Cancer Council

Practical and support information fact sheet

Understanding Changes in Thinking and Memory

Information for people affected by cancer

Some people diagnosed with cancer notice changes in the way they think and remember information. This is called cancer-related cognitive impairment, but people may also refer to it as "cancer fog" or "chemo brain".

This fact sheet may help you understand more about changes some people experience. It provides suggestions about how to manage your day-to-day tasks and improve thinking and memory.

What is cancer-related cognitive impairment?

Every day, your brain controls your thoughts, emotions and behaviour. The natural ageing process affects how the brain works (known as cognition or cognitive function). However, people with cancer often report a noticeable or sudden decline in cognitive function.

How can thinking and memory be affected?

Cognitive problems can occur before, during or after cancer treatment. Some people notice small or subtle changes, but for others the effects are more obvious. These may include:

- a feeling of mental "fogginess" or sluggishness
- difficulty concentrating or focusing
- memory changes (forgetting names, dates, words and things you would usually recall)
- difficulty finding words during conversations
- finding it hard to do more than one thing at a time (multi-tasking)
- difficulty processing information, including following directions, problem-solving or learning new skills
- being unusually disorganised
- feeling unable to keep up with conversations
- tiredness or fatigue.

What causes cognitive changes?

The exact causes of thinking and memory changes are unknown. So far, studies show the causes may include:

- cancer treatments
- treatment side effects, such as trouble sleeping, fatigue, pain, low blood counts and hormone changes
- medicines given for surgery or to manage side effects of treatment, including anaesthetic, steroids, painkillers and anti-nausea drugs
- your emotions, such as feelings of depression or anxiety
- inflammation caused by the cancer, and the way it impacts brain processes
- in some cases, the physical presence of a tumour in the brain, which can affect mental function.

Who is affected?

Although thinking and memory changes do not affect everyone with cancer, research shows it is relatively common. According to one study, it can affect up to three in four people during treatment, about one in three people before treatment and one in three after treatment.

How long does it last?

Thinking and memory problems are usually temporary and get better with time. Most people say they notice improvements within the first year after finishing treatment. Other people experience longer-term effects. Learning how to manage cognitive problems may reduce the impact on your daily life.

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Effect on your emotional wellbeing

Dealing with cancer-related cognitive impairment can be challenging. You may not feel like yourself, which can affect your relationships with family, friends and colleagues.

Changes in your thinking or memory can have a big impact on your ability to manage at home, while working or studying, or during social activities. This may make you feel upset, scared or frustrated.

You might feel you have to put in extra mental effort and energy to do tasks. Try to be gentle with yourself and allow time to recover.

Managing thinking and memory changes

There are things you can do to cope with cognitive problems and improve your wellbeing and ability to manage daily life.

Keep a diary of the differences you notice, including the time of day and what you were doing. This can make it easier to plan your day, and the record may also be useful when you talk with your healthcare team.

The following suggestions have been found to be effective.

Adjust your daily routine

- Write things down: keep a to-do list or take notes.
- Use a diary or smartphone/mobile features such as reminders or alarms, store lists, etc.
- Set times each day to check your to-do lists and reminders.
- Focus on one thing at a time (try not to multi-task).
- Avoid distractions – for example, let your phone go to voicemail and listen when you're ready.
- Pick a specific place to put objects such as your keys, rings or phone, so they are easier to find.
- Pace yourself and include rest breaks to recharge after mentally demanding tasks.
- Do focused tasks when you feel fresher.

Involve other people

- If you feel comfortable, tell family, friends and colleagues what is going on – this can prevent misunderstandings.
- Speak to your employer about reassigning your tasks or deadlines.
- Take a support person to appointments or treatment.
- Talk to your health care team about how you are feeling – they can assess if you have other concerns such as depression.
- Several types of allied health professionals may be helpful in understanding and managing your symptoms or daily challenges. Talk to your treatment team or your GP about referral to a neuropsychologist, clinical psychologist or occupational therapist. You may be able to access support through the hospital system or get a Medicare rebate.

Maintain a healthy lifestyle

- Eat healthy, nutritious foods, including lots of fruits and vegetables.
- Aim to get at least 7–8 hours sleep each night and rest when tired.
- Do some physical exercise or stretching to improve your mood and energy levels. A mix of aerobic and resistance training may help you to think more clearly and be more mentally sharp.
- Consider working with an exercise physiologist to incorporate exercise into your lifestyle.
- Minimise stressful activities as much as possible.
- Try meditation or relaxation to reduce stress.

Improve your thinking and memory

- During conversation, focus carefully and repeat what has been said to you.
- Add meaning to information you need to remember, e.g. picture someone called Robyn with a robin bird above their head.
- Break down new information into smaller chunks, e.g. remember 2507000 by thinking of 2507 as Christmas in July, then 000 as the emergency phone number.
- Take a class to learn a new skill, such as a new language or musical instrument.
- Try doing something creative, like art or crafts.
- Try cognitive rehabilitation (see next page).

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What is cognitive rehabilitation?

Some people who experience changes in thinking and memory find cognitive training or rehabilitation useful, especially if there is a significant and/or lasting impact on their wellbeing and ability to manage. In this therapy, a trained health professional will assess you and help you work on developing strategies to overcome specific challenges. You may be offered cognitive training (sometimes known as "brain training") or rehabilitation to improve your symptoms by working on your attention, memory and navigation skills.

Speak to your health care team about accessing cognitive rehabilitation services, which may be available through some hospitals, psychologists or other health services.

Medicare rebates are available if treatment is provided under a Mental Health Care Plan. Speak with your GP. Some private health funds may provide rebates; check with your insurer.

Speak with your health care team if you are concerned about your ability to think clearly, concentrate and remember things.

Cancer Council's podcast series

"The Thing About Cancer" features audio episodes on a range of topics, including changes to thinking and memory. Visit **www.cancer.org.au/about-cancer/online-resources/podcast.html** to listen to this podcast.

Need to know more?

Call Cancer Council **13 11 20** for more information. Trained health professionals can listen to your concerns and put you in touch with local services. Ask for free copies of booklets that may be relevant to you, or download digital versions from your local Cancer Council website:

ACT – **actcancer.org**
NSW – **cancercouncil.com.au**
NT – **nt.cancer.org.au**
QLD – **cancerqld.org.au**
SA – **cancersa.org.au**
TAS – **cancertas.org.au**
VIC – **cancervic.org.au**
WA – **cancerwa.asn.au**

Acknowledgements
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Note to reader
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For information and support on cancer-related issues, call Cancer Council **13 11 20**
This is a confidential service.

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