

Arteriovenous Malformation (AVM) Service- Pregnancy

Information for women

Who is this leaflet for?

This leaflet is for women with a brain arteriovenous malformation (AVM) who are pregnant (or are considering pregnancy) and their partners.



Does pregnancy increase the risk of AVM bleeding?

We are all concerned about this risk during pregnancy or the six weeks after birth (the 'post-partum period') for women with an AVM that has not been removed, closed or blocked by treatment. The problem is that we are still not sure.

That is because five studies of six groups of women, comparing the risk of AVM bleeding in pregnancy to a time when women were not pregnant, have given different results. These studies are listed on the back of this leaflet. Compared to a time when these women were not pregnant, the risk of AVM bleeding in pregnancy was lower in one group², no different in two groups^{1&5}, and higher in three groups (ranging from as low as 1 in 29 per year to as high as 1 in 6 per year)^{1,3,4}.

Does pregnancy increase the risk of epileptic seizure?

There is no evidence that pregnancy raises seizure risk for women with an AVM. Information is available about pregnancy for women with epilepsy (see back page).

What are the risks if an AVM has already been treated?

There is no evidence that women with AVMs that have been removed, closed or blocked by treatment are at risk of bleeding in pregnancy.

Treatment of AVM in pregnancy

If an AVM bleeds and causes a stroke in pregnancy, doctors may consider treating the AVM with surgery or embolisation. The decision about whether and how to treat an AVM is complex. It depends on the stage of pregnancy and the risks to mother and baby. Termination of pregnancy is not usually

needed. Induction of labour or Caesarean section may be recommended.

Surgery involves an operation under a general anaesthetic. The surgeon makes an opening in the skull, finds the AVM and tries to remove it. Embolisation involves a doctor inserting a thin tube through the skin in the groin: the tube is then guided to the vessels of an AVM in the brain and glue is injected to try to block them. Radiosurgery can be used to treat AVMs but it's not done during pregnancy.

Does normal vaginal delivery increase the risk of AVM bleeding?

There is no evidence that normal (vaginal) delivery increases the risk of a bleed from an AVM. Women can discuss the options with their obstetrician. Obstetricians and anaesthetists try to minimise the risks to mother and baby during childbirth.

Study References

Women sometimes like to refer to the research studies. These are the studies that we have summarised above:

1. <https://journals.sagepub.com/doi/full/10.1177/1747493017694387> (included two separate groups of women)
2. <https://n.neurology.org/content/82/20/1798.short>
3. <https://academic.oup.com/neurosurgery/article-abstract/71/2/349/2595769>
4. <https://pubmed.ncbi.nlm.nih.gov/8115751/>
5. <https://academic.oup.com/neurosurgery/article-abstract/27/6/867/2752439>

Other information

You can obtain information about epilepsy in pregnancy from the Epilepsy Society, Epilepsy Action and other charities. You can obtain information about AVMs from the Brain & Spine Foundation.

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Translation Services

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