

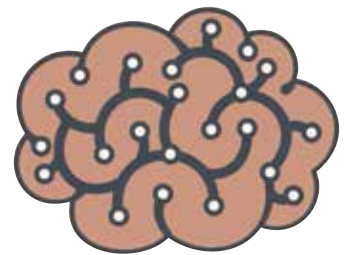


CONCUSSION EDUCATION

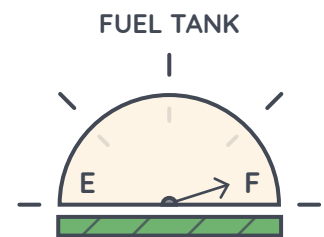
Taken from *The Concussion: LeaARning, ImplemenTing and RecoverY Tool (CLARITY) Tool*

THE ORGANISATION OF THE BRAIN

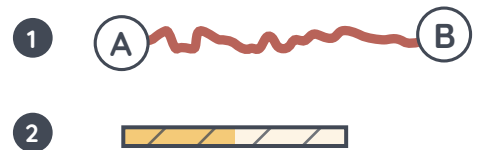
- The brain is organised like a network. It consists of 'structural hubs' which are connected to each other by pathways/tracts
- The structural hubs communicate with each other by sending signals along these tracts.



- Our brains have chemicals that support these signals to move long these pathways in the most effective way
- This requires energy and our brains have energy stores, which we refer to as the fuel tank.



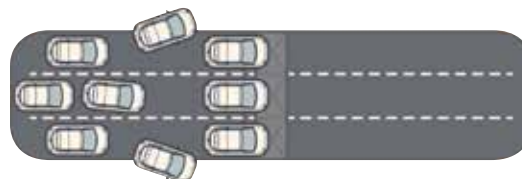
- A concussion is an injury that has been caused by forces being exerted onto the brain
- This injury can cause two things to happen:
 - First, it disrupts the process that helps signals to get sent throughout your brain
 - Second, it causes a reduction in fuel within the fuel tank.





A CONCUSSION CAUSES BRUISES TO PATHWAYS

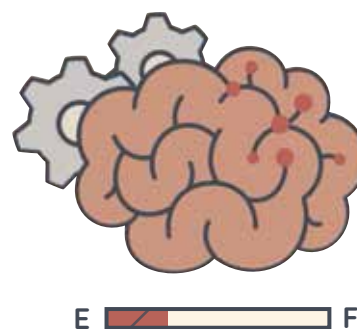
- This sudden change in energy causes many of the symptoms of a concussion
- The impact of a concussion can be like temporarily adding speed humps to roads
- It cause signals to slow down, and it does not take much for the brain to 'backlog' and get overwhelmed.



- A speed hump is never permanent, it can be added and taken away from a road
- This is very much the case with your concussion.
There is a wealth of scientific evidence to show that a concussion is not a permanent injury and you will recover!
- However, for this to occur, your brain needs fuel in the tank.



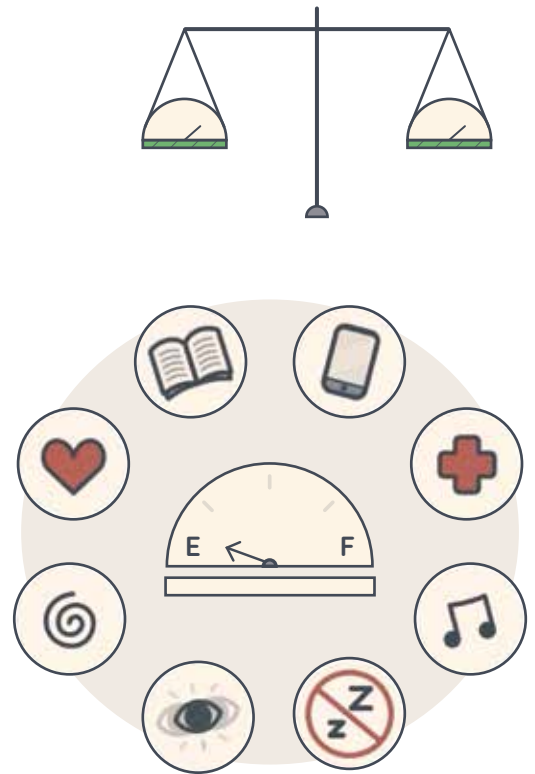
- This is where the challenges and complexities of concussion recovery can occur
- Unlike a broken leg (where you place the broken bone in a cast which eliminates its movement and therefore allows the bone to heal), we cannot eliminate the use of our brain – we have to continue to function!
- Therefore, the demands that your brain is placed under following your injury will impact your already vulnerable fuel tank. This can cause your fuel tank to get lower and lower. When this occurs, this keeps your symptoms going.





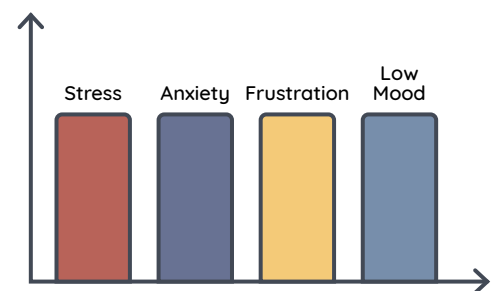
A CONCUSSION RECOVERY IS ALL ABOUT THE FUEL TANK

- Concussion recovery is all about managing your fuel tank. If we can support your fuel tank to restore the signals are no longer held up and symptoms improve
- Factors that are known to impact your fuel tank include:
 - Tasks that are demanding on your thinking skills i.e. reading; or highly stimulating i.e. looking at your phone
 - Pain or other physical health issues
 - Environments with lots of noise or bright lights
 - Difficulties with sleep
 - Challenges with your vision
 - Ongoing dizziness or vertigo
 - Your current mental health.



EMOTIONS ARE BIG TAKERS OF FUEL

- Emotions are produced by your brain. It is therefore understandable that following an injury to your brain this can impact your emotions
- Feeling more intense emotions like irritability, anxiety, low mood and frustration is very common after a concussion
- In addition, the symptoms associated with a concussion can be distressing and have a significant impact. This can also cause stress, anxiety, and frustration.



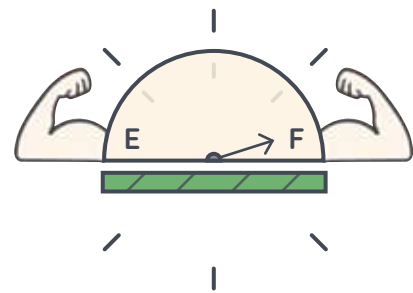


- These emotions are big takers of fuel and can therefore impact the amount of fuel in your fuel tank.
- Scientific evidence has confirmed that mental health factors (such as anxiety, low mood, frustration) have a significant impact on recovery following a concussion and can keep symptoms going.
- This is why having support to address the impact this injury has had on your emotions is an important part of your recovery.



IT'S ALL ABOUT TRAINING YOUR FUEL TANK

- When helping your fuel tank to restore, we need to try and mimic how it acts every day. That is, fuel is taken and added. Our fuel tank is therefore like a muscle, it works hard every day to make sure our brains operate.
- Restoring your fuel tank does not involve completely resting or not engaging in activities. We need to train your brain back to how it was before your injury.
- This has to occur at a level generally consistent with where your fuel tank is right now.



- When you are training your fuel tank, we need to gradually increase the amount of work it has to do.
- At times, this will cause your symptoms to temporally increase. This is an important part of concussion recovery, so please do not see this as a sign you are getting worse.
- Concussion recovery is not an upward linear recovery trajectory. We expect symptoms to fluctuate as we train the fuel tank.

