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Help for Today. Hope for Tomorrow...®

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Cover: The scan on the top shows a brain with Alzheimer’s disease and the scan on the bottom shows a healthy brain. ECD, SPECT scans were provided by Masanori Ichise, MD FRCP (Mount Sinai Hospital Toronto/NIH Bethesda MD).

Inside panel: MRI images courtesy of Sunnybrook and Women’s College Health Sciences Centre.

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The disease was first identified by Dr. Alois Alzheimer in 1906. He described the two hallmarks of the disease:

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Alzheimer’s disease is a fatal disease that eventually affects all aspects of a person’s life: how they think, feel, and act. Each person is affected differently. It is difficult to predict which symptoms he will have, the order in which they will appear, or the speed of their progression. Early signs that may signal the onset of Alzheimer’s disease include the loss of sense of smell, and loss of weight. The following are some of the changes you may expect as the disease progresses.

Cognitive and functional abilities

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A small percentage of people with Alzheimer’s disease (< 5%) have Familial Alzheimer’s disease or FAD (formerly known as “early onset Alzheimer’s disease”). At some point in their family history certain genes mutated and developed the abnormal characteristics that cause FAD. These inherited genes have a powerful influence. If one parent has FAD, each child has a 50% chance of inheriting the disease, and with two parents with FAD, 75% of their children will go on to develop Alzheimer’s disease in adulthood. These inherited genes differentiate FAD from the more common sporadic form of Alzheimer’s disease, but the disease itself is nearly identical.

Sporadic Alzheimer’s disease

The sporadic form of Alzheimer’s disease (which used to be called “late onset Alzheimer’s disease”), was formerly assumed to have no family linkages. Now we know that a person with a direct relative (parent or sibling) with Alzheimer’s disease has a three times greater chance of developing the disease than someone who does not have it. The risk increases further if both parents have the disease. So aside from the FAD-related genes, there are other Alzheimer’s disease-related genetic factors shared by family members.

Behaviours

Changes will develop in the way the person reacts to the environment. These reactions may seem out of character. Some common reactions include repeating the same action or words, hiding possessions, physical outbursts and restlessness.

Physical abilities

The disease can affect a person’s physical coordination and mobility, leading to a gradual physical decline. This will affect her ability to independently perform day-to-day tasks such as eating, bathing and getting dressed.

Research, treatment and strategies

It may take years for the sick nerve cells in the brain to die. During that period treatments can help the affected nerve cells to maintain their communication with other nerve cells. It is the loss of this communication that causes the first symptoms of Alzheimer’s disease to appear.

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**The effects of Alzheimer’s disease**

Alzheimer’s disease is a fatal disease that eventually affects all aspects of a person’s life: how they think, feel, and act. Each person is affected differently. It is difficult to predict when symptoms he will have, the order in which they will appear, or the speed of their progression. Early signs that may signal the onset of Alzheimer’s disease include the loss of sense of smell, and loss of weight. The following are some of the changes you may expect as the disease progresses.

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