Types of Alcohol-Related Neurologic Disorders

There are several neurological diseases that can be caused by alcohol abuse, including fetal alcohol syndrome, dementia, and some symptoms associated with alcohol withdrawal. Alcohol-related neurological diseases include:

- **Alcoholic cerebellar degeneration:** This is one of the more common forms of cerebellar ataxia, or loss of tissue mass in the brain. The most common symptom associated with cerebellar degeneration involves the loss of the ability to walk over a period of months or years. The condition also affects eye movements, gait or pace, and, rarely, loss of muscle coordination in the upper body. Cerebellar degeneration is caused by malnutrition, but the main cause in most of the Western world is alcohol abuse.
- **Alcoholic myopathy***:* About 33 percent of people struggling with alcohol use disorder develop alcoholic myopathy. This condition involves the breakdown of proximal muscles, which are found in the arms, shoulders, thighs, and upper legs – skeletal muscles found nearest the body's trunk. Symptoms include:
    - Muscle pain, tenderness, swelling, and weakness, which may appear after a binge or when the person wakes from an alcoholic stupor
    - Cardiomyopathy, or weakening and drooping of the heart muscle so it does not pump blood efficiently
    - Renal damage or failure, when the toxins from muscle breakdown flood the kidneys to the point that the organs can no longer effectively filter them out

Alcoholic neuropathy: Although it is unclear what exactly causes the condition, alcoholic neuropathy is a deadening of nerves throughout the peripheral nervous system, so the person will feel tingling or burning sensations and numbness, and have trouble with basic functions like walking, internal body temperature regulation, and bowel or bladder function

- . The causes of alcoholic neuropathy likely involve poisoning of the nerves due to high-volume consumption of alcohol and poor nutrition associated with problem drinking. Symptoms of alcoholic neuropathy include:
  - Numbness in the extremities, including the arms and legs
  - The feeling of “pins and needles” or other abnormal sensations
  - Pain or burning in the arms and legs
  - Muscle problems, including cramps, weakness, spasms, or aching sensations
  - Heat intolerance due to poor regulation, especially after exercise
  - Incontinence, trouble urinating, or other bladder problems
  - Diarrhea or constipation
  - Nausea and vomiting
  - Trouble speaking or swallowing
  - Unsteady gait, stumbling, or lack of balance

- **Delirium tremens:** When a person suddenly stops drinking after abusing alcohol for many years, they are at risk of developing alcohol withdrawal syndrome, or delirium tremens (DT). The body has developed a physical dependence on alcohol to manage brain function, so when the substance is suddenly removed, life-threatening side effects can develop. These include:
    - Severe confusion or delirium
    - Physical tremors
    - Changes in thinking or memory
    - Extreme agitation and irritability
    - Intense excitement, fear, or paranoia
    - Hallucinations
    - Sudden bursts of energy
    - Stupor, or being awake but unresponsive
    - Seizures or convulsions
- **Fetal alcohol spectrum disorders:** While many alcohol-related neurological conditions occur in people who consume too much alcohol, fetal alcohol spectrum disorders (FASDs) occur in babies or children, and may lead to life-long developmental delays, emotional or behavioral abnormalities, or trouble thinking or learning. Women who consume alcohol while pregnant put their children at risk for FASDs. Types of FASDs include:

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    - *Fetal alcohol syndrome (FAS)*: Fetal death is the most extreme outcome from a woman struggling with AUD or problem drinking during pregnancy; other forms of FAS include abnormal facial features, growth problems, and developmental differences or disabilities in the central nervous system (CNS). People who live with FAS may have trouble with their memory, attention, communication skills, learning abilities, hearing, and/or vision.

      Alcohol-related neurodevelopmental disorder (ARND): With this disorder, children and adults have intellectual disabilities, behavioral struggles, and trouble learning.
    - *Alcohol-related birth defects*: These involve physical problems, including damage to the heart, kidneys, hearing, or bones during fetal development.

Wernicke-Korsakoff syndrome: This condition is a combination of two forms of brain disease, Wernicke's encephalopathy and Korsakoff syndrome. Both of these conditions are triggered by a loss of thiamine, or vitamin B12, which is most often caused by problem drinking

- When a person struggles with heavy drinking or alcohol use disorder, they are more likely to drink alcohol than eat regular meals, and the body will struggle to absorb nutrients from food over time.Symptoms of Wernicke's encephalopathy include:
  - Reduced mental activity
  - Confusion
  - Ataxia, starting with muscle tremors in the legs and leading to loss of muscle control overall
  - Abnormal eye movements
  - Double vision
  - Eyelid drooping
  - Withdrawal symptoms if the person stops drinking

Korsakoff syndrome's symptoms include:

- Trouble forming new memories
- Trouble remembering old memories, leading to fabrication of events or people
- Other forms of severe memory loss
- Hallucinations, especially visual or auditory

In some cases, one or both syndromes will clear up on their own; however, in 25 percent of Wernicke-Korsakoff syndrome cases, the problem does not stop on its own and is likely to get worse. This is especially true if the person does not stop drinking alcohol and get treatment. **Treatment for Alcohol-Related Neurologic Diseases**

Getting treatment for alcohol-related neurologic diseases involves an appropriate medical diagnosis – not just of alcohol dependence and abuse, but of the specific condition itself. A neurologist, psychiatrist, and hospital-based doctors and nurses will be involved in the initial stages of treatment. An intervention specialist or social worker may speak with the person about their condition if they have been hospitalized, explaining the need for evidence-based addiction treatment.

Sometimes, with appropriate medical help, a person may overcome some of these neurologic diseases, but many will have symptoms lasting for years, requiring ongoing medical intervention. It is important to get help overcoming alcohol abuse, AUD, or other forms of problem drinking before suffering long-term harm to the body and brain from being unable to control the impulse to drink.