



Sundowning:

Difficult Behavior at the End of the Day

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Introduction

Sundowning syndrome is a complex medical condition that occurs when a person becomes confused or agitated at nightfall. Most often occurring among those with a diagnosis of dementia, it can also affect people without. The name offers a clue to the nature of the condition, which is characterized by nervous, restless and sometimes disruptive behaviors that begin around sunset and may last into the night.

Caring for or living with someone who experiences sundowning syndrome can be difficult. The behaviors associated with the condition can affect the lives of a patient's caregivers and family members. Fortunately, there are some steps that caregivers can take to help reduce the risk factors that may contribute to sundowning and help limit the occurrence or severity of the behavior.

Read below to learn more about some potential causes, risk factors and methods for reducing sundowning syndrome so you can help the person or people in your life who experience this condition.



1. History and Medical Research

Sundowning syndrome was first described in the literature of modern medicine in 1941 by a British physician named Ewen Cameron, who called the condition “nocturnal delirium.” Cameron described patients who experienced disorientation, agitation and panic around bedtime. What differentiates sundowning from delirium is the associated behaviors worsen in the evening.

Despite the fact that more than 75 years have passed since the syndrome was first observed, a clear cause for the condition remains unknown. You won’t find sundowning in the Diagnostic and Statistical Manual of Mental Disorders — it’s not considered a diagnosis. But talk to someone who works with elderly patients and they will be familiar with the concept of sundowning and its associated behaviors.

How Common Is Sundowning?

Medical literature about sundowning estimates that it occurs in as few as 2.4 percent of people to as many as 25 percent. But if a person has received a diagnosis of dementia — the most common type of which is Alzheimer's — that range increases dramatically, from 2.4 percent to 66 percent.

It is unknown whether gender or race factor into whether someone is more likely to experience sundowning, meaning it is an equal opportunity syndrome, according to current medical knowledge.



2. Behaviors

Sundowning is a collection of disruptive behaviors that, unlike delirium, tend to only occur during the evening hours. How do you know if someone you care for is suffering from sundowning syndrome? Observe whether they experience some common behaviors at sunset or at night.

Behaviors you may observe in someone experiencing sundowning syndrome include:

- Confusion
- Anxiety
- Agitation
- Aggressiveness
- Restlessness
- Panic
- Increased motor activity like pacing or wandering
- Resistance to redirection
- Increased verbal activity like yelling

These behaviors may be present in any combination, but they will become worse around nightfall and may continue throughout the evening. Sometimes those who are suffering a sundowning episode may even experience hallucinations. They may also exhibit behaviors like refusing to take medication, blurring the lines between reality and dreams, or insisting on going “home” to their children even if they live in a nursing home or assisted living facility.

Even if a person has dementia, during a sundowning episode they will seem more confused, nervous and tense than their baseline of behaviors during the daytime. Occurrences of sundowning may vary in intensity and duration.



3. Risk Factors

It's important to consider risk factors for sundowning because if caregivers can help identify a person's risk factors, they can work to reduce them. In turn, minimizing those factors could help lessen or eliminate episodes of the syndrome.

So what are the risk factors? This is a hot topic in the medical field right now, and it's only going to heat up more. Some factors believed to increase someone's risk factors for sundowning include age, fatigue, environmental factors and damage to a part of the brain called the suprachiasmatic nuclei (SCN).

Sleep and Damage to the SCN

People spend a third of their lives in the physiologic state of sleep, which is finally starting to get the attention it deserves from medical experts because it is clearly tied to health. Restful sleep is like a powerful medicine. Sleep — or lack of it — can impact those who experience sundowning.

As those with dementia age, damage begins to occur to SCN, which is positioned very deep in the brain beneath the hypothalamus. Data indicates that this is a sleep-promoting center, and that it is affected by light and temperature, along with certain kinds of neurotransmitters, like melatonin.

Our brain produces melatonin, and evidence indicates that melatonin helps induce and maintain sleep. Melatonin is a protein that is triggered by darkness, so as darkness falls, we get more of it. As light occurs, it fades out. People lose melatonin as they age.

Some experts believe a risk factor for sundowning syndrome may be damage to the SCN, causing a loss of volume and neurons. With this damage cellular physiology and metabolism is also lost. All these factors could contribute to the experience of sundowning.

Unfortunately, it is not yet known how to avoid damage to the SCN, but that could be on the horizon.

