



Brain Tumour Australia Information

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Memory

The Brain- Memory

Memory problems are one of the common issues of concern when a brain tumour has been diagnosed.

Complaints about memory problems following a diagnosis are common. As we age, we become aware that our memory isn't as good as it used to be. Memory is frequently described as being good or bad. However an explanation is not that simple. The following information has been compiled to provide an overview regarding different aspects of memory.

Types of Memory

- Each type of memory has a different place in the brain. Visual and hearing (eg. words) are important types of memory. Visual relates to things we see. eg. Seeing/remembering where we park the at the shopping centre or seeing/remembering things as looking familiar. Memory for language, includes things that we've heard or read (things we've read we translate into language).
- Verbal information is stored in the left hemisphere of the brain.
- Visual information is stored in the right hemisphere.

We all have memory for things like music, taste and smell.

- When music/songs are heard we feel a distinct familiarity associated with the tune.
- Music is processed by the brain and the information stored in a particular section.
- Pleasant tastes like chocolate and sweet things are also processed and stored.
- Unpleasant smells and tastes are also processed and stored eg. the smell of the dentists surgery, and medicines given to us as children.
- Memories of physical sensations are also processed and stored by the brain.
- The ability to compare the comfort of a soft pillow or toy to the discomfort of rough scratchy clothes are memories associated with the ability to feel.

The ability to remember is separated into the following categories:

Immediate memory

- Is immediate recent memory.
- It is usually not retained for longer than a few minutes.

- An example of immediate memory is when you are verbally given a phone number. Some people can remember the given numbers and dial the phone. Other people need to write the numbers quickly before they are forgotten

Short-term memory

With a diagnosis of a brain tumour, impaired short-term memory may be a very significant problem.

- Can be described as the ability to remember something after a period of 30 minutes.
- In a diagnosis of brain tumour, someone's immediate memory may be good, yet they may still have problems with short-term memory. For example, if the person diagnosed with a tumour is asked to get out of bed and take a shower followed by breakfast and this does not occur, when questioned the answer may be that the person was never asked to perform the tasks.
- Short-term memory is the ability to react/act quickly eg. if shopping, remembering why you went shopping in the first place and also being able to remember what you went to buy.

Long-term memory

- Is information that we remember after a day, a fortnight, or for years.
- For most people, long-term memory tends to be good.
- After a brain tumour diagnosis, if short-term memory isn't working, information has a difficult time finding its way to long-term memory.
- Small insignificant daily happenings are forgotten.
- This can lead to an illusion for people diagnosed with a brain tumour that time passes very quickly.

If Problems with memory Occur

It is not possible to cure a memory problem by repeated practice of memory tasks, however, the memory may improve with time

The ability to concentrate, make decisions, react in a suitable time frame, and organise or plan may be difficult. Being able to remember how to do things may be difficult and memory may affect the ability to:

- Learn and remember new things, names, appointments, passing on messages or phone calls



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If Problems with memory occur

- Read books or newspapers or concentrate on even simple activities (eg. forgetting the plot of the TV show)
- Remember where things are kept or left
- Get from one place to another
- Remember what happened from one day to the next
- Perceive or understand words or numbers – confusing similar sounding words and numbers
- Remember diagnosis, prognosis, treatment, medication, home services etc
- Do activities/tasks/jobs in steps or by sequence eg. To ensure a safe environment when showering make sure that the cold water is turned on first, then turn on the hot, test the temperature before continuing with a shower - In the past people have been known to stand under the shower and turn on the hot water before determining if the temperature is suitable and safe
- Recognise an issue or know how to fix it
- Think or react quickly eg, it may take longer to understand instructions and longer to respond appropriately
- Organise and carry out tasks
- Cope with more than one thing at one time
- Remember what others have said eg. keep track of lengthy conversations and instructions

Other Issues Impacting Memory

Memory can be affected by a number of things. Some of these influences can affect even people without a brain tumour. If you do have a brain tumour, these effects are multiplied:

Fatigue and Sleep

People with a brain tumour may have sleep disorders

- Talk to your treating specialist about getting your sleep pattern back to normal.
- If you wake up tired, you're going to have more problems with memory.
- Some medications may also make you tired and therefore affect your memory.
- If you're tired, your memory tends to be poor.
- If you have to learn something really important, it's best to learn it when you're fresh .

Emotions

- Emotional situations will distort your memory.
- Being afraid, angry, or anxious will alter your memories.

What is Amnesia?

Amnesia = **Lost Memories**

Amnesia means the loss of memories that you once had. It's as though the past has been wiped out.

