

A close-up photograph of a young woman with long blonde hair kissing an elderly woman with grey hair on the cheek. The young woman is on the left, and the elderly woman is on the right. The background is a soft-focus green, suggesting an outdoor setting. The text 'Alzheimer's Disease Ultimate Guide' is overlaid in a purple, cursive font across the center of the image.

*Alzheimer's Disease
Ultimate Guide*

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What is Alzheimer's Disease?

Alzheimer's disease (AD) is a chronic neurodegenerative progressive disorder that causes brain cells to degenerate or slowly waste away. The progressive illness is one of the [most common causes of dementia](#).

The illness first involves the sections of the brain that control memory, thought, and language.

Alzheimer's Association reveals that AD accounts for about [60-80% of people](#) who end up with dementia. [Dementia](#) is a broader term that describes conditions caused by brain illnesses or injuries that negatively affect memory, behavior, and thinking.

These changes end up affecting an individual's ability to function independently and eventually leads to death. AD was first described as "a peculiar disease" by Dr. Alois Alzheimer a German physician in 1906.

He said that the illness was characterized by microscopic brain changes and profound memory loss. Years later, the condition is known as [Alzheimer's disease](#), named after the physician.

Facts about Alzheimer's disease

Before digging deeper into AD, it is important to talk about some of the important [Alzheimer's disease facts](#) everyone should know about.

- Alzheimer's disease is not a standard part of growing older. Although most of the people with AD are [over the age of 65](#), Alzheimer's is not an old-age illness.
- Alzheimer's is a progressive illness whose symptoms become worse over time.
- Young people may get Alzheimer's disease although it is not a common occurrence.
- AD associates with neurofibrillary tangles and plaques in the human brain.
- Alzheimer's is a kind of dementia.
- AD does not have similar outcomes on everyone with the disease. Different persons will experience Alzheimer's differently. Some individuals will experience a fast onset of symptoms and disease progressions while others may live for years with only mild cognitive damage.
- To date, Alzheimer's has no cure.

Causes and Risk Factors of Alzheimer's

To date, the causes of AD are still unclear. Professionals haven't been able to pinpoint a single cause of Alzheimer's. Experts, however, believe that most cases (around 70%) are inherited from parents. Other risk factors include:

- Age: this is one of the most common risk factors for AD.
- Family history: many researchers believe that genetics may play a major role in the development of Alzheimer's.
- History of head injuries: this may have caused damage to the brain, which in turn, contributes to the development of AD.
- Some medical conditions like hypertension, obesity, stroke, and heart diseases are also considered Alzheimer's risk factors.
- [Down syndrome and Alzheimer's disease](#) is a topic of interest when it comes to the causes of AD. This is because almost everyone who suffers from Down syndrome ends up developing Alzheimer's.
- Scientists are also looking into the link between [aluminum and Alzheimer's disease](#) when exploring the risk factors for AD.
- Untreated [depression](#) is also considered a risk factor and it also doubles up as a symptom.
- Sex-although there is no major difference in risk between women and men, there are more ladies overall with the disease.
- Hearing loss is also one of Alzheimer's risk factors.
- Poor sleep patterns: Research reveals that people with poor sleep patterns like having challenges with staying or falling asleep are associated with an increased risk for AD.
- A bacteria that causes [gum disease](#) can also be a starting point/symptom of AD.

It is, however, important to note that having the above risk factors does not automatically mean you will end up with the progressive illness. They just raise your level of risk.

Symptoms of Alzheimer's disease

When talking about [Alzheimer's warning signs](#), it is only right to state that the course of the illness is divided into 4 stages. Each of these stages comes with its progressive pattern of functional and cognitive impairment. Below are examples of the signs that relate to each stage of AD.

Pre-Dementia

The first-symptoms of dementia are often mistaken for stress or aging. The most noticeable signs include:

- Short-term memory loss where an affected individual has challenges acquiring new information or remembering facts that they have recently learned.
- Subtle issues with executive functions of flexibility, planning, attentiveness, and abstract thinking.

Early Dementia

Early dementia usually affects people who are in their 30s to their 60s. Some of the signs of [early-onset Alzheimer's disease](#) include:

- Increasing impairment of memory and learning.
- Some people will experience difficulties with executive functions, language, and perception.

