Your Employee Assistance Program is a support service that can help you take the first step toward change.

Causes of Cognitive Disorders

Tumors are masses of cells that grow and infiltrate the body. These masses of cells can be either benign (i.e., they will stop growing once they are removed via surgery) or malignant (i.e., they are difficult to remove and will continue to grow and spread). Both benign and malignant tumors in the brain can cause impaired cognitive functioning, depending on their size and location.

Even the most skilled surgeon cannot remove a benign tumor without causing some damage to surrounding brain areas. As a result, someone who has had a benign tumor removed may still experience residual weakness or numbness, for example. Individuals with malignant tumors will experience cognitive problems as the cell mass presses on and destroys healthy tissue in the brain and spinal cord, blocks the fluid that flows around and through the brain, and/or causes swelling due to accumulation of fluid. Malignant tumors are often lethal.

Strokes are disruptions in the blood supply to the brain - are one of the most common causes of brain damage. Strokes are caused by blockages to blood vessels (ischemic strokes), or when a blood vessel bursts (a hemorrhagic stroke). The risk factors for stroke include age, family history, heart disease, uncontrolled diabetes, high blood pressure, and smoking. Common cognitive effects of stroke include impaired memory, language difficulties, and paralysis, but depend on the part of the brain that is affected. For more information about stroke, please see our related topic center.

Closed head injuries are blows to the head that do not penetrate the skull (e.g., when someone hits his or her head during a car accident). Concussions (when the brain bounces against the skull), hematomas (brain bruises or bleeding), and traumatic brain injuries all types of closed head injuries. Again, the severity and type of cognitive impairment caused by closed head injuries depends on the portion of the brain that is injured. More information about traumatic brain injuries can be found at the end of this article, by clicking here.

Infections can also cause cognitive disorders. Both bacteria and viruses (e.g., the virus that causes rabies) can disrupt brain functioning. One of the most common forms of brain infection is meningitis, an inflammation of the meninges; the protective covering that surrounds the brain and the central nervous system. Meningitis can cause deafness, other forms of cognitive impairment, and in severe cases, death.

Repeated and/or significant exposure to toxic chemicals (neurotoxins) such as metals (e.g., lead, mercury), drugs (e.g., cocaine, alcohol), or other substances (e.g., paint, glue, etc.) can cause cognitive impairment. The type of cognitive impairment created by neurotoxins depends on the type of toxin, the degree of exposure (how much of the substance was taken in, and for how long), and when the exposure occurred (whether the person affected was an infant, child, or adult). Typically, young children exposed to neurotoxins are more likely to develop cognitive disorders (because their brains are experiencing more rapid development) than adults.

Some individuals who develop cognitive impairment have inherited a problem in their **genetic** makeup. For instance, individuals with Down syndrome have an extra 21st chromosome. People with this syndrome often have mental retardation (intellectual functioning that is significantly below average, combined with an impaired ability to adapt to the demands of everyday functioning). For more information on Mental Retardation, please see our topic center describing Mental Illnesses and Disorders of Childhood.

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Diseases that cause cognitive disorders can result from any one (or a combination) of the factors listed above. For instance, Huntington's Disease (a disorder that affects thinking, emotions, and movement), and multiple sclerosis (a movement disorder created when the body attacks the lining of brain cells, called myelin, which decreases the brain's ability to quickly and efficiently deliver messages) both have a strong genetic component. In contrast, Parkinson's Disease (a movement disorder described below) and Epilepsy (a disorder in which clusters of brain cells signal abnormally and cause seizures; see our related topic center) can have a host of causes, including defective genes, brain infections, tumors, etc.

Often, mental health professionals classify cognitive disorders into two broad categories: those that are irreversible (i.e., not curable) and those that are reversible (i.e., curable). Dementias are irreversible, progressive, degenerative disorders that gradually reduce a person's ability to function in everyday life. A person with dementia cannot regain his or her previous level of functioning, even though some symptoms may be managed through treatment. Examples of irreversible dementias include Alzheimer's Disease, Lewy Body Dementia, and Dementia caused by the AIDS/HIV virus.

On the other hand, the progression of reversible cognitive disorders can be halted by identifying the cause of the symptoms and properly treating the underlying disorder. With appropriate treatment, a person's previous level of functioning can be restored. Examples of reversible cognitive disorders are pseudo dementia and delirium, which will be described later.

The types of reversible and irreversible disorders that we discuss is this article are classified as Delirium, Dementia, and Other Cognitive Disorders. Regardless of the diagnosis, the common denominator among all of the conditions discussed here is a significant problem with memory and/or other areas of cognitive functioning that represents an obvious change from the person's previous level of functioning.