Environmental Conditions

Another risk factor believed to affect sundowning is a person's environment, including noise, lighting and other distractions. If you visit a memory care unit at a nursing home at 9 a.m. and then 5 p.m., you'll notice differences in these ambient factors. The lighting will be different, the staff will likely have changed and unique noises may be present.

At night, residents will have a different level of exposure to artificial or natural light. Shadows may appear. Residents may be exhausted or depleted from daytime activities. Noises like bed alarms, medical devices and medication dispensations may cause disruptions. Any of these elements may trigger sundowning.

Medication and Medical Conditions

Medication may also be a risk factor for sundowning. Medications are dispensed in different dosages, and may have differing concentrations throughout the day. So people that are getting morning medicines may experience a drop in concentration by 4 p.m.

A patient's medical conditions may also impact sundowning. Imagine someone with congestive heart failure, arthritis and type 2 diabetes that causes their blood sugar levels to swing. Imagine they've had a hip replacement and a knee replacement. Even if they wake up feeling refreshed and full of energy, they may begin to experience pain as the day wears on. This could contribute to an episode of sundowning.

Circadian Dysregulation

Some of the current medical thinking is that sundowning may have a lot to do with circadian dysregulation. This means that the circadian rhythm — or the 24-hour process that living beings undergo, which can be affected by light and temperature — becomes misaligned somehow.

One of the theories is that perhaps dementia patients experiencing sundowning syndrome are getting inadequate exposure to light early in the day. And this could be coupled with damage to the SCN and decreased melatonin production. Then later in the day, lighting becomes lower and shadows appear. If you already have a baseline of confusion, these other factors can turn it up a notch.



4. Managing Risk Factors

So how can risk factors for sundowning be reduced? There are steps you can take to help reduce the likelihood that someone with sundowning syndrome will experience an episode, including medication, environmental modifications and some other therapies.

Medications

Some research suggests that circadian disruption can be corrected by taking melatonin. If you go to the health food section of a grocery store, there will probably be 50 brands of melatonin in doses ranging from 0.3 to 300 milligrams. Ask the health food section supervisor for the most reputable brand at a dose of three milligrams, which is the dose that has been studied. Note that melatonin should be taken way before bedtime, not at bedtime.

Sleeping pills and anti-anxiety medicines, or benzodiazepines, are medications that are sometimes discussed with regard to managing sundowning risk factors. Some of these will keep a patient “knocked out” until 10:00 or 11:00 a.m. the next day. Short-acting pills might help a person sleep from one to four hours, but then they may get up and wander again. There's a time and a place for these methods.

Benzodiazepines are primarily prescribed to treat anxiety and are not approved as sleeping pills, but they are often used that way. The danger with using this type of drug to treat sundowning is that it often makes older patients more excited and agitated instead of calm. In other words, they can worsen the syndrome.

Then there are the “heavy artillery,” atypical antipsychotics. Those are not indicated by the FDA for the condition, but sometimes they are prescribed. These medications should be reserved for that patient in which the sundowning behavior involves very evident aggression and agitation and where there are safety risks. Talk to a patient’s doctor about their medications and pharmacologic treatments.

Other Options

Light: Turn on the lights in the morning, for example, from 9:30 to 11:20 a.m. You can also purchase light boxes to increase a person’s exposure to light.

Pain management: A dose of acetaminophen like Tylenol at bedtime may help patients sleep through the night without being woken by pain.

Behavior modification: These programs delivered by caregivers in memory and assisted living units and nursing homes help patients using redirection, reassurance and distraction. That might include a set bedtime routine that involves soothing sounds and familiar objects.

Other therapies: Music therapy, aromatherapy and simulated presence therapy often help. Technology can be useful by allowing patients to interact with loved ones and providing comfort.

Sleep hygiene: Consider whether a routine for sleep is stimulating a person instead of decompressing them. Reduce caffeine and sugar later in the day. Avoid television before bedtime. Keep a person active earlier in the day without overdoing it, so they become sleepier at bedtime, which may help reduce instances of sundowning.

Conclusion

Caring for someone with sundowning syndrome can be difficult and exhausting. If you see someone who is experiencing the symptoms of the condition, you want nothing more than to help alleviate their suffering. Learning more about sundowning goes a long way toward empowering yourself in your caregiving role.

Try the methods included in this book to help reduce episodes of sundowning. Talk to medical experts for advice on any potential medication or behavior modification changes. Hopefully, armed with an increased knowledge of sundowning and its risk factors, you can help eliminate or reduce the episodes of the condition – and be on your way to more restful nights.

Additional Resources

[Watch the free training video that this ebook is based on by clicking here.](#)

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