

Addiction, harmful drug use and mental illness (dual diagnosis)

This information is for people who suffer from both an addiction and a mental illness (dual diagnosis).

[If you would rather read this information on your phone, you can go to www.psykiatri-regionh.dk/afhængighed](http://www.psykiatri-regionh.dk/afhængighed) (in Danish) or scan the QR code with your phone.



What is a dual diagnosis?

Addiction, abuse, harmful use or drug problems are some of the terms we use to describe the fact that alcohol, drugs or medication have taken control.

In the mental health services, a distinction is made between two diagnoses taken from ICD 10 – the WHO's international classification of diagnoses. Combined with a mental illness that requires treatment by the mental health services, this is called a dual diagnosis.

Dependence syndrome

You are addicted to alcohol or drugs when:

- you use alcohol or drugs in your daily life to attain special mental or physical effects
- you have a severe and uncontrollable urge to consume alcohol, drugs or both. This is also called craving
- your thoughts and attention are highly focused on alcohol or drugs, and this affects your work, studies, health, finances or close relationships

- you experience withdrawal symptoms, or take drugs and/or alcohol to avoid withdrawal symptoms
- you have to consume more and more to attain an effect
- you keep taking alcohol or drugs even though you know it is harmful to you.

Harmful use of intoxicants

Harmful use is defined by the WHO as use for at least one month, or repeatedly within one year, that results in:

- noticeable mental episodes
- reduced physical health
- broken human relationships
- inability to function socially and financially.

Dual diagnosis

If you have both a mental illness and an addiction and/or engage in harmful use of intoxicants, this is called a dual diagnosis. It is estimated that at least one in three people with mental illness are addicted or engage in harmful use of alcohol, drugs or medication.

Engaging in harmful use is not the same as having an addiction, and vice versa. Often it is easier to change your behaviour or consumption pattern if you are engaging in harmful use without having an addiction.

What can you get addicted to?

You can get addicted to:

- alcohol
- narcotics
- both alcohol and narcotics.

Narcotics can be:

- Illegal drugs such as marijuana, LSD, amphetamines, ecstasy, cocaine, crack or heroin.
- Medications such as painkillers (opioids), sedatives (benzodiazepines), sleeping medications or ADHD medications. Those most commonly sold on the street are Tramadol, Oxycodone and Xanax.

Causes of addiction

Anyone can develop an addiction. But the risk of developing an addiction can be increased by processes in the brain as well as psychological and social conditions.

Some people are at greater risk of developing an addiction than others. For example, if you experienced neglect or trauma during your childhood or adolescence, or grew up in a socially disadvantaged area.

You are also at risk of developing an addiction if you tend to act impulsively, get angry easily, feel insecure, or have problems connecting with others. This has been seen among people with ADHD and personality disorders.

Addiction develops differently

Drug addiction often develops at a relatively young age. Young people tend to hang out with other young people who share the same thoughts about themselves and the outside world. If drugs are part of such an environment, it is easier to become addicted. The brain is also more plastic and adaptable during youth, making it more predisposed to addiction.

Many begin to drink alcohol in their teens. Some people gradually begin to drink alcohol regularly, more frequently and in larger quantities. Over time, physical and psychological dependence and effects arise.

Addiction as a form of self-medication

Intoxicants can have different effects. For example, they can make you feel elated, relaxed, calm or satisfied. Another effect can be that you find it easier to connect socially with others. If you start consuming regularly, the effect will serve as an escape from the problems and difficulties you experience in your daily life.

Some drugs can reduce unpleasant mental and physical symptoms such as anxiety, sadness, feelings of abandonment, depression, psychoses and insomnia.

An addiction can therefore arise that is, in reality, an attempt to self-medicate in order to feel better.

The problem is that once you become addicted, your brain will 'demand' more and more of the drug. The consumption that develops and its side effects can have huge consequences for you yourself, your friends and your family.

Dopamine in the brain is a key mechanism

The reward centre of the brain is an ingenious function, and its primary task is to ensure the survival of humanity. To ensure that we eat and drink, and that we have sex so that we can reproduce.

The reward system is spread around different areas of the brain that are connected to each other and form a circuit.

Dopamine is the substance that keeps the reward system running. When we eat, drink water (when we are thirsty) and have sex, dopamine is released in the body. This triggers the reward centre in the brain and creates a state of mental calm and well-being. In short, we feel good mentally when dopamine is released.

