

## DMPA and Meningioma Data

Meningiomas have an incidence of 9.5 per 100,000 people. They are typically benign but can impact the quality of life after removal. They are more common among women than men and are responsive to progesterone. Their diagnosis increases during pregnancy, which makes sense due to the high progesterone level during pregnancy. Likely, pregnancy promotes growth rather than causes the tumor.

2 case-control studies have evaluated the association between DMPA and diagnosis of meningioma. When adjusting for age, the risk of meningioma associated with DMPA use was 1.53, i.e., a 50% increase. Observational studies with an increased risk below 2 are often due to unadjusted factors, i.e., not strong evidence. Similarly to pregnancy, DMPA likely promotes growth rather than causes the tumor.

The bottom line: Meningioma diagnosis is more likely during pregnancy. DMPA prevents pregnancy with maternal mortality of 24 per 100,000. DMPA may increase the diagnosis of meningioma by 5 per 100,000 people. This is why we are not recommending a change in practice based on this data.