



SELF-MEDICATION & EMOTIONAL PAIN

The Self-Medication Cycle

How short-term relief can become
a repeating pattern

The key idea

A substance may initially solve a real short-term problem. Repeated relief can teach the brain to return to it, while tolerance, rebound effects, withdrawal or consequences may gradually create additional discomfort. The cycle can therefore become self-reinforcing even when the original reason still exists.

A cycle can begin with something that works

Self-medication often makes more sense when we start at the beginning. A person experiences something difficult — anxiety, pain, sleeplessness, understimulation, grief, sensory overwhelm or another uncomfortable state. A substance changes that state quickly. Because the immediate effect feels useful, using it again becomes more likely.

The basic pattern

Trigger or unmet need → urge → substance use → short-term change or relief → learning and reinforcement → after-effects or consequences → renewed discomfort or need → another urge to use.

Step 1: the trigger or unmet need

A trigger can be internal, such as anxiety, pain, boredom, fatigue, craving or a memory, or external, such as conflict, a social event, a place, payday, seeing a particular person or having the substance available. Sometimes there is no single dramatic trigger; the person is responding to an ongoing unmet need.

Step 2: anticipation and urge

Before use, the brain can begin anticipating the expected effect. Thoughts such as 'I need something to switch off' or 'I cannot get through this without it' may become increasingly automatic. Environmental cues associated with previous use can also trigger craving.

What this might look like

After repeatedly drinking when arriving home from a stressful job, walking through the front door may eventually become a cue for wanting alcohol — even on a day that was less stressful. The context itself has become associated with relief.

Step 3: short-term effect

The substance may reduce anxiety, pain or inhibition; increase stimulation or energy; create emotional distance; or help the person feel sleepy. This immediate change matters because behaviours followed by rewarding effects or relief are more likely to be repeated.

Positive and negative reinforcement

Positive reinforcement means use becomes more likely because it adds something experienced as rewarding, such as pleasure, energy, confidence or connection. Negative reinforcement means it becomes more likely because it reduces something unpleasant, such as anxiety, pain, withdrawal or distress. 'Negative' here means removal, not that the person is doing something bad.

Important clinical point

Reinforcement is a learning process, not evidence of weak character. Repeated associations between cues, substance use and its effects can become powerful and increasingly automatic.

Step 4: what happens afterwards

The immediate effect is only one part of the cycle. There may later be disrupted sleep, anxiety, low mood, fatigue, conflict, financial problems, missed responsibilities or physical symptoms. Some effects are caused by intoxication, some by the substance wearing off, and some by the consequences surrounding use.

Rebound effects

A rebound effect is the return of a symptom after a substance wears off, sometimes temporarily more strongly. For example, a substance used to reduce anxiety or promote sleep may be followed by increased anxiety or disrupted sleep. The renewed symptom can create another reason to use.

A changing reason for use

At first someone may drink because it reduces social anxiety. Later they may also drink because stopping leaves them shaky, anxious or unable to sleep. The reason for using has expanded from seeking an effect to also avoiding discomfort.

Tolerance can change the pattern

With repeated exposure to some substances, the same amount may produce less of the previous effect. A person may increase the amount or frequency in an attempt to recreate the original relief. Tolerance is not identical to addiction, but it can increase risk and may be one part of a developing dependence pattern.

Physical dependence and withdrawal

Physical dependence means the body has adapted to repeated exposure. Reducing or stopping can then produce withdrawal symptoms. Using again may rapidly relieve those symptoms, creating a particularly strong negative-reinforcement loop. Dependence can occur with prescribed medicines as well as alcohol and other drugs.

Safety note

Withdrawal risk varies by substance. Alcohol withdrawal can be dangerous and may cause seizures, hallucinations or severe confusion. Some prescribed medicines also require gradual, planned withdrawal. Where physical dependence is possible, seek appropriate medical advice rather than stopping abruptly.

The original problem may still be there

Dependence and consequences can be added to the original reason for self-medication rather than replacing it. Someone may now be managing chronic pain plus withdrawal, anxiety plus shame about drinking, ADHD-related difficulties plus stimulant use, or insomnia plus fear that sleep is impossible without a substance.

Consequences can become new triggers

Relationship conflict, financial difficulties, poor sleep, reduced self-esteem, work problems or shame connected with substance use can increase distress. That distress can then trigger further use. The coping strategy begins producing some of the states it is being used to escape.

The cycle can grow

Original difficulty → relief through use → repeated learning → tolerance or dependence for some people → after-effects and consequences → more distress → stronger reliance on the substance. Not everyone follows every stage, and progression is not inevitable.

Habits, cues and routines

Repeated use in the same places, times or situations can turn environmental cues into prompts. A particular chair, journey, friendship group, time of day or emotional state can become linked with using. This helps explain why craving may appear suddenly even when someone had not consciously planned to use.

Why a lapse can become a return to repeated use

A single episode of use after a period of change does not erase previous progress. However, familiar cues and expected effects can reactivate old patterns quickly. Shame after a lapse can itself become another trigger. Responding with curiosity and a revised plan is often more useful than treating one episode as total failure.

Important to remember

Recovery and behaviour change are rarely perfectly linear. A lapse can provide information: What happened beforehand? What need reappeared? What support was missing? What could make the next high-risk situation safer?

Where can the cycle be interrupted?

There is rarely only one intervention point. Support can reduce triggers, increase delay between urge and action, change access to substances, treat underlying conditions, manage withdrawal safely, develop alternative sources of reward or relief, strengthen relationships, and reduce the consequences that keep distress high.

Treating the need and the pattern together

If the original need is ignored, stopping can feel like losing the person's most effective coping tool. If only the underlying need is treated while dependence or high-risk use is ignored, substance-related harm can continue. Effective support often needs to address both.

Reflection

Choose one recent episode of use and map it without judgement: What happened before? What did you expect the substance to do? What changed immediately? What happened later? What created the next urge? Where in that sequence might even a small change be possible?

References & Further Resources

The self-medication cycle is a useful way to understand learning and reinforcement, but individual patterns differ. Not everyone develops tolerance, physical dependence or addiction, and the safest approach depends on the substance, pattern of use and person's health.

NHS - Addiction: what is it?	Overview of addiction, craving, loss of control, withdrawal and factors that can contribute to addictive behaviour.
NHS - Drug addiction: getting help	Information on assessment, local drug treatment, talking therapies, medicines, detoxification and harm-reduction support.
NHS - Alcohol-use disorder	Information about harmful drinking, dependence, withdrawal and treatment, including risks associated with abrupt withdrawal.
NICE - Medicines associated with dependence or withdrawal symptoms (NG215)	Guidance on prescribing and safe withdrawal for opioids, benzodiazepines, gabapentinoids, antidepressants and Z-drugs.
NICE - Drug misuse in over 16s: psychosocial interventions (CG51)	Guidance on evidence-based psychosocial approaches for people who misuse opioids, stimulants or cannabis.
NICE - Alcohol-use disorders: diagnosis and management (CG115)	Guidance on assessment and treatment of harmful drinking and alcohol dependence.

How to use these resources

A GP or local drug and alcohol service can help assess risk, dependence and treatment options. Where substance use is linked with pain, sleep, ADHD, anxiety, depression or another underlying difficulty, those needs should also be assessed rather than assuming substance treatment alone will resolve them.