

## Brain Tumors and Fertility

While most women who develop a brain tumor are beyond their reproductive years, a small number of younger women develop brain tumors each year. For some of these women, the recommended treatment will include surgery, radiation, chemotherapy, or a combination thereof. These treatments can impact a woman's fertility. Discussions regarding future reproduction need to take place before initiation of these therapies.

### Effects of Radiation on Fertility

The type of radiation used for the treatment of brain tumors is focused on the tumor and a small margin surrounding the tumor. There is little risk to a woman's ovaries or her eggs from the radiation. However, the radiation can affect the pituitary gland, a small structure housed deep in the brain that controls the secretion of hormones necessary to become pregnant and to sustain pregnancy. This is most often seen in patients who have radiation directed at the pituitary gland itself, as some tumors grow there, but pituitary dysfunction can happen also if the radiated tumor is somewhere near the pituitary.

### Effects of Chemotherapy on Fertility

Some, but not all, chemotherapies can affect a woman's fertility. Chemotherapy can stop the ovaries from working temporarily and sometimes, permanently. Permanent infertility is more likely in older women, especially those approaching menopause

naturally, and when high doses of chemotherapy are given. In these cases, a woman would start to experience signs of menopause. In cases of temporary infertility, a woman may stop having her period, but could still be producing eggs. In these cases, it can take up to 6 months or longer after the completion of chemotherapy for periods to become regular again. For this reason, it is important that any women of child-bearing age use reliable contraception. There is a good chance that a baby conceived while a woman is on chemotherapy would have significant developmental deformities. In addition, when a woman is born, she is born with all the eggs she will ever have. The chemotherapy may have effects on the eggs, making them less likely to produce a viable fetus.

### Pregnancy at the Time of Diagnosis

Women who are diagnosed with a brain tumor when already pregnant face unique decisions. Depending on the aggressiveness of the tumor, the extent of the tumor, and the treatments being recommended, it may or may not be safe for the mother to carry the baby all the way to full term. In early pregnancy, a termination may be recommended but delivery may still be possible in a later pregnancy. There are many variables that go into a decision like this. Patients should have candid conversations with both the oncology and obstetrics team about what the best options for mother and baby are.

## Options to Maintain Fertility

The decision on whether or not to take steps to preserve fertility is a personal one based on personal wishes and realistic expectations about prognosis. If you do decide to pursue preservation, there are several ways to do so, including freezing of embryos and freezing of eggs. A fertility specialist can help guide you on the choices.

### Getting Pregnant after Treatment

Most oncologists will recommend you wait at least a year after completion of therapy to start trying to get pregnant. This is not because the pregnancy can affect the cancer but because recurrences of cancer are more likely to occur in the first year or so. If the cancer came back, more treatment would be required and difficult decisions would need to be made regarding the baby.

# Brain Tumors and Family Life

Most women play the role of caregiver, whether that be for children, spouses, parents, or other family and friends. When a woman is diagnosed with a brain tumor and, in some cases, becomes the one who requires caregiving, unique challenges present themselves as the family balance is tipped. When undergoing treatment for a brain tumor, it is important to get good rest, eat a nutritious and well-balanced meal, and when possible, exercise routinely. Juggling these tasks in addition to caring for others, all while visiting doctors, undergoing tests and treatments, and managing symptoms can be daunting and, many times, impossible. For this reason, the caregiving for others might need to be “outsourced”. It is generally a good idea to accept help from friends and family who offer it, as they undoubtedly will early on in the diagnosis. Over time, offers sometimes become more sporadic, so taking advantage and engaging support systems in the beginning can be helpful.

Finding a local support group can also be quite beneficial. No one understands the challenges of dealing with a brain tumor more than somebody else in the same situation. Support groups can give patients and families opportunities to talk with knowledgeable people, including health care professionals and other patients and caregivers, who can educate them and provide information about navigating their disease.

*For additional information on brain tumors and pregnancy check out the American Brain Tumor Association website,  
[www.abta.org](http://www.abta.org)*

**URMC Brain Tumor & Spinal Tumor Program**  
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**Adult Brain Tumor Network Support Group**  
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## Women's Center For Neurological Care



## Brain Tumors & Pregnancy



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