

Polysorbate 80 & the BBB

By Heather Simpson,
Back to the Vax

As a former anti-vaxxer, the argument that polysorbate 80 was the key to vaccines causing autism was extremely compelling to me. It sounded so scientifically sound. The theory by anti-vaxxers goes that polysorbate 80 opens up the blood-brain barrier (BBB), allowing chemicals from vaccines to “slip” into it and wreak havoc on the child’s brain.

WHAT? IS THE BLOOD-BRAIN BARRIER?

The blood-brain barrier (BBB) is a crucial immunological feature of the human central nervous system (CNS). Composed of many cell types, the BBB is both a structural and functional roadblock to microorganisms, such as bacteria, fungi, viruses or parasites, that may be circulating in the bloodstream.

Where did this idea come from?

My friend and blood-brain barrier specialist, Rod Cook, broke it down for me:

“Around 40 years ago, a study (Spigelman et al., J Neurosurg 1984) suggested that if you give enough polysorbate 80 (PS80) injected right at the base of the neck (carotid artery), you could open the BBB for drugs like etoposide (an anti-cancer drug). But here is the catch: the PS80-treated group showed a statistical significance versus saline when given 60mg (= 60,000ug)/kg dose. HBV (hep b) vaccine for newborns contains 50ug of PS80. If we do the math for an average newborn (~3kgs), we would need something close to 3600 doses of HBV vaccines (~180'000microg) injected straight into a baby’s neck to have a possible chance to observe an opening of the BBB. 40 years later and we have yet to see anything with PS80 used as drug delivery against brain tumors or brain diseases.”



So, it is true that a study was done that showed promising outcomes of being able to open up the blood-brain barrier for different medical treatments. He told me how huge this would be if we could use polysorbate 80 to open up the blood-brain barrier to deliver drugs to treat brain tumors!

Unfortunately, we can't. It's not possible. Literally, thousands of vaccine doses would have to be injected straight into a baby's neck to have a chance at opening up the child's blood-brain barrier.

That's not gonna happen!

Dont forget! We ingest polysorbate 80 everyday!

That's because it works great as an emulsifier to help keep ingredients together and can be found in peanut butter, ice cream, dairy products, baked goods, shortening, margarine, etc. It would feel silly to worry about the polysorbate 80 in ice cream, right? I hope now you can be absolutely confident that the polysorbate 80 in vaccines is completely safe for your baby.



Reviewed by: Vincent Iannelli, M.D., Pediatrician,
and Founder of Vaxopedia.org

