

## **Vaccinations: Are they necessary?**

Let's face it. Our children are our lives and our future, and whether dealing with our community or our families, we must as parents, do everything to assure our children safe passage from birth through childhood into adulthood. That's why we're all so fortunate to be living now, not fifty or more years ago, since science and our understanding of the immune system has helped develop vaccinations that protect us each day, against crippling and even life threatening infectious diseases.

Is there a better way to assure safe passage for our children, and prevent serious infectious diseases from reaching our homes, schools and communities? Up-to-date information, parental awareness, along with childhood and adult vaccinations may very well be one of the answers, and the benefits far outweigh the risks of non-vaccination.

Parents are concerned with and ask basically the same good questions: 1) Why are so many vaccinations needed? 2) Can't so many vaccinations be harmful and hurt my young child's immune system? 3) Aren't there problems and side effects with some or all of these vaccinations? Let's address each question. First, vaccinations are given throughout life, but most are given during the first 3 years when viral and bacterial infections have the greatest chance of hurting our children and their immature, developing immune systems. By the time a child is three years of age, 23 vaccinations will have been given to protect against 11 different infectious diseases. These vaccinations "boost" the young, immature immune system – helping it recognize and fight off serious infections. Since the introduction of the pneumococcal and hemophilus vaccines, serious pneumococcal disease has dropped 37% and hemophilus disease over 90%!

Second, science and technology have developed more “immunogenic” vaccinations. This means that vaccines contain only those proteins that the immune system recognizes as “foreign”, recruiting cells and producing antibodies to seek and destroy the invading infection. In 1960, five vaccines contained over 3000 proteins and most proteins were not immunogenic. Today, the same vaccines have only 125 immunogenic proteins and are equally effective! The vaccinations are more immunogenic without unnecessary proteins and better able to prevent these diseases, without “exhausting” an immature immune system. The child therefore is at much less risk for vaccine side effects, complications, and very capable of fighting off new viral or bacterial infections.

Finally, vaccines can have side effects, but technology has tried keeping pace and avoiding these problems. Allergic reactions to vaccines are very low; in one study, only **one** case report per 450,000 doses was noted, and only one case of a life-threatening reaction per 8 million doses occurred. The oral polio vaccine has been replaced with the injectable vaccine to improve immunogenicity and reduce side effects. The new varicella vaccine rarely causes high fever or irritability, significantly reduces new cases of chicken pox and uncomfortable, painful cases of shingles, and for every \$1.00 spent on the vaccine, \$5.00 is saved in medical costs. Chicken pox as a disease, however, can cause bacterial skin infections, nervous system and kidney diseases.

Parents thus should feel free to question their providers about vaccinations, new developments, side effects and risks. Information on-line can be obtained by checking [www.nih.gov](http://www.nih.gov), [www.aaaai.org](http://www.aaaai.org), and [www.acaai.org](http://www.acaai.org).