Greetings!

Many people don't understand why or how other people become addicted to drugs or alcohol. They may mistakenly think that those who use lack moral principles or willpower and that they could stop their substance use simply by choosing to. In reality, addiction is a complex disease, and quitting usually takes more than good intentions or a strong will. Substance use changes the brain in ways that makes quitting hard, even for those who want to. Fortunately, researchers know more than ever about how substance use affects the brain and have found treatments that can help people recover from addiction and lead productive lives.

Addiction is a chronic disease characterized by drug seeking and use that is compulsive, or difficult to control, despite harmful consequences. The initial decision to take drugs or alcohol is voluntary for most people, but repeated substance use can lead to brain changes that challenge an addicted person's self-control and interfere with their ability to resist intense urges to take drugs. People in recovery from substance use disorders are at increased risk for returning to substance use even after years of not taking the drug. It doesn't mean that treatment doesn't work. As with other chronic health conditions, treatment should be ongoing and adjusted based on how the patient responds.

Most substances affect the brain's "reward circuit," causing euphoria, as well as flooding it with the chemical messenger dopamine. A properly functioning reward system motivates a person to repeat behaviors needed to thrive, such as eating and spending time with loved ones. Surges of dopamine in the reward circuit cause the reinforcement of pleasurable but unhealthy behaviors like taking drugs, leading people to repeat the behavior again and again.

As a person continues to use, the brain adapts by reducing the ability of cells in the reward circuit to respond to it. This reduces the high that the person feels compared to the high they felt when first taking the drug - an effect known as tolerance. They might take more of the drug to try and achieve the same high. These brain adaptations often lead to the person becoming less and
less able to derive pleasure from other things they once enjoyed, like food, sex, or social activities. Long-term substance use also causes changes in other brain chemical systems and circuits as well, affecting functions that include:
* learning
* judgment
* decision-making
* stress
* memory
* behavior

Despite being aware of these harmful outcomes, many people who use drugs or alcohol continue to take them, which is the nature of addiction.

About Us
Since 1974, Chautauqua Alcohol & Substance Abuse Council (CASAC), a United Way partner agency, has provided prevention education and community awareness regarding alcohol and other drugs. CASAC is the only New York State Office of Alcoholism & Substance Abuse Services (OASAS) approved and supported alcohol and other drug prevention agency in Chautauqua County. For further information about CASAC's programs and services, call the Jamestown office at 664-3608, the Dunkirk office at 366-4623, or go to CASAC's website, www.casacweb.org.