

Dementia & Alcohol Related Brain Damage



NCCDP In-service Toolkit



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Objectives

- Review the Effects of Alcohol Consumption on Cognition
- Discuss ARD (Alcohol Related Dementia)
- Review Wernicke's Encephalopathy
- Review Korsakoff's Syndrome
- Describe Treatments & Interventions



Alcohol Use Definitions



Risky Alcohol Use

Consumption of an amount of alcohol that puts an individual at risk for health consequences:

Men under age 65

- More than 14 standard drinks per week on average
- More than 4 drinks on any given day

Women and adults 65 and older

- More than 7 standard drinks per week on average
- More than 3 drinks on any day



(NIAAA- National Institute on Alcohol Abuse and Alcoholism)

Alcohol Use Definitions



Binge Drinking

"Consumption within 2 hours such that blood alcohol content levels reach 0.08/dL"

In women

- Typically occurs with four drinks

In men:

- Typically occurs in five drinks

Binge drinking is associated with acute injuries due to intoxication.

May be associated with increased cardiovascular risk in young adults.



(NIAAA- National Institute on Alcohol Abuse and Alcoholism)

Alcohol Use Definitions

Alcohol Use Disorder

"A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by multiple psychosocial, behavioral, or physiologic features"



(DSM-5)



Did You Know?

The number and size of drinks may vary greatly by type, and even by country.

STANDARD US DRINK:

12

GRAMS OF ETHANOL=
• 5 OUNCES OF WINE
• 12 OUNCES OF BEER
• 1.5 OUNCES OF 80 PROOF SPIRITS

INTERNATIONAL STANDARDS VARY

8-12

GRAMS IN UK AND WESTERN EUROPE

19.75

GRAMS IN JAPAN

Cognitive Complications of Alcohol Use to Consider in Dementia Care

- 10% of dementias are alcohol related
- Intoxication/blackouts/coma/death
- Alcohol withdrawal/seizures
- Alcohol related brain damage
- Wernicke Encephalopathy
- Korsakoff Syndrome
- Alcoholic Hallucinosi



(NIAAA- National Institute on Alcohol Abuse and Alcoholism)

Alcohol Related Dementia (ARD)

What is alcohol related dementia?

Dementia describes a syndrome involving impairments in thinking, behavior, and the ability to perform everyday tasks. Excessive consumption of alcohol over many years can sometimes result in brain damage that produces symptoms of dementia. Alcohol related dementia may be diagnosed when alcohol abuse is determined to be the most likely cause of the dementia symptoms.

Excessive Alcohol Consumption

Excessive alcohol consumption can damage the brain in many different ways - directly and indirectly:

- Many chronic alcoholics demonstrate brain shrinkage, which may be caused by the toxic effects of alcohol on brain cells
- Alcohol abuse can also result in changes to heart function and blood supply to the brain, which also damages brain cells
- Skills and abilities can be affected when brain cells are damaged
- Chronic alcoholics often demonstrate deficits in memory, thinking and behavior
- Symptoms may not be severe enough for a diagnosis of dementia

Alcohol Related Dementia

The condition can affect memory, learning, reasoning and other mental functions, as well as personality, mood and social skills. Problems usually develop gradually . If the person continues to drink alcohol at high levels, the symptoms of dementia are likely to become progressively worse. If the person abstains from alcohol completely, then deterioration can be halted, and there is often some recovery over time.

Wernicke's Encephalopathy



Wernicke

First described the condition in 1881 by a German Physician, Anatomist, Psychiatrist and Neuropathologist

Carl Wernicke

Wernicke's Encephalopathy

Wernicke's encephalopathy usually develops suddenly. there are common symptoms, though these are not always present, so diagnosis may be difficult. Wernicke's Encephalopathy is common but under-recognized by 80%



(NIAAA)

Typical Symptoms Include

- Jerky eye movements or paralysis of muscles moving the eyes or double vision
- Loss of muscle coordination, poor balance, staggering or inability to walk
- Confusion

Treatment for Wernicke's

If Wernicke's encephalopathy is suspected, immediate treatment is essential. Treatment consists of high doses of thiamine (vitamin B1). If treatment is carried out in time, most symptoms should be reversed.

If Wernicke's is left untreated, or is not treated in time, permanent brain damage may result, especially in deeper parts of the brain. In some cases, the person may die. If Wernicke's encephalopathy is left untreated, or is not treated soon enough, Korsakoff's syndrome may follow; known as the syndrome called Wernicke's-Korsakoff's Syndrome.

Korsakoff's Psychosis Synrome



Korsakoff

Described in 1884 by Russian neuropsychiatrist, physician and neuropathologist.

