

THE COMPLETE GUIDE TO **DEMENTIA**

Understanding Various Disorders

Prevention Possibilities

Treatment Options

Key Tips For Brain Health

**By The American Institute of
Health Care Professionals, Inc.**

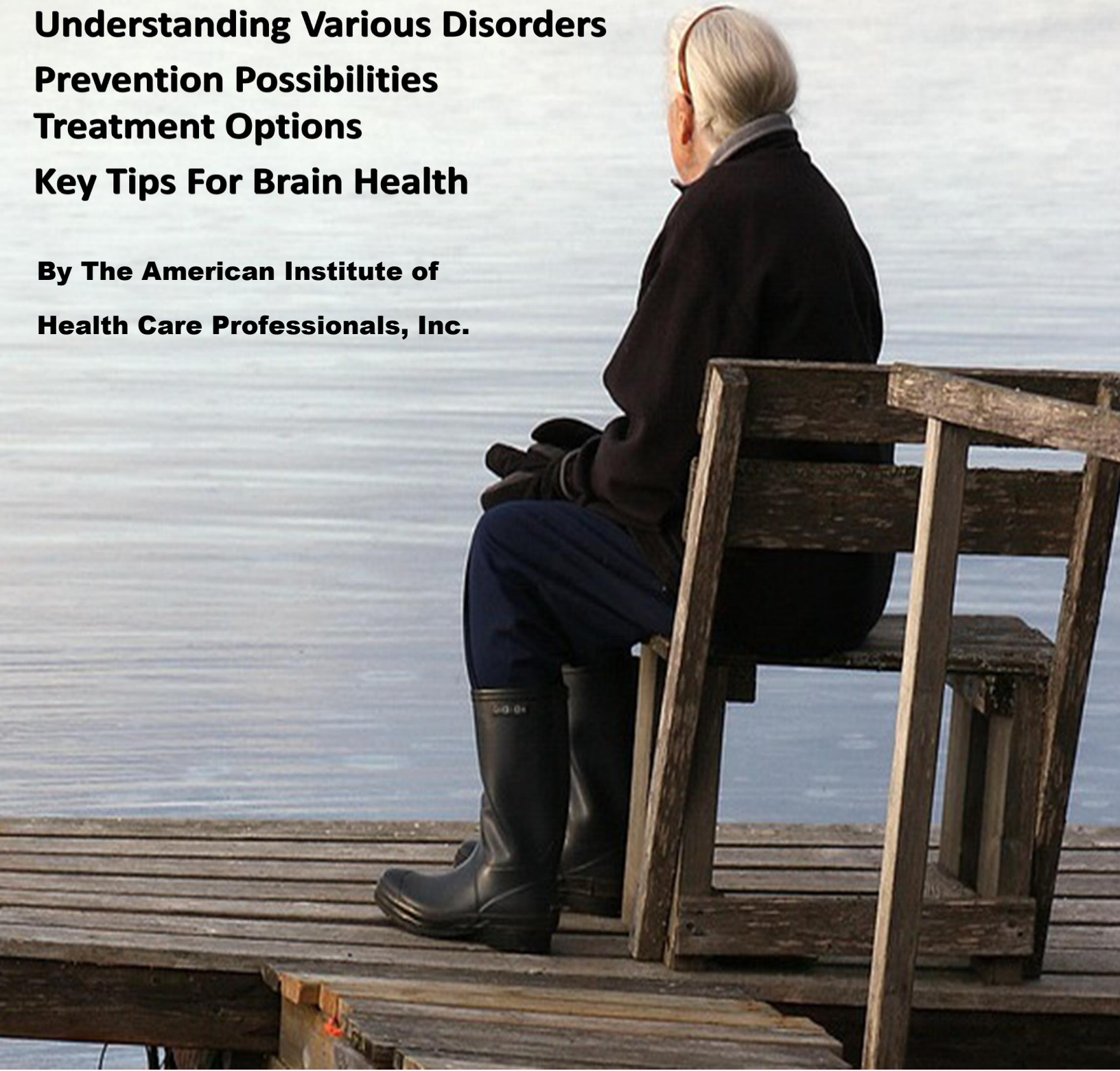


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What Is Dementia

According to the World Health Organization, an estimated 47.5 million people suffer from dementia and this number is projected to increase to 75.6 million by the year 2030. Furthermore, diagnosed cases of dementia are estimated to more than triple by the year 2050.

