

# SUBSTANCE WITHDRAWAL AND THE KINDLING EFFECT



## What is kindling?

Kindling refers to the worsening of withdrawal symptoms that can occur when someone repeatedly stops and restarts the use of a particular psychoactive substance. It is commonly associated with regular alcohol and benzodiazepines use, but can also occur with other substances.



## Who is most at risk?

People who repeatedly abstain and then relapse to substance use, or who have experienced severe withdrawal symptoms in the past, are at greater risk of experiencing kindling and should be discouraged from future unmedicated withdrawals at home. This is regardless of whether that person's use has reduced in amount and/or duration since the last attempted withdrawal.



## Why does it happen?

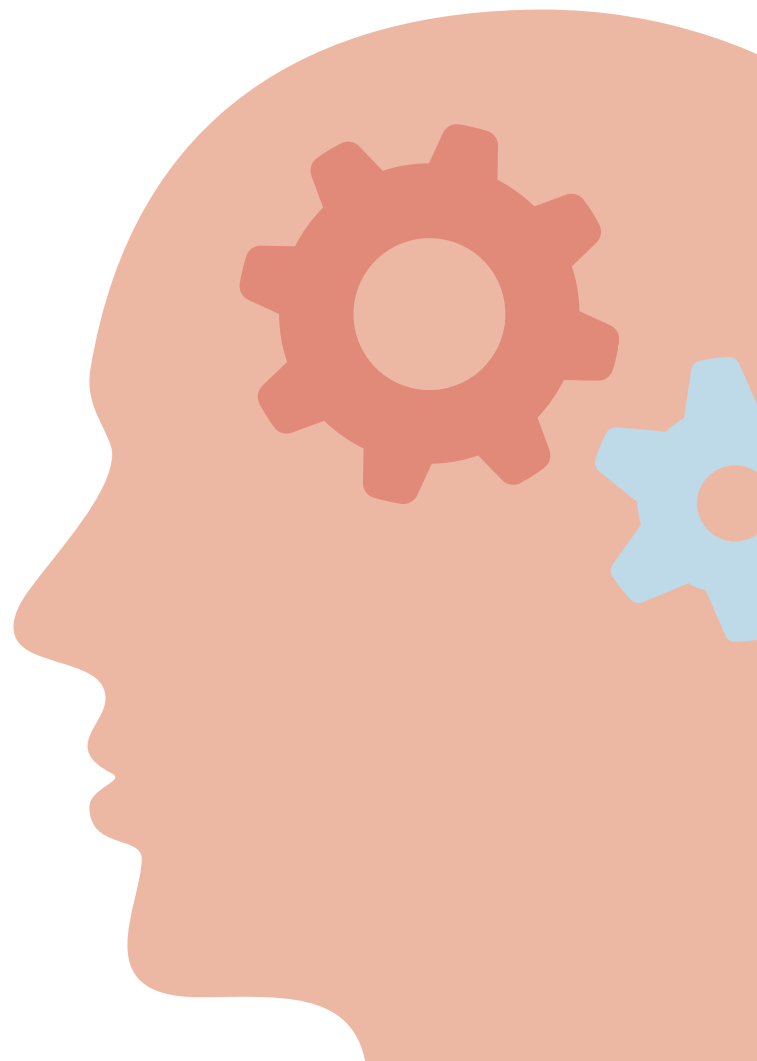
Kindling occurs when the signalling pathways in the brain associated with substance use become more and more sensitive as a result of being repeatedly switched on and off. One of the suspected causes is the excess release of a neurotransmitter called glutamate which is known to increase the ongoing activity of the brain's neurons. Over time this excessive glutamate can damage these neurons thereby worsening the symptoms of withdrawal, making the experience much more painful, stressful and harmful to the body.



## Is it dangerous?

It can be. The dangers of kindling are the increased severity of the withdrawal symptoms themselves. Symptoms can be so severe they can be life-threatening. The more dangerous symptoms include:

- Disorientation
- Racing, rapid or irregular heartbeat
- Seizures





## Avoiding kindling

Symptoms of kindling generally will not appear until a person has had a series of unsuccessful periods of abstinence and lapses back into their alcohol or drug use. Avoiding kindling means avoiding relapses. Maintaining abstinence stops the likelihood of kindling occurring. Therefore, before and after attempting to withdraw, relapse prevention planning should be a high priority.



## A comprehensive history is essential

The number of withdrawal episodes, periods of abstinence, as well as the severity, frequency and duration of withdrawal symptoms should be well documented. This allows treating teams to consider the risks or likelihood of kindling in any subsequent withdrawal attempt.

Patients / clients should also be advised of the risks of kindling before and after each attempted withdrawal so that necessary supports can be put in place. They should also be advised of the importance of communicating their experience of previous withdrawals with other healthcare providers where appropriate.




## Stopping the cycle

To minimise relapse, health workers should support patients / clients to develop practical, achievable, personalised goals and treatment plans that focus on managing their substance use. Hastily commencing withdrawal treatment without a strong relapse prevention plan can increase overall risk, except in instances where there are other medical priorities or if it is a life-threatening situation.

The longer a person is in treatment and building skills to effectively cope with cravings and triggers, the greater their chance of achieving their goals. As such, treatment should be seen as a long-term strategy, not a quick solution.

## Further information

Contact the National Alcohol and Drug Hotline on  **1800 250 015** for free and confidential advice about alcohol and other drugs.

Health care providers can also contact their local alcohol and drug clinical advisory service for specialist advice and support.

