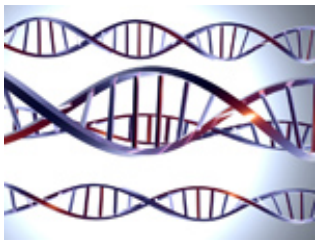
Understanding Dementia

Dementia is the basic term for 'loss of memory' and other mental abilities severe enough to interfere with daily living. It is caused by physical changes in the brain.



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While, Alzheimer's disease is the most common type of dementia (accounting for 50 to 70 percent of cases), here is a brief overview of other dementias* such as:

Creutzfeldt-Jakob Disease (CJD)

Creutzfeldt-Jakob disease (CJD) is a rare, degenerative, invariably fatal brain disorder. It affects about one

person in every one million people per year worldwide; in the United States there are about 200 cases per year. CJD usually appears in later life and runs a rapid course. Typically, onset of symptoms occurs about age 60, and about 90 percent of patients die within 1 year. In the early stages of disease, patients may have failing memory, behavioral changes, lack of coordination and visual disturbances. As the illness progresses, mental deterioration becomes pronounced and involuntary movements, blindness, weakness of extremities, and coma may occur.

Dementia with Lewy Bodies

Dementia with Lewy bodies (DLB) is one of the most common types of progressive dementia. The central feature of DLB is progressive cognitive decline, combined with three additional defining features: (1) pronounced “fluctuations” in alertness the and attention, such as frequent drowsiness, lethargy, lengthy periods of time spent staring into space, or disorganized speech; (2) recurrent visual hallucinations; and (3) parkinsonian motor symptoms, such as rigidity and the loss of spontaneous movement. People may also suffer from depression. The symptoms of DLB are caused by the build-up of Lewy bodies – accumulated bits of alpha-synuclein protein -- inside the nuclei of neurons in areas of the brain that control particular aspects of memory and motor control. The similarity of symptoms between DLB and Parkinson’s disease, and between DLB and Alzheimer’s disease, can often make it difficult for a doctor to make a definitive diagnosis. In addition, Lewy bodies are often also found in the brains of people with Parkinson's and Alzheimer’s diseases. These findings suggest that either DLB is related to these other causes of dementia or that an individual can have both diseases at the same time. DLB usually occurs sporadically, in people with no known family history of the disease. However, rare familial cases have occasionally been reported.

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Frontotemporal Dementia

Frontotemporal dementia (frontotemporal lobar degeneration) is an umbrella term for a diverse group of rare disorders that primarily affect the frontal and temporal lobes of the brain — the areas generally associated with personality and behavior.
In frontotemporal dementia, portions of these lobes atrophy, or shrink. Signs and symptoms vary, depending upon the portion of the brain affected. Some people with frontotemporal dementia undergo dramatic changes in their personality and become socially inappropriate, impulsive or emotionally blunted, while others lose the ability to use and understand language.
Frontotemporal dementia is often misdiagnosed as a psychiatric problem or as Alzheimer's disease.
But frontotemporal dementia tends to occur at a younger age than does Alzheimer's disease, typically between the ages of 40 and 70. And the memory problems associated with Alzheimer's disease are not as prominent in the early stages of frontotemporal dementia.
The term FTD as a ‘general term’ can also be referred to as:

- **Pick's Disease**
- **Frontotemporal Lobar Degeneration**
- **Progressive Aphasia**
- **Semantic Dementia**

