

Addiction: Incurable, Progressive & Fatal

The disease model of addiction describes addiction as a disease with biological, neurological, genetic and environmental origins. The traditional medical model of disease requires only that an abnormal condition be present which causes discomfort, dysfunction, or distress to the afflicted individual. The contemporary medical model attributes addiction, in part, to changes in the brain's *mesolimbic pathway*.

Addiction as a disease

If you or a loved one are struggling with addiction, it's easy to point fingers at the wrong places. Am I a bad parent? Am I too weak to resist temptation? We spend so much time trying to figure out the cause, and wallowing in the effects, that we forget to acknowledge what addiction really is. Addiction is a primary chronic disease of the brain affecting reward, motivation, memory and the related circuitry. It is a brain disease that causes compulsive drug use.

Why does this definition matter?

Because many people wrongly believe that addiction is a choice. While addiction can obviously result from poor choices, it's much more than that. Addiction is a disease. It's important to acknowledge this because it's impossible to treat any illness unless we accurately diagnose it. In order to fix a problem, you have to know what it is.

A few decades ago, society was even more stigmatising towards addicts than it is today. It was normal to think that people with addiction lacked morality or compassion. They were seen as people out for their own pleasure and not caring about anyone else. This made it extremely difficult for those in need to seek treatment. Fortunately, today we know differently.

This is how the brain disease works

Addiction resides in the limbic system, a subconscious part of the brain involved with memory, emotion and reward. The reward centre is what ensures we survive. It is primitive and automatic. Repeat: ***Primitive and Automatic***. It is a system of chemical and nerve pathways that work tirelessly to keep us safe. They are sometimes a little behind the times. We have evolved very quickly over the past few centuries, so the primitive brain is trying to catch up.

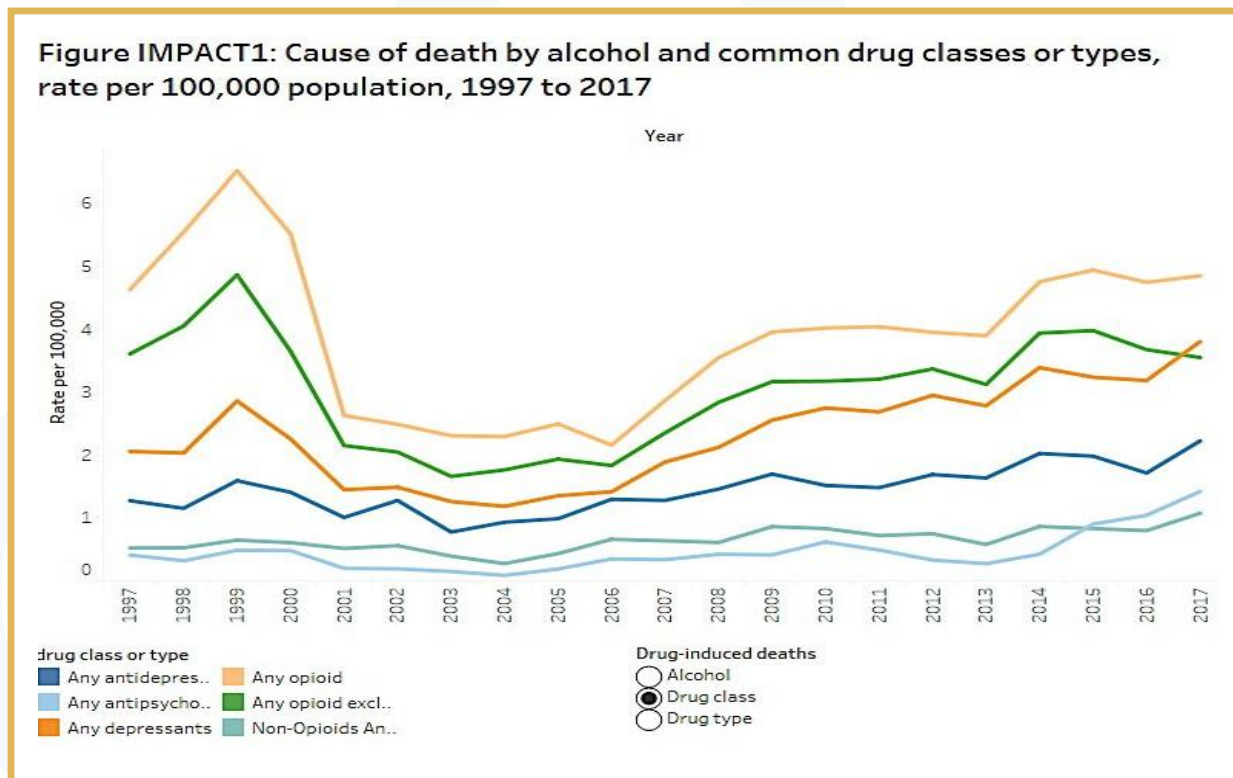
If you eat something delicious, for example, the chemicals in your brain register it as something that is safe and nutritious to eat. This increases the likelihood that you will eat the same thing again. Similarly, in addiction, the brain reprioritizes the drug, subconsciously telling you that taking it is necessary for survival. Each time you take the drug, the chemicals distort the brain's communication system. This changes the way nerve cells normally send, receive and process information.