The brain's reward system is thus an ingenious function that ensures our survival as human beings.

There are three important areas in the brain where dopamine is released:

- The reward centre, where dopamine is created and released, leading to reward in the form of a sense of mental calm and well-being.
- The frontal lobes, which are the seat of our emotional life. Dopamine is involved in the processes of making decisions and responding to emotions.
- Substantia Nigra (the black substance) and motoric parts of the reptile brain help coordinate our movements. For example, when dopamine stops working here, it triggers poor coordination of movements, known as Parkinson's disease.

Intoxicants can release huge amounts of dopamine

So dopamine has many vital attributes, but also one very bad one. The problem with intoxicants is that they can also cause the reward centre to release dopamine. In fact in such quantities as to explain why you can become addicted so quickly and end up being willing to do almost anything to get your drug.

Some drugs can cause the reward centre to release 50 times as much dopamine as a good meal! The drug thus deludes the brain into thinking it is

better to 'survive' on intoxicants than food, making it 'demand' intoxicants ahead of food.

The reward system will therefore give us a strong urge to take the drug or drink alcohol again. In short, it increases our motivation to do whatever led to reward. We have seen this mechanism in action when we are hungry and have to go shopping after a busy working day. You may have noticed a tendency to put more food in your trolley than planned.

It is not only drugs and alcohol that trigger this mechanism in our brain. Addiction to sex, gambling, shopping, self-harm, or vigorous exercise triggers the same process in our reward centre. Both the mental and physical effects and the urge to do it again and again.

Dopamine can also trigger mental illness

Too much dopamine also has the unfortunate effect that it can trigger or worsen psychosis symptoms.

Addiction, harmful drug use and mental illness are therefore a bad cocktail. The implications are:

- it can be difficult to distinguish what is caused by mental illness and what is caused by an addiction/harmful use of intoxicants
- it can be difficult to set the best medication dose if there is an underlying addiction/harmful use of intoxicants that you have not mentioned
- some people may develop marijuana or other drug psychoses, even if they have never been psychotic before.

Consequences of addiction

Heavy use of drugs, alcohol or both can also lead you to neglect things like paying bills, staying in touch with friends and family, and keeping up with your studies or work. In short, you become cut off from support from the outside world, and practical problems pile up. This contributes to stress, hopelessness and poor well-being, which can trigger or worsen any mental illness.

Addiction and harmful drug use also impair your chances of recovery – because they prevent you from building up close relationships, a sense of hope and meaningful activities.

So even though drugs may give you a kick or calm you, they make your life poorer, as you are no longer driven by a desire for satisfaction and joy in your life.

Addiction damages your personality

If you have used drugs harmfully over a long period, the reward system in your brain will change. Your perception of enjoyment will revolve around the drug or alcohol, and you will find it harder and harder to enjoy activities outside the addiction. No other things in life will satisfy you in the same way that drugs and alcohol do.

Your personality also changes over time, even though you may not notice it. For example, you may experience:

- difficulty concentrating
- unusual mood swings
- sleep disturbances
- loss of interest in things or activities that used to make you happy
- less interest in taking care of yourself
- frequent sick leave.

Your body and organs can also be damaged. Depending on what you are addicted to, it can affect your body.

More knowledge and counselling

Here you can learn more about having a mental illness or being a relative of someone with a mental illness.

Psykiatriguiden – overview for patients and relatives

In Psykiatriguiden, we have gathered all relevant information about mental illnesses, types of treatment and treatment programmes offered by the mental health services of the Capital Region of Denmark. You can also read about being a relative of a person with a mental illness.

[Find Psykiatriguiden \(in Danish\) at www.psykiatri-regionh.dk/psykiatriguiden](http://www.psykiatri-regionh.dk/psykiatriguiden) or by scanning the QR code with your phone.



Living with mental illness

[You can find specific tools designed to help you in your everyday life at www.psykiatri-regionh.dk/hverdagen](http://www.psykiatri-regionh.dk/hverdagen) (in Danish) or by scanning the QR code with your phone.



Counselling from PsykInfo

At PsykInfo in the Capital Region of Denmark, nurses with experience from the mental health services offer telephone or personal counselling to both patients and their relatives. [You can read more at www.psykiatri-regionh.dk/Psykinfo](http://www.psykiatri-regionh.dk/Psykinfo) (in Danish) or call 38 64 13 00. You can also scan the QR code with your phone.

