Many people notice “mental cloudiness” and cognitive changes during and after chemotherapy. This is commonly called “chemobrain” and usually improves over time.

Examples:
- Forgetting things you usually have no trouble remembering
- Trouble concentrating (e.g., can’t focus, short attention span, “spacing out”)
- Trouble remembering details (e.g., names, dates)
- Trouble multi-tasking (e.g., answering the phone while cooking) without losing track of one task – Less able to do more than one task at a time
- Taking longer to finish tasks (e.g., thinking is slowed, feeling disorganized)
- Trouble remembering common words
- Difficulty learning new information

What causes Chemobrain?
Research on chemobrain is increasing; however, the exact cause of cognitive changes during and after chemotherapy is unclear and we still have much to learn. Research has shown that chemotherapy and cancer medications can cause changes in the brain and often these changes are subtle. Along with chemotherapy, many other factors can cause problems with thinking/memory, including:
- Cancer itself
- Patient age
- Infection
- Fatigue
- Sleep problems
- Other medications
- Low blood counts
- Stress/Depression/Anxiety
- Hormonal changes
- Nutritional deficits

How to Cope with Chemobrain:
- **Medication**: Research has shown that the medication Provigil (modafinil) can be useful in improving the symptoms of chemobrain. If you would like more information about Provigil, please talk with your medical provider.

It is important to remember that we can’t necessarily improve our memories, but we can use whatever level of memory ability we have more effectively by practicing strategies that help with difficulties. Here are some tips:

- **Make lists/ Write information down**. Carry a pad of paper and pen with you and write down the things you need to do (e.g., errands to run, phone calls to make, when to take medicines, etc.) Remember to look at your notes several times a day and cross items off as you finish them.

- **Use a portable planner &/or Get a wall calendar**. These can help you stay on top of tasks and keep track of appointments. For some, it helps to have a wall calendar where appointments are written that they can hang in a place they will see often (e.g., the kitchen). Make sure to look at the calendar at least once a day.
Chemobrain and Fatigue

- **Leave a message on your answering machine/voicemail** to remind yourself of something important. When you listen to the message later, write down the information.

- **Set up & follow a routine.** Keep things in the same place so you remember where they are (e.g., put keys in a bowl on the table) and try to keep the same daily schedule.

- **Avoid distractions.** Work, read and have conversations in an uncluttered and quiet place.

- **Focus on one thing at a time.** Don’t try to multi-task.

- **Divide tasks into small manageable parts.** This can help make tasks more manageable and keep you focused as you don’t have to sustain attention and concentration for long periods of time.

- **Repeat information aloud & write down important points.** “Okay, so we are meeting at 2:00pm on Monday, June 3rd at the main clinic office.”

- **Keep your mind active.** Do crossword puzzles/word games and talk with others – social interaction keeps minds sharp. A task called the “n-back game” can also help strengthen our memories. This task can be found online at [http://soakyourhead.com](http://soakyourhead.com)

- **Train yourself to focus.** Take time to think about and picture what you are doing. For example, when you put your keys down, take a moment to say to yourself “My keys are on the kitchen table and picture the keys on the table in your mind.”

- **Exercise, eat well, drink enough water and get plenty of rest.** These things help keep your memory working at its best.

- **Ask for help when you need it.** Family and friends may be able to help with tasks to cut down on distractions and save you mental energy.

**Fatigue:** Fatigue is one of the most common physical problems experienced by cancer patients. You will likely experience fatigue as a result of having cancer, or from cancer treatments like chemotherapy, radiation therapy or surgery. Pain, poor nutrition and lack of adequate sleep may also increase fatigue.

Fatigue has been defined as being tired, exhausted, weary, drowsy, weak, lacking in energy, feeling “bushed” or “beat,” or not able to do usual activities. In people with cancer, fatigue might be more severe and it may occur without warning.

Fatigue is often related to symptoms of chemobrain because when fatigued our attention, concentration and focus are decreased and thinking is typically slower. You may find that by taking steps to decrease fatigue your symptoms of chemobrain improve.
Ways to Cope with Fatigue:

- Increase the amount of time you are resting. This includes such things as resting or taking a nap when tired, sleeping later in the morning, or going to bed earlier at night.

- Keep a log of how you feel each day. This can help you plan your day and also help you communicate with your medical team about how you are doing.

- Plan your day so that you can do important tasks during the times of the day when you feel most energized.

- Go for short walks/do some light exercise.

- Take frequent breaks.

- Try easier or shorter versions of activities you enjoy.

- Get some fresh air — sit or walk outside.

- Stay active during the day so that sleep comes easier at night.

- Eat as well as you can and drink plenty of fluids.

- Avoid dizziness or falls by getting up and moving slowly.

- Ask others to help you with tasks such as laundry, cleaning and meal preparation. This will decrease the amount of energy it takes to do these activities.

- Talk with others. This can lessen the burden of fatigue & help you to continue to have social life.

- Engage in activities that are less strenuous such as listening to music or reading.

- Remember you don’t have to do everything. Save energy for the things that are most important to you.

- Be kind to yourself. When feeling fatigued, don’t beat yourself up or blame yourself for not doing “more” or “enough”. It is not your fault you are fatigued. It is a part of cancer and treatment and you are doing the best you can!

- Consider having a massage, practicing meditation, taking a yoga class or doing other relaxing activities.

- Proper nutrition is important:
  - Avoid caffeine in the evening as this may keep you awake.
  - Eat foods that are rich in protein, vitamins and iron.
  - Eat small amounts frequently to maintain normal blood sugar levels and fuel your body.