Brain Tumors in Iowa

CANCER IN IOWA SPOTLIGHT SERIES

MAY 2025

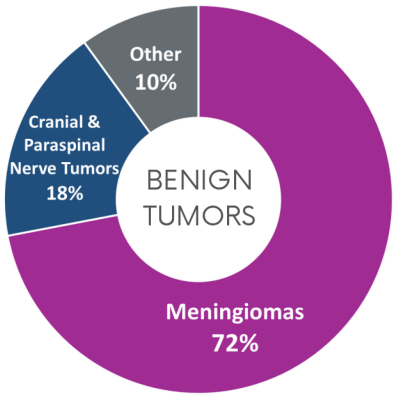
There are more than 120 types of tumors that originate in the brain and spinal cord, known as the central nervous system (CNS). These tumors can be **benign** (not cancerous) or **malignant** (cancer).

CNS tumors can disrupt normal functions by pressing on nearby tissue, taking up space and increasing pressure within the skull, causing bleeding and/or fluids to accumulate in the brain. Due to these effects, the Iowa Cancer Registry and other registries began collecting benign CNS tumors in 2004. The collection of CNS cancer data in Iowa began in 1973.

Iowa Ranks

15th highest in the nation for new CNS cancers

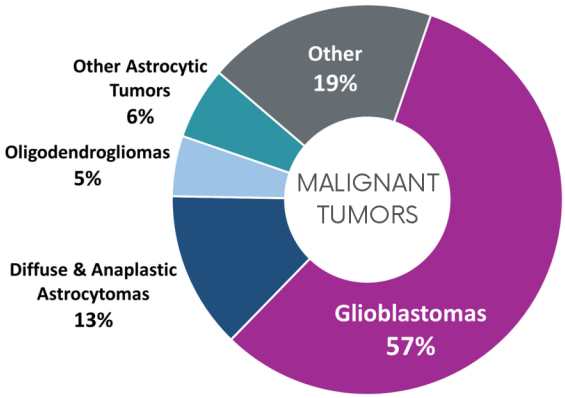
23rd highest in the nation for CNS cancer deaths



BENIGN TUMORS

Benign tumors account for 70% of CNS tumors in Iowa. They are slow-growing, less invasive, and do not spread to surrounding tissues.

Meningiomas are the most common type of benign CNS tumors in Iowa. These tumors form in the membranes, known as the meninges, that cover and protect the CNS. **Nearly 75% of meningiomas are diagnosed among females.**



MALIGNANT TUMORS

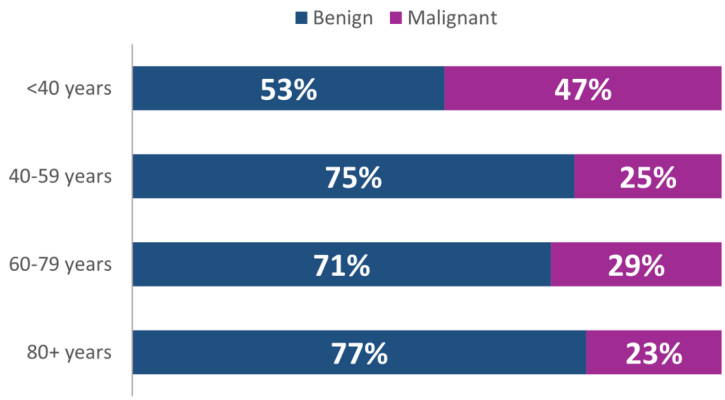
Malignant tumors account for 30% of CNS tumors in Iowa. They often grow quickly and can invade nearby healthy brain tissue.

Glioblastomas are the most common type of CNS cancer in Iowa. These tumors form in astrocytes, which are the glial cells of the CNS. Astrocytes support the nerve cells. **Nearly 60% of glioblastomas are diagnosed among males.**

CNS TUMORS BY AGE

Approximately 15% of all CNS tumors are diagnosed in Iowans younger than 40, equally divided between benign and malignant tumors.

In older Iowans, the majority of CNS tumors are benign.



810

From 2017-2021, Iowa averaged 810 newly diagnosed benign and malignant CNS tumors per year: **41% in males, 59% in females**

If you have questions about this report, contact ICR-Research@uiowa.edu.
If you are a representative of the media and would like more information on this report and/or the Iowa Cancer Registry, contact ICR-Media@uiowa.edu.

