.

In addition to the above, QuietCare's reports also help physicians to evaluate the effectiveness of medications, and to adjust them as needed.



Diabetes Monitoring

Seniors and Diabetes

According to the American Diabetes Association, approximately 18.3% (8.6 million) of Americans aged 60 and older has diabetes. The prevalence of the disease increases with age; an estimated 50% of all diabetes happens in those 55 and older. The risk of developing diabetes also increases with age.

Seniors face unique diabetes management challenges. Older Americans are also more likely to have complicating conditions such as retinopathy, hypertension, and kidney problems.

How Does QuietCare help?

QuietCare® recognizes and reports normal, healthy behaviors—and significant changes—during the times the senior is alone in their residence. When there are changes in behavior that indicate potential health problems or dangerous situations, QuietCare alerts caregivers so that they can provide appropriate medical attention. For those who are prone to complications of a disease process such as diabetes, QuietCare provides caregivers with a unique insight into the person's lifestyle pattern and associated risk factors. Controlling their diet, exercise and medications is key to reducing the risk of diabetes complications. QuietCare is a major step forward in proactive care, helping people with diabetes to enjoy a higher quality of life and avoid serious health complications, while maintaining their dignity and privacy.

- **Night-Time Activity:** Knowing that an individual is “active” at night is important, as steps can be taken to adjust medications according to lifestyle. In many cases, insufficient sleep may affect the person's blood sugar level.
- **Bathroom Visits:** People with diabetes have a higher risk of a urinary tract infection (UTI) because of changes in or suppression of the immune system. Frequent urination is often a symptom of uncontrolled blood sugar levels. QuietCare tracks and “baselines” the frequency of bathroom visits, and the caregiver is notified of significant changes. Proper medical treatment and medication management or changes can then be initiated before the illness becomes a crisis.
- **Meal Preparation:** QuietCare monitors refrigerator usage as an indicator of meal preparation patterns. For instance, excessive thirst is one of the signs of uncontrolled diabetes. QuietCare also enables the caregiver to monitor the senior's compliance of diabetic-required snacks. In addition, insulin is usually kept in the refrigerator, so QuietCare provides another way to observe whether the senior has taken this necessary medication on time.
- **Medication:** Forgetting to take medication is a common problem and potential risk factor. QuietCare monitors the person's medication area so that caregivers can check that medications are being taken at the appropriate times.
- **Overall Activity Levels:** In the diabetic, activity plays a very important role in the amount of diabetic medication required for controlling blood sugar levels. QuietCare enables the physician to see the amount of activity within in their apartment at all times of the day, without relying on the senior's memory. An added benefit is that QuietCare information over time can be printed for the physician's review.

In addition to the above, QuietCare's reports also help physicians to evaluate the effectiveness of medications, and to adjust them as needed.



Fall Prevention

Why Is Fall Prevention Important?

Falling is not an inevitable part of aging, but the risk of falling increases with age. Falls are a major cause of disability and the leading cause of injury deaths among people 65 or over (Centers for Disease Control, 2006). Over 13,000 deaths in older Americans are associated with falls each year (CDC, 2003). Falling and the fear of falling can make older people lose confidence and increase dependency upon others to carry out normal day to day tasks. The most profound effect of falls is the loss of independent functioning. Approximately 25 percent of people 75 or over unnecessarily restrict their activities because of fear of falling (National Institute on Aging).

Prevention Is Better

There are many factors that can be addressed to reduce the risk of falling: balance impairment, muscle weakness, inactivity, loss of vision, medication interactions or side effects, home hazards and sudden illness.

How Does QuietCare Help?

QuietCare recognizes and reports normal, healthy behaviors—and significant changes—during the times the senior is alone in their residence. When there are changes in behavior that indicate potential health problems or dangerous situations, QuietCare alerts caregivers so that they can provide appropriate medical attention. For those at risk for falls, QuietCare provides caregivers with a unique insight into the person's lifestyle pattern and associated risk factors. It is also a highly reliable emergency notification system for falls, so that caregivers can check on the senior immediately. QuietCare is a major step forward in proactive care, helping seniors enjoy a higher quality of life and avoid serious health complications, while maintaining their dignity and privacy.