Moderate Dementia

Moderate or [middle-stage Alzheimer's disease](#) comes with its own set of challenges. At this point, many people with the illness have experienced progressive deterioration. It [interferes with their independence](#) to an extent where a person cannot perform many daily living activities.

Some of the symptoms that an individual may showcase include:

- Difficulties with speech primarily because a person cannot recall vocabulary
- Loss of writing and reading skills
- Sleep issues
- Less coordination especially with complex motor skills which increases risks of falls
- Worsening of memory problems including impairment of long-term memory
- Social withdrawal
- Sundowning
- Verbal or physical outbursts
- Neuropsychiatric and behavioral changes become more apparent. This is where an individual may become more irritable, start wandering, resist care offered, and have crying outbursts.
- Some persons may even develop delusions and hallucinations. Others may also develop urinary incontinence.

Advanced Dementia

Also known as [late-onset Alzheimer's disease](#), this refers to the final stages of the illness. During this stage, persons with AD are completely dependent on their caregivers.

Some people will experience a loss of speech after struggling with single words and simple phrases.

Other warning signs associated with late-stage Alzheimer's include:

- Aggressiveness mostly because a person cannot communicate well
- Increasing suspicions, hallucinations, and delusions.
- Emotional distress
- An individual cannot eat on their own
- A person may become bedridden because mobility and muscle mass deteriorate

Alzheimer's disease Complications

A person who has AD may develop a multitude of complications thanks to changes they experience such as impaired judgment, language and memory loss, and other cognitive changes. People with these disturbances may experience:

- Pain that interferes with communication. This can come from various sources like a dental problem.
- Aspiration where they inhale liquid or food into the lungs
- Fractures
- Pneumonia and other infections
- Falls
- Dehydration or malnutrition
- Loss of bladder or bowel control
- Bedsores, etc.

Alzheimer's disease Diagnosis

If medics **suspect** that a person has Alzheimer's they may perform **cognitive tests**, blood tests, and medical imaging to give a diagnosis and rule out other diseases. Brain tissue examinations are also necessary for a definite diagnosis.

Sadly, for now, the only definitive way of diagnosing AD is through the examinations of brain tissues after a person dies. Other factors that doctors may take into consideration when performing a diagnosis are

- [Medical history](#) looking into past or current medical conditions
- Behavioral observations
- Symptoms
- History from relatives
- Medications
- Lifestyle habits, diet, or alcohol intake

There are other tests that a doctor may decide to conduct to determine a person's diagnosis. The physicians may get help from neuropsychologists, neurologists, geriatric psychiatrists, and geriatricians while conducting diagnostic tests such as:

Mental Status Test

This helps the professional to assess long-term and short-term memory as well as the orientation of time and place. Medics also do these tests to determine a person's ability to solve simple problems and thinking skills.

Physical Exams

This is where medics can check an individual's temperature, heart rate, blood pressure, and in some instances collect blood and urine samples for laboratory samples. Physicians may ask a person about their nutrition and alcohol intake. They can also review medications and listen to the lungs and heart.

Results from laboratory tests and the physical exam can help pinpoint health issues that may be causing dementia-like symptoms such as delirium, depression, and vitamin deficiencies among others. Unlike AD, most of these conditions can be reversed with treatment.

Neurological Exams

Doctors will mostly conduct these tests to rule out other acute medical conditions like stroke, brain tumors, Parkinson's disease, fluid accumulation in the brain, and other infections that may impair thinking or memory.

The physicians will often test muscle tone, strength & coordination, reflexes, speech, eye movement, and sensation.

Many doctors will also ask for brain-imaging studies to get a clearer picture of what is happening in the brain. The most common studies include:

1. CT (computed tomography) scans- These take X-ray images that can help the doctor determine if there are any abnormal characteristics in the brain.
2. MRI (magnetic resonance imaging) – They are beneficial when it comes to identifying key markers like structural issues, bleeding, and inflammation.
3. PET (positron emission tomography) scans- These help medics identify the build-up of plaques. Plaques are protein substances that relate to Alzheimer's symptoms.

Modern research is also identifying new AD tests one of them being the [peanut butter test for Alzheimer's disease](#).

There is a study published in 2013 revealing that a person can use the peanut butter test to know if a person has Alzheimer's or not. It relates to testing the quality of smell one has.