Dementia is a chronic syndrome, and not a specific disease, but a general term used to describe a group of symptoms caused by brain disorders that affect thinking, behavior, memory, and one's ability to function and perform in every day life.

People who suffer from dementia may not be able to perform normal activities like eating and getting dressed due to their symptoms. They may also become agitated quickly and their personalities may change.

A common symptom of dementia is memory loss. However, although many think that memory loss by itself means you have dementia, this simply isn't true.



Even though dementia is common in elderly people, it is not considered to be part of normal aging.

In fact, despite people thinking it's normal and never really pay too much attention to it, dementia actually requires professional treatment. People suffering from it have problems with more than one brain function.

There are many diseases that are associated with dementia, such as Alzheimer's, Parkinson's, and Huntington's.

Types Of Dementia

There are several ways to classify dementia. It is classified based on the part of the brain that it affects, by whether it's progressive, or not, or by whether it is a result of another disease.

Cortical Dementia

This type of dementia is a result of problems in the outer layer of the brain, known as the cerebral cortex. People suffering from cortical dementia typically have a problem with memory loss and understanding language.

- Alzheimer's and Creutzfeldt-Jakob disease are two of the most common cortical dementia disorders.

Subcortical Dementia

As you might've guessed it, subcortical dementia attacks the area of the brain found beneath the cortex. Suffering from it won't usually leave you with language problems and memory loss, but it will affect your speed of thought and ability to begin performing certain activities.

- Huntington's and Parkinson's disease are known to cause subcortical dementia.

Primary Dementia

People who suffer from primary dementia don't have the symptoms as the result of another disease.

- The best example of primary dementia is Alzheimer's disease.

Secondary Dementia

When a patient is suffering from secondary dementia, it means that they got it from either an injury or a disease.

- Some of the most common causes of secondary dementia include progressive supranuclear palsy, brain infections, and multiple sclerosis.

Although there are certain causes of secondary dementia that can be reversed or stopped, most are degenerative, meaning that there is no way to reverse the damage.

Some of the reversible causes of secondary dementia include chronic alcohol abuse, the use of certain medications, brain tumors, low vitamin B-12 levels, and changes in sodium or calcium levels.

Progressive Dementia

Progressive dementia means that the condition of the patient suffering from it will only get worse over time. At first, it may not have a big negative effect on the lives of those suffering from it, but it will cause them to lose more of their abilities as time passes.

- Alzheimer's disease is a good example of progressive dementia.

Most Common Dementia Disorders

Alzheimer's Disease

- According to the Alzheimer's Association, 60% to 80% of all dementia cases are from Alzheimer's disease
- In 2017, there are more than 5 million Americans who suffer from Alzheimer's disease. 5.3 million of these cases are seen in people ages 65 and older, but about 200,000 individuals are younger than 65 years old suffering from early (young) onset of Alzheimer's
- 1 in 10 people age 65 and older or 10% suffer from Alzheimer's dementia
- Almost 2/3 of Americans who suffer from Alzheimer's are women



On a microscopic level, this disease will affect your brain by creating two abnormalities – neurofibrillary tangles and amyloid plaques.

- Neurofibrillary tangles are basically damaged tau proteins that come together and form tangles, which make it hard for nerve cells to function properly.
- Amyloid plaques are clumps of protein that are positioned between nerve cells, thus impairing communication between them.

It is still not known whether these abnormalities are the result of Alzheimer's disease or if they cause it.

The most common early symptoms of Alzheimer's disease include:

- Having difficulty remembering events
- Names or recent conversations
- Experiencing depression
- Apathy
- As the development of the disease progresses, there will be disorientation, confusion, poor judgment, difficulty speaking and walking, impaired communication, and behavior changes.

Vascular Dementia

Vascular dementia is considered to be the second most common cause of dementia. However, it can also occur at the same time as Alzheimer's disease, which can then cause you to suffer from something even more dangerous – a group of symptoms known as mixed dementia.