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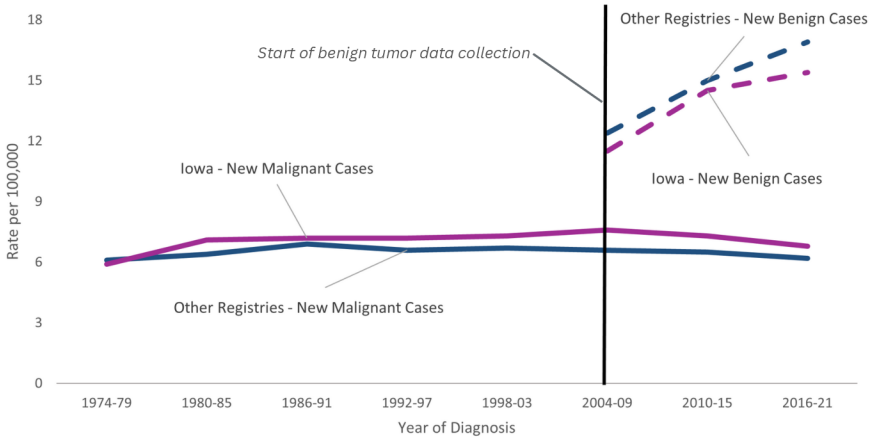


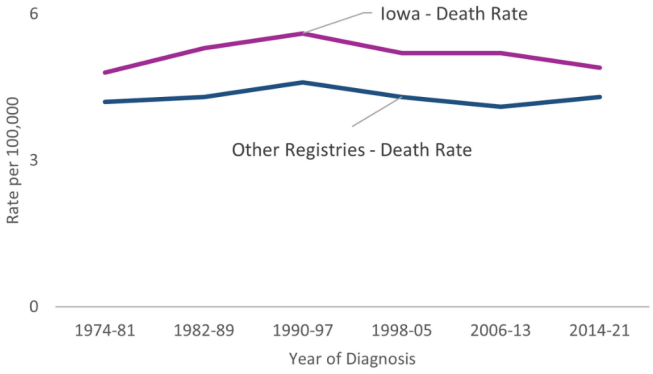
INCIDENCE

In Iowa, the **rate of new CNS cancer cases has declined** since the 2010s, but the rate is still slightly higher than reported by other cancer registries.

The **rate of new benign CNS tumors has increased** since data collection began, yet the rate remains lower compared to other registries.

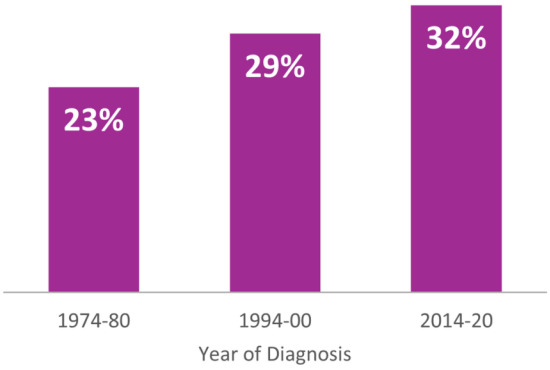
MORTALITY

Although the **rate of CNS cancer deaths in Iowa has declined** over the last 20 years, it is higher than the rate reported by other registries (benign data not available).



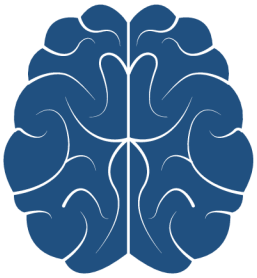
5-YEAR SURVIVAL

The proportion of **Iowans living 5 years after a CNS cancer diagnosis has gradually improved.** Benign CNS tumors had a 5-year survival rate of 92% from 2014–2020 (benign data not shown).



SYMPTOMS

CNS tumor symptoms depend on the area of the brain or spinal cord affected and vary from person to person.



- Headaches
- Seizures
- Change in mental function, mood, personality
- Change in speech
- Changes in vision, touch, taste, smell
- Loss of balance, coordination
- Change in pulse, breathing rates

These symptoms do not always mean you have a CNS tumor. However, it is important to discuss any symptoms with your doctor, since they may signal other health problems.

RISK FACTORS

While no definitive risk factors have been found for CNS tumors, some increase risk, including:

Prior radiation exposure to the head/neck, often as treatment for another cancer

Family history of certain conditions
Neurofibromatiosis Type 1 & 2
Tuberous sclerosis
Von Hippel-Lindau disease
Li-Fraumeni syndrome

If your family health history suggests that you may have a higher cancer risk, your doctor can refer you to genetic counseling.

REFERENCES

1. **State Cancer Profiles.** statecancerprofiles.cancer.gov
2. **Surveillance, Epidemiology, and End Results (SEER) Data**, November 2023 Submission, SEER 8 Registries (1973-2021)
3. Brain and Spinal Cord Tumors. **National Institute of Health (NIH).** ninds.hih.gov
4. Brain Tumor Symptoms. **MD Anderson Cancer Center.** mdandreson.org
5. Glioblastoma - Symptoms and Causes. **Mayo Clinic.** mayoclinic.org