

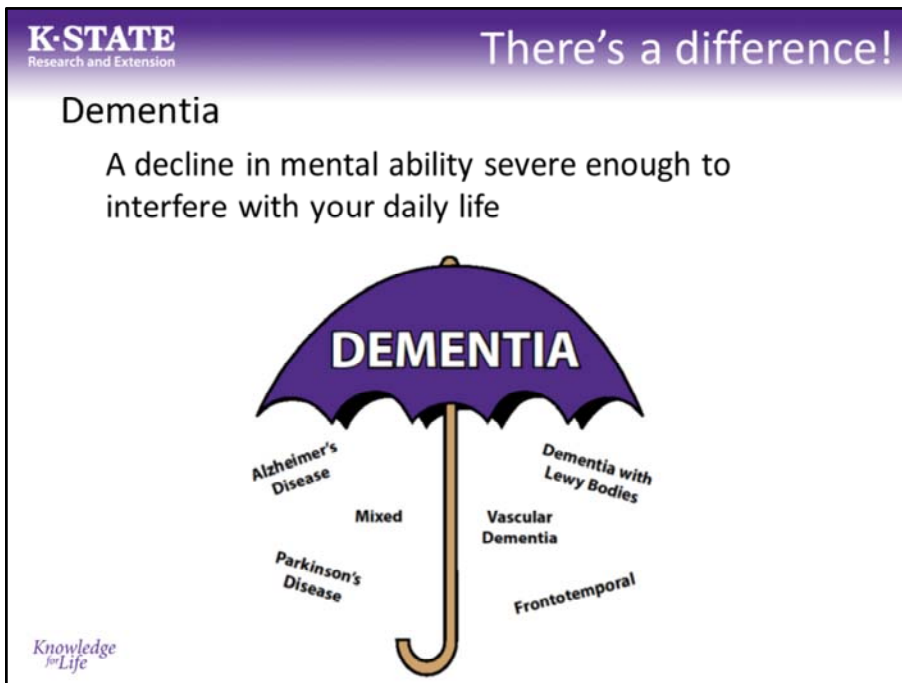
Alzheimer's 101

“Alzheimer’s disease is the biggest health crisis facing the world today.”

Thank you for coming today! So we’re here to talk about Alzheimer's – but why? How many of you in this room know someone with Alzheimer’s disease or dementia?

These days, most people in a room will know someone with Alzheimer’s – and that’s scary. Multiple experts and sources have called Alzheimer’s “the biggest health crisis facing the world today”, and from the show of hands in this room, you can see why.

Today we’re going to talk about: the difference between Alzheimer’s and dementia, the warning signs of Alzheimer's, why early detection and diagnosis are so important, and steps you can take to better your own brain health.



I would like to start out by discussing some key terms that you'll hear about today – dementia and Alzheimer's. What's the difference?

Dementia is an umbrella term used to describe a set of symptoms. Specifically, its definition is “a decline in mental ability severe enough to interfere with your daily life”. There are several causes of dementia – the largest of which is Alzheimer's disease. So – dementia is a symptom of Alzheimer's disease. There are also other causes of dementia and you can see the most common causes underneath this dementia umbrella: Alzheimer's disease, mixed, Parkinson's Disease, Dementia with Lewy Bodies, Vascular, and Frontotemporal.

More information on each cause of dementia listed:

Vascular dementia is the second most common cause of dementia, accounting for 10% of dementia cases. Vascular dementia, previously known as multi-infarct or post-stroke dementia, is generally caused by a stroke or other conditions that block or reduce blood flow to the brain.

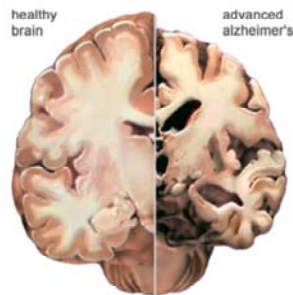
Dementia with Lewy Bodies is the third most common cause of dementia, after Alzheimer's disease and vascular dementia. Dementia with Lewy Bodies is unique in that it can cause severe visual hallucinations, delusions, and physically acting out dreams (sometimes violently). Dementia with Lewy Bodies has been compared to “a terrorist living within the brain”.