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Huntington's Disease

Huntington's disease (HD) results from genetically programmed degeneration of brain cells, called neurons, in certain areas of the brain. This degeneration causes uncontrolled movements, loss of intellectual faculties, and emotional disturbance. HD is a familial disease, passed from parent to child through a mutation in the normal gene. Each child of an HD parent has a 50-50 chance of inheriting the HD gene. If a child does not

inherit the HD gene, he or she will not develop the disease and cannot pass it to subsequent generations. A person who inherits the HD gene will sooner or later develop the disease. Whether one child inherits the gene has no bearing on whether others will or will not inherit the gene. Some early symptoms of HD are mood swings, depression, irritability or trouble driving, learning new things, remembering a fact, or making a decision. As the disease progresses, concentration on intellectual tasks becomes increasingly difficult and the patient may have difficulty feeding himself or herself and swallowing. The rate of disease progression and the age of onset vary from person to person. A genetic test, coupled with a complete medical history and neurological and laboratory tests, helps physicians diagnose HD. Presymptomic testing is available for individuals who are at risk for carrying the HD gene. In 1 to 3 percent of individuals with HD, no family history of HD can be found.

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Normal Pressure Hydrocephalus

Normal pressure hydrocephalus (NPH) is a form of hydrocephalus, also known as "water on the brain," which means there is too much fluid pressing on the brain.

NPH can occur without a known cause, or it may be caused by any condition that blocks the flow of cerebrospinal fluid (CSF). The fluid-filled chambers (ventricles) of the brain enlarge to fit the increased volume of CSF. They press down on and damage or destroy brain tissue.

The dementia symptoms of NPH can be similar to those of Alzheimer disease. The walking problems are similar to those of Parkinson disease. Experts believe that many cases of NPH are misdiagnosed as one of these diseases. The good news is that, unlike Alzheimer disease and Parkinson disease, NPH can be reversed in many people with appropriate treatment. But first it must be correctly diagnosed.

NPH is thought to account for about 5% of all dementias.

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Parkinson's Disease

Parkinson's disease (PD) belongs to a group of conditions called motor system disorders, which are the result of the loss of dopamine-producing brain cells. Approximately 20% of people with Parkinson’s disease will develop dementia, usually after the age of 70. The four primary symptoms of PD are tremor, or trembling in hands, arms, legs, jaw, and face; rigidity, or stiffness of the limbs and trunk; bradykinesia, or slowness of movement; and postural instability, or impaired balance and coordination. As these symptoms become more pronounced, patients may have difficulty walking, talking, or completing other simple tasks. PD usually affects people over the age of 50. Early symptoms of PD are subtle and occur gradually. In some people the disease progresses more quickly than in others. As the disease progresses, the shaking, or tremor, which affects the majority of PD patients may begin to interfere with daily activities. Other symptoms may include depression and other emotional changes; difficulty in swallowing, chewing, and speaking; urinary problems or constipation; skin problems; and sleep disruptions. There are currently no blood or laboratory tests that have been proven to help in diagnosing sporadic PD. Therefore the diagnosis is based on medical history and a neurological examination. The disease can be difficult to diagnose accurately. Doctors may sometimes request brain scans or laboratory tests in order to rule out other diseases.

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Vascular Dementia

Vascular dementia is an umbrella term that describes impairments in cognitive function caused by problems in the blood vessels that feed the brain.

In some cases, a blood vessel may be completely blocked, causing a stroke. Some strokes result in dementia while others don't. It depends on the severity of the stroke and the portion of the brain that's affected. Vascular dementia also can occur when blood vessels in the brain narrow, reducing the amount of blood flow to those sections of the brain.

The prevalence of vascular dementia ranges from 1 percent to 4 percent in people over the age of 65. The risk increases dramatically with age.

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Wernicke-Korsakoff Syndrome

Wernicke-Korsakoff syndrome is a brain disorder involving loss of specific brain functions caused by a thiamine deficiency .
Wernicke's-Korsakoff syndrome involves damage to multiple nerves in both the central nervous system (brain and spinal cord) and the peripheral nervous system (the rest of the body).
It may also include symptoms caused by alcohol withdrawal. The cause is generally attributed to malnutrition, especially lack of vitamin B1 (thiamine), which is common in those with alcoholism. Heavy alcohol use interferes with the break down of thiamine in the body, so even if someone with alcoholism follows a well-balanced diet, most of the thiamine is not absorbed.

*Brief definitions contributed to by the National Library of Medicine

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