

Memory & Attention Problems

Side effects from cancer and chemotherapy (chemo) can include problems with memory and attention. While we may not know all of the reasons why, we do know that problems with thinking exist and that they can change a person's ability to do tasks at work, school and at home. This handout provides some facts about the mixed effects of chemo, stress and worry and lists some ways to help you cope with these changes.

Types of concerns that people tell us they have had during and/or after chemo (and sometimes during or after other forms of cancer treatment):

Remembering names and faces of people	Making sense out of verbal explanations
Recalling things when trying hard	Recalling what happened a few minutes ago
Remembering written facts	Following what people are saying
Staying alert and paying attention to what is going on	

Impact of Stress and Worry

Research suggests that memory and attention problems may become more noticeable during times of heightened worry and stress. If you are worried about your cancer and/or treatments, the following may add to your memory and attention problems.

When you are troubled or nervous, major changes happen in your body such as:

- Increased rate of breathing
- Raised blood flow to parts of the brain, organs and muscles
- Increase in total muscle tension

The brain is trying to redirect blood and oxygen to the vital parts that need help, so the blood flow in the “thinking” parts are reduced. These changes can get in the way of the brains ability to process and store facts into your longer-term memory.

Strategies

The methods mentioned here may help you become more in-tune and learn the skills you need to handle and adapt to your situations no matter what the cause of the problems. It is also worthy to choose techniques that work best for you. Try different ones and then go over them daily. If you find you need further support you may want to talk with someone from your cancer care team.

Applied Relaxation Methods:

Handouts: (go to <http://www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support>)

- Progressive Muscle Relaxation
- Deep Breathing
- Managing Stress

Support programs: (go to www.bccancer.bc.ca/our-services/ your cancer centre /support programs)

Organizational Methods:

- Use a single Day-Timer (electronic or paper) for all meetings and tasks. This cuts out missed or twice booked meetings
- Plan each task into a workable day/time plan to remove the stress of overload when things pile up
- Pair each new task with a normal action that you are routinely doing each day. e.g.: if you need to take a drug before going to bed...pair this with an existing nighttime routine such as putting your drug right next to your toothbrush
- Use sticky notes (post-its) in well-known places
- Cut distractions – e.g.: turn off the TV when your attention is needed somewhere else
- Stop doing many things at once. Start something and then finish the task it before starting something else.
- Schedule and plan - this helps to “jump start” the brain (even though you do not feel like doing something, it is in your plan so you do it anyway—but, do not over-commit yourself)
- Make things fun or with a sense of success as this raises good feelings which is beneficial for learning

Verbal Practice Methods:

- **Self-instructional training:** This helps improve attention for completing tasks and calling to mind steps taken in tasks. When you do this, you will become more tuned-in to single steps and facts. Talk yourself through the steps, this will make your “inner voice” stronger and raises on-task tension.
e.g.: Take out toothbrush; put the toothpaste on the bristles; wet the bristles....
- **Simple repetition:** Simply repeat the facts repeatedly.
e.g.: When you need to call to mind a phone number, speak it aloud or silently many times; then write it down or use it right away.
- **Spaced repetition:** Same as Simple Repetition but gives a longer amount of time between saying it aloud and writing it down.
e.g.: Say the phone number aloud or silently or many times; then wait some seconds before writing it down; then try it again adding to the time between pauses.
- **Chunking (grouping):** Group things together in an order (such as relevance, priority or type)
e.g.: When remembering to pick up groceries, split your list into groupings... fruit, veggies, paper products so that you can call to mind which aisle to go to in the store.
- **Rhyming or melodies:** Make up a rhyme or melody (or use a melody from a song you know well)
e.g.: When calling to mind a name you might make a rhyme such as “Bill” has a Will. One More way, to call to mind the name “Lucy” – sing to yourself the song “Lucy in the Sky with Diamonds” or make up a song yourself.

Visual imagery:

- **Visual picture:** Think up and make a visual picture in your mind
e.g.: Make a mental picture of the person (or item/event) you want to call to mind. If it is a person, think of them walking somewhere of significance or saying something interesting or of great value.
- **Method of loci:** Picture a well-known space and variations of that space
e.g.: Walk into your bedroom and describe it step by step; then put the objects you want to memorize into that room. Now go back in your mind and get back those objects. Then make it harder by doing it backwards or out of order.

Adapted with permission from: Memory and Attention Adaptation Training Manual (2011) Ferguson, R.J. & Gillock, K.L

Revised: March 20, 2018 Psychosocial Oncology Programs <http://www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support>