Sergei Korsakoff

Korsakoff's Syndrome

Korsakoff's syndrome is not always preceded by Wernicke's encephalopathy; it can develop on its own. It usually develops gradually. Brain damage occurs in areas of the brain important for short term memory. There are not lab tests or imaging procedures to diagnose this disorder.

Korsakoff's Syndrome

Symptoms can Include:

- Inability to form new memories or learn new information
- Personality changes
- Making up stories to fill gaps in memory (confabulation)
- Hallucinations
- Lack of insight into the condition

Korsakoff's Treatment

If the person continues to drink heavily and has poor nutrition, Korsakoff's syndrome is likely to continue to progress with symptoms worsening over time.

The progress of Korsakoff's syndrome can be halted if the person completely abstains from alcohol, adopts a healthy diet and takes vitamin supplements. Thiamine (vitamin B1) supplementation may help prevent further brain damage from occurring.

Prognosis for Korsakoff's

The prognosis for someone with Korsakoff's syndrome depends on how soon treatment begins and how much brain damage has already been done. Any improvement usually occurs within a period of up to two years after stopping drinking.

Some symptoms, especially the loss of memory and thinking skills, may be permanent. People usually retain skills that they acquired before developing the disorder, so they are often able to manage with appropriate support. Some unfortunately make no recovery and may need long-term care.

Latest Research Findings

New research finds that even moderate drinkers can double their risk of dementia, if they drink themselves unconscious - even rarely.

Research indicates that alcohol impairs important parts of brain function, and while some alcohol-induced damage can heal, there is a significant risk of permanent injury.

The relationship between alcohol and health is complicated, with research also showing both abstaining from alcohol and excessive drinking in middle age may increase dementia risk.

(Alcohol consumption and risk of dementia: 23-year follow-up of Whitehall II cohort study

BMJ 2018; 362 doi: <https://doi.org/10.1136/bmj.k2927> (published 01 August 2018)

References

Alcohol consumption and risk of dementia: 23-year follow-up of Whitehall II cohort study BMJ 2018; 362 doi: <https://doi.org/10.1136/bmj.k2927> (published 01 August 2018)

What are the Links between Alcohol and Dementia?

<https://americanaddictioncenters.org/alcoholism-treatmentlinks-between-alcohol-and-dementia>

Alcohol Consumption and Risk of Dementia and Cognitive Decline Among Older Adults With or Without Mild Cognitive Impairment

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle2752097/> Alcohol consumption and risk of dementia and cognitive decline among older adults with or without mild cognitive impairment/

National Institute on Alcohol Abuse and Alcoholism

<https://www.nih.gov/about-nih/what-we-do/nih-almanac/national-institute-alcohol-abuse-alcoholism-niaaa>

Additional Resources:

Hartford Institute Geriatric Nursing

<https://hign.org/consultgeri/try-this-series/alcohol-use-screening-and-assessment-older-adults>

SAMSHA Substance and Mental Health Services Administration

Guidance on Inappropriate Use of Antipsychotics Older Adults and People with Intellectual and Developmental Disabilities in Community Settings

<https://store.samhsa.gov/product/guidance-on-inappropriate-use-of-antipsychotics-older-adults-and-people-with-intellectual-and-developmental-disabilities-in-community-settings/PEP19-INAPPUSE-BR>

Substance Use Treatment Older Adults

<https://www.samhsa.gov/homelessness-programs-resources/hpr-resources/substance-use-treatment-older-adults>

Senior Hope

<http://www.seniorhope.org/>

Alcohol Effects Video

Additional Resources:

Substance Abuse Among Older Adults

See chapter 4 for screening and assessment tools - 294 page download

<http://lib.adai.washington.edu/clearinghousedownloads/tip-26-substance-abuse-among-older-adults-67.pdf>

Consult Geri

Acute Intoxication

<https://highn.org/consultgeri/resouces/symptoms/acute-intoxication>

Consult Geri

The Short Michigan Alcoholism Screening Video and PDF Download

<https://highn.org/consultgeri/try-this-series/aalcohol-use-screening-and -assessment-older-adults>

Professional Screening Tools

CAGE Substance Abuse Screening Tool - Johns Hopkins

https://www.hopkinsmedicine.org/johns_hopkins_healthcare/downloads/all_plans/cage%20Substance%20screening%20tool.pdf

MAST-G Michigan Alcohol Screening Test-Geriatric Version

https://ltctrainer.com/onlinecourses/demo_coursecontent/suicide_mastg.pdf

SCID Structured Clinical Interview for DSM - Columbia University

<https://www.columbiapsychiatry.org/research/research-areas/serices-policy-and-law/structured-clinical-interview-dsm-disorders-scid>

DIS Diagnostic Interview Schedule

<https://www.encyclopedia.com/education/encyclopedias-almanacs-transcripts-and-aps/diagnostic-interview-schedule-dis>