

The education class Dementia 101 provides an in-depth explanation of Alzheimer's disease and related dementias that is very helpful and provides people with the opportunity to get educated about it. First, I learned that Navigating the terminology surrounding dementia can be challenging, especially for those new to the condition. Mild cognitive impairment, or MCI, is a term used to describe memory or cognitive changes that are more severe than normal age-related changes but not severe enough to interfere with daily function. Dementia, or major neurocognitive disorder, is not a diagnosis but a syndrome that describes symptoms caused by various underlying medical conditions. Alzheimer's disease, the most common cause of dementia, is an irreversible, progressive brain disorder. The younger onset of dementia is a different type of dementia with symptoms that first appear in a person younger than 65 years old. Understanding these terms can help individuals better comprehend and manage the complexities of dementia.

Second, I learned that it is important to keep in mind that there are many treatable causes of cognitive changes that may initially be mistaken for symptoms of dementia. Symptoms of depression, for example, can closely align with those of dementia, such as foggy thinking, poor memory, and lack of initiative. Additionally, illness, infection, or a medication reaction can cause symptoms that mimic those of dementia. Dehydration, malnutrition, and inadequate sleep can also impact cognition. Stress can contribute to the inability to think clearly and use good executive function to solve problems. Even sensory loss, such as reduced hearing or vision changes, may impact the information our brain is taking in, which can affect cognition. The good news is that all of these causes can be treated, so it's important to seek medical advice to rule out any underlying conditions that may be contributing to cognitive changes.

Third, I learned that there are several non-alzheimer's dementia such as, lewy body dementia (identified by a particular protein that is occurring in the brain and disrupting cognition), vascular cognitive impairment (related to things such as heart disease), frontotemporal disorder,

and mixed dementias (a person can have two or more types of dementia occurring together at the same time). Each of these different types of dementia is caused by a different pathology, they all have their own unique sets of symptoms. On the other hand, I learned that Alzheimer's disease is a neurodegenerative disease affecting memory and behavior. Dr. Alois Alzheimer was the first doctor to describe the syndrome that now bears his name. He found that the characteristics of Alzheimer's disease are plaques and tangles made of two naturally occurring proteins that we have in our bodies, called amyloid and tau. Beta amyloid protein forms between the brain's nerve cells, disrupting communication and the way the brain works. Meanwhile, the tau proteins form inside the neurons, disrupting cell function in the brain. Accumulations of these two proteins cause significant disruption in the brain's ability to function properly. It is important to note that each type of dementia affects the brain differently, and there are many factors that can influence the course of the disease, making it difficult to predict what a person will experience.

Fourth, I learned that there are many symptoms of dementia that are not age-related changes. Some possible symptoms of dementia that are not a part of normal age-related changes include memory loss, difficulty in thinking, physical changes, and changes in behavior. Memory loss may manifest as getting lost in familiar places and forgetting the function of objects. Meanwhile, thinking difficulties may include language-related issues like difficulty expressing thoughts or comprehension difficulties when reading, writing, or working with numbers. In some cases, decision-making and judgment struggles may be present, as well as a lack of insight and reasoning ability. Physical changes may include visual-spatial field changes, such as a narrower visual field, which could affect depth perception or the ability to perceive contrast, as well as problems with balance and coordination. Additionally, changes in behavior are not a normal part of aging and may include mood or personality changes, social withdrawal, difficulty in initiating new tasks, and changes in normal daily routines.

Fifth, I learned that Alzheimer's disease and related dementias have several risk factors that have been identified. Any kind of loss of consciousness has been found to increase the risk of developing dementia at some point in life. Individuals with Down syndrome are also at risk due to the specific chromosome that they possess. Additionally, being female is also a risk factor, although the reason for this is unknown. However, the most significant risk factor for Alzheimer's disease and related dementias is age. As people age, their risk of developing these conditions increases. To lower the risk of Alzheimer's disease and related dementias, there are several things that individuals can do. It is important to maintain a balanced diet and get regular exercise, which can have a positive impact on overall health. Stimulating the brain through activities such as reading, playing games, or learning new skills can also help to lower the risk. Having strong social connections and maintaining emotional health can also be beneficial. Finally, getting quality sleep is important for overall brain health and can contribute to a lower risk of developing these conditions.

Sixth, I learned that regular screening for Alzheimer's disease and related dementias can provide several benefits. It can help individuals establish their baseline and detect changes early, which is important for ruling out reversible causes of memory change. Early detection and accurate diagnosis can also provide several benefits, including appropriate treatment and care planning for individuals. Medications can be more effective when started early, and there is more time for advance planning. Additionally, individuals may have greater opportunities to participate in clinical trials that can lead to better treatment options and improved outcomes.

Seventh, I learned that disease progression for Alzheimer's disease and related dementias varies for each individual. Generally, there is a slow and steady decline in function over time, but symptoms and severity are difficult to predict. The disease can be divided into three stages: early/mild, middle/moderate, and late/severe. In the early/mild stage, individuals can maintain independence but may experience short-term memory loss, occasional confusion or disorientation, and problems with instrumental activities of daily living. In the middle/moderate

stage, more support may be needed as memory loss, confusion, and disorientation increase. Individuals may have difficulty with basic activities of daily living, and more supervision is needed. In the late/severe stage, verbal communication is limited, and individuals require more supervision as difficulty with function increases. Throughout the disease, individuals with dementia can still make and communicate decisions, express feelings and respond to emotional connections, engage in modified work and recreational activities, and connect through sensory and non-verbal communication.

Eighth, I learned that symptom management for Alzheimer's disease includes the use of five available medications to delay or prevent the worsening of symptoms for a limited time. Cholinesterase inhibitors such as Aricept, Exelon, and Razadyne can control some behavior and delay symptoms, while glutamate regulators like Namenda can delay later symptoms and maintain daily functions. Adapting to a new normal involves addressing physical and emotional needs, validating experiences and emotions, avoiding arguments, correcting, and confrontation, adjusting expectations, and adapting the environment.

Ninth, I learned that when it comes to dementia, safety considerations are of utmost importance. People with dementia have a higher risk of falling, which is why environmental modifications can be taken to prevent falls. They are also at a higher risk of medication errors and abuse, and as their executive function declines, driving becomes a safety concern for the individual and the community at large. People with dementia also have a high risk of wandering, which is why programs like Take Me Home in San Diego can be helpful. This program allows for people living with dementia to be registered and have their information shared with various law enforcement departments in case they wander and become lost. Taking these safety measures can help prevent accidents and ensure a higher quality of life for those living with dementia.

All in all, receiving a diagnosis of dementia can be overwhelming, but taking steps to prepare for the journey can make a significant difference in quality of life. It's important to educate yourself, build a strong support network, take care of your physical and emotional

health, and plan for your financial future. Remember to take regular breaks, see your doctor regularly, and get enough rest. By doing these things, you can empower yourself to manage the disease and maintain your independence and dignity for as long as possible.

Time took to complete: 6 hours and 30 minutes