Over time, your drug use activates nerve cells to send abnormal messages. The overstimulation of this reward system makes it harder and harder to quit, because your brain is telling you to repeat the rewarding behavior over and over. This becomes a vicious cycle that is difficult to break, especially on your own. But it doesn't have to be that way. Now that you understand what it is, you can treat it, with help.

The devastating fatal results of this disease

As you can see below, according to the Australian Institute of Health and Welfare; Australian Bureau of Statistics, 2018 (AIHW; ABS) the number of deaths per 100 000 Australians is hard to ignore. Do the math: out of a population of 25 000 000, this graph shows that approximately 5 500 people died of alcohol and common drug class causes in Australia in 2017 (Figure 1).

Figure 1: Cause of death by drug class



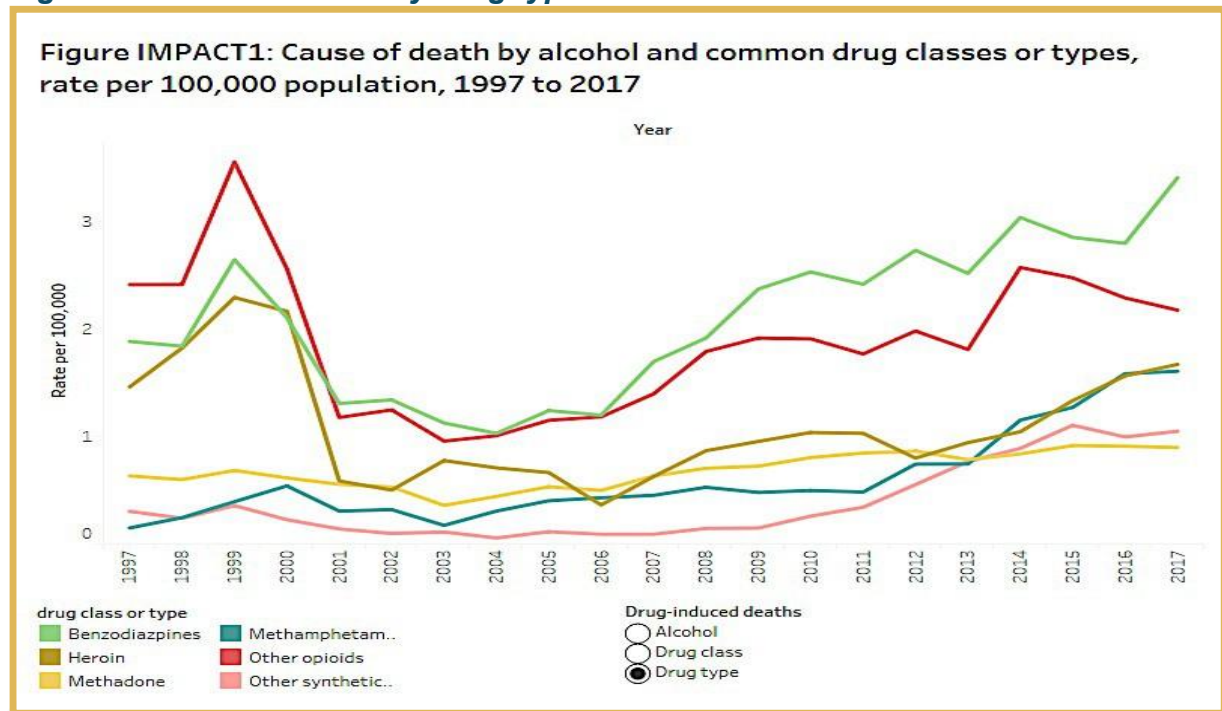
Sources: AIHW; ABS (2018).