Mixed dementia occurs when two or more abnormalities occur simultaneously in the brain – most commonly Alzheimer's and vascular dementia.

As Parkinson's Disease progresses, it often results in a progressive dementia.

Finally, Frontotemporal Dementia is hallmarked by changes in personality and behavior.

An irreversible, progressive brain disease that slowly destroys memory and thinking skills and, eventually, the ability to carry out the simplest tasks.

Knowledge
for Life

So, we know that dementia is a symptom of Alzheimer's disease – so what is Alzheimer's? Alzheimer's is an **irreversible, progressive** brain disease that slowly destroys memory and thinking skills and, eventually, the ability to carry out the simplest tasks.

You can see from this visual representation that Alzheimer's disease actually changes the size and structure of your brain. A normal, healthy brain is thick and plump with normal ridges and bumps. A brain with Alzheimer's is significantly smaller, has many more "black holes" filled with fluid, and the hippocampus has degenerated.

One of the biggest misconceptions about Alzheimer's disease is that it will not kill you. Alzheimer's disease can kill you and is estimated to be the third leading cause of death among older Americans. As you can see from this photo, Alzheimer's disease attacks and breaks-down your brain. It starts in the hippocampus – where your short-term memory is stored – and goes from there.

Optional additional information

The hippocampus is in the center/back of your brain (point halfway up the back of your head). Alzheimer's disease deteriorates this part of the brain so much that it starts out the size of a thick, plump, cocktail wiener and can eventually shrivel down to the size of a pea. Remember, this is where your short-term memory is stored. This is the reason why so many people with Alzheimer's can remember what happened 40 years ago, but cannot tell you what they did 5 minutes ago.



So now we've talked about the difference between dementia and Alzheimer's and what Alzheimer's disease is – so what are the signs? What should you be looking out for? According to the Alzheimer's Association, there are 10 warning signs of Alzheimer's disease.

Memory loss that disrupts your daily life

With typical aging, a person sometimes forgets names or appointments, but will remember them later. One of the most common signs of Alzheimer's disease, especially in the early stages, is forgetting recently learned information. To compensate for this, a person with Alzheimer's might ask the same questions repeatedly or rely on memory aids, such as sticky notes.

Challenges in planning or solving problems

How many of you have made a mistake when preparing a recipe, balancing your checkbook, or something similar? Doing that occasionally is normal! What is not normal is when these challenges occur more frequently and consistently.

Difficulty completing familiar tasks

How many steps does it take to tie your shoes? [Wait for an answer – most people will say 4 or 5]. It's different for everyone – some people do rabbit ears, some people loop-de-loop. But, for a person with Alzheimer's it's a lot more complicated. Where are my shoes? Which one is my left foot? Which shoe goes on my left foot? Which is my right? What was I doing?

Confusion with time or place

How many of you have ever forgotten what day it was? And how many of you remembered it later? That's normal! With Alzheimer's, however, people can lose total track of dates, seasons, and the passage of time. Sometimes they'll forget where they are and how they got there.



Trouble understanding visual images and spatial relationships (pronounced: spay-shul)

Typical aging includes vision changes – you might need glasses or even develop cataracts. But for some people, vision decline can be a sign of Alzheimer’s. Have you ever heard of a person with more advanced Alzheimer’s being scared to take a shower? This problem is fairly typical and occurs for many reasons – one of which is that they often cannot see the bottom of the tub. Imagine a bathtub in a hotel, nursing home, or a place where the fixtures are normally all white. To a person with Alzheimer’s they may not be able to see the bottom of that tub and can be scared to death to get in it. This is one example of how visual images and spatial relationships can affect a person with Alzheimer’s.

New problems with words in speaking or writing

What’s the thing called that you wear on your wrist that tells you the time? A watch, right? Well a person with Alzheimer’s may not be able to remember what that is called. Instead they might call it “a hand clock” or another unusual name.

