Am I more likely to get COVID-19 because I have or had a brain tumor diagnosis?

In general, brain tumor patients do not seem to be more likely to contract COVID-19. Some brain tumor patients may be at higher risk of infection because their immune systems are weakened by the treatments and medications they are taking.

Certain treatments, such as chemotherapy and radiation, can cause a patient to become immunocompromised as they are undergoing or recovering from these treatments.

Experts believe that the more underlying health conditions an individual has, the higher his or her chance of having complications from COVID-19.

How does chemotherapy affect a brain tumor patient’s immune system?

The impact of chemotherapy upon an individual’s immune system depends on the patient and the type of chemotherapy.

In general, chemotherapy can cause the immune system to become increasingly impaired over the next several days after administration and then begin to recover, usually in time for the next dose or cycle of chemotherapy.

Chemotherapy works to kill rapidly dividing cells. In doing so, it can also kill normal, healthy cells, like lymphocytes that work to fight infection. Patients with low lymphocyte counts are considered to be immunocompromised.
How does radiation affect a brain tumor patient’s immune system?

Radiation therapy can cause immunosuppression, impacting an individual’s immune system. Please contact your radiation oncologist about your treatment during the COVID-19 pandemic. If you are receiving chemotherapy in addition to radiation, you may be at higher risk of complications related to COVID-19.

How can surgery impact a brain tumor patient’s immune system?

Surgery alone does not affect a patient’s immune system and does not lead to higher risk of contracting infections like COVID-19. Patients recovering from a surgery, however, may be given medications, such as steroids, that can be immunosuppressive. In general, patients recovering from a craniotomy should adhere to CDC guidelines for prevention to protect their health.

Do anti-seizure medications impact my immune system or put me at higher risk of contracting COVID-19?

In general, anti-seizure medications are not immunosuppressive and, alone, should not significantly affect the immune system or cause an increased risk of infection. Brain tumor patients, however, may have other health conditions, treatments, or medications they are taking that can impact their immune system, such as chemotherapy or radiation.

How do steroids, like dexamethasone, affect my immune system and should I continue taking these during the COVID-19 pandemic?

Steroids reduce swelling in and around the brain caused by the tumor. Steroids like dexamethasone are immunosuppressive. Please consult your doctor or medical provider to determine if you should continue or discontinue use of steroids during the COVID-19 pandemic.
How is the COVID-19 pandemic affecting clinical trials?

The COVID-19 pandemic may alter the timeline for clinical trials.

For patients actively on a clinical trial, their physician may delay any portion of the trial that is not directly benefiting the patient or does not have a good probability of benefiting the patient. There may also be some modifications to the treatment, or deviation to the protocol, to limit the patient’s need to visit the clinic in person.

Some early phase trials in which the potential benefit to the patient does not out-weigh the potential risk during the COVID-19 pandemic may be delayed or discontinued at this time.

Is it safe to continue using my Optune® device during the COVID-19 pandemic?

The Optune device is not immunosuppressive and does not cause an increased risk of infection for brain tumor patients.

Should I consider postponing my brain tumor treatment during the COVID-19 pandemic?

Regardless of the type of treatment you are receiving, it is not recommended that any patient delay any aspect of their treatment during this time. Any delays to treatment should be done ONLY with the expressed approval of your health care team. Things to discuss with your health care team include the goals of treatment, the likelihood that your tumor will be controlled with the planned treatment, the intensity and side effects of the treatment, and the supportive care that is available to reduce the side effects of treatment.
**Does ibuprofen increase the risk of contracting the COVID-19?**

The COVID-19 virus interacts with proteins on our cells' surfaces to enter and infect our cells. One of these proteins is called ACE-2. ACE-2 can be increased naturally as a response to ibuprofen usage. Due to this, there is a theoretical increased risk of infection associated with taking ibuprofen. It is recommended to use alternatives such as Tylenol® or other acetaminophens to reduce such risk. Please consult your doctor about over-the-counter pain management medications that may be best for you.

