

What We Know About Anti-Seizure Medications & Pregnancy

With proper care and planning, people with epilepsy can have safe, healthy pregnancies and deliver healthy babies.

The American Academy of Neurology, the American Epilepsy Society, and the Society for Maternal-Fetal Medicine have recently published an overview of the available research (**crate bit.ly/aanguidelines**).

Different anti-seizure medications (ASMs) are associated with different levels of risk when it comes to a baby's development. Several ASMs show evidence of little or no risk to babies during pregnancy.

Suitability of Anti-Seizure Medications for Pregnancy

Below is an overview of the current research on the safety of various ASMs during pregnancy. This comes from decades of research studying pregnant people with epilepsy and their children. For some ASMs, we know more about their risk in pregnancy than we do about most over the counter medications. For other ASMs we are still learning about their impact on a baby's health. Note that babies exposed to the 'lowest risk' ASMs **show no higher risk** of major fetal malformations (e.g., birth defects) than babies born to people who did not take ASMs in pregnancy. Additionally, children exposed to ASMs with low risk for adverse neurodevelopmental outcomes, have similar IQs and no increased risk of behavioral differences difficulties (e.g., autism spectrum disorder) when compared to unexposed children.

Compared to other ASMs, valproic acid has the greatest risk to a baby's health. On average, babies exposed to valproic acid during pregnancy have a 10% risk of major fetal malformation and are at increased risk for autism spectrum disorder and decreased IQ compared to other children.

For some ASMs, we know more about the risk of major fetal malformations than we do about their impact on neurodevelopment and more research is needed...

Choosing Anti-Seizure Medications (ASMs)

This research can be helpful when starting a new ASM. However, the best medication for you in pregnancy is the medication or medications that best control your seizures at the lowest necessary dose. If you are taking a medication that works well for you switching medication is not always the right thing to do. Additionally, some people cannot take levetiracetam or lamotrigine due to allergy or side effects.

Switching of Anti-Seizure Medications

Consult with your neurologist or primary care doctor to understand the specifics of the ASM that you're on to make sure it's safe to take during pregnancy. Depending on your specific situation, they may recommend you switch ASMs prior to trying to become pregnant. Adjusting or switching ASMs can take 3-12 months, so it should ideally be done as a part of your pregnancy plan.



Anti-Seizure Medications and Pregnancy Risk

Risk of Major Congenital Malformations

Lamotrigine Levetiracetam Oxcarbazepine

Carbamazepine Zonisamide Phenobarbital Phenytoin Topiramate

Valproic Acid

Risk of Adverse Neurodevelopmental Outcomes

Lamotrigine Levetiracetam

> Established Low Risk

Carbamazepine
Oxcarbazepine
Phenobarbital
Phenytoin
Topiramate
Zonisamide

Mixed data/ Some Risk Valproic Acid

Established High Risk

Limited or No Data on Major Congenital Malformations or Neurodevelopment

Brivaracetam Cenobamate Clobazam Clonazepam Diazepam Eslicarbazepine
Ethosuximide
Epidiolex
Fenfluramine
Gabapentin

Lacosamide Lorazepam Perampanel Pregabalin Rufinamide Vigabatrin



Use this QR code to visit the Epilepsy & Pregnancy Medical Consortium website for additional tools and resources to help you and your doctors plan for a safe and healthy pregnancy.

Epilepsy and Pregnancy Initiative LLC ("EPI") does not engage in the practice of medicine. Consistent with EPI's mission, EPI has convened a panel of clinician researchers to develop a tool summarizing their research findings on best practice care regarding epilepsy and pregnancy, which EPI is making available as a public resource.