FACING ADDICTION WITH HOPE AND UNDERSTANDING

Addiction Is a Disease, Not a Choice: What the Science Actually Says

FAHU Research Desk

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Addiction Is a Disease, Not a Choice: What the Science Actually Says

For most of the twentieth century, addiction was treated as a moral failing — a sign of weak character, poor choices, or spiritual deficit. People were told to "just stop." Families were told it was a matter of willpower.

This was wrong. The science has been clear for decades, and the clinical consensus is now unambiguous: addiction is a chronic brain disease, not a choice.

Understanding this changes everything — including how families respond to the people they love.

What Happens in the Addicted Brain

The brain has a reward circuit centered on a region called the nucleus accumbens. When something pleasurable happens — food, sex, social connection — the brain releases dopamine, which creates a feeling of satisfaction and reinforces the behavior.

Addictive substances hijack this system with extraordinary force. Cocaine, for example, floods the nucleus accumbens with 2 to 10 times the dopamine of any natural reward. Opioids bind directly to receptors that regulate not just pain but emotion and survival.

Over time, the brain adapts:

- **Tolerance develops**: more substance is needed to produce the same effect

- **Withdrawal emerges**: stopping the substance causes physical and emotional suffering

- **The prefrontal cortex is impaired**: this region — responsible for impulse control, long-term planning, and judgment — is gradually weakened by chronic use

That last point is critical. The prefrontal cortex is the part of the brain that would say, "This is hurting my family. I should stop." Addiction damages the very region responsible for recognizing that the damage is happening.

This is why "just stop" is not advice. It is like telling someone with a broken leg to "just walk."

The Role of Genetics

Research on twins and adopted children has consistently shown that 40–60% of the risk for addiction is genetic. A person with a first-degree relative with alcohol use disorder has a 3–4 times higher risk of developing it themselves.

This does not mean addiction is inevitable for anyone. Genes load the gun; environment pulls the trigger. But it does mean that a person who becomes addicted is not simply "weaker" than one who does not. They may have started with a significantly different neurobiological baseline.

The Role of Trauma

The ACE (Adverse Childhood Experiences) studies — landmark public health research begun in the 1990s by Dr. Vincent Felitti and Kaiser Permanente — documented a striking dose-response relationship between childhood trauma and adult substance use.

Adults who experienced 5 or more ACEs were 7–10 times more likely to develop alcohol use disorder than those with none. Physical and sexual abuse, household violence, parental incarceration — each experience added measurable risk.

Trauma shapes the brain's stress-response systems. Substances often begin as a solution — a way to manage pain, anxiety, or an overwhelming internal world. Understanding this does not excuse harmful behavior. It explains it.

What This Means for Families

The disease model does not remove accountability. A person with addiction is still responsible for getting help, for the harm they cause, and for the choices available to them. Recovery is possible. Millions of people achieve it.

But the disease model does change how families relate to the struggle:

- **Shame is not a motivator.** It is a trigger. Moralizing and lecturing are counterproductive — not because your anger is wrong, but because it does not work.

- **Recovery requires treatment, not willpower alone.** Just as we would not tell someone with diabetes to just "try harder," recovery from addiction benefits from professional support, medication when indicated, and sustained behavioral change.

- **Relapse is a symptom, not a failure.** The National Institute on Drug Abuse estimates that relapse rates for addiction are similar to those for hypertension and asthma — 40–60%. A relapse does not mean treatment has failed; it means the plan needs adjustment.

Seeing addiction as a disease does not require accepting harm or excusing behavior. It requires understanding what you are actually dealing with — so that your response can match the reality.

Works Cited

Facing Addiction with Hope and Understanding — facingaddictionwithhope.com
Every source above is listed with a direct link to the original publication.