

RELATED DEMENTIAS

What Are Frontotemporal Disorders?

Damage to the brain's frontal and temporal lobes causes forms of dementia called frontotemporal disorders.

Frontotemporal disorders are the result of damage to neurons (nerve cells) in parts of the brain called the frontal and temporal lobes. As neurons die in the frontal and temporal regions, these lobes atrophy, or shrink. Gradually, this damage causes difficulties in thinking and behaviors normally controlled by these parts of the brain. [Many possible symptoms](#) can result, including unusual behaviors, emotional problems, trouble communicating, difficulty with work, or difficulty with walking.



Frontotemporal disorders are forms of [dementia](#) caused by a family of brain diseases known as frontotemporal lobar degeneration (FTLD). Dementia is a severe loss of thinking abilities that interferes with a person's ability to perform daily activities such as working, driving, and preparing meals. Other brain diseases that can cause dementia include [Alzheimer's disease](#) and multiple [strokes](#). Scientists think that FTLD is the most common cause of dementia in people younger than age 60. Roughly 60 percent of people with FTLD are 45 to 64 years old.

People can live with frontotemporal disorders for up to 10 years, sometimes longer, but it is difficult to predict the time course for an individual patient. The disorders are progressive, meaning symptoms get worse over time. In the early stages, people may have just one type of symptom. As the disease progresses, other types of symptoms appear as more parts of the brain are affected.

No cure or treatments that slow or stop the progression of frontotemporal disorders are available today. However, research is improving awareness and understanding of these challenging conditions. This progress is opening doors to better diagnosis, improved care, and, eventually, new treatments.

What Do the Terms FTD and FLTD Mean?

One of the challenges shared by patients, families, clinicians, and researchers is confusion about how to classify and label frontotemporal disorders. A diagnosis by one doctor may be called something else by a second, and the same condition or syndrome may be referred to by another name by a pathologist who examines the brain after death.

For many years, scientists and physicians used the term frontotemporal dementia (FTD) to describe this group of illnesses. After further research, FTD is now understood to be just one of several possible variations and is more precisely called behavioral variant frontotemporal dementia, or bvFTD.

This article uses the term frontotemporal disorders to refer to changes in behavior and thinking that are caused by underlying brain diseases collectively called frontotemporal lobar degeneration (FTLD). FTLD is not a single brain disease but rather a family of neurodegenerative diseases, any one of which can cause a frontotemporal disorder. Frontotemporal disorders are diagnosed by physicians and psychologists based on a person's symptoms and results of brain scans and genetic tests. With the exception of known genetic causes, FTLD can be identified definitively only by brain autopsy after death.

How do Frontotemporal Disorders Change the Brain?

Frontotemporal disorders affect the [frontal and temporal lobes](#) of the brain. They can begin in the frontal lobe, the temporal lobe, or both. Initially, frontotemporal disorders leave other brain regions untouched, including those that control short-term memory.

The frontal lobes, situated above the eyes and behind the forehead on the right and left sides of the brain, direct executive functioning. This includes planning and sequencing (thinking through which steps come first, second, third, and so on), prioritizing (doing more important activities first and less important activities last), multitasking (shifting from one activity to another as needed), and monitoring and correcting errors. Symptoms are determined by which part of the lobe is affected first. The frontal lobe is responsible for decision making, so the first symptom might be trouble managing finances.

Brian's Story

Brian, an attorney, began having trouble organizing his cases. In time, his law firm assigned him to do paperwork only. Brian's wife thought he was depressed because his father had died 2 years earlier. Brian, 56, was treated for depression, but his symptoms got worse. He became more disorganized and began making sexual comments to his wife's female friends. Even more unsettling, he neither understood nor cared that his behavior disturbed his family and friends. As time went on, Brian had trouble paying bills and was less affectionate toward his wife and young son. Three years after Brian's symptoms began, his counselor recommended a neurological evaluation. Brian was diagnosed with bvFTD.

When functioning well, the frontal lobes also help manage emotional responses. They enable people to avoid inappropriate social behaviors, such as shouting loudly in a library or at a funeral. They help people make decisions that make sense for a given situation. When the frontal lobes are damaged, people may focus on insignificant details and ignore important aspects of a situation or engage in purposeless activities. The frontal lobes are also involved in language, particularly linking words to form sentences, and in motor functions, such as moving the arms, legs, and mouth.

The temporal lobes, located below and to the side of each frontal lobe on the right and left sides of the brain, contain essential areas for memory but also play a major role in language and emotions. They help people understand words, speak, read, write, and connect words with their meanings. They allow people to recognize objects and to relate appropriate emotions to objects and events. When the temporal lobes are dysfunctional, people may have difficulty recognizing emotions and responding appropriately to them. Issues in the part of the temporal lobe that connects emotions to objects may show as an inability to recognize potentially dangerous objects. Examples would be a person reaching for a snake or plunging a hand into boiling water.

For More Information About Frontotemporal Disorders

NIA Alzheimer's and related Dementias Education and Referral (ADEAR) Center

800-438-4380 (toll-free)

adear@nia.nih.gov

www.nia.nih.gov/alzheimers

The NIA ADEAR Center offers information and free print publications about Alzheimer's and related dementias for families, caregivers, and health professionals. ADEAR Center staff answer telephone, email, and written requests and make referrals to local and national resources.

Alzheimers.gov

www.alzheimers.gov

Explore the Alzheimers.gov portal for information and resources on Alzheimer's and related dementias from across the federal government.

Association for Frontotemporal Degeneration

866-507-7222 (toll-free)

info@theaftd.org

www.theaftd.org

National Institute of Neurological Disorders and Stroke

800-352-9424 (toll-free)

braininfo@ninds.nih.gov

www.ninds.nih.gov

MedlinePlus

National Library of Medicine

www.medlineplus.gov

Eldercare Locator

800-677-1116 (toll-free)

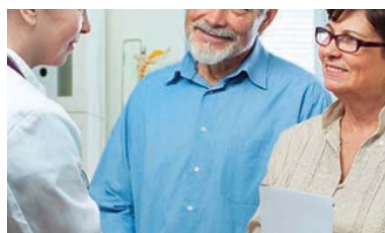
eldercarelocator@n4a.org

<https://eldercare.acl.gov>

This content is provided by the NIH National Institute on Aging (NIA). NIA scientists and other experts review this content to ensure it is accurate and up to date.

Content reviewed: March 29, 2019

Related Articles



[Diagnosing Lewy Body Dementia](#)



[What are the Different Types of Frontotemporal Disorders?](#)



[What Causes Frontotemporal Disorders?](#)