Misplacing things and losing the ability to retrace steps

How many of you have ever walked into a room and totally forgot why you went in there? It happens to all of us! But for a person with Alzheimer’s, that can happen a lot – and they will never remember why they went in that room. You and I might take a few seconds – or even minutes! – to figure it out. But the key is that we will eventually figure it out. That’s generally not the case for a person with Alzheimer’s.

Decreased or poor judgement

Decreased or poor judgement is common in people with Alzheimer’s– and can be devastating! There are many stories of people with Alzheimer’s giving large amounts of money to a charity or telemarketers when they really cannot afford it, simply because they are unaware of what they’re doing or how much money they should be spending.



Withdrawal from work or social activities

A person with Alzheimer's may remove themselves from hobbies, social activities, or family gatherings. They might even have trouble keeping up with their favorite sports team or might stop attending their weekly bridge game. Staying social becomes harder for a person with Alzheimer's – they can struggle to follow conversations and they might not want people to know that they're struggling.

Changes in mood and personality

It is fairly common for a person with Alzheimer's to experience changes in their mood and personality. They can be easily upset and may feel confused, suspicious, depressed, fearful, or even anxious. This is particularly true if they are out of their comfort zone – such as in public or around other people. That can be a very scary experience!



So, now that we've discussed the 10 warning signs of Alzheimer's disease, I would like to briefly mention what you should do if you or someone you know is experiencing any or all of the 10 signs – GO TO A DOCTOR.

This DOES NOT have to be a specialist or anyone other than your primary care physician. In fact, it is best to start with your primary care physician because it might not be Alzheimer's! There are other health challenges that can cause dementia-like symptoms – such as vitamin deficiencies and urinary tract infections. So your primary care physician's first goal will be to rule out other likely causes.

K-STATE
Research and Extension

Benefits of Early Detection and Diagnosis

- ▶ Learn and understand your own disease process
- ▶ Explore resources in your community and online
- ▶ Remain independent for a longer period of time
- ▶ Receive the maximum benefit from available treatments
- ▶ Participate in clinical trials
- ▶ Participate in planning your own future healthcare
- ▶ Plan for your financial future
- ▶ Name someone you trust to make decisions for you when you become unable
- ▶ Reduce burden and stress on your family members and loved ones

Knowledge
for Life

But what if it is Alzheimer's? Alzheimer's disease cannot be prevented, treated, or cured – so why should you bother going to the doctor? There are so many benefits of early detection and diagnosis.

It is so crucial to educate yourself and your family members about Alzheimer's disease before or as soon as you or a loved one receives a diagnosis. Alzheimer's is a fairly predictable disease – researchers and doctors know that you are going to experience certain challenges. Through early detection and diagnosis you can begin to **learn and understand the disease process**. This also allows you to be able to **explore resources in your community and online**. In larger communities in Kansas, identifying support services may not be as difficult, but for those of you who reside in more rural areas, this can take some time and planning.

Early detection and diagnosis can also allow you to **remain independent for a longer period of time**. Through advance preparations, you can prepare your home and environment to support you or your loved one. You can take the time to identify at-home support services, make plans for caregiving, and more.

Although there is no prevention, treatment, or cure for Alzheimer's disease, there are some medical interventions to consider. There are currently 5 medicines that aim to treat the symptoms of Alzheimer's disease (these drugs do not treat the disease itself, rather, attempt to slow down the symptoms) – without early detection and diagnosis, you would not be able to **receive the maximum benefit from available treatments**. Furthermore, by seeking early diagnosis, you may also be able to **participate in clinical trials**. Clinical trials provide high quality medical care and you might even be able to take experimental drugs, have treatments, or therapies that will improve your condition. You never know!

Through early detection and diagnosis, you can also **participate in planning your own future healthcare**. Which doctor would you prefer? Where would you like to be treated? If you had to go into long-term care, where would you want to go? You can answer these questions yourself and express your own preferences if you seek early diagnosis.