Vascular dementia negatively affects the brain by not supplying it with enough blood carrying important nutrients and oxygen. This type of dementia is usually caused by damage from amyloidosis, atherosclerosis, strokes, and endocarditis.

The symptoms associated with vascular dementia either are caused by blood clots or blocked arteries.

The main difference between Alzheimer's disease and vascular dementia is that people suffering from the latter tend to maintain their personality.

Some of the most common symptoms of vascular dementia include:

- Difficulty concentrating
- Getting lost and wandering
- Inability to follow instructions
- Difficulty managing money
- Depression
- Crying or laughing at inappropriate times
- Nighttime wandering
- Short-term memory loss
- Hallucinations

Causes

Vascular dementia usually never develops in people who don't suffer from high blood pressure.

Other causes of this type of dementia include strokes, heart disease, diabetes, high cholesterol, and smoking.

Parkinson's Disease

People suffering from advanced Parkinson's disease usually begin suffering from dementia as well. The way Parkinson's disease affects your brain is by creating alpha-synuclein clumps in an area of the brain known as substantia nigra. This part of the brain has a big role when it comes to movement and reward. The clumps that form in the substantia nigra cause degeneration of nerve cells known for producing the famous feel-good brain chemical called dopamine.

Symptoms

- The lack of dopamine is exactly why people who suffer from Parkinson's disease may become irritable, depressed, or paranoid as the development of the disease progresses.
- Other symptoms associated with this disease include difficulty understanding visual information and performing simple daily tasks.
- Certain patients may also experience confusion, hallucination, and difficulty speaking or understanding what someone else is saying.

Lewy Body Dementia

Lewy body dementia represents the third most common type of dementia.

The Lewy body refers to an abnormal protein found in the brain of those suffering from this kind of dementia. Lewy bodies are made up of proteins known as alphasynucleins. When these alphasynucleins form, they prevent the brain from making enough dopamine and acetylcholine. Dopamine is a chemical that has a huge impact on your mood, sleep, and movement, while acetylcholine has an effect on both your learning and memory.

The most common symptoms of Lewy body dementia are pretty similar to those of Alzheimer's disease:

- These symptoms include confusion, poor judgment, and impaired memory.
- Lewy body dementia can also cause delusions, depression, anxiety, problems with your sleeping pattern, lack of interest, and hallucinations.
- It also causes parkinsonian symptoms, such as shaking and inability to stand straight.

Multi-Infarct Dementia

Multi-infarct dementia (MID) is actually a type of vascular dementia. It is caused by a number of small strokes in different parts of the brain. These strokes can occur when the smaller blood vessels in your brain are blocked. They can happen anywhere, including both the areas of the brain that won't cause you to display any signs of disability when damaged and very important regions of the brain.

Symptoms

- The most common symptoms associated with MID include short-term memory loss, hallucinations, loss of bowel or bladder control, difficulty focusing, and wandering.

This type of dementia usually occurs in people aged between 55 and 75. It is much more common in men than in women.

The chances of suffering from Multi-infarct dementia can be increased due to previous strokes, diabetes, high blood pressure, cognitive decline, heart failure, atherosclerosis, excess alcohol consumption, poor diet, little or no physical activity, and smoking.

Huntington's Disease

This is a progressive brain disorder that can be caused by just a single defective gene. Huntington's disease is passed from parent to child through this defective gene. The gene then causes degeneration of nerve cells in a few parts of the brain. However, it almost always targets cells within the basal ganglia, which is a group of structures linked to the thalamus in the very base of the brain.

Symptoms

- Some of the most notable symptoms of this brain disorder include inability to move properly
- Irritability
- Anxiety
- Depression
- Decline in cognitive skills
- Some patients even show signs of psychotic behavior

Considering that this is a progressive brain disorder, Huntington's disease symptoms will only get worse over time.

Creutzfeldt-Jakob Disease (CJD)

CJD can attack both animals and humans and it is in the same family of diseases as bovine spongiform encephalopathy, better known as the mad cow disease. The main way this disease can harm you is by causing the prion proteins throughout your brain to fold into abnormal shapes. The shapes of these proteins will cause your brain cells to die.

The three main types of Creutzfeldt-Jakob disease are sporadic, infectious, and familial.