Reasons for Early Diagnosis

When it comes to Alzheimer's diagnosis, it is usually best to consult a doctor as soon as possible. There are many benefits of diagnosing AD early, such as:

Medical Perks

Early examination by a physician can help determine if a person has AD symptoms or another treatable medical condition. If it is Alzheimer's a person will get access to a variety of treatment options that can help lessen symptoms and slow down progression.

Doctors can also point a person to participate in beneficial clinical trials. This also gives the affected individual to prioritize their health. This is where a person can make fast decisions about things such as stopping smoking, controlling blood pressure or diabetes, working out more, and staying socially and mentally active.

Social and Emotional Benefits

Early diagnosis for Alzheimer's can also help reduce anxieties especially for people who are experiencing symptoms they are not familiar with. This also gives people time to access resources and support programs.

Time to Plan for the Future

With an early diagnosis, the person with AD gets more time to spend with the people they love. It also allows individuals with the illness to be open to their relatives and support network about the decisions they want to be made during the end stages of the illness.

This is important because it can enhance peace of mind. After all, there will be no unnecessary disagreements reducing the burden on family members.

Saving Money

Early diagnosis can also help families save money. Alzheimer's Organization reports that if everyone with AD received a diagnosis when they only had mild cognitive impairment, it would save 7-7.9 trillion dollars in long-term and health care costs.

Preventing Alzheimer's disease

Currently, no evidence supports specific measures that people can take to prevent the development of AD. Studies that have been done to delay or prevent Alzheimer's onset have constantly produced unreliable results.

Nonetheless, epidemiological studies have proposed certain modifiable factors that contribute to the development of AD. Let's look at some of the factors that can help to reduce the risk of developing Alzheimer's:

Diet and Physical Activity

Taking part in physical activity has been known to reduce the risk of Alzheimer's disease. Exercise is also effective when it comes to reducing the severity of AD symptoms. Consuming a [healthy diet](#) is also known to reduce the risk of Alzheimer's.

Some of the diets that come highly recommended when it comes to this include Mediterranean and Japanese diets. Some studies reveal that people who take diets that are high in simple carbohydrates and saturated fats have a higher AD risk.

There is conflicting evidence about the use of [coffee in persons with Alzheimer's disease](#) with some studies saying that caffeine may starve off AD because it has a protective effect on the brain and others refuting this claim.

Several foods rich in flavonoids such as red wine, tea, and cocoa may also decrease AD risk. A lot of work still needs to be done regarding [nutrition and Alzheimer's disease](#) so that people can get solid solutions.

Cardiovascular Risk Factors

Hypertension, smoking, diabetes, and hypercholesterolemia are some of the conditions that are associated with a higher risk or worsened course of Alzheimer's.

Quitting smoking and taking medications that can help with these conditions may help to decrease the risk.

Intellectual Activities

Several studies support the fact that persons who engage in intellectual activities including playing board games, reading, playing musical instruments, completing crossword puzzles, or taking part in social interaction have a lower risk of Alzheimer's.

Increasing Social Engagement

Convincing research reveals that seniors who spend most of their time in solitude in their immediate home environment are about twice as likely to develop Alzheimer's when compared to their age mates who travel more.

According to the Mayo Clinics, staying engaged with your surroundings is great for emotional, mental, and physical health.

Further research that includes clinical trials is needed when it comes to the factors that can help slow down the progress of the disease or prevent AD altogether.

Alzheimer's disease Treatment Options

There is still no cure for AD but scientists, researchers, and other stakeholders are putting in the effort to come up with [effective treatments](#).

Currently, the treatment options available remain palliative as they are offered to manage the diseases in regards to helping individuals maintain their mental function, slow down progression, and control behavioral symptoms.

Some of the options persons with AD can explore include:

Drugs

There are several [drugs](#) used to treat AD cognitive problems such as:

1. Cholinesterase inhibitors (donepezil, tacrine, memantine, galantamine, and rivastigmine).

These are normally prescribed to persons with mild to moderate AD. They reduce some symptoms and control behavioral symptoms.

Scientists are not 100% sure about how the cholinesterase inhibitors work to treat AD. Research suggests that the medication helps prevent acetylcholine breakdown. It is a brain chemical that plays an important role in thinking and memory.

2. Namenda. This is the drug that people with moderate to severe Alzheimer's usually take. According to studies and tests, this drug regulates glutamate which is an essential brain chemical. When the chemical is produced in excessive amounts, it usually results in the death of brain cells.