As you can see 'any opioid' has been the leading cause of deaths in Australia by common classes, followed by:

- Any opioid excluding heroin.
- Any depressants.
- Any antidepressants.
- Non-opioid analgesics.
- Any antipsychotics.

Note that most opioid-induced deaths were accidental (80%). It is therefore likely that opioids won't kill you slowly. If you die, you will probably (80% likelihood) die accidentally. Sadly, some people don't die; they survive an accidental drug mishap but end up in vegetative states in care homes for the rest of their lives. Figure 2 below depicts deaths per drug **type** (AIHW; ABS, 2018).

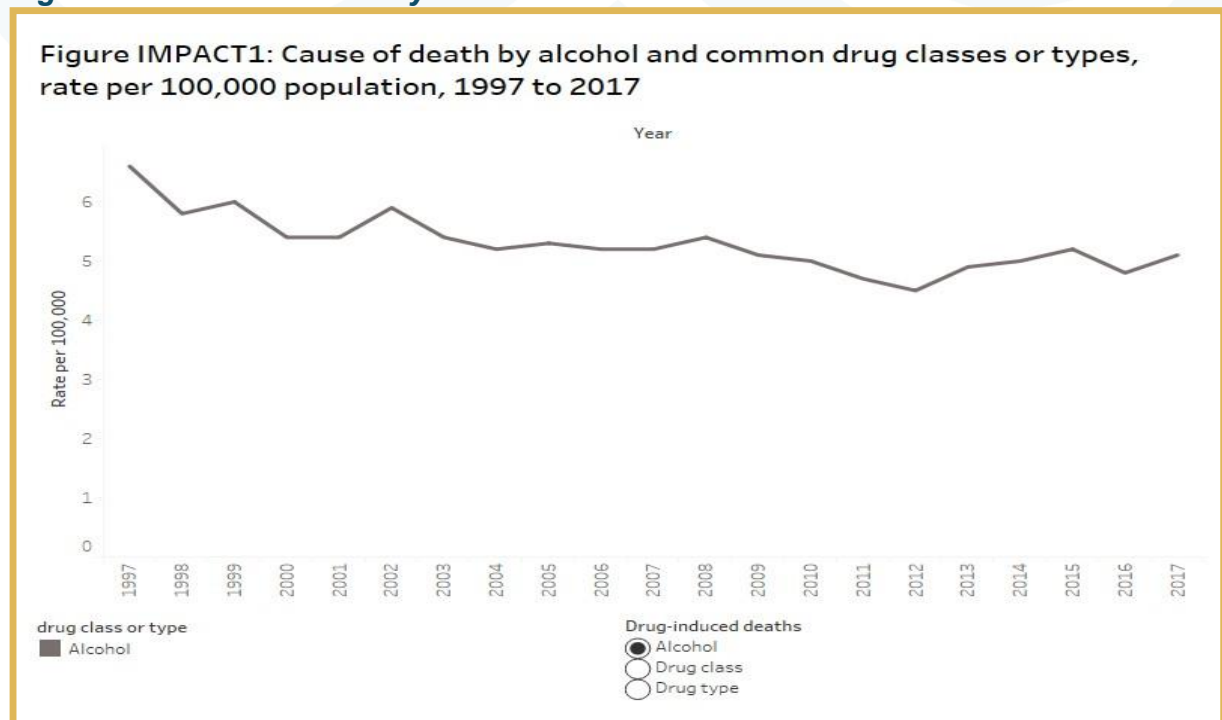
Figure 2: Cause of death by drug type



Sources: AIHW; ABS (2018).

In 2006 *Benzodiazepines* took over from 'other opioids' as the biggest killers out of these classes of drugs in Australia. Heroin followed, along with methadone, methamphetamine and other synthetic opioids. Now, this is interesting. Figure 3 below (AIHW; ABS, 2018) also shows the cause of death, by *alcohol only*. Have a good look and compare it with the other graphs.