- Sporadic CJD is the most common type, but health experts are yet to find out what causes it.
- Familial CJD cases are a lot less frequent, and can only be genetically transmitted from parent to child.
- Finally, infectious CJD is the least frequent, and people can get it only from exposure to an external source of misfolded prion protein.

The most common symptoms of Creutzfeldt-Jakob disease include:

- Muscle stiffness
- Depression
- Difficulty walking
- Mood swings
- agitation
- Disorientation
- Memory loss
- Confusion
- Apathy

Corticobasal Degeneration

Corticobasal degeneration (CBD) is characterized by the loss of nerve cells in the basal ganglia and the cerebral cortex of your brain. Health experts believe that there are numerous factors that can contribute to CBD, such as environmental factors, genetic mutations, and different factors related to aging.

When it comes to symptoms, CBD shares some with Parkinson's and some with Alzheimer's disease:

- Poor coordination
- Memory loss
- Shaking
- Difficulty swallowing
- Difficulty speaking

People suffering from CBD often can't take care of themselves, and usually die from secondary medical issues like sepsis.

Frontotemporal Dementia

Previously known as Pick's disease, and now often referred to as frontal lobe dementia, this is a group of unusual disorders that affects the temporal and frontal lobes of your brain.



These brain regions are responsible for controlling your emotions, behavior, speech, judgment, and movement. Degeneration of the nerve cells found in the frontal and temporal regions of your brain is what causes frontotemporal dementia.

Symptoms

Symptoms of this type of dementia usually occur in patients who are in their 50s and 60. However, know that it can even affect people as young as 45 years old.

- Changes in behavior

- Lack of judgment
- Loss of empathy
- Apathy
- Lack of awareness
- Changes in eating habits
- Decline in personal hygiene
- Display of inappropriate actions

Dementia Pugilistica

Commonly referred to as boxer's syndrome, this type of dementia is the result of chronic brain injury, and is often the type of dementia many professional athletes (especially boxers) suffer from.

The most common symptoms of dementia pugilistica include:

- Physical tremors
- Memory loss
- Poor coordination
- Difficulty walking
- Slurred speech

Mixed Dementia

This is the last (and most serious) form of dementia. It refers to a condition where the person suffers from two or more types of dementia.

As previously mentioned, the most common combination that results in mixed dementia is Alzheimer's disease and vascular dementia.

The Jersey Alzheimer's Association notes that up to 45% of patients who suffer from dementia actually have mixed dementia, but simply aren't aware of it.

Depending on the combination of the disorders that result in mixed dementia, the symptoms can vary greatly.

The Causes Of Dementia

Researchers have yet to find answers to the many questions often asked about dementia. The thing we do know is that all forms of dementia are the result of either your brain cells dying and decaying, or due to certain abnormalities that may be created between brain cells.

In some types of dementia, certain abnormal proteins can form between your neurons, and cause you to experience the horrifying symptoms of dementia.

However, it is still unknown if these proteins can cause dementia, or if they're caused by it. Some types of dementia are hereditary, while others are caused by a combination of environment, lifestyle, and most importantly, genetics.

The reason why you experience the symptoms of dementia is that the damage that your brain cells suffer interferes with their ability to communicate with each other. Your feelings, thinking, and behavior all get affected if your brain cells don't communicate well.

Some of the known causes of dementia include:

- Any type of poisoning (lead, alcohol, recreation drugs, or any other kind of poisonous substance)
- Deficiencies in vitamins B1, B6, and/or B12
- Electrolyte abnormalities



- Severe dehydration
- Low oxygen levels in the blood
- Acute infections like encephalitis, Lyme disease, and meningitis.
- Brain tumors
- Traumatic brain injuries
- Some types of hydrocephalus
- Depression
- Thyroid problems

What Are the Stages of Dementia?

Usually, dementia goes through seven different stages. However, depending on what part of the brain is affected, this may vary. Nevertheless, here are the seven different stages of dementia.

No Impairment

Patients won't exhibit any change in their behavior at this stage. However, tests could reveal that there is a problem.

Very Mild Decline

People can still function independently at this stage, but slight changes may become noticeable. Nevertheless, many associate these changes, such as forgetfulness, with the aging of the brain.