The main role of the medicine is to decrease symptoms so that a person can maintain their independence a little longer. For instance, a person taking Namenda may use the bathroom independently for a few more months which not only benefits the suffering individual but is a plus for the caregiver as well.

The US FDA (Food and Drug Administration) has also approved other drugs like the Exelon patch, Aricept, and Namzaric for treatment of moderate to severe AD.

3. Doctors may also prescribe anti-anxiety medications, antidepressants, and antipsychotics to treat some of the symptoms that relate to Alzheimer's including agitation, restlessness, depression, and aggression.

The importance of monitoring patients who are taking drugs

Doctors often monitor people who start taking the drugs because a majority come with various side effects such as diarrhea, vomiting, nausea, and loss of appetite, etc. Depending on how a person reacts to the drugs, the doctor can adjust prescriptions accordingly.

Some people are interested in the topic of [vitamin E and Alzheimer's disease](#). This is because some studies indicate that taking the vitamin helps to prevent the decline of mental abilities. There is conflicting information about this; hence, more research needs to be done to come up with conclusive results.

Unfortunately, no specific medication has clearly shown to halt or delay the progression of the illness.

Alternative Therapies

Professionals may prescribe alternative therapies to take care of some behavioral problems that persons with AD may exhibit. Examples of these may include

Validation Therapy

It is based on the acceptance of a person's truth and reality.

Reminiscence Therapy- this majorly involves discussing past experienced either in a group or individually.

Aromatherapy

It is a type of therapy that uses essential oils to promote well-being. Some of the oils that are commonly used include orange, lemon, rosemary, and lavender.

Simulated Presence Therapy

It is based on attachment theories where the person with Alzheimer's gets a chance to listen to recordings that feature voices of people they love.

Bright Light Therapy

Because AD affects the section of the brain that regulates circadian rhythm, it can disrupt a person's wake and sleep cycle. This can cause a person to have trouble sleeping. Bright light therapy can help restore the sleep and wake cycle.

Acupuncture

This is one of the key components of traditional Chinese medicine that has been used for years to treat all types of ailments. Researchers are investigating its benefits to persons with AD with most studies producing promising results.

Herbal Remedies

Persons with Alzheimer's may also benefit from using herbal supplements. One of the options that come highly recommended includes Gingko Biloba a supplement that is said to be rich in antioxidant properties. Coconut oil and omega 3 fatty acids are also included on the list of common natural remedies.

Massage

This type of therapy has therapeutic effects on multiple health conditions. A few studies confirm that it is useful for persons with Alzheimer's. There is also some evidence that suggests massage helps to reduce behaviors like agitation, wandering, and aggression.

When it comes to alternative Alzheimer's disease treatment options, it is safe to say that this is an area that is currently subject to tons of research.

Complementary health approaches including herbal supplements and vitamins seldom go through the same type of critical government review that pharmaceutical drugs go through. For this reason, a person with AD needs to be **very cautious** when using alternative treatment options.

Even though there are plenty of legitimate researchers looking into these approaches, unsubstantiated claims are widespread in the public domain. The impaired individual must consult with their physician regarding the risks and benefits of the approaches.

A person should also not take any vitamin or herbal supplement without talking to the doctor because some may negatively interact with the drugs a person is taking.

Alzheimer's disease Prognosis and Cause of Death

The early stages of Alzheimer's often go undetected. A positive diagnosis usually happens when cognitive impairment starts to interfere with activities of daily living. Alzheimer's disease ends up reducing the life expectancy of persons with the illness. A high percentage of people with AD will live 3-10 years after diagnosis. A few people live over 14 years.

In most cases, AD is usually not the cause of death. A person may end up breathing their last breath because of an external factor like pneumonia, cancer, dehydration, or pressure ulcers. Reports also indicate that men usually have less favorable survival prognosis when compared to females.

Alzheimer's Caregiving



At some point, persons with AD may need the assistance of a caregiver especially in cases where they are no longer fully independent.

Caregivers need to learn about the disease so that they can be in a position to offer the best possible care.

