



21 Highland Avenue, Suite 100 • Roanoke, VA 24013 Telephone (540) 344.9213 • Facsimile (540) 345.7559

Vaccine Myths

Myth: *Multiple vaccines can overwhelm or weaken a child's immune system.*

Fact: On the contrary, studies indicate that infants have the capacity to respond to a very large number of vaccines at any one time – about 10,000, theoretically.¹⁹ And, compared to unvaccinated children, vaccinated children are not more susceptible to those infections for which there is no vaccine. This fact shows that vaccination does not suppress the immune system.²⁸

Myth: *It's okay to rely on other children being vaccinated (herd immunity) to protect against disease.*

Fact: Herd immunity erodes when parents choose not to have their children immunized, as shown by outbreaks of the disease. Herd immunity cannot be relied on, given that many children in the world are not vaccinated (because, for example, they come from a developing nation or are immuno-suppressed). A choice not to get vaccinated is a conscious, active choice to remain at risk for the disease.

Myth: *Alternative schedules offer a good option for parents who have reservations about the recommended immunization schedule.*

Fact: Alternative schedules are not scientifically based and can appear on the internet or in print without first being studied. In contrast, the CDC's Advisory Committee on Immunization Practices, which designs the US vaccination schedule, includes nationally recognized experts across many disciplines who evaluate the most recent data available in recommending a schedule annually. Delaying or spacing our vaccines leaves a child unprotected longer, putting the child (and contacts) at risk of disease, and can greatly increase the number of required office visits, assuming the parent is diligent about completing the immunization series.

Myth: *Many vaccines contain harmful additives.*

Fact: Additives, such as aluminum and formaldehyde, are commonly added to vaccines to make them safer and more effective. These ingredients are used in small quantities and have not been found to be harmful.²⁹

Myth: *Vaccination can lead to autism.*

Fact: Scientific evidence does not support this claim. At least 20 epidemiologic studies have shown that neither thimerosal nor measles-mumps-rubella (MMR) vaccine causes autism.²⁸

Myth: *Acquiring natural infection is better than being vaccinated.*

Fact: Although natural infection may provide lifelong immunity, some infections may result in severe and even fatal disease.

Myth: *Not enough is done to ensure vaccine safety.*

Fact: Vaccines undergo extensive testing before being licensed and are continually monitored by multiple organizations after licensure.^{14,30}