You can also **plan for your financial future** and **name someone you trust to make decisions for you**

when you become unable by completing your advance directives while you are cognitively still able to do so. [For more information on Advance Health Care Planning in Kansas, see <https://www.bookstore.ksre.ksu.edu/pubs/MF3280.pdf>]

Finally, through early detection and diagnosis you can reduce the burden and stress on your family members and loved ones. No one wants to be a burden at the end of their life. And advance preparation can definitely reduce the toll that Alzheimer's will take on the sufferer and their family.



Although Alzheimer’s disease cannot be prevented, there are steps you can take to improve your overall health and wellness and reduce your risk of cognitive decline. More and more studies have come out in recent years that have shown the immense value in these 10 steps to better brain health. So, while we talk about these 10 steps, I want you to be thinking about how you can incorporate these ideas into your own daily life. There’s one key thing to remember: it is NEVER too late to adopt a healthy lifestyle.

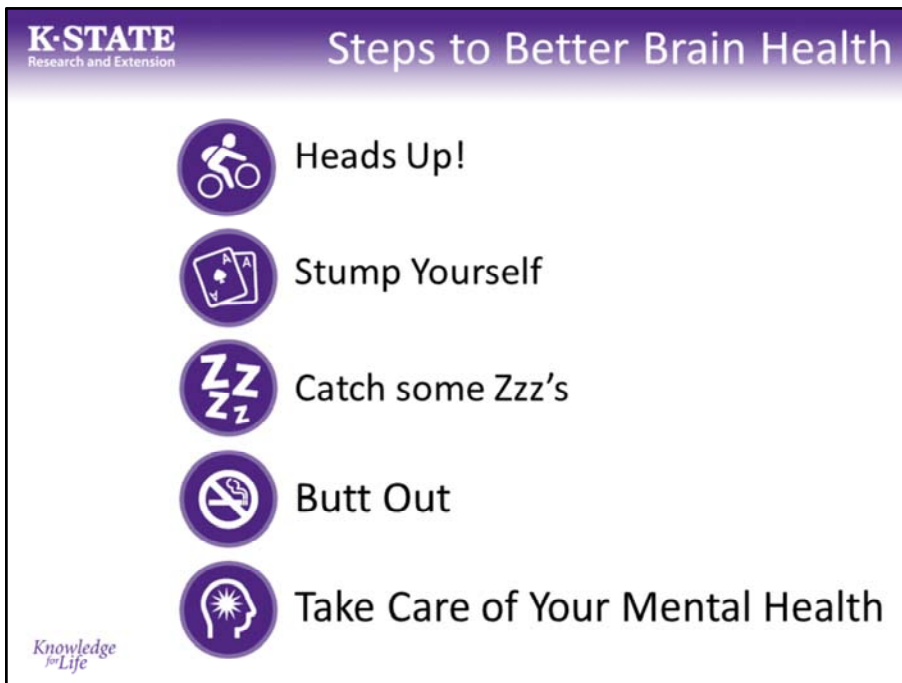
Break a sweat – Make getting 150 minutes of exercise per week a priority.

Hit the books – Take a class online or at your local community center. Formal education at any age can help reduce your risk of cognitive decline.

Follow your heart – High blood pressure and obesity increase your risk for both heart disease and cognitive decline. What’s good for your heart is also good for your brain!

Buddy Up – Stay social throughout your lifespan! Get together with friends, volunteer, and contribute to your community.

Fuel Up Right – Eat a balanced diet that emphasizes fruits, vegetables, and whole grains.



Heads Up – Protect yourself by wearing a helmet, using your seatbelt, and preventing head injuries.

Stump Yourself – Challenge your brain by trying new things and playing games, cards, or puzzles.

Catch some Zzz's – Strive to get at least 7 hours of sleep each night.

Butt Out – Quit smoking today! There's nothing good that comes from smoking.

Take Care of Your Mental Health – If you have symptoms of depression, or are unsure, seek advice from a doctor. Some studies have shown an increased risk of cognitive decline if you have a history of depression.



Seated Exercises

Seated Jumping Jacks

A seated jumping is a way of increasing your heartrate, without putting stress on your joints. A seated jumping jack involves the same movement as a regular jumping jack, only you are seated. Sit at the front edge of the seat, and extend your arms and legs in jumping jack position. Bring your arms and legs back and repeat 10 times.

