



Facts About Brain Metastasis

- Metastatic brain tumors far outnumber all other brain malignancies, affecting about 200,000 people a year.
- Most brain metastases come from melanoma or cancers of the breast, lung, prostate, colon, kidney and bladder.
- Brain mets are most common among middle-aged and elderly men and women.
- Metastatic brain tumors are the most common type of brain tumor.



"The care by the oncology staff goes above and beyond. Their care and concern is not just for me, but also my family."

— Southwest cancer patient

The Southwest Difference

The diagnosis of cancer can be overwhelming. You and your loved ones may be facing many questions, medical treatment options and lifestyle changes.

At Southwest's Regional Cancer Center, we believe that superb cancer care goes beyond the latest technology and innovative treatments. We are here to help you and your loved ones keep the best quality of your life throughout your journey with cancer.

Cancer Support Group

360.514.2174

www.swmedicalcenter.org/cancersupport



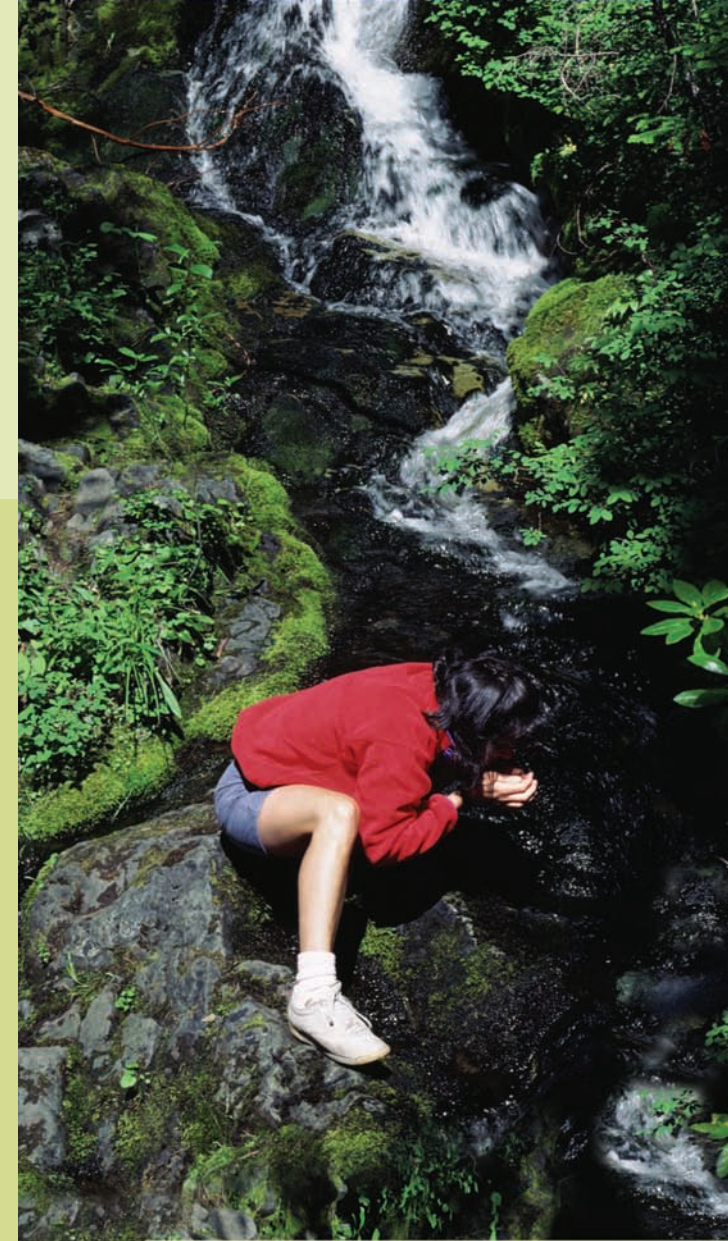
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Understanding Brain Metastasis



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What Is Brain Metastasis?



One of the greatest threats of cancer is its ability to spread throughout the body, even after successful treatment of the primary tumor. When a secondary cancer develops in the patient's brain, this is

known as brain metastasis (brain mets).

Metastatic brain tumors come from cancer cells in another part of the body and develop as a tumor in the brain. The site where the cancerous cells originated is referred to as the primary cancer.

The diseased cells spread to the brain by moving through the bloodstream and continue growing in their new location. This spread of a tumor to a new part of the body is called metastasis, and the primary cancer is said to have metastasized.

There has been an increase in metastatic brain tumors, as people are surviving primary cancers for longer periods of time.

Symptoms

As tumor cells multiply within the brain, they can press against, irritate and/or destroy normal brain tissue. As a result, brain metastases are associated with symptoms such as:

- Persistent headaches
- Weakness
- Pain or numbness
- Double or blurred vision
- Nausea or vomiting
- Loss of appetite

- Changes in mood and personality
- Changes in ability to think and learn
- New seizures
- Gradual onset of speech difficulty
- Difficulty with motor skills or paralysis

Not everyone gets every symptom. In fact, about one-third of people with brain metastases have no symptoms at all. That's why it is important to have regular follow-up visits with your physician after being treated for cancer.

Diagnosing Brain Metastasis

Brain metastases may be diagnosed and evaluated using one or more procedures. Your physician will decide which method will provide the best results for you.

- **MRI** – Magnetic Resonance Imaging
- **CT** – Computerized Tomography
- **PET** – Positron Emission Tomography

MRI – Magnetic Resonance Imaging: MRI, or nuclear magnetic resonance imaging, provides three-dimensional views of an internal organ or structure, especially the brain and spinal cord. MRI uses a powerful magnetic field and radio waves instead of x-rays. Computers then translate the radio waves into images. The images display in "slices" both cross-sectional and parallel (lengthwise) of the body.

MRI provides highly detailed information without exposing the body to radiation. In many instances, it provides more useful images than CT scanning or ultrasound, particularly for the brain.

CT – Computerized Tomography: A CT scan uses x-rays to produce detailed pictures of structures in the body. It is also known as a computerized axial tomography (CAT) scan. A CT scanner takes a series of cross-sectional x-ray pictures as it rotates around the body. The "slices" or pictures are recorded on a computer and can be saved for further study or printed out as photographs.

CT scanning can be used to obtain information about almost any body organ (such as the liver, pancreas, intestines, kidneys, adrenal glands, lungs, and heart), blood vessels, the abdominal cavity, bones and the spinal cord.

PET – Positron Emission Tomography: PET is a medical imaging technique that monitors how a tissue or organ is functioning. The PET scanner tracks the movement and concentration of a radioactive glucose injected into the bloodstream.

Cancer cells absorb high amounts of the radioactive glucose because of their high rate of metabolism. (Typically this rate is much higher than normal cells.) These areas are highlighted on the PET scan.

PET scans are valuable for brain imaging. They can diagnose brain tumors and strokes by showing the blood flow through the brain. For example, areas of high metabolic activity on the PET scan can indicate potential tumors.

Treatment

At present, treatments for brain tumors include radiosurgery (CyberKnife®), whole brain radiation therapy, intensity modulated radiation therapy (IMRT), chemotherapy and open surgery. These options may be used individually or in combination. The experts at Southwest's Regional Cancer Center can help you decide which treatment is best for you.