Some of the [responsibilities](#) that caregivers handle may include:

- Getting the weak person's financial, legal, and health affairs in order. It is usually best to start this immediately after diagnosis so that the person who has AD can take part in decision making.
- Offering emotional support and company.
- Doing housework, cooking, and running errands.
- Assessing the environment where the person with Alzheimer's is staying to make sure it is comfortable and safe.
- Helping the person with Alzheimer's take part in beneficial activities they find enjoyable.
- Encouraging the individual with the illness to take part in appropriate physical activity and eats a healthy diet.
- Assisting the person with AD maintains a regular routine something that helps to make their life easier.
- Identifying support groups where the individual can go meet and mingle with others who are in a similar situation.
- Helping with daily living activities such as taking a bath, eating, drinking, grooming, and any other task that warrants assistance.
- Assisting the person with the illness prepare for emergencies.
- Ensuring that the person with AD stops driving when it is no longer safe to. The caregiver should also commit to driving the person they are caring for their appointments or arranging means for them to get there.
- Make sure that the person with Alzheimer's takes their medication as per doctor's rules.
- Keep the person with AD safe from abuse and neglect because they are usually vulnerable because of the illness.
- Help with the identification of technology equipment that can help persons with Alzheimer's.

A caregiver needs to come up with an effective plan

Naturally, the role of the caregiver will differ depending on the person they are looking after. It is, therefore, important for a caregiver to know the needs of the individual they are caring for and come up with an effective care plan.

When a person has mild to moderate Alzheimer's it may be possible for them to remain at home with the help of a caregiver.

However, loved ones may need to consider moving an individual with severe AD to a care facility that is well equipped to take care of people with such illnesses.

Alzheimer's Research Directions

Scientists in a bid to reveal more solid information continue to carry out research, numerous studies, and clinical trials to get more in-depth information about the illness. One of the directions the professionals are taking is to determine the exact causes of Alzheimer's.

Some researchers are also looking into whether diet, education, and environment play a role in AD development. Many scientists are also looking into addressing underlying disease processes instead of only focusing on treating symptoms.

There are on-going clinical trials that are testing possible interventions that scientists are developing including drug therapies, immunization therapy, physical activity, cognitive training, and treatment for diabetes and cardiovascular diseases.

Many AD drugs are in development and some of them include:

Solanezumab

This is an anti-amyloid drug that researchers are studying to find out if it can help slow down cognitive decline in persons with Alzheimer's. If approved the medicine will be given to individuals who have amyloid plaques but without symptoms for trouble thinking and memory loss.

Aducanumab

This is a type of drug that targets beta-amyloid which are protein deposits in the brain. These are the proteins that form plaques or clusters around the brain cells in persons with AD. The plaques are responsible for Alzheimer's symptoms because they interfere with the messages that are sent between cells.

This drug shows great potential when it comes to dissolving these clusters.

Insulin- Studies are underway to determine whether some types of insulin packaged in a nasal spray can enhance memory function. This will help individuals with mild memory issues or AD.