Mild Decline

This is the stage when changes in a person's reasoning and thinking become more noticeable. At this stage, most tend to repeat themselves a lot, but have trouble remembering recent events. People with mild decline may experience difficulty making plans.

Here are some symptoms that are also associated with mild decline

- Loss of concentration
- Difficulty managing medications
- Losing items
- Difficulty managing finances

- Confusion

Despite all of this, patients in this stage are still able to perform ordinary daily tasks.

Moderate Decline

This is the stage where people start having trouble performing normal daily tasks.

- The most notable symptoms of moderate decline include:
- The inability to find the right words
- Increased memory loss
- Difficulty concentrating well
- Difficulty holding urine

Moderately Severe Decline

- If a patient is suffering from moderately severe decline, they will need some assistance when performing ordinary daily tasks
- During this stage, people are prone to forget their phone number
- their grandchildren's names
- Other important information
- They may also get confused with what day of the week it is, or in some cases, even what month it is

Severe Decline

The patient will need even more assistance performing daily tasks.

Inability to eat or go to the restroom without assistance is common in those in the state of severe decline.

Some of the symptoms of severe decline include:

- Sleep disturbances
- Hallucinations
- Paranoia
- Changes in personality
- Inability to remember names of loved ones

Very Severe Decline

The seventh stage of dementia is characterized by the patient needing constant care.

- More often than not, people will lose their ability to walk, forget how to talk, and lose awareness of their surroundings.

Treatment Options For Dementia

There is no known cure for dementia, although combining different types of treatment can help. Treatment options vary depending on the type of dementia you're suffering from.

Alzheimer's Disease

There is no cure for this disease. Medications used to treat Alzheimer's disease are known as cholinesterase inhibitors. These meds work by temporarily improving or stabilizing your thinking skills and memory.



However, it's worth noting that it may not have any impact on certain individuals.

- Doctors are prescribe antidepressants, sedatives, and anticonvulsants in order to treat some of the problems associated with Alzheimer's disease, such as sleep disorders, anxiety, insomnia, and depression.

Vascular Dementia

No type of treatment will help repair the damage already caused by vascular dementia. However, keeping the patient occupied can help slow down the development of this type of dementia.

It can be extremely helpful to remind the patient what day it is, keep them connected to their loved ones, and leave reminder notes near them. If vascular dementia goes untreated, it usually leads to death from heart disease, stroke, or infection.

Parkinson's Disease

Unfortunately, there is no cure for Parkinson's disease. The current strategy that doctors use is prescribing medications to help you deal with some of the symptoms you may be experiencing.

- Some of the most common meds used to treat symptoms of Parkinson's disease include antipsychotics, cholinesterase inhibitors, clonazepam, and antidepressants.

Multi-Infarct Dementia

There is no known cure for multi-infarct dementia, although it is highly encouraged that patients use medication and do regular cognitive training to preserve their brain function.

- Some of the most notable medications used to treat multi-infarct dementia include memantine, hydergine, nimodine, CDP-choline, and folic acid.
- Serotonin reuptake inhibitors and calcium channel blockers are also often used to treat MID.
- Additionally, rehabilitation, regular exercise, and cognitive training are all considered smart treatment options.

Huntington's Disease

There is no known way to stop or slow down the development of Huntington's disease.

- Doctors prescribe certain medications to help deal with movement and emotional problems associated with Huntington's

Life expectancy after diagnosis is between 10 and 15 years.

Creutzfeldt-Jakob Disease (CJD)

Although therapy and certain medications may help you cope with some symptoms, there is no treatment that will help you with stopping or slowing down the development of Creutzfeldt-Jakob disease.

Around 90% of people suffering from CJD die within a year of being diagnosed.

Lewy Body Dementia

There are no medications known for reversing or stopping Lewy body dementia. However, there are some meds and treatment options that may help relieve certain symptoms.

- Medications such as levodopa, donepezil, clonazepam, rivastigmine, and melatonin are often used to treat this type of dementia.
- Additionally, psychotherapy, counseling, and physical therapy are known for improving the condition of those suffering from Lewy body dementia.

Considering that LBD is a progressive disease, the lifespan of patients suffering from it is between 5 to 8 years after diagnosis.

