**University education linked to increased brain tumour diagnosis**

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People in professional and managerial roles are also more likely to be diagnosed

* People who have graduated from university are more likely to be diagnosed with a brain tumour, scientists have said.

Glioma, a malignant tumour that attacks the nervous system, was found to be 19 per cent more likely to be diagnosed in male university graduates who studied for three years, in contrast to men who left school at the age of 16.

Women were found to be 23 per cent more likely to be diagnosed with glioma if they were educated to degree level.

[The study](http://jech.bmj.com/content/early/2016/05/25/jech-2015-207002), which was published in the [Journal of Epidemiology and Community Health](http://jech.bmj.com/content/early/2016/05/25/jech-2015-207002), was conducted to study the connection between socioeconomic position and three types of tumour: glioma, which is the most common; meningioma, which is usually benign; and [acoustic neuroma](http://www.nhs.uk/Conditions/Acoustic-neuroma/Pages/Introduction.aspx), a non-cancerous brain tumour.

Researchers also discovered that men in professional jobs or managerial roles – as opposed to those who undertook more manual jobs – were 20 per cent more likely be diagnosed with glioma. They also had a 50 per cent higher chance of being diagnosed with neuroma.

Women in professional and managerial roles were 26 per cent more likely to be diagnosed with a brain tumour than those in manual roles, while the risk of meningioma was 14 per cent more likely.

Previous studies have suggested socioeconomic positions are linked to malignant tumours in the brain, but researchers noted most findings were based upon poor study design.

**NHS symptoms of acoustic neuroma:**

symptoms tend to develop gradually and often include

* hearing loss, which usually only affects one ear
* tinnitus (hearing sounds that come from inside the body)
* vertigo (the sensation that you're moving or spinning)

A large acoustic neuroma can also sometimes cause:

* persistent headaches
* temporary blurred or double vision
* numbness, pain or weakness on one side of the face
* problems with limb co-ordination (ataxia) on one side of the body

The nationwide study looked at 4.3 million Swedes, born between 1911 and 1961.They were followed from 1993 to 2010 and studied for primary brain tumours.

Results showed 7,100 women and 5,700 men from the participants were diagnosed with brain tumours.

To explain the connection, researchers have suggested people who have better educations and jobs could be more likely to seek medical help, as a result of being more aware of symptoms.

"This study found consistent associations between indicators of higher socioeconomic position and increased risk of glioma in both sexes," the authors wrote.

Sir David Spiegelhalter, Winton professor of the public understanding of risk at the Statistical Laboratory at Cambridge University, said: "In spite of my degrees, I find these results deeply reassuring. For example, in each group of 3,000 men of the lowest educational level, we would expect five to be diagnosed with a glioma over 18 years. In 3,000 men with the highest educational level, we expect six gliomas.

"This is a classic example of where 'big data' can find results that are of 'statistical' but not of practical significance."