



CHANGES IN “THINKING” AFTER BRAIN INJURY

After a brain injury you may notice that you have difficulties with cognitive abilities (thinking) that you didn't have before your injury. The type of difficulties varies from person to person depending on the type and severity of injury. This handout has been put together to explain some common cognitive changes and how you and your family can learn to work with these changes.

1. Attention

“Attention” is your ability to concentrate and remain focused. Having attention skills is important for things such as listening to a conversation, or writing down an appointment. To be able to pay attention, you need to be able to block out distractions and keep your brain focused. Things such as a brain injury, fatigue, pain, and illness can interfere with your ability to pay attention.

If you are having difficulties with attention, you may notice it is hard to:

- Stay focused when reading
- Finish working on a project
- Following a conversation in a loud room
- Watch TV
- Drive safely

The following strategies can be used to help with reduced attention:

- **Take regular breaks** – your brain will tire and it's good to give it a rest when you notice your attention is getting worse, and then go back to the activity later.
- **Make a daily schedule** – do more difficulty activities at a time of day that your brain is better able to focus.
- **Give yourself time** – It will likely take longer to get things done. Don't rush and allow yourself time to process new information.
- **Get lots of rest** – your brain needs time to recuperate. Take a nap when you need it and follow a regular sleep schedule.
- **Avoid multi-tasking** – your brain needs to work extra hard when you try to do more than one thing at a time. Try to stay focused on just one task at a time.
- **Reduce distractions** – sound and light in your environment can reduce your attention. Turn off the TV or music during a conversation or when you need to stay focused. Keep your work area tidy to reduce visual distractions.

2. Memory

Memory is your ability to file and store new information, and to retrieve that information at

a later time.

If certain parts of the brain are damaged, memory may not work as well as it did before your injury. Fatigue, depression and some medications can also reduce memory.

Memory for new information (such as your grocery list, details from a conversation, or a friend's phone number) is more likely to be different after a brain injury. Memories from before your injury are less likely to be a problem.

The following strategies can be used to help with memory:

- **Write it down** – the act of physically writing down information improves memory storage. Using a journal/schedule and/or a notepad to keep track of lists and appointments is essential.
- **Label it** – labels on your cupboards and storage will help you put items away in the right place and find them again afterwards
- **Make a schedule** – setting a daily and weekly plan helps you remember important tasks like taking your pills or doing your laundry.
- **Keep yourself organized** – making lists is a really helpful tool to keep track of what needs to be done and what is already completed. Keep important items around the house in the same place to make them easier to find.
- **Pill organizer** – use a pill organizer to keep track of when to take your medicines and what you've already taken. Set a reminder on your phone if needed to help you take them on time.
- **Use reminders** – use a timer, alarm or your cell phone to set reminders of important tasks throughout the day.
- **Ask for help** – for really important tasks, don't be afraid to ask for help from family members. For example, ask someone to come with you to a doctor's appointment to help you remember what was said.
- **Break it up** – when trying to learn something new, break it down into smaller parts with breaks to help you remember.

3. Executive dysfunction

Executive dysfunction is a term to describe complex thinking activities that bring together multiple parts of the brain for problem solving and planning. It is commonly affected after brain injury.

Dysfunctions	Description
Difficulties with motivation and organisation	<ul style="list-style-type: none"> • Loss of 'get up and go', which can be mistaken for laziness • Problems with thinking ahead and carrying out the sequence of steps needed to complete a task
Rigid thinking	<ul style="list-style-type: none"> • Difficulty in evaluating the result of actions and reduced ability to change behaviour or switch between tasks if needed
Poor problem solving	<ul style="list-style-type: none"> • Finding it hard to anticipate consequences • Decreased ability to make accurate judgements or find solutions if things are going wrong
Impulsivity	<ul style="list-style-type: none"> • Acting too quickly and impulsively without fully thinking through the consequences, for example, spending more money than can be afforded
Mood disturbances	<ul style="list-style-type: none"> • Difficulty controlling emotions which may lead to outbursts of emotion such as anger or crying • Rapid mood changes may occur, for example, switching from happiness to sadness for no apparent reason
Difficulties in social situations	<ul style="list-style-type: none"> • Reduced ability to engage in social interactions • Finding it hard to initiate, participate in, or pay attention to conversations • Poor judgement in social situations, which may lead to saying or doing inappropriate things
Memory/attention problems	<ul style="list-style-type: none"> • Finding it harder to concentrate • Difficulty with learning new information • Decreased memory for past or current events, which may lead to disorientation

The effects of executive dysfunction on day-to-day life

It is often hard for people with frontal lobe injuries to explain the difficulties they are experiencing, often because they may be unaware that their behaviour is inappropriate. Their behaviour may appear to be very anti-social and can be misunderstood as depression, lack of motivation, selfishness, or aggression. Relationships with others may be negatively affected as a result.

Executive functioning problems may also have a significant emotional impact and can lead to feelings of frustration, exhaustion, embarrassment and isolation.

Strategies for Executive Dysfunction

- Allow yourself plenty of time to plan activities and record your plans, using as many

aids as you find helpful (such as calendars, diaries, electronic timing devices, and mobile phones).

- When planning your day, week, or a particular activity, use a step-by-step approach, dividing the activity into manageable chunks.
- Use checklists and tick off each part of the activity that you have accomplished. This will help you to stay on track.
- Mentally rehearse your plans.
- Discuss your plans for the day with others. They can help you to write down a step-by-step checklist of the different actions for that day.
- Similar strategies can be used for longer term planning, such as appointments you need to make. Discussing your plans with others will make you more likely to remember, and the other person can remind you of things if necessary.
- Step-by-step checklists can be placed in key locations in the house in order to remind you of the different sequences to go through to do a task, such as preparing a meal.
- Prepare a weekly routine for tasks like shopping, washing and tidying the house. Knowing that, for example, Monday is shopping day, will make you more motivated to get the task done.
- Try to develop back-up plans in advance, rather than when problems arise.

Many strategies for overcoming memory problems can also be helpful for difficulties with planning.

4. Mood

- If you feel unable to manage your emotions, it may help to talk to your doctor about this. They may be able to refer you to a form of therapy that will work for you, such as cognitive behavioural therapy (CBT).
- It may be helpful for others to make allowances for the difficulties you may experience in controlling your mood. When you feel very upset, it may be better for the other person to try to calm the situation in the short term and discuss it with you later.
- Others may need to make allowances for changes in your behaviour and personality. It is important for them to remember that the changes are a result of the injury and not because you are being lazy, self-centred or difficult.

5. Social difficulties

- Trusted friends or family members could help you by reminding you of what may be the most appropriate thing to do or say if you are struggling in social situations.

- It may help to mentally prepare for social situations and to think about any difficult situations that have occurred before in similar environments.

Resources

Ontario Brain Injury Association www.obia.ca

- Caregiver support resources
- Survivor support groups
- Education

Brain Injury Association Waterloo Wellington www.biaww.org

- Survivor support
- Caregiver support
- Art programs

Traverse Independence Brain Injury Services www.traverseindependence.ca

- Day Programs
- Caregiver support
- Brain injury education

Acknowledgements

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