- **Night-Time Activity:** 70% of falls occur at night. Knowing that an individual is unusually “active” at that time is important. Medications and lifestyle factors can be checked, and potential hazards can be reduced in the home.
- **Bathroom Visits:** An increase in bathroom visits can mean an emerging healthcare condition, such as urinary tract infections, stomach upsets or a reaction to medication. These may cause the person to lose balance, mobility and becoming generally weak – all factors that increase the risk of falling. QuietCare tracks changes in frequency and duration so that caregivers can take action earlier.
- **Meal Preparation:** A balanced diet, fluid intake and meals taken at appropriate times helps maintain muscle and bone strength, hydration and blood sugar levels, all factors in preventing falls. QuietCare monitors refrigerator usage as an indicator of meal preparation.
- **Medication:** Forgetting to take medication is a common problem and potential risk factor. QuietCare monitors the person's medication area so that caregivers can check that medications have been taken at appropriate times.
- **Overall Activity Levels:** Reduced activity can result in an increased risk of falling. QuietCare reports the level of activity in the residence and alerts caregivers to significant changes.
- **Visitors:** QuietCare monitors movement through the front door. This provides caregivers with insights into the time and frequency of visits.
- **Wander (Night Movement and Night Exit):** If you are concerned about a person who can put themselves at risk by wandering at night, QuietCare can immediately alert you to any night-time movement or if they exit the apartment.

QuietCare also alerts caregivers to emergency situations, such as a bathroom fall, no morning bedroom exit, dangerously low/high room temperatures or a high fall risk resident getting out of bed without assistance.



Sleep Deprivation

Sleep Deprivation is Dangerous

Sleep deprivation can severely affect the health and well-being of an older person. Many elderly people suffer from insomnia and other sleep disorders. When combined with other issues associated with aging, Alzheimer's and dementia, lack of sleep puts the individual at very high risk for a variety of health issues:

- A higher incidence of falls and accidents
- A compromised immune system, decreasing resistance to infections. A recent study at San Diego's Veteran Medical Center found that reducing nightly normal sleep time by half decreases the activity of T-cells, the cells that destroy bacteria, viruses and tumor cells (*Great Body After 50*, Mary DeSalniers).
- Stress, depression and other behavioral issues, such as confusion, memory loss, irritability or emotional highs and lows. Sleep loss may also trigger other psychiatric disorders (National Sleep Foundation).

How Does QuietCare Help?

QuietCare recognizes and reports normal, healthy behaviors—and significant changes—during the times the senior is alone in their residence. When there are changes in behavior that indicate potential health problems or dangerous situations, QuietCare alerts caregivers so that they can provide appropriate medical attention. QuietCare is able to objectively track the senior's activity and sleep patterns, providing caregivers with much needed insight. QuietCare is a major step forward in proactive care, helping seniors to enjoy a higher quality of life, maintaining their dignity and privacy without compromising safety.

- **Night-Time Activity:** QuietCare identifies the amount of activity in the person's apartment during the normal sleep/rest period. With the Night Motion feature and the night activity chart, caregivers are alerted that the senior has gotten out of bed and that they should check on them immediately. This valuable information enables us to intervene and correct problems earlier.
- **Bathroom Visits:** An increase in night-time bathroom visits shows how often and how long the person is spending in the bathroom when they should be sleeping. Frequent night-time bathroom visits may be indicative of a health problem or illness that should be addressed immediately.
- **Meal Preparation:** QuietCare monitors refrigerator usage as an indicator of meal preparation patterns. Sometimes the physician may recommend reducing fluids prior to bedtime or have an evening snack to facilitate sleep. We can see if the senior is in compliance with the care plan.
- **Medication:** Forgetting to take medication at the right times and medication sensitivity are common problems among seniors and may be factors in sleeplessness. QuietCare monitors the person's medication area so that caregivers can check that medications are being taken at the appropriate times.
- **Overall Activity Level:** QuietCare's tracking can establish the person's sleep/rest pattern over a 24-hour period. Caregivers can proactively respond to deviations in the normal sleep pattern and encourage changes in waking time, increased activity or naps if necessary. QuietCare enables the scheduling of services and visits at times appropriate to the individual's body clock, to not interfere with their much needed sleep.
- **Wander (Night Movement and Night Exit):** QuietCare monitors movement through the front door. If not by a caregiver, the senior is awake and has left the apartment.

