Cognitive Changes During Chemotherapy

Some cancer patients and survivors feel a mental cloudiness or “brain fog” that occurs during and after chemotherapy, sometimes referred to as chemobrain.

What Are the Symptoms of Chemobrain?
Chemotherapy-induced cognitive dysfunction or impairment is the state of mind described by cancer patients and survivors as a vague and often distressing change in their thinking, alertness, and mental function from their prior baseline level. This has been described before, during, or after cancer therapy. For most patients it lasts for weeks to months, but for others it can be of longer duration and last several years.

Some specific examples of symptoms include the following, all of which can be very distressing and may cause problems both at work and at home:
• Taking a longer time to complete tasks
• Trouble recalling names or objects
• Trouble focusing
• Difficulty finding words
• Forgetting to finish small things, like turning off lights or locking the door

What Causes Chemobrain?
There is not a single cause for chemobrain. Some of the known causes include the following:
• Cancer itself
• Chemotherapy, radiation therapy, hormonal therapy
• Transplant treatment and side effects
• Low blood cell counts
• Steroids, anti-nausea therapy, pain medications (especially opioids)
• Anxiety/stress/depression and worry from cancer and cancer-related therapy

Is Chemobrain Preventable or Treatable?
While there is no single medication to either treat or prevent chemobrain, there are many things patients can do to manage the condition:
• Keep a daily planner and a “to do” list and frequently update it. Smartphones or tablets have daily planner apps to help patients.
• Do one thing at a time. Focus on only one task.
• Sharing this condition with family and friends can help. Also keep your doctor informed about this issue.
• Buy a pill box and maintain a pill diary for all medications.

There is no approved therapy for this condition. Sometimes doctors may prescribe stimulant medications used to treat conditions such as attention-deficit/hyperactivity disorder or narcolepsy or medications for dementia. There is research ongoing on how these drugs and many other new drugs can help with this condition.

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FOR MORE INFORMATION
• American Cancer Society Website http://www.cancer.org/treatment/treatmentsandsideeffects/physicalsideeffects/chemotherapyeffects/chemo-brain
• American Psychosocial Oncology Society (APOS) http://www.apos-society.org

To find this and other JAMA Oncology Patient Pages, go to the Patient Page link on the JAMA Oncology website at http://www.jamaoncology.com.