Figure 3: Cause of death by alcohol



Sources: AIHW; ABS (2018).

As you can see, alcohol is by far the biggest killer in Australia, trumping all the drugs of addiction. Note the number of persons per 100 000 on the left side of the graph. It is twice the number of the previous graph, which only went up to three per 100 000. Alcohol can play a substantial role in a person's death, yet not be recognized as the underlying cause of death.

In such cases, the alcohol use would be referred to as an "associated cause of death". People were twice as likely to have alcohol certified as a contributory factor to their death than have their death certified as alcohol-induced (ABS 2018). This means that these numbers are likely to be much higher than depicted in statistics and graphs such as the ones shown here. Also, guys, the rate of alcohol-induced deaths for males has been on average 3.5 times higher than that of females over the past two decades.

The most common cause of alcohol-induced death was alcoholic liver disease, while mental and behavioral conditions due to alcohol use (including alcohol addiction) is the most common contributor to alcohol-related deaths. Mental and behavioral disorders due to alcohol abuse also made up about 20% of alcohol-induced deaths in 2017 (AIHW, ABS 2018).

Overall, the rate of alcohol-induced deaths has generally been higher than the most common drug classes over the past two decades (refer to Figure 3).

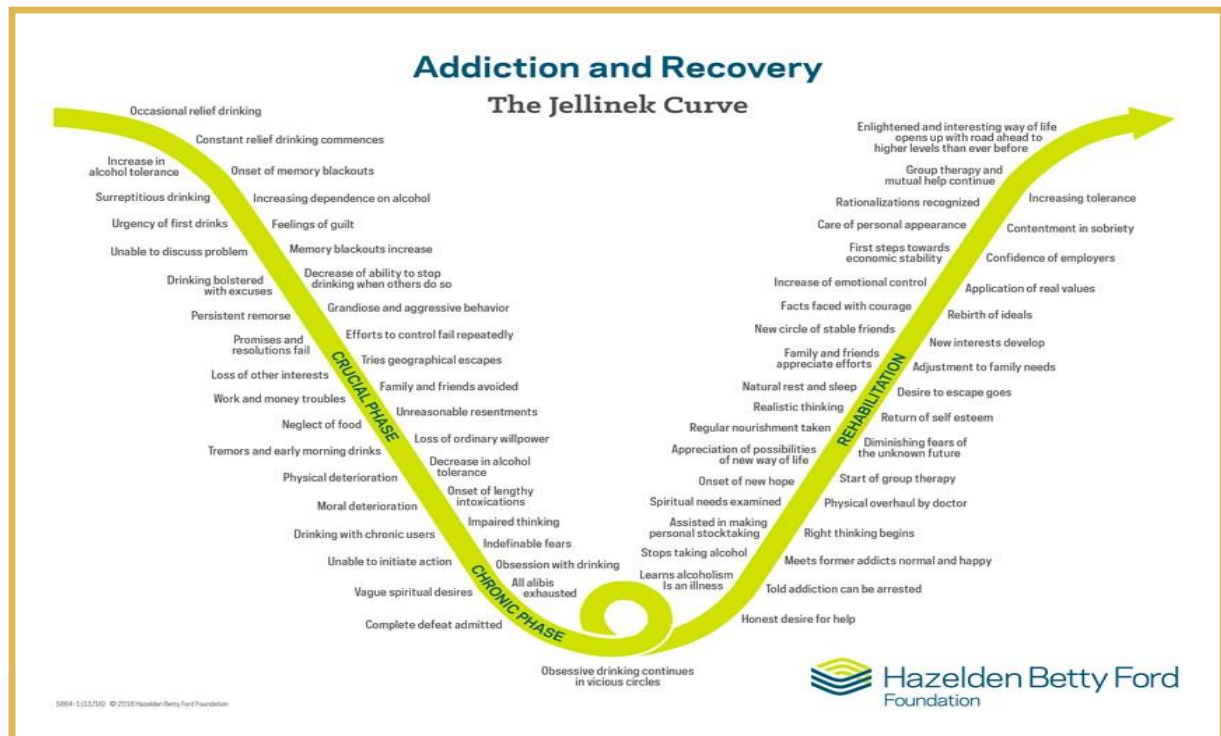
Alcohol contributes to over **3 000 000** deaths annually globally each year, as well as to the disabilities and poor health of millions of people. It is estimated that up to 88000 people in the USA alone died of alcohol-related causes in recent years (AIHW; ABS, 2018).