**If I am receiving regular scans/imaging/tests as part of surveillance of my brain tumor, should I continue getting these tests during the COVID-19 pandemic?**

We do not recommend delaying scans as part of surveillance because many recurrences occur with no symptoms and are picked up in routine surveillance. Any delay should ONLY be done with the expressed approval of your health care team.

Many clinics and doctor’s offices are utilizing teleconferences and virtual visits for follow-up appointments that do not required scans and do not need to be conducted in person. Please consult with your doctor and care team to develop a course of action that is best for you. In addition, if you develop a new symptom that might indicate a recurrence or change in your health, contact your doctor or care team right away.
Should I continue attending my regular physical therapy or occupational therapy appointments during the COVID-19 pandemic?

As recommended by the CDC, any clinic visits that can be postponed without risk to the patient should be postponed. Please consult your physical or occupational therapist to explore if they offer virtual or video services that can help you maintain your physical therapy from home.

What can I do to protect my health during the COVID-19 pandemic?

The CDC has produced guidelines for prevention that all people can follow to protect themselves from infection. These guidelines suggest that you engage in social distancing by avoiding crowds, keeping at least a 6 foot distance between yourself and others when you go out, and minimizing contact with others.

CDC guidelines also recommend actions such as: washing your hands often with soap and water for at least 20 seconds; using hand sanitizer when soap and water are not readily available; avoiding close contact with people who are sick; covering your mouth and nose with a mask or cloth face cover when around others; covering your sneezes or coughs with a tissue or use the inside of your elbow; and cleaning and disinfecting frequently touched surfaces daily. For more information, visit the CDC’s website here.

Does “social distancing” mean that my caregiver cannot visit me?

Social distancing applies for individuals who do not live together. If your caregiver lives with you, they do not have to practice social distancing with you unless they become sick or begin exhibiting symptoms. If your caregiver does not live with you, they are still allowed to come visit you to provide you with the support and care you need on a day-to-day basis. Caregivers need to ensure they are following CDC guidelines for protection and prevention such as
handwashing, cleaning and disinfecting surfaces, and limiting physical contact. In addition, caregivers that live outside of the patient’s house should wear masks and gloves when visiting patients. If you are a caregiver and are feeling sick or notice symptoms of COVID-19, please do not visit your patient. Instead, reach out to your family members or the community to find a replacement who can support your loved one during this time.

**What should I do if I think I may have COVID-19?**

If you have COVID-19 symptoms such as fever, cough, sore throat, or shortness of breath, call your physician immediately. You can call your primary care physician or neuro-oncologist. If you are stable, do not go straight to the emergency room or the hospital as this can cause unnecessary exposure to others who are sick.

After speaking with you, your physician may then refer you for testing at a satellite testing site to minimize your exposure to other patients at the hospital. If you suspect you may have COVID-19, another alternative is to visit an urgent care clinic. Please ensure you take necessary precautions, such as wearing a mask and maintaining 6 feet distance from others.

**How can I manage emotional stress and anxiety during this challenging time?**

The COVID-19 pandemic is a crisis that we are all actively trying to make sense of and cope with. It is okay to feel fear and concern as we deal with the uncertainty of this situation. Know that you are not alone. We should all use this opportunity to connect with friends and family, check in with loved ones, and focus on the people we care about. Phone calls and video chats are great ways to interact with others while practicing social distancing.
Take time to engage in self-care. Take part in hobbies you enjoy. Read a book, go for a walk, meditate, or workout.

If you are in need of additional support, please reach out to your care team about the supportive services available to you, including online support groups or telephone counseling.

Looking for more resources and guidance? Call the ABTA’s CareLine 800-886-2282 or email info@abta.org.

Contributors:

Dr. Milan G. Chheda, M.D.
Neuro-Oncologist and Assistant Professor
Washington University School of Medicine

Dr. Mitchel S. Berger, M.D.
Professor and Chair of Neurological Surgery
University of California, San Francisco