

The Consequences of Shaken Baby Syndrome

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Dr. Jeffrey Barth: Some people talk about the shaken baby syndrome, and think about the acceleration deceleration as being related to that, and in fact, I guess it is. The problem with shaken baby syndrome is it's a much more violent movement. It involves a great deal of centripetal forces, and a baby's brain is different than the high-school student or college student or professional athlete, in terms of being more vulnerable to any type of injury. And shaken baby syndrome usually refers to a much more serious brain injury, that being based on the vasculature breaking, essentially, usually at the top of the brain. And you get a lot of bleeding there, and so on. So that's a very severe brain injury. The same dynamics are in play, but it's a different type of brain that's absorbing that insult.

With shaken baby syndrome, the real difference between that and being a normal parent, where you perhaps throw your child up in the air and catch them, is in the actual physics of it. And the part of that that's kind of interesting is, in violent shaking, you increase the acceleration by many, many Gs in essence. But when you throw a baby into the air, you actually -- almost everybody catches them very softly. You go with the flow as the child is coming down. By the way, I'm not advocating for throwing your children in the air, so -- however, when that sort of thing happens, the gentle shock-absorbing value of going with the flow there makes most sense for making sure you're not going to injure your child. Do remember, though, as a public service announcement, you may miss, and you don't want to have that child hit the ground. So I don't advocate for it, but I will make my public disclosure that I've done it a few times with my children.