

Cancer-Related Brain Fog



Information about cancer-related brain fog for people with cancer and their caregivers

Also called “Chemo-Fog”, “Chemo-Brain”, or “Cancer-Related Cognitive Dysfunction”



What is cancer-related brain fog?

People treated for cancer notice changes in their thinking and cognitive abilities during or after treatment. This is known as cancer-related brain fog. It is sometimes called chemo-brain, cancer-induced brain fog, or a similar term.

The rest of this resource will explain symptoms and possible causes of cancer-related brain fog and describe some self-management strategies to help you improve your symptoms.

Symptoms of cancer-related brain fog can include difficulty with:

- Maintaining attention, focusing on a task, or concentration
- Remembering things
- Multi-tasking
- Keeping your train of thought while talking
- Finding the right words during a conversation
- Working with numbers
- Taking longer to do tasks than before
- Recalling details like names and dates

Although everyone's experience can be different, it is very common to feel frustrated. For some people, symptoms start at the time of diagnosis, but most often people notice symptoms during treatment.

Mental functioning usually improves after treatment is over, but for some people, symptoms may continue long after treatment is over (months to years).

Causes of cancer-related brain fog

Symptoms can be caused or made worse by many factors:

- Diagnosis of cancer
- Cancer treatments
- Low blood counts or anemia
- Infection
- Dehydration
- Stress, depression and/or anxiety
- Drugs for sleep or pain
- Hormone changes
- Fatigue
- Pain
- Lack of proper nutrition
- Rapid weight loss
- Sleep problems, including sleep apnea
- Hearing loss

The exact causes of cancer-related brain fog are poorly understood. Causes may be different for different people and may change over time.

Cancer-related brain fog is not dementia or Alzheimer's disease. Other medical conditions may mimic cancer-related brain fog. It is important to tell your healthcare team if you are experiencing symptoms of cancer-related brain fog.

There are currently no medical treatments for cancer-related brain fog. However, symptoms may be managed with changes in behaviour and by adopting different strategies.

How can I manage my symptoms?

There are things you can do to help lessen day-to-day difficulties that come with cancer-related brain fog, including the use of memory aids and devices.

- **Use timers**
- **Use calendars**
- **Track meals, sleep, and activities** to help you figure out if there are patterns that affect your attention and memory.
- **Write things down** – Write out questions for your healthcare team and record answers right away. Write things down when the information is detailed or complicated. Make “To-Do” lists and check off items as you complete them.
- **Involve family and friends** – Bring someone to appointments; use them as memory partners and ask them to give you reminders. You may not always need them, but they can help just in case.
- **Make notes**
- **Electronic reminders** – Cell phones, digital watches, e-readers and other electronic devices can be programmed to provide reminders or alerts.
- **Take a picture** – Use your smart phone to take a picture of what you need to remember.
- **Use GPS, maps, or directions** – Navigation systems can help you to reach your destination without any confusion.



Organize your environment and your day

- Keep a **calendar or organizer** to visualize your day.
- **Create regular routines** to make it less likely that you will forget something.
- **Organize and declutter your space.**
- Use a **pill organizer/dosette** to organize your medications for the week.
- Use **office organizers** for mail and documents (such as folders, envelopes, trays, clips and labels).

How can I sharpen my mental ability?

Use **strategies** to process information deeply and become an active learner.

- **Repetition**, Repetition, Repetition! Repeat important things silently or out loud. Don't feel embarrassed to ask people to repeat what they say to you.
- **Screen out** information that you don't need and concentrate on what you need to know.
- **Group** different things into a category by finding something they have in common or how they are similar. For example, if you forget your grocery list try to recall items by thinking about all the dairy items you might need, such as cheese, milk, and yogurt.
- **Summarize** your day in a diary before you go to sleep at night. Include details you want to remember about neutral or pleasant events. For example, try to write down the plot of a movie you watched that day or a conversation you had with a friend. Write the facts and include details.
- **Practice** focusing your attention and concentration. Focus on an object and try to recall as many details as you can with your eyes closed.
- **Personalize** new information and relate it to yourself or relate it to things you already know. This will help you to remember it later.
- **Avoid multitasking** by focusing and completing one task before starting another, when possible. If you start a new task before finishing what you are doing, set a time or alarm or make a note to remind you to return to the unfinished task later.

Lifestyle can impact thinking abilities. What is good for the heart is good for the brain!

- **Physical exercise**
- **Eat healthy foods**
- **Stay hydrated**
- **Challenge yourself.** Activities that make you think can improve concentration. This may include card games, puzzles, reading, or writing letters. Try to learn a new skill or improve upon one you already enjoy.



How can I reduce mental fatigue?

Mental fatigue is a feeling of being mentally tired, and causes trouble in paying attention or maintaining focus on a task. It can occur during different points of the cancer process. Research has found that certain activities may help to reduce mental fatigue by being restorative.

Restorative experiences are those that can rest your mind and bring back mental energy.

Do activities that you find pleasing, such as:

- Take a walk or sit outside.
- Practice meditation or yoga.
- Listen to music or sounds of nature (such as rustling of leaves or bird calls).
- Watch wildlife or other natural scenes.

There are other ways to reduce mental fatigue:

Reduce stress – Stress causes mental fatigue and engaging in stress reducing activities can boost mental energy (see activities listed above). Practice regular “breath” breaks – take a few slow and deep breaths, especially when you are feeling tense.

Reduce noise – Noisy distraction can hinder concentration and make it difficult to focus. Try to minimize background noise when possible. For example, turn the television off when reading.

Reduce mess – A messy and cluttered environment makes it more difficult to find things and makes it more difficult to relax, both physically and mentally. Put things away where they

belong. Get rid of things you do not use, want, or need.



Talk to your doctor

Let your doctor or nurse know if you are concerned about changes in your thinking abilities:

- They should be able to test for things that could be contributing to cognitive changes.
- They can also refer you to a specialist such as a dietitian, a counselor for relaxation support, or an education or support group that discusses cancer-related brain fog.

Your doctor is likely to ask you a number of questions:

- Being ready to answer them may allow more time later to cover points you want to address.
- It might be helpful to write down any symptoms, when you noticed them, and how long the symptom(s) lasted.

You may also want to ask you doctor if there are any tests that can help rule out other causes of cognitive decline.

- These might include blood tests, brain imaging test, or sleep study tests.
- Your doctor can help you decide if any of these tests would make sense to do in your particular situation.