Alzheimer's disease Statistics

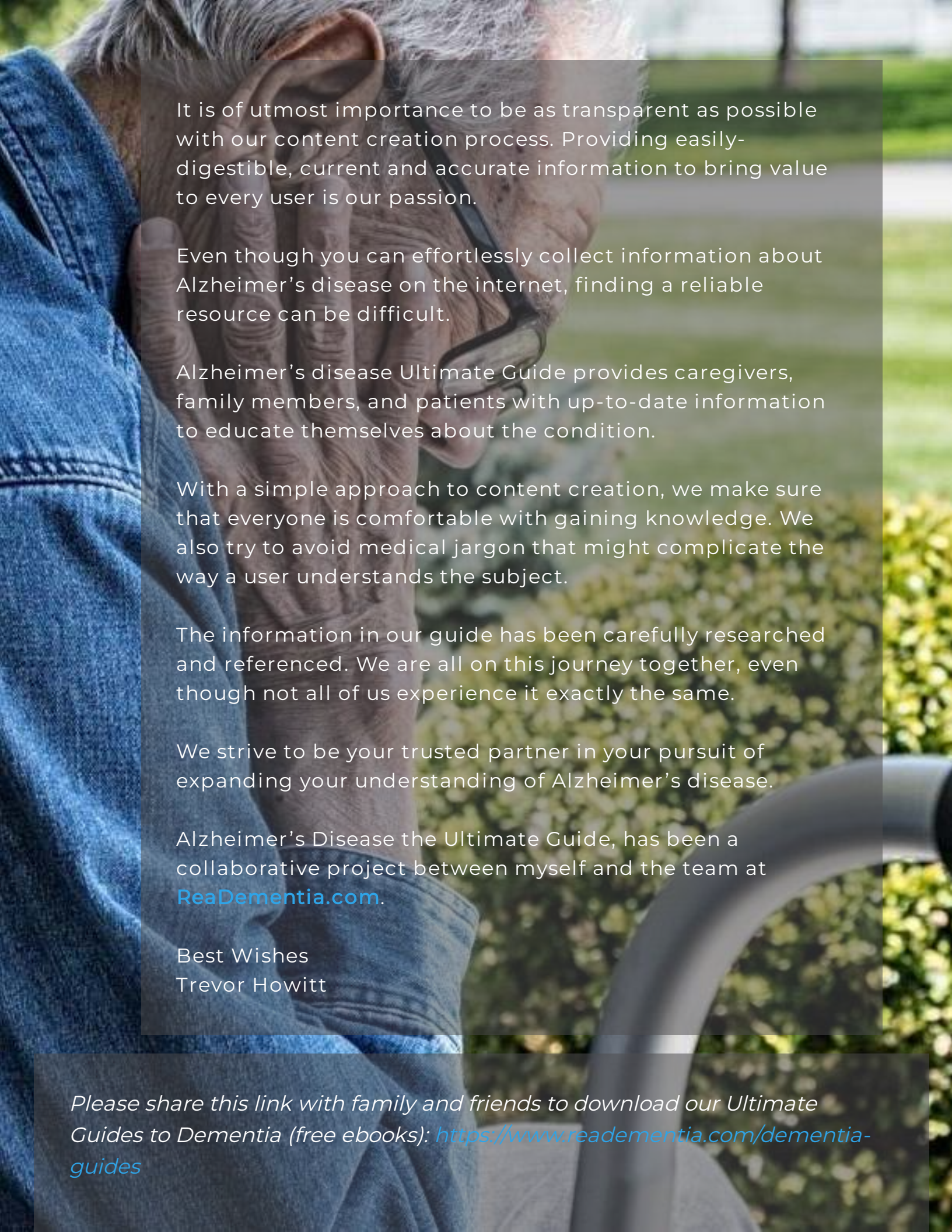
The numbers surrounding AD are quite startling and they include:

- CDC (Centres for Disease Control and Prevention) reports that in 2014, there were 5 million U.S adults over 65 with positive AD diagnosis. The researchers projected that about 14 million Americans will have the illness by 2060.
- CDC states that Alzheimer's is the 6th most common cause of death among American adults. The progressive illness ranks 5th among the causes of death for seniors who are 65 years and older.
- The number of individuals living with AD doubles every 5 years over the age of 65 according to CDC.
- Alzheimer's Organization records that 2/3rds of Americans (3.6M) with AD over 65 years are women.
- The cost of care for persons with AD or other dementia estimates at \$305 billion.

Closing Remarks

Alzheimer's disease is one of the most complicated illnesses with many unknowns. Scientists have, however, figured out that the disease becomes worse over time. Some treatments also exist to help improve the quality of life and delay symptoms even though there is no cure yet.

Talk to a doctor if you suspect that you or a loved one has developed AD. The professionals will help with a proper diagnosis and help guide the affected person on the right steps to take after receiving their results.



It is of utmost importance to be as transparent as possible with our content creation process. Providing easily-digestible, current and accurate information to bring value to every user is our passion.

Even though you can effortlessly collect information about Alzheimer's disease on the internet, finding a reliable resource can be difficult.

Alzheimer's disease Ultimate Guide provides caregivers, family members, and patients with up-to-date information to educate themselves about the condition.

With a simple approach to content creation, we make sure that everyone is comfortable with gaining knowledge. We also try to avoid medical jargon that might complicate the way a user understands the subject.

The information in our guide has been carefully researched and referenced. We are all on this journey together, even though not all of us experience it exactly the same.

We strive to be your trusted partner in your pursuit of expanding your understanding of Alzheimer's disease.

Alzheimer's Disease the Ultimate Guide, has been a collaborative project between myself and the team at [ReaDementia.com](https://www.readementia.com).

Best Wishes
Trevor Howitt

Please share this link with family and friends to download our Ultimate Guides to Dementia (free ebooks): <https://www.readementia.com/dementia-guides>