What Addiction Really Does to the Brain Transcript

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Introduction: Addiction and the Brain

What if I told you addiction isn't a failure of willpower, but it's actually the brain doing exactly what it was designed to do? Probably sounds curious, right?

I'm Dr. Arun Podesta. I am a functional psychiatrist. Im triple-boarded in addiction, adult psychiatry, and forensic psychiaty. In this video, I will explain what addiction actually does to the brains so we can stop blaming the person suffering and we start understanding a real path to healing.

One of the most damaging myths about addiction is the belief that it reflects a lack of discipline or character, that people who struggle simply aren't trying hard enough, or they really don't want to change.

This misunderstanding leads to a ton of shame, it leads isolation, and often an internal narrative that sounds something like, what's wrong with me? Why can't I stop?

Everyone else seems to have control. Why don't i? And when attempts to quit are followed by relapse, especially after a period of genuine effort, it can start to feel like failure is inevitable.

Myths, Shame, and the Cycle of Relapse

The cycle doesn't just erode at self-esteem. It creates the illusion that the problem is personal or even permanent. But here's what I want you to know.

The repeated return to substances isn't a reflection of weakness. It's a Reflection of what's actually happening in the brain. Addiction is not about making bad choices over and over again.

It's about how the brain learns to survive, how it adapts to stress, to pain, and to repeated exposure to substances that alter its chemistry in very specific and very predictable ways.

Once we understand this, that addiction follows patterns, then we can actually map those patterns and explain it. It becomes clear that it's not a moral issue.

It's a biological one. And that changes everything. Because it means we're not talking about a fixed identity. We're talking a brain state. One that is understood, supported, and with the right tools can be reversed.

How Addiction Changes Reward Pathways

So let's take a closer look at what's actually happening inside the brain. Because once you see that mechanism clearly, the shame can start to fall away and the path forward becomes more hopeful.

When we talk about addiction, we're really talking about a set of predictable changes that occur in the brain's reward system. The first thing to understand is dopamine.

Dopamine is a neurotransmitter. and it's a small signaling molecule that exists in the brain and body. In certain parts of the body, it plays a key role in motivation and attention and reinforcement.

food, art, connection, accomplishments, simple pleasures like music or movement. But when substances enter the picture, especially those that produce intense or prolonged dopamine surges, the system begins to change.

The brain learns that the substance delivers a faster, stronger reward than anything else. And over time, it starts to prioritize that substance above everything else.

Above relationships, above goals, sometimes even basic needs like food. This isn't about desire in the traditional sense. It's about neuroplasticity. The brain reshapes itself around what it's exposed to most consistently.

Neural pathways strengthen in a direction of reward. the substance becomes the default. At the same time other systems are affected. particularly GABA and glutamate, which regulate stress inhibition stimulation.

And chronic substance use or addiction disrupts this balance, Which is why so many people feel anxious, agitated, emotionally flat when they're not using.

Plasticity and the Possibility of Recovery

It's not just withdrawal. That's actually the brain trying to recalibrate without the chemical input it's come to rely upon. Then there's the deeper change.

Over time, the natural rewards in life, connection, purpose, joy, they just don't register. like they used to, and they're certainly not registering as strongly as the substance can register.

The brain's sensitivity narrows. It becomes tuned primarily to the substances while everything else starts to feel dull or irrelevant. What's really important to know is the brain is not broken.

Its plastic, i.e. malleable, changeable. And plasticity works in both ways. This same mechanism that allow addiction to form repetition, reinforcement, adaptation, are at the very same mechanism that allow recovery to take hold.

Three Pillars of Brain Healing

When the brain is given the right inputs, healthy inputs it can unlearn, rewire, and reawaken that natural capacity for reward, for regulation and connection.

So really addiction is not a life sentence. It is a pattern. And the good news is patterns can be changed. Now before we keep going, I do want to hear from you.

If any part of this explanation helps shift the way you're thinking about addiction even just a teeny bit, please let me know whether it's a question, a realization, or something you personally have experienced.

Your voice might help someone else feel a little less alone. Let's get back. So if addiction is a brain-based process, something that follows patterns, changes chemistries, and reshapes rewards, then recovery isn't just about stopping the substance.

It's about giving the brain what it needs to repair and rewire. Healing doesn't happen by force of will alone, It happens when we consistently create the right internal conditions with support.

There are three essential areas we focus on when talking about restoring the brain after addiction. Very first is scaffolding. Just like a broken bone needs a cast while it heals, the brains need structural support during early recovery.

And this should include medication treatment, medication assisted treatment or just I call it treatment. and also therapy, group support, integrative medicine and other clinical tools.

The second is regulation. When someone is in early addiction treatment, the nervous system is totally dysregulated, either overstimulated shut down or both back and forth.

Stabilizing that system, is foundational. That means supporting sleep, reducing stress, restoring nutrition and creating safety. both physically and emotionally.

It's not just about feeling better, it's about calming the brain down enough so that it can start to rewire healthily. The

third is reinforcement, helping the mind relearn how to feel good without substances.

And that could mean physical movement, creative expression, time in nature, music, meditation, laughter, connection, and purpose. These things might sound simple, even obvious, but when they're done regularly, they help retrain the reward system.

Recovery, Hope, and Closing Message

And over time, the brain begins to register pleasure, motivation, and meaning from natural sources again. These symptoms aren't signs of weakness. They're evidence-based interventions designed to reduce suffering and increase the brains capacity to heal.

Recovery isn't one big breakthrough. It's the accumulation of consistent little inputs. The right experiences repeated and repeated over the time that help the mind find balance again And just like addiction, that healing becomes a pattern.

One that gets stronger the more we support it. So let's step back and look at the bigger picture. Addiction isn't the result of a broken person. It's the results of the brain actually doing what it's wired to do.

to adapt, to respond, and to survive. And that same exact brain, once supported, one stabilized, ones consistently given the right inputs, can adapt again.

That's the promise of recovery. It's not about perfection, it's about undoing the past, but it is about moving forward with a brain that's learning how to feel safe how to feel connected and whole.

And if no one said this, someone struggling with addiction is not beyond repair. The brain is capable of change, people are capable change. So if this has helped you understand what addiction really is and what healing can look like, keep going.

There's lots more to learn and you don't have to do it all at once. Watch the next video right here on the screen. I'm Dr. Arun Podesta. Thank you for watching.