

Tips for getting through the adaptation period

- Do something else that **you find enjoyable**.
- Do physical activity that **helps tire your body out**.
- **Reach out to someone you trust** and share what you are going through. Consider asking them for support to stay committed to your decision.
- Eat **healthy nourishing food**.
- Go to **bed and get up at the same time** every day.
- **Prepare those around you** that you might be a little "off" for a few weeks.

2. Boost your endocannabinoid system naturally

THC affects the body because it mimics a substance the body makes itself, called **anandamide**. Research shows that you can help your body **produce more anandamide** and thereby strengthen your cannabinoid system from within:

Physical activity

Physical activity can increase anandamide production, which **improves your mood**. For example, anandamide is a contributing factor to "**runners high**"—the feeling of happiness or euphoria that can occur during prolonged exercise.

Diet

Certain foods can increase anandamide levels, including:

- 1) **Omega 3 fatty acids** from fish and nuts.
- 2) **Kaempferol** in, e.g., berries, capers and spinach.
- 3) **Probiotics** such as lactic acid bacteria.

Relaxation

Stress suppresses neurotransmitters in the endocannabinoid system. Therefore, **relaxation techniques** such as meditation may help improve the endocannabinoid system function.

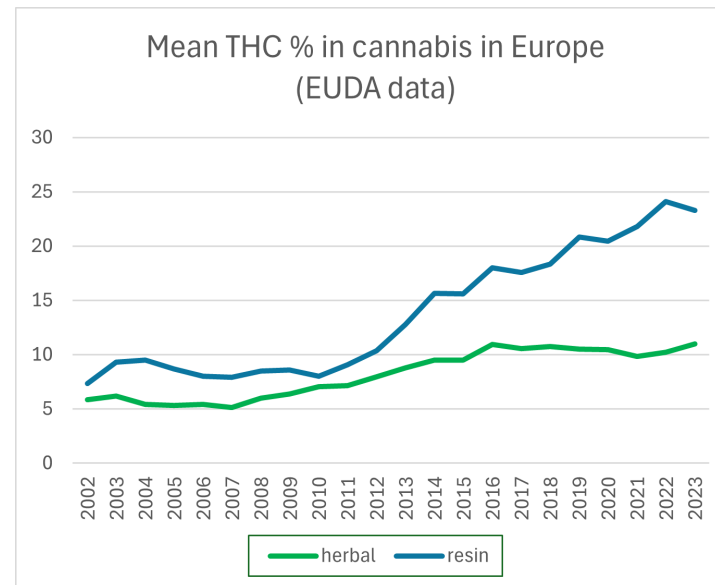
Food supplements

The plant **Echinacea**, commonly used to support immune health, can increase anandamide levels and enhance the endocannabinoid system function. **Cannabidiol (CBD)**, a non-euphoric component of cannabis, may have similar supporting effects.

Did you know that THC levels in cannabis products have increased?

In the early 2000s, the average THC potency for both herbal cannabis and cannabis resin (hashish) in Europe was below 10%. Over the last two decades, THC levels have increase substantially—nearly doubling in herbal cannabis and tripling in cannabis resin (see graph below).

The rise in THC potency has important implications for the endocannabinoid system. Higher-THC cannabis products **exert stronger effect on the endocannabinoid system** and, therefore, use of these products will weaken the system faster.



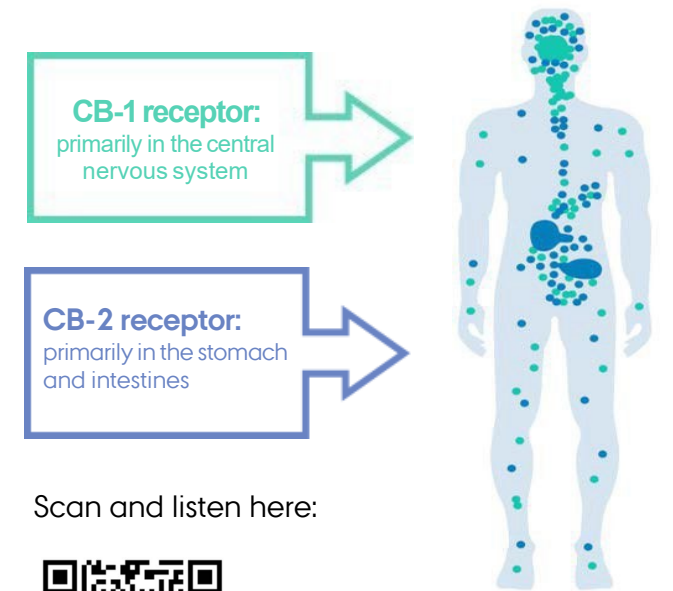
Kind regards,

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Researchers at the Centre for Alcohol and Drug Research

The Endocannabinoid System

Through cannabis research, scientists have discovered the system in the body that cannabis affects: the endocannabinoid system, which helps us **relax, eat, sleep, forget, and protect our cells**.



