



Alzheimer's Disease

Dementia includes a wide range of symptoms that affect memory, thinking, behaviour and the ability to perform everyday activities.

Alzheimer's Disease is the most common type of dementia. However, more than 50% of people with Alzheimer's Disease are likely to have another type of dementia at the same time. This is called Mixed Dementia.

The brain is a person's "headquarters". Alzheimer's Disease is a disease that damages the brain. This brain damage leads to symptoms which fall into the general category we describe as 'dementia'. Dementia is progressive which means symptoms will gradually worsen. New symptoms will appear as the underlying disease spreads in the brain.

Symptoms

Alzheimer's Disease is not a "one size fits all" disease. Indeed, symptoms can differ between individuals. However, the first symptom is typically short term memory loss (difficulty remembering new information such as recent conversations, events or names).

Common symptoms of Alzheimer's Disease include:

- Memory loss, especially of recent events
- Misplacing things
- Repeatedly saying the same thing or vagueness in everyday conversation

- Difficulty or inability to plan, organize or think logically
- Impaired judgment
- Problems with reading and abstract thinking
- Language difficulties
- Apathy and loss of initiative
- Poor object recognition and sense of direction
- Difficulty or inability to process questions and instructions
- Deterioration of social skills and changes in behaviour, personality and mood
- Difficulty or inability to perform familiar tasks

Causes

Two principal hallmarks of Alzheimer's Disease contribute to damaging the brain; amyloid plaques and neurofibrillary tangles. Amyloid plaques are deposits outside the brain cells that have a toxic effect on those cells. The principal component of these deposits is a protein called "Amyloid beta". Neurofibrillary tangles are tangles of proteins that accumulate inside the brain cells. The principal component of these tangles is a protein called "Tau". In both instances, the brain cells malfunction and cause the symptoms of Alzheimer's Disease. We have not yet discovered why these plaques and tangles appear, and why they lead to dementia symptoms.



Diagnostic

The diagnosis of Alzheimer's Disease requires careful evaluation to rule out other possible causes. It is important to correctly diagnose the type of dementia because some medications may be beneficial to one type but have adverse reactions for another. A correct diagnosis allows for access to treatment and future planning.

No single test can detect Alzheimer's Disease. Rather, experts use a combination of tests to rule out other possibilities. Generally, the assessment starts with the family physician followed by a referral to a specialist.

Tests of mental abilities and brain scans play an important role in making a diagnosis. Tests of mental abilities are a way of clinically observing symptoms and their seriousness. Brain scans can show damage in specific areas of the brain.

Heredity

There are two forms of Alzheimer's Disease: familial and sporadic. Most cases are sporadic.

A different version of a gene causes Familial Alzheimer's Disease. A gene is something that is hereditary, meaning it can be transferred from a parent to offspring. It is estimated that fewer than 1% to 5% of all Alzheimer's cases are familial. This type of Alzheimer's Disease usually occurs at a younger age.

Sporadic Alzheimer's Disease, on the other hand, has no specific familial or genetic link: it is not hereditary. A combination of factors could make someone predisposed to this form of the disease.

The most important risk factor is age. However, we can act on some others such as smoking, obesity and lack of physical activity. For this reason, the scientific and medical communities have put an emphasis in recent years on identifying risk factors and building prevention strategies.

Things to remember:

- The exact symptoms experienced by a person can be different for every individual.
- A person may or may not be aware of the changes in their abilities.
- Establishing the correct diagnosis can take time, but this allows access to treatment and planning for the future.
- Research and clinical trials are underway to identify new treatments for Alzheimer's Disease. Until then, we know we can improve quality of life by addressing modifiable risk factors.
- Contact the Dementia Society. No One Should Face Dementia Alone™

References

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