Seated Elbow Curls

Seated elbow curls will open your chest and shoulder muscles. While sitting, raise your arm at your sides and bring your hands to your temples. Then, bring your elbows together and back out. Be sure to stretch as far as you can. Repeat this 10 times.

Arm Circles

Arm circles will strengthen both your arms and shoulders. Sit that the edge of your seat, and raise both arms up straight to your sides. Begin by holding your arms with your palms facing down. Do 10 forward arm circles. Then rotate your arms so your palms are facing up, and do 10 backward arm circles. You can also add some light weights to this exercise with water bottles, cans of food, or a free weight at home.

Back Stretch

A back stretch will allow you to stretch your back muscles. You will need to sit toward the edge of your chair. Then bend at the hips, taking your chest to your knees. It is important to keep your back and neck straight. Once your chest is close to your knees, relax your neck, and reach your hands down to grab your shins. Hold this stretch for 10 to 30 seconds, and then rise back slowly.

Seated Leg Extensions

Seated leg extensions will strengthen your thighs. Begin by sitting with your back against the back of the chair. Extend one leg out straight. Flex your foot so that your toes are facing upward. Hold the position for three seconds, then lower the leg. Repeat 10 times, and then switch legs.

Front Arm Raises

This exercise will help strengthen your arms and shoulders. To do a front arm raise, you will first sit on the edge of your seat. Hold your arms down straight at your sides with your palms facing back. Raise your arms up at the shoulder, keeping your palms facing down. Lower your arms back to your side and repeat 10 times. You can also add some light weights to this exercise with water bottles, cans of food, or a free weight at home.

Standing Exercises

Standing on One Foot

Practicing standing on one foot will allow you to better your balance. To do this, hold on to the back of a chair, and lift one foot while balancing on the other foot. Hold this position for 10 seconds, then repeat with the other foot.

Knee Curl

Knee curls will strengthen your legs and knees. To do the knee curl exercise, hold on to the back of your chair and bend one leg back at the knee, bringing your foot towards your buttocks. Repeat this movement 10 times for each leg. For a deeper stretch, grab your ankle and bring your foot as close to your buttocks as you can.

Side Leg Raises

One way to strengthen your hips, thighs, and buttocks is through side leg raises. Stand behind the chair and hold onto the back of the chair. Raise one leg to the side with your toes facing forward. Lower your leg back down slowly. Try not to lean to one side, and be sure to keep your upper body straight. Repeat this 10 times for each leg.

Wall Push-Ups

Doing wall push-ups will help to strengthen your arms, shoulders, and chest. Stand facing a wall a little farther from the wall than arm's length. Place your feet shoulder-width apart, then lean forward and put your palms on the wall. Next, bend your elbows and bring your body to the wall, then push your elbows back into the straight position. Repeat this 10 times.

Calf Stretch

This exercise is a good way to stretch your calf muscles. To do a calf stretch, stand about arm's length from the wall. Face the wall and place your palms on the wall at shoulder height. Place your right foot backward. Keep the left knee bent, and both feet flat on the ground. Then, slightly bend your left knee until you begin to feel a stretch in your right calf. Hold this position for 10 seconds. Repeat with other leg.

Upper Body Stretch

The upper body stretch will help with the flexibility in your arms, shoulders, and chest. To do the upper body stretch, begin by standing a little farther from the wall than arm's length. Then, lean onto the wall, placing your palms on the wall shoulder-width apart. Move one hand up the wall as though you are taking steps up with wall with your hands. Slowly walk your hands up the wall and then back down. Repeat this 10 times.

A man stands on one side of a river, his dog on the other. The man calls his dog, who immediately crosses the river without getting wet and without using a bridge or a boat. How did the dog do it?

The river was frozen!

What do these words have in
common: polish, job, herb?

All three words are pronounced differently when the first letter is capitalized.

What makes this number unique —
8,549,176,320?

It contains each number, zero through nine, in alphabetical order

