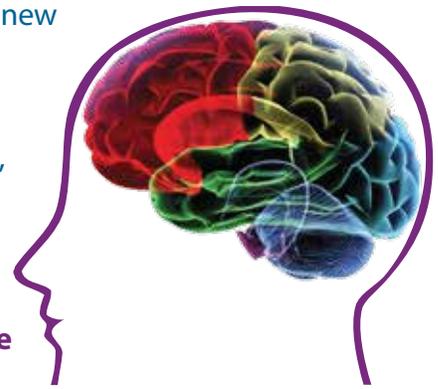


# The Brain and ADDICTION

**Addiction** is defined as a chronic, relapsing BRAIN disease that is characterized by compulsive drug seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain—they change it's structure and how it works. These brain changes can be long-lasting and can lead to the harmful behaviors seen in people who abuse drugs. (SOURCE: [www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drug-abuse-addiction](http://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drug-abuse-addiction))

## The latest studies have found:

- **The brain uses many pathways to communicate** and continually works to stay in balance and avoid pain. There are 2 systems in the brain, the reward and the anti-reward system.
- **Brain chemistry neurotransmitters pass the messages along the pathways.** Each controls different aspects of our everyday life such as our anxiety, fear, anger, motivation, fight and flight, sleep, calm, pain relief, stress reduction, memory, new learning, perception, movement, loving oneself and others.
- **Addiction (alcohol, nicotine, drugs, gambling and others) hijacks these pathways.** The drugs mimic the neurotransmitters, taking over the pathway, so that the body stops to manufacture them and only the drugs will bring the desired response, be it feeling calm, or not feeling pain.
- **Addicts become more dependent on the drug, their tolerance increases and they need more of the drug to have the same response.** As they continue to add the amount of drug and/or more drugs, more pathways shut down their own production of the transmitters and the addicts start to lose the ability to love one-self or others, memory is impacted, new learning no longer takes place, they lose motivation, they receive less and less pain relief and pleasure, they can no longer relax or stay calm – losing all these regulatory systems.
- **There are changes and alterations within the brain as it becomes addicted to the external drugs, while the internal system becomes depleted. This is why addiction is a brain disease.**



**Eventually there comes a point when an addict isn't using to feel the high anymore, but is using drugs to avoid the low.**

## Did You Know?

**Adolescents are more likely than young adults to become dependent on prescription medication.** In an increasingly competitive school environment, many teenagers and college students are using prescription stimulants to get an "edge". They may use them to help improve their focus while studying, or to help them stay awake.

**The U.S. makes up 5% of the world's population but uses more than 80% of the global supply of painkiller medication?**

**Know someone who needs help?  
Call the 24-hour Helpline at 1-800-662-HELP**



**GUIDE**  
Inc.  
[guideinc.org](http://guideinc.org)

# What Is An OVERDOSE?

An OVERDOSE means having too much of a drug or combination of drugs for your body to be able to cope with and function.

There are a number of signs and symptoms that show someone has overdosed, and these differ with the type of drug used. **All drugs can cause an overdose, including prescription medication prescribed by a doctor.**

It is important to know your correct dosage, what drugs definitely should not be mixed and know to seek help if you feel you are not in control of your drug use.

**More people die from accidental drug overdoses than auto accidents each year.**

## DO YOU RECOGNIZE THE SIGNS OF OPIOID OVERDOSE?



**FACE** is clammy to touch and has lost color. Difficulty speaking.



**BODY** is limp. Fingernails or lips have a blue or purple tinge.



**SLEEP** is deep and cannot be woken.



**BREATHING** is slow or has stopped.

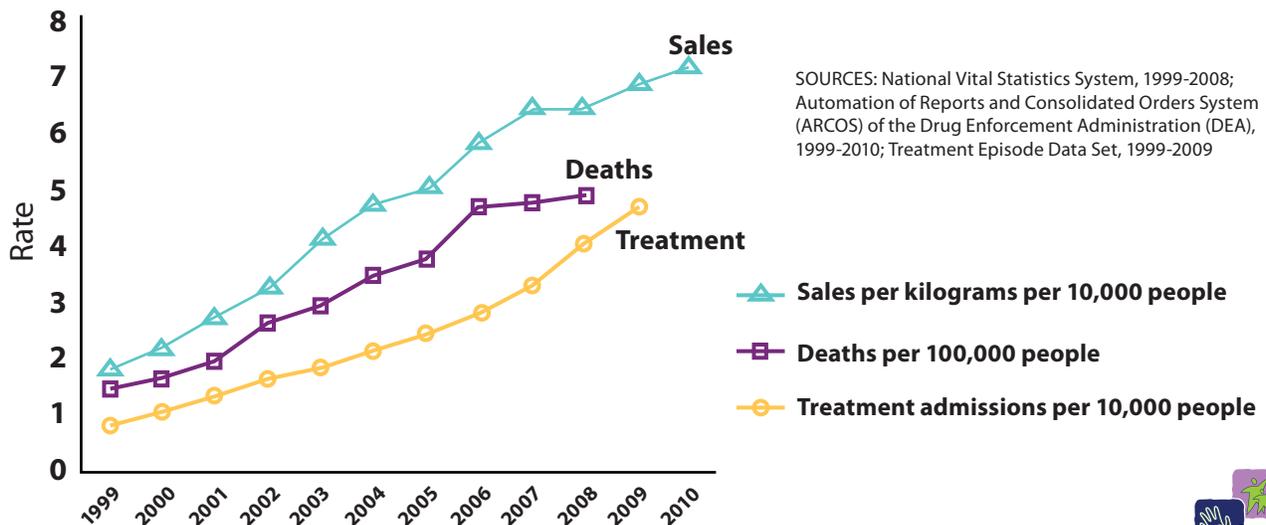


**HEARTBEAT** is slow or has stopped.

More information and fact sheets can be found at: [www.samhsa.gov/medication-assisted-treatment/treatment/opioid-overdose](http://www.samhsa.gov/medication-assisted-treatment/treatment/opioid-overdose)

**Prescription drug use and abuse greatly impacts the health and safety of our community. Overdoses on prescription painkillers kill 44 people daily in the U.S. and many more become addicted on a daily basis.**

Prescription painkiller sales, deaths and treatment admissions rates have increased in the United States.



Supported by Gwinnett County Public School System



**GUIDE**  
Inc.  
guideinc.org