Complications such as poor nutrition, pneumonia, immobility, and swallowing difficulties are what usually lead to death.

Corticobasal Degeneration

There isn't a treatment that could help stop or slow down the development of corticobasal degeneration.

- There are certain meds that may help treat symptoms of it. As time passes, your mental health will get much worse, since degeneration will start to occur in many different parts of the brain.

Frontotemporal Dementia

There is no way to slow down the progression or cure frontotemporal dementia.

- Antipsychotics and antidepressants usually are prescribed to patients in order to ease their symptoms.

The lifespan of people suffering from frontotemporal dementia is 6 to 8 years after diagnosis.

Dementia Pugilistica

There is no available treatment for stopping or slowing down the progression of dementia pugilistica.

- Patients suffering from this type of dementia often are prescribed some of the same meds as those suffering from Alzheimer's disease.

Keeping The Brain Healthy: What You Can Do

The Alzheimer's Association reports that the prevention of the disease and other dementia disorders continues to fuel great interest in research.

So far, no clear answers exist as to how to prevent dementia, but there is promising research ongoing that explores the role of diet, exercise, mental stimulation, social factors, and other considerations.

Although you can't reverse the process of aging, there are ways to keep your brain young. Nowadays, most people don't take enough care of their mental health, nor their physical health (which is connected to brain issues), which is why cognitive decline is so widespread.

In order to protect yourself, you'll need to do everything you can in order to keep your brain healthy. Here are some of the best ways to do just that.

Mental Stimulation

Engaging in activities that will stimulate your brain is a great way to remain mentally sharp. Some of the best activities for mental stimulation include reading, learning a new skill or language, solving math problems, or even doing word puzzles.

Physical Exercise

Exercising regularly will help slow down brain shrinkage that happens as you age. It will also help you maintain certain cognitive activities and spur the development of new nerve cells. Not to mention that exercise will also lower your blood pressure. High blood pressure is especially dangerous because it can damage the arteries known for supplying blood to the brain.

Eat Healthy

Eating healthy can greatly improve both your physical and mental health. Knowing what to eat will definitely have an impact on your wellbeing. In fact, there are certain types of foods known for improving your brain health. These foods include wild salmon, dark chocolate, blueberries, beans, whole grains, nuts, seeds, and avocados.

Omega-3 Fatty Acids

There is some scientific evidence, though not completely conclusive that DHA found in Omega-3 fatty acids may help prevent Alzheimer's disease and dementia by reducing beta-amyloid plaques.

Omega-3 DHA is found in

- Fatty fish, including tuna, salmon, trout, mackerel, sardines and seaweed
- Fish oil supplements can also be used

Heart Health

Several conditions that increase risk factors for cardiovascular disease, including, diabetes, high cholesterol, and high blood pressure also increase risk factors for Alzheimer's. Autopsy based studies have shown that an astounding 80% of people who suffer from Alzheimer's disease are also afflicted with heart disease. Therefore, we can suppose that taking care of our heart can also reduce risks for Alzheimer's.

Socialize

Even if you're an introvert, you still need to socialize with someone in order to keep your brain healthy. Having an active social life will help you reduce the risk of developing different types of dementia, including Alzheimer's disease.

Final Thoughts

Dementia is not a disease or a brain disorder, but rather a group of symptoms caused by different disorders. Despite being so widespread, researchers still have a lot to find out about dementia.

What most people are unaware of is that dementia is not a normal process associated with the aging of the mind. When an elderly person experiences frequent memory loss, you shouldn't shrug it off, thinking it's normal. Instead, you should encourage that person to make a doctor's appointment and start discussing certain treatment options.



Some forms of dementia are hereditary, while others can be caused by a combination of genetics, lifestyle, and environmental factors.

There are quite a few types of dementia, with the most common ones being Alzheimer's disease, vascular dementia, Parkinson's disease, Lewy body dementia, and Huntington's disease.

There are currently no known ways to help you stop, reverse, or slow down the development of any type of dementia.

However, doctors prescribe certain medications in order to help patients deal with some of the symptoms they may be experiencing. Considering that this group of symptoms is so widespread, you need to make sure you're doing everything you can to keep your brain strong and healthy, as this will reduce the risk of dementia.