The Jellinek Curve

As you know from the module "*Staying away from the first one*", one model used to understand addiction was put forward by Dr Elvin Jellinek. He tried to understand addiction through his patients' symptoms. He interviewed thousands of sober alcoholics and asked them to describe how their drinking had progressed from the first drink until they got sober.

The Jellinek Curve (refer to Figure 4) looks like a knotted skipping rope. Looking at the diagram from left to right, the left side represents the steep descent to the knot at the bottom (rock bottom), while the right-side climbs equally steeply away from the rock bottom knot. From the fall into the depths of despair and hopelessness, you can ascend into the light and joy of life in recovery on the other side, according to Jellinek and his research subjects, thousands of recovered people. Do you believe it though? Let's see if you can identify with those who have gone before you in Jellinek's trajectory.

Figure 4: The Jellinek Curve



Source: Hazelden Betty Ford Foundation (2016)

The “Crucial Phase” of the Jellinek Curve

You will see that the green line of the curve has “crucial phase”, “chronic phase” and “rehabilitation” written along it. The crucial phase is when your drug use has started to decline into the area where it is now beginning to create physical, psychological and social consequences.

Dependency may start to show, meaning that you are becoming physically dependent on your drug, noticing when your supply is low in your body. You may be experiencing some withdrawal symptoms when your body is cleared of your drug, urging you to ameliorate the discomfort by finding and using your drug as soon as possible, to the exclusion of all else.

You can be psychologically dependent also, believing that you need your drug to pick you up, or bring you down emotionally. Those of you who drink may begin to have more memory blackouts, or you could be fully engaged in deception and dismissal of others’ needs so you can procure and use your drug. This is the start of the slippery slide into the chronic phase.

The crucial phase is mostly inner change. Not many people can see the symptoms of the disease. This is the phase when others refer to you as being able to “drink anyone under the table” or use your drug harder and faster than anyone else, perhaps the “party princess/prince”, “the funny one at any after-work party”, the skinniest one at the gym” or “the one who can stay awake for days and still hold a job”.

You become more and more obsessed with using, planning and finding any excuse for the next drug – for example: “It’s Wednesday, my cat was born on a Wednesday!”, or whatever excuse there is. Your peer group still finds you pretty amusing, maybe even awesome.

Do an honest self-screening now. How many of the following symptoms did or do you have? Tick each one you experienced:

- Occasional relief using.
- Increase in your drug tolerance.
- Surreptitious using.
- Onset of constant relief when using.
- Feelings of guilt.
- Onset of memory blackouts.
- Urgency of first drug.
- Increasing dependence on your drug.
- Inability to discuss your problem.
- Increased memory blackouts.

Then people around you may have started reacting to your using. This might have been in the form of indirect questions or subtle hints, such as not being invited to certain parties, dinners or gatherings anymore.

This is also when you may find social users boring and start to find peer groups who use as frequently as you do. This is also the phase when your drug starts to be an emotional regulator to ease the painful problems that the drug is causing, such as shame, remorse, blackouts, out-of-character behaviors... the list can be very long. You can add your own problems to it. Once again, do an honest self-screening of how many of the following symptoms you have experienced:

- Using your drug was bolstered with excuses.
- Decreased ability to stop using when others stopped.
- Loss of ordinary willpower.
- Loss of other interests.
- Grandiose or aggressive behavior.
- Promises and resolutions failed.
- Efforts to control failed repeatedly.
- Tried geographical escapes.
- Work and money problems.
- Family and friends avoided you.
- Neglect of food.
- Unreasonable resentments.
- Persistent remorse.

The “Chronic Phase” of the Jellinek Curve

The chronic phase is when you are now compelled to use your drug. The likelihood that you cannot stop once you start is higher in this phase. You may find yourself baffled about this, over and over again, thinking that you are losing a battle with yourself. Your excuses are getting old and you know most people can see through them. You are suffering terrible obsessive thinking about your drug and your anxiety is increasing greatly.

Despite troubles in your body, your mind, your family, your job, you continue to use your drug, believing it to be the solution to your troubles, but suspecting it may have some causative role, if only fleeting.

