



ALCOHOL
and you

ALCOHOL AND OTHER DRUGS IN THE BRAIN

Have you ever thought of just how complex the human body is? Your brain, the control centre of your body, is no exception.

When you take a mood-altering drug repeatedly, it changes the way the brain operates. This fact sheet will begin to expand your understanding of how your nervous system has been affected by your use of chemicals including alcohol and what you can do to heal the damage.

→ Learning About Your Brain

During every thing we do - eat, drink, play, move, dream, indeed any other thought or behaviour, there is a series of electrical and chemical actions in the brain. Your brain is made up of different parts and millions of cells called neurons that must communicate to each other for the brain to function.



Brain Cells Communicate through Chemistry

There are millions of neurons in your brain, spinal cord and nerves throughout your body. During each moment of life, these neurons are firing messages to each other at unbelievable speeds. They do this through the release of chemicals known as neurotransmitters.

The release of neurotransmitters assists a message or signal to pass from one neuron to another. For example, put your hand on a tack – the signal of pain must pass from your hand, to the brain, and back to your hand. Neurotransmitters help that signal of pain pass from one neuron to the next.

Sounds complicated? It is! Different neurotransmitters control different things, like thoughts, anxiety, our mood, excitement, feelings of pleasure. Scientists now believe there are over 50 different types of neurotransmitters and are continually expanding their understanding of how they function in the human brain.

Changes in Brain Chemistry Lead to Changes in Moods

When it comes to substance dependence, neurotransmitters are important. Alcohol and other drugs produce many of their effects by changing the actions of neurotransmitters.

When such changes happen in your brain, your mood changes as well. We use the phrase mood-altering drugs for a reason. These drugs change the way you feel.

Many of the neurotransmitters involved in dependence are those that send messages about pain and pleasure.

Think for a moment about a recent time when you had a strong feeling of pleasure. Perhaps this experience involved sex, massage, eating, exercise or listening to music. When you had this pleasurable feeling, neurotransmitters were at work in your brain.

People who study addiction are now focusing on one part of the brain involved in our ability to feel pleasure. This part of the brain is called the reward system.

When it comes to substance dependence, this system is important. The effects of most addictive drugs will eventually be explained by their actions in this part of the brain.

Scientists are now focusing on four neurotransmitters: dopamine, serotonin, endorphins and GABA. These neurotransmitters seemed linked to how the brain processes thoughts, mood, pleasure and excitement.



Alcohol doesn't kill brain cells. It "only" damages the connective tissue at the end of neurons.

Your Brain in Recovery

Exposing your brain to large quantities of alcohol or other drugs is a lot like dumping rubbish into the ocean. At first the amounts are not noticed, yet as they gather up, they have a lingering and often long lasting effect. If the dumping stops, the ocean will begin to return to normal. But..... this process takes time and there is no guarantee the ocean will ever be the same again.

Your brain can become polluted by alcohol and other drugs. The natural balance of chemicals within your brain has been disturbed. When you stop drinking or using, the alcohol or drugs soon leaves your body. The disruption of the fragile balance of neurotransmitters, however, can take much longer to restore to normal.

How do we know this balance of chemistry has been disrupted? The most obvious signs are:

- the inability to think clearly
- memory problems
- mood swings
- fears and anxieties
- emotional over-reaction or numbness
- sleep disturbances
- physical co-ordination problems, even as simple as handwriting
- concentration difficulties
- being more sensitive to stress
- cravings for the drug that once created pleasure

These symptoms are not the same in everyone. They vary and are very similar to and made worse by stress. The important thing to remember is they can be dealt with!

→ What helps deal with these symptoms?

Talking

Talk to someone about what you are experiencing



Reality Testing

Ask someone who understands addiction if what you are going through makes sense



Problem Solving

Working through problems with goals and a plan



→ There are things you can do to speed your healing. This includes:

Diet

Does your diet promote healthy living?

Being physically active

Physical activity helps rebuild the body while also reducing stress. It promotes chemicals in the brain that are nature's natural way to relieve pain, tension and anxiety.

Relaxation

As with exercise, relaxation is nature's natural way to refresh the body.

Spirituality

Having meaning and purpose in your life and a connection with something outside yourself helps.

Balanced Living

Moderation and routine are an important part of recovery.

Healing the Brain in Recovery

The greater the knowledge we have about the impact of drugs and alcohol on the brain and our body, the greater respect and caution we can have.

Our bodies cannot sustain the harsh conditions that drugs and alcohol produce.

The assault on the body makes us weaker over time. Even with this damage we are capable of recovery. When we stop using and take the effort to nourish ourselves properly, the brain begins the task of healing. We cannot put a time scale on this healing. The critical step is to remain abstinent from all mood-altering drugs.

Progression, however means that things seem to get worse and can make relapse occur faster and harsher. When someone relapses, it will not feel like the first time you got high but like the last. Your brain chemistry will revert to the lowest point and then plunge further down. That's how our brain remembers drug use.

Self regulation (knowing what you are feeling, thinking and doing) help prevent relapse.

What also helps? Balanced living, diet, exercise, relaxation, talking about what you are going through all helps. Continued work on your recovery is essential.

Through this fact sheet, we are not trying to make this complicated part of your body, your brain sound simple. It is aimed however as expanding your understanding. Recovery involves learning how alcohol or other drugs have affected you and to begin to do something about it.

The one thing essential to remember is that the majority of alcohol and drug related complaints do disappear, or at least get better significantly over time as long as you stay sober. Time will do much of the work of healing your brain and body. Strategies for stabilising your mood can help you cope while your brain function returns to normal. With a well designed life plan you can work over time to deal with the effects of alcohol and drugs on your brain and on your body.



→ Getting support

Confused about alcohol units?
Dont speculate calculate!

ALCOHOL UNITS GUIDE

STANDARD DRINK UNITS



| | | | |
|---|---|---|--|
|  Pint of premium beer (5%) = 2.8 units |  Pint of cider (5%) = 2.8 units |  Alcopop 275ml (4%) = 1.4 units |  Can of beer 330ml (4%) = 1.7 units |
|  Gin / Vodka / Rum 35ml (37.5%) = 1.3 units |  Spirits 1 litre (37.5%) = 37 units |  Small bottle of wine 187.5ml (12%) = 2.3 units |  Bottle of wine 750ml (12%) = 9.2 units |

Download our FREE app:
'Know Your Units'



MEN & WOMEN SHOULD DRINK NO MORE THAN 14 UNITS PER WEEK

For support:

For drug and alcohol services in Northern Ireland visit:

www.drugsandalcoholni.info

and click on the 'Services Near You'

If you are worried about your drinking, see your GP or use the alcohol and drug services in your area which can be found at

www.drugsandalcoholni.info

or see the Alcohol and You website that has self-help and a range of information and resources.

www.alcoholandyouni.com

ALCOHOL and you

Developed by Ed Sipler

Health Development Specialist in Alcohol and Drugs

South Eastern Trust



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alcoholandyouni.com

