

Restoration Through Fitness and Recovery

Imagine an illness that, rather than attacking your immune system, attacked your basic will to thrive, and survive. It begins not with a fever and a cough, but with distorting your priorities and sense of time. You no longer value your faith, your culture, or the values you once lived your life by. You soon are found squandering your spare moments with useless activities. You might start mismanaging your money and professional obligations. The next symptom is it eliminates your desire to keep up your relationships that matter to you and your way of life. Your family and friends become strangers as you are stripped of any joy that comes from caring for others, or being cared for. Soon, you have no concerns dissolving your career, neglecting your belongings, your appearance, and even your basic hygiene. Ultimately, if untreated, your drive to simply live another day starts to vanish, as you reject food, sleep, and any semblance of health, and with no emergency help or intervention, you ultimately die of self-neglect.

This illness is not caused by a neurological disorder or any type of infection - it's called addiction, and it's cause is multifactorial. Regardless of substance, addiction changes how the brain regulates its reward system, including key neurotransmitters - particularly, dopamine. Dopamine plays a key role in how we experience pleasure, emotion, motivation, and planning ahead, to name a few. Normally, our reward system is activated by things that ensure our survival and reproduction; this can be as simple as eating a delicious meal, finding \$20 in your pocket, experiencing sensual pleasure, or may be more complex, such as being acknowledged for personal achievements or successfully completing a project. However, when an addictive substance is used, we bypass all the work required to achieve satisfaction - and receive immediate pleasure and reward, in greater measure than what we can achieve in everyday life. This is how addiction starts.

Why?

Substance abuse not only increases the amount of dopamine, a neurotransmitter essential for key reward-areas of the brain, but in effect, it can also cause the brain to increase the amount of dopamine receptors in the brain; which creates a "high" that is not comparable to the reward system the brain operates on naturally, previous to substance abuse. Once these structural changes occur in the brain, the brain is wired to anticipate this "high" in a way that our natural reward system frankly cannot compete with. The result is a constant impulse to use their drug of choice, and potentially, a need for drug-induced rewards to obtain even a moderate level of pleasure.

When a drug addict stops using, their brain is no longer able to produce the dopamine in levels that compare to the user's "high." What would normally cause feelings of pride, wellbeing, or even just content in a sober individual barely affects

an addict in absence of their drug of choice. This is called anhedonia - the feeling of being unable to feel pleasure in things

that usually make us happy. This is why merely eliminating the drug from the addict does not eliminate their addiction; actions must be taken to rebalance the reward system of the brain, which requires not only continued absence of addictive substances, but also reintroduction to a lifestyle that retrains the reward system to operate in a healthy and effective manner.

What if I told you there is something effective, free, and accessible to nearly all people, to help addicts recover? One that actually aids one's health, boosts confidence, and supports a healthy lifestyle and mental function? A single bout of exercise can result in improved executive functions, enhanced mood states, and decreased stress levels. Moderate to vigorous exercise or high intensity interval training (HIIT) have been found in multiple studies to boost dopamine levels as well. Is it possible to exploit an addict's broken reward system by substituting their addiction for a healthy workout regimen? The answer is yes, and here's why:

Adding physical fitness to the recovery program of an addict not only helps to give an instant boost of much-needed endorphins and neurotransmitters such as dopamine, but with persistence, can create physical results in a short time span. Add the decreased stress levels, increased mood and improved executive functions to this list, and one can understand why exercise in itself can become an addictive activity. Feelings of accomplishment, newfound abilities, and enhanced self-image due to a more fit and toned appearance of the body sparks the reward system in three different ways. The recovering addict experiences both instant and delayed gratification as its reward system slowly rebalances, and the visual reward staring back in the mirror multiplies the effect! Moderate to vigorous exercise by definition changes per person, as any activity could be mild or vigorous depending on the fitness level of the participant. Generally speaking, any exercise that challenges the participant without harming them would be considered vigorous; inasmuch a certified physical trainer is necessary to ensure the most enhancement to one's recovery. Experience or education in substance abuse and mental health would be ideal in the best-case scenario. In absence of professionals, mild, low-risk exercise, such as walking, would still contribute to the recovery and sobriety of an addict. Strength training has also been shown to reduce anxiety, increase self-esteem, and enhance cognitive function. Strength training is a more regimented activity, requiring discipline and more persistence than Cardio training. Developing this routine, recording progress, and gleaning the rewards of being able to carry out everyday life with more strength and less effort can undoubtedly contribute to recovery as well. Increased muscle mass may show sooner than with cardio activity also, contributing to yet more reward in recovery.

My hope is that Freedom Through Fitness and Grace can harness the healing and recovery power in physical exercise. I believe this program, when combined with God's grace and a newfound or renewed faith, can truly save and transform lives from a time of spiritual and emotional scarcity to a future of abundance and strength!

Sources:

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