On any attempt to quit, your withdrawal symptoms are near unbearable and can be quite frightening, leading you back to your drug to stop the symptoms. Now you are really stuck and terrified. Pain, nausea, anxiety, vomiting, hallucinations or even delirium tremens and seizures could be more frequent occurrences as you attempt to slow down or stop your drug use.

With the stigma surrounding addiction, you may be unwilling to admit that you are an addict until you reach this phase of your addiction. True or false from your point of view? Once again, do an honest self-screening of how many of the following symptoms you have experienced:

- Physical deterioration.
- Decrease in tolerance to your drug.
- Tremors and early-morning drug use.
- Lengthy intoxications.
- Using with chronic users.
- Moral deterioration.
- Inability to initiate action.
- Indefinable fears.
- Impaired thinking.
- Vague spiritual desires.
- Obsession with your drug use.
- Admission of complete defeat.

This process often culminates in you “hitting rock bottom”, a common term for being in a place of absolute despair and surrender to the truth that you can not go on using your drug. This is usually when you will reach out for help. You may feel the worst you’ve ever felt, but it could be the best day of your life.

The rehabilitation phase of the Jellinek Curve

The reality is that the chronic phase is cause for much celebration, as the “rock bottom” of this level of your addiction is often the “window of opportunity” for a new and wonderful life. This is the phase when recovery can begin to take shape. For the last time, do an honest self-screening of how many of the following signs of recovery you have experienced so far:

- Honest desire for help.
- Stopping to use.
- Thinking has begun to correct itself.
- Meeting former addicts who are happy and normal in recovery.
- Values return and align with your behaviors.
- Realistic thinking.
- New circle of stable friends.
- Stepping towards stability.
- Obsession lifted.
- Self-esteem returning.
- Regular nourishment taken.
- Appreciation of possibilities of new way of life.
- Natural rest and sleep.
- Family and friends appreciate efforts.
- Diminishing fears of unknown future.
- Ability to face facts with courage.
- Increased emotional control.
- Financial stability.
- Care of personal appearance.
- Looking after your health.
- Desire to escape leaves you.
- New interests develop.
- Onset of new hope.
- Rebirth of ideals.
- Regained confidence of your employers.
- Contentment in recovery.
- Increasing tolerance of reality.
- Enlightened and interesting way of life opens up with road ahead to higher levels than ever before.

It is likely that you haven't felt or experienced many of these things yet, and you may not do so for quite some time. This is what you have to look forward to. You can revisit this list periodically and check off new experiences as you recover further. They will all materialize over time, if you work for them.

Hang onto your hat! You are about to have a wonderful life. Will you take what's on offer? Unfortunately, the alternative is living with an untreated chronic, progressive and fatal disease where you may end up in jail, a psychiatric or health facility, or a grave. It's entirely up to you.

Recommended Videos

No Joke: The Truth About Alcoholism

<https://www.youtube.com/watch?v=rs5QHWMLATI> (8:00min)

Dick Van Dyke Talks Openly About His Alcoholism | The Dick Cavett Show

<https://www.youtube.com/watch?v=XawJPRjKQvQ> (20:29min)

Prescribing Death: Australia's prescription drug crisis - The Feed

<https://www.youtube.com/watch?v=PEFh9D6Xi24> (10:05min)

Drinking Yourself To Death - Must See Documentary If You Drink Alcohol - Alcohol Will Kill You

<https://www.youtube.com/watch?v=0xl30ok5SSg> (46:19min)

How Drew Barrymore beat family addiction curse | 60 Minutes Australia

<https://www.youtube.com/watch?v=yrGQ3TQHyHg> (4:59min)

Reflective Questions: Addiction: Incurable, Progressive, Fatal

List five personal examples of each of the following phases for you. Don't worry if you struggle to find examples for the phases. They will come over time and you can add them as they arise for you.

1. The Crucial Phase:

a)

b)

c)

d)

e)

2. The Chronic Phase:

a)

b)

c)

d)

e)

3. The Rehabilitation Phase:

Your Mental Recovery

- a)
- b)
- c)
- d)
- e)

Your Emotional Recovery

- a)
- b)
- c)
- d)
- e)

Your Physical Recovery

- a)
- b)
- c)
- d)
- e)