



# Meningioma brain tumours and the contraceptive injection medroxyprogesterone acetate (brand names include Depo Provera, Sayana Press)<sup>1</sup>

## brainstrust information sheet

Know Hows are published by *brainstrust* to help people living with a brain tumour to understand current topics. They are produced with input from relevant scientific and clinical experts and are written in a way that should help you to understand often complicated topics.

If you have an idea for a Know How, then please let us know.

If you have any queries, don't forget you can talk to one of our support specialists on **01983 292 405**, or email **hello@brainstrust.org.uk**.

### Why do we need this Know How

Recent research (2024)<sup>2</sup> has uncovered a potential link between long-term use of medroxyprogesterone acetate (Depo Provera is one brand name), a widely used contraceptive injection, and an increased risk of developing meningioma, a typically non-malignant brain tumour.

### What is a meningioma?

A meningioma is a tumour that develops from the meninges, the protective layers surrounding the brain and spinal cord. While most are non-malignant, they can cause significant health issues due to their location, potentially affecting vision, memory, and motor functions.

### Evidence

#### What is the situation?

A comprehensive French study published in the *British Medical Journal* in March 2024 analysed data from over 108,000 women, including 18,000 who had undergone surgery for meningiomas. The findings revealed that women who used medroxyprogesterone acetate for at least 12 months had a 5.6-fold increased risk of developing a meningioma compared to non-users. This elevated risk was also observed with other high-dose progestogens like medrogestone and promegestone. However, no increased risk was found with lower-dose progestogens such as dydrogesterone or levonorgestrel used by devices in the uterus (intrauterine).

<sup>1</sup> <https://www.nhs.uk/medicines/contraceptive-injections-medroxyprogesterone/>

<sup>2</sup> BMJ 2024; 384 doi: <https://doi.org/10.1136/bmj-2023-078078> (Published 27 March 2024)

This finding is supported by earlier research, including a 2021 study from the University of Pittsburgh Medical Center, which observed that discontinuing medroxyprogesterone acetate led to shrinkage in some meningiomas.

While the risk is considered small, it is more significant with prolonged use and high doses. It is important to remember too that there are benefits of medroxyprogesterone acetate.

## Risks and benefits

### Risks

Potential increased risk of developing meningioma.

Higher doses – risk appears to increase with the duration of use and dosage.

Unknown mechanisms – the exact mechanism by which medroxyprogesterone acetate might increase meningioma risk is not fully understood but is thought to involve hormonal effects.

### Benefits

Medroxyprogesterone acetate is an effective and long-acting contraceptive; having a baby is not without risk:

- It may reduce menstrual cramps and pain.
- It may lower the risk of endometrial cancer.
- It may lighten bleeding.

## Why is this relevant for a people living with a meningioma?

Meningiomas are known to be hormone-sensitive, particularly to progesterone. Synthetic progestins like medroxyprogesterone acetate may overstimulate progesterone receptors in the meninges, leading to abnormal cell growth and tumour formation.

## Regulatory and legal responses

In response to these findings, health authorities in the UK, EU, and New Zealand ensured that product information was updated for medroxyprogesterone acetate brands such as Depo-Provera to include warnings about the potential risk of meningiomas with long-term use. However, as of June 2025, the U.S. Food and Drug Administration (FDA) has not revised the product labelling. This discrepancy has led to legal actions, including class action lawsuits in the United States and Australia, alleging that the manufacturer, Pfizer, failed to adequately warn consumers about these risks. While a formal class action lawsuit has not yet been filed, several personal injury and product liability lawsuits are underway.

## Why has this become newsworthy now?

The research was published in March 2024, so it is not new. There is a commercial motivation for some legal companies who wish to attract enough people to create a class action so this has become more visible. In the U.S., a class action lawsuit is a type of lawsuit where one or more individuals sue on behalf of a large group of people who have suffered similar harm from the same entity. It is particularly relevant to the US due to the product labelling not being revised.

## What this means for people living with a meningioma

If you have used medroxyprogesterone acetate (brands include Depo-Provera and Sayana Press) for an extended period and are experiencing symptoms such as persistent headaches, vision problems, or memory issues, it's important to consult your doctor. While the overall risk of a meningioma diagnosis remains low, being informed and proactive about your health is important.

Just a note too that it is best to avoid comparisons between diagnoses and individual experiences. This can make you feel anxious or invalidated if your treatment or care plan differs from others with the same diagnosis.

It is important to remember the overall risk of developing a meningioma is still low; the study found a 0.01% chance overall and 0.05% chance on medroxyprogesterone acetate. Contraception is important for preventing unwanted pregnancies; the risks associated with an unplanned or mistimed pregnancy occur at a significantly greater frequency than that of meningioma. This underscores the importance of this as a contraceptive option. There is need for further research on this matter before a definitive conclusion can be made.

## Making informed decisions

**Discuss with your healthcare provider** – have an open conversation with your doctor about the risks and benefits. Consider your health history, and your preferences.

**Weigh the risks and benefits** – make a careful assessment of benefits and risks.

**Consider alternatives** – other contraceptive options may be available.

**Monitor for symptoms** – if you experience new or worsening headaches, seizures or other neurological symptoms, consult your doctor.

For more detailed information, you can refer to the original study published in the *British Medical Journal*.

## Ask yourself

- What am I struggling with?
- What specifically is causing me to be anxious about this topic?
- Who can I talk with about it?
- What other information do I need?

## Contact

Talk to *brainstrust*. We can help. You can call, write, type, text. Email for help and support:

**hello@brainstrust.org.uk.**

Telephone: **01983 292 405.**

*Expertly checked and updated June 2025.*

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