Retrograde Amnesia

- Means memories of things that occurred prior to the diagnosis or maybe the subsequent surgery may be forgotten.
- Minutes, even seconds or even longer periods of time may be affected.
- In the recuperation phase long-term memories tend to return, however, memories may return like pieces of a jigsaw puzzle or a patchwork quilt.
- Memories may return in their own order adding to frustration and annoyance for all concerned.

Anterograde Amnesia

- May occur after surgery has been performed.
- Memories of things that occurred after the event may be forgotten or difficult to recall.
- Can be due to the brain tumour itself.
- After surgery as the brain heals and swelling subsides, memory also begins to work.
- Discuss any amnesia concerns with your treating specialist.

There are basically two kinds of memory problems: storage problems and retrieval problems.

Why is memory affected?

Compare the transfer of information in the brain to a super highway with many arterial roads coming and going at different parts of the highway taking messages as they travel. Information in the brain flows down the middle section and then spreads out into other areas of the brain. When a tumour is diagnosed it may have been growing or pressing on certain sections of the brain.

This may:

- Stop the messages from getting through.
- Stop messages being processed correctly or being forwarded to the right place in the brain.
- Cause a build up of swelling/fluid to press on vital parts of the brain concerned with memory.
- Result in a problem for the brain in retrieving the memories.

Memories can be stored but the brain may be unable to place them in the correct section for processing.



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Why is memory affected cont.?

Many people at some time in their life remember seeing a movie and while being able to visualise the actors are unable to put a name to them. Later on the name just pops into your head. For the brain its similar to walking up and down the supermarket aisles trying to locate your favourite cereal in a supermarket where you haven't visited for a while and not being able to find it. Remember only one type of memory may be impaired (eg. verbal recall) but another type may remain intact such as remembering visual information.

Memory problems

If you are the person diagnosed with a tumour

Helpful hints/tips/strategies

- Consult a Speech Therapist/Pathologist who may be able to assist with memory strategies (they don't just help people who have slurred speech)
- If you know that a situation may be stressful eg. going to visit the doctor or dentist, then take a family member or friend with you
- Keep a daily diary (purchase a reasonable sized one)
- Write down information you may wish to discuss with the doctor ie. organise your thoughts
- Get staff at your treatment centre or family to do this task
- Keep your notes complete as though you are writing information for someone else who doesn't know you to make sense of ,otherwise they may not make sense later on
- Keep a list of your progress and /or any setbacks ie. not sleeping; a list of medications, any symptoms or side effects noted in a diary to discuss it at your appointments,
- Always keep purse, wallets, glasses, car keys etc in the same place
- Keep Lists or a whiteboard in a familiar room in your home
- Number the jobs to assist with remembering which jobs to do but keep the list short. If the list is too long, problems will occur
- A solution is to only list 5 tasks on the 'to do' list. Do not add another item to the board until you have completed one of the tasks already on the list
- If you have something difficult to learn, try to break it down into small pieces and then learn each one a little bit at a time.
- Memorising little 'chunks' of information is called 'chunking'. eg. breaking long phone numbers into smaller groups of 3 or 4 numbers

Memory problems

If you are a family member or support person

Helpful hints/tips/strategies

- Encourage the use of external reminders, diaries, post-it-notes
- Write down items of importance (eg. appointments, tasks, names, addresses, phone numbers)
- Use notice-boards or calendars placed in strategic positions in the home
- Use maps or instructions to access people and services
- Use prompts as a means of triggering the memory (ie. reminders that trigger familiar or regular thoughts eg. names of pets, lunch at 12 noon, mailman always comes in the afternoon)
- Structure a routine by breaking tasks into small steps
- Set realistic goals in relation to reading activities (eg. short stories, and magazines instead of novels)
- Present information slowly, one thing at a time
- Use short simple sentences and simple direct language
- Break down the problem
- State clearly each step required in solving problems
- Give reminders of the next step
- Allow a reasonable amount of time for a response to occur
- Reduce distractions in the home/work environment
- Modify home/work situations to adapt to an individual's level of coping
- Change activities when necessary
- Keep to a routine
- Schedule more demanding tasks when the person is at their best (often mornings)
- Do things in short bursts, allowing for short breaks
- Seek new interests, which require less concentration if previous hobbies are no longer possible
- Rationalise all possible alternatives
- Work with the individual to structure complex tasks in a step-by-step fashion
- Provide structure and boundaries
- Driving may not be possible (slow responses place driver/others at risk). See [Driving & Brain Tumours](#)

The First Rule of Memory -write everything down in one place (a diary or whiteboard).

The Second Rule of Memory - write it down when it's fresh in your mind.