Scan and listen here:



Source: Shutterstock

The purpose of this leaflet is to provide information about how cannabis affects our body.

Here you can read about the endocannabinoid system, how cannabis with THC affects the system, and what you can do to improve its function.

What is the endocannabinoid system and how does it work?

We all have an endocannabinoid system in our body—not just those who use cannabis.

Our bodies make our own cannabis-like substances called endocannabinoids. One example is **anandamide**. These molecules activate the system by binding to specific **receptors in the system**, mainly **CB-1 and CB-2 receptors** (see image on front page).

The endocannabinoid system is widespread throughout the body and plays a role in almost every biological process. The system **functions much like the brakes in a car**. When our body activates a process—similar to pressing the accelerator—the endocannabinoid system is the brake that helps slow the process down again.

Our bodies initiate many **processes that are important for our survival**. For instance, it is important to feel **fear or stress** because it helps us respond quickly to danger. It is also important to **feel pain** so we can move away from harmful situations.

In order not to constantly be afraid or in pain, it is equally **important to reduce** these survival processes. **The endocannabinoid system helps bring the body back into balance** by slowing these processes down.

Because of the regulating role of the endocannabinoid system, it is essential for our body to **eat, sleep, forget, and protect our cells**.

Research shows that when the system is not functioning properly, **appetite is reduced**, our sleep quality is reduced, and we become **more stressed and depressed**.

That is why **maintaining a healthy, well-functioning endocannabinoid system** is so **important**.

THC can weaken the endocannabinoid system

THC is the main psychoactive substance in cannabis. THC acts on receptors in the body's endocannabinoid system, triggering strong activity in the system—commonly experienced as **getting high**.

Typically, the high is characterized by a feeling of **relaxation** in both the body and mind. Activities may feel more enjoyable or exciting, **appetite** is often increased, and you may **feel tired** and find it easier to **fall asleep**.

Because THC has a strong effect on the endocannabinoid system, THC also has **long-term consequences** that are important to know about:

The endocannabinoid system in our body reacts to the strong effects of THC by **reducing the number of its receptors**. This makes it harder for the body's own cannabis-like substances to activate the system.

A consequence of using cannabis with THC frequently or daily is that over time there are fewer receptors in the endocannabinoid system. This means that over time the body becomes less able to relax, eat, and sleep on its own, and more **dependent on THC from cannabis** to trigger these functions.

As a result, regular use cannabis with THC **shifts your natural "stress and sleep brake"** away from your own body and onto cannabis. This is why **some cannabis users** have difficulty relaxing, falling asleep, or feeling hungry unless they use cannabis with THC.

To strengthen your endocannabinoid system, you can:

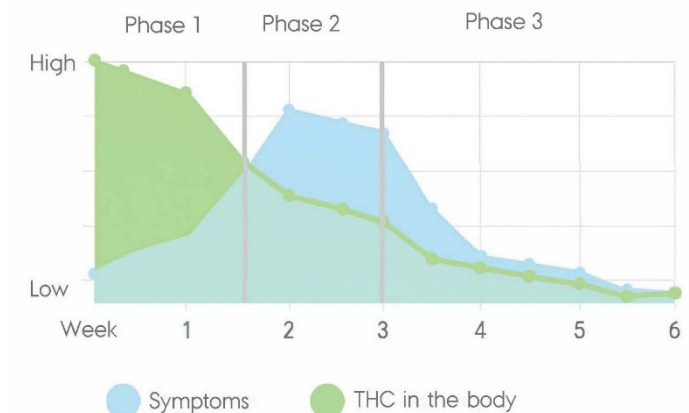
1. **Take a break from using cannabis with THC**—allowing the receptors in your own endocannabinoid system to recover.
2. **Boost your cannabinoid system naturally**—through physical activity, diet, relaxation, and supplements.

1. Take a break from cannabis with THC

If you take a break from using cannabis with THC, your endocannabinoid system begins to **increase the number of receptors again**—but this process takes time.

Research shows that it **typically takes 4–6 weeks** for the receptor levels to return to normal. During **this adaptation period**, you may experience some uncomfortable symptoms, **especially between about 1.5 and 3 weeks (in phase 2)**, when THC is gradually leaving the body and the receptors are being restored.

The figure below illustrates the **average symptoms** commonly experienced during **the adaptation period** when taking a break from using cannabis with THC.



Symptoms you may experience during this period:

- **Irritability and aggression:** You may feel frustrated by things that normally wouldn't bother you.
- **Nervousness:** You may feel more nervous and anxious.
- **Sleep problems:** You may have trouble falling asleep, sleep less, or wake up earlier than normal.
- **Nightmares:** You may experience scary and/or very vivid dreams.
- **Loss of appetite:** You may feel less hungry or have little desire to eat.
- **Restlessness:** You may notice increased restlessness.
- **Flu symptoms:** You may experience headaches, stomachaches, or joint pain.
- **Sadness:** Your mood may be lower, or you may feel more emotional or easily upset.