QuietCare also alerts caregivers to emergency situations that can affect the senior, such as a bathroom fall, no morning bedroom exit, dangerously low/high room temperatures or a high fall risk resident getting out of bed without assistance.



Urinary Tract Infections

What Is a Urinary Tract Infection?

Urinary Tract Infection (UTI) is a common problem in the elderly. UTIs account for 7 million visits to physicians' offices and are a contributing factor in over 1 million hospital admissions in the U.S. annually (*New England Journal of Medicine*, Vol. 329:1328-1339). While infections of the urinary system (the kidneys, ureters, bladder and urethra) are highly treatable, they can be very serious—even life threatening—to seniors. They also contribute to dehydration and loss of balance, which dramatically increases fall risk and further complications. Elderly people with Alzheimer's disease or dementia pose particular problems for caregivers. They may not be able to sufficiently verbalize how they feel or what is wrong. Thus it is important to recognize the behavioral symptoms of urinary tract infection to ensure prompt treatment.

How Does QuietCare Help?

QuietCare recognizes and reports normal, healthy behaviors—and significant changes—during the times the senior is alone in their residence. When there are changes in behavior that indicate potential health problems or dangerous situations, QuietCare alerts caregivers so that they can provide appropriate medical attention. Especially in the elderly with Alzheimer's or dementia, urinary tract infections or constipation can produce significant behavioral changes. By recognizing changes early, caregivers can intervene and help avoid preventable hospitalizations. QuietCare is a major step forward in proactive care, identifying potentially serious health problems earlier while maintaining seniors' dignity and privacy.

- **Night-Time Activity:** QuietCare identifies that an individual is active at night, which may indicate that a person is developing a UTI. An alert is automatically sent to the caregiver to make them aware of this change in their usual pattern.
- **Bathroom Visits:** An increase in day and night bathroom visits is an important and early symptom of a UTI. If it is caught in the beginning stages, antibiotic treatment can prevent hospitalization so that the senior can recover in their residence.
- **Meal Preparation:** QuietCare monitors refrigerator usage as an indicator of meal preparation patterns. Encouraging fluid consumption is a measure used when a UTI is present or to help prevent reoccurrence. Caregivers can more easily check that the senior is drinking the recommended amount of fluid through the day.
- **Medication:** The treatment for a UTI usually includes antibiotic therapy. QuietCare monitors the person's medication area so that caregivers can check that medications are being taken at the appropriate times.
- **Overall Activity Levels:** Each day, QuietCare reports the level of activity in the senior's residence. A reduction in general activity or an otherwise active individual suddenly remaining at home for fear of having an accident can be the result of a urinary tract infection. After treatment, a return to normal activity levels can be an excellent indicator of effectiveness.
- **Wander (Night Movement and Night Exit):** Urinary tract infection may affect the senior's mental status sufficiently so that the senior may wander at night. QuietCare can immediately alert caregivers to night-time movement or exiting the residence.

One of the most common conditions in the elderly is diabetes, affecting 8.6 million people over 60 years of age. They are at greater risk for urinary tract infections due to changes in their immune system as a result of the disease; in fact, any disorder that suppresses the immune system raises the risk of a urinary infection.