



DELAWARE MODERN PEDIATRICS, P.A.

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Immunizations are Safe and Effective

Vaccines have protected children against serious childhood illnesses with remarkable effectiveness and safety for many decades. Unfortunately, many parents have been confused and worried by recent news reports claiming to warn about dangers inherent in routine childhood vaccinations. News reports in print and on television are frequently misleading or inaccurate. This handout describes the facts.

Why give vaccines?

Vaccines against common childhood illnesses have proven to be one of the most important health advances of the twentieth century (along with antibiotics, public sewage systems, and general anesthesia). Effective universal vaccination has already eliminated one deadly childhood illness, smallpox. Immunizations have also dramatically reduced death and disability from bacterial meningitis, tetanus, diphtheria, polio, and other scourges. Fewer than 100 American children get measles each year, although worldwide over a million unvaccinated children still die of measles.

Well-meaning people who suggest that vaccines are no longer necessary, or can be delayed, are unaware of the serious health problems that would certainly reoccur without routine immunizations.

Before vaccination for whooping cough (pertussis) became routine, one in fourteen children contracted whooping cough and one in one hundred infants who caught the disease as infants died from it. Each time vaccine rates drop, children again become sickened. Several decades ago in Sweden, so much concern about vaccine side effects was raised that the pertussis vaccine was delayed until the age of two. But within two years, many Swedish children died from whooping cough. In Japan, as immunization rates fell to 20% by 1979, a whooping cough epidemic resulted in more than 13,000 cases and 41 deaths. In 2003, several Muslim governments in North Africa worried that the United Nations program to eradicate polio was actually a secret plot to cause sterilization of Muslim women, and the programs were halted in those countries; but within two months, cases of polio disease emerged, which spread rapidly to Muslim countries around the globe. In each

country, the mistaken decision to delay vaccination was reversed. Now, routine immunizations, with schedules almost identical to the American schedule, are in force in every country around the world with a functioning public health system.

How much is known about the side effects of vaccines?

Childhood immunizations are possibly the best-researched treatment we have. There is more reliable research to support the safety and effectiveness of vaccines than for any other intervention that we recommend, except perhaps for the use of seat belts. For example, we have more data on the safety and effectiveness of vaccines than we do about antibiotics, cough medicines, or even breast feeding or other feeding advice.

This research shows that each of the recommended vaccines is safe and effective. News reports of serious, permanent damage to children receiving immunizations are, in general, greatly exaggerated. Of course, any medical intervention can have potential side effects, and parents should be educated about these. However, there is no data whatsoever to support contentions that the vaccines, or the administration schedule we use, commonly cause brain damage, SIDS, autism, learning disabilities, immune disorders, or any of the other diseases claimed by some. We recommend that you study the vaccine information sheets distributed by the Centers for Disease Control (CDC), and available in our office (and on the internet).

In my 20-year career, the children I have known have received perhaps two million vaccines. I am unaware of a single case of permanent side effects in any of those patients. It probably happens, just as with any other medical treatment; but it must be quite rare.

What is the research showing permanent damage to children from vaccines?

There simply is no reliable research proving permanent side effects to large numbers of children resulting from any of the currently administered vaccines -- **none!**

You may have encountered reports of serious danger from vaccines. There have been reports of permanent brain damage, SIDS, autism, etc. In each case, early published reports questioning an association between current vaccines and permanent side effects have been completely disproved with more extensive research, often by the same researchers who published the original reports.

Unfortunately, there are many people who claim to know about reports or studies proving permanent side effects from vaccines. In my experience, these studies

either are unreadable because they have been published in a foreign language; or they do not show what the reporter claims they show; or else the data simply does not exist. I have tried to track many of these claims and have been unable to verify any report in the medical literature showing patterns of permanent side effects from vaccines. (I would be happy to review any research papers you may come across suggesting that such permanent side effects may actually exist.)

Of course, it is entirely possible that a rare, previously undescribed side effect of one of the vaccines might be discovered. This is unpredictable, of course. In fact, the same is true of every single treatment that health care providers (or alternative practitioners) might suggest. However, when faced with the speculation of a possible side effect to be discovered in the future, compared with the clear and undeniable benefit from routine vaccine administration, there is no question where our recommendations lie.

There are so many shots; do multiple antigens "overload" the immune system?

Some people have claimed that administration of multiple antigens simultaneously is dangerous. This makes no sense to me, especially in view of the excellent safety record described above. Studies have shown that reducing dosages, or separating antigens, does not reduce the incidents of minor side effects, but only increases the number of injections.

There is no logic to the concern that the administration of a handful of antigens simultaneously would be dangerous to a child, especially since children are exposed to dozens of new antigens simultaneously each time they go to a day care or play group.

Can't I just skip or delay the vaccines?

The recommended vaccine schedule has been constructed to maximize the effectiveness and safety of each immunization. Delaying these immunizations with "alternative" vaccine schedules simply exposes your infant to the risk of serious infection at the age of infancy, when they are most susceptible. In particular, the smallest infants are those most at risk for whooping cough, HIB meningitis, and measles.

"Spreading out" the vaccine schedule entails more visits to the doctor, more inconvenience to the child, and more time off from work for wage-earning parents. For many, the financial cost is an unacceptable burden.

Much of the protection afforded by vaccines results from an effect called "Herd Immunity." Immunized children protect those around them, because they are less

likely to pass on the infectious disease. The more children who are vaccinated in a community, the less wild infection there will be in that community.

Vaccine administration rates are now higher in the United States than they have ever been, making “Herd Immunity” an important protective effect. I am quite concerned that parents who elect to delay vaccine administration for their own children are, in effect, counting on other parents to vaccinate their children, and create this “Herd Immunity” effect. I have ethical concerns when a parent decides that other children should suffer the discomfort and risks of vaccines, whatever they might think them to be, so that their own children do not have to receive them.

There is an additional risk. If each child is immunized according to an individual schedule constructed by the family, an office staff’s task of keeping track of all the vaccines needed is greatly complicated. With many children receiving so many vaccines on so many schedules, while we try to provide complete well-child care and address parents’ other concerns, it is likely that eventually mistakes will be made in administering all the required vaccines.

If it's so clear that vaccines are safe and effective, why is there a controversy?

Questions about the safety and effectiveness of vaccines have circulated ever since routine immunization was begun in the middle of the last century. In fact, one might reasonably ask why every child should routinely be given medicine even if they are not sick. The answer is that vaccines unquestionably improve children’s health overall. One cannot prevent these serious illnesses in any way, other than through vaccines. Without them, we would be thrust back into the era when large numbers of children were sickened or killed by common contagious illnesses.

Unfortunately, recent news reports have given much publicity to groups of people who unscientifically question the safety and effectiveness of vaccines. One such group belongs to practitioners and adherents of certain “alternative” medical therapies. In particular, many chiropractors, herbalists, homeopaths, and Christian Science practitioners believe that routine treatment with their brand of alternative medical care for each child would eliminate the need for vaccines. One might wish that this were true. Many of these practitioners claim to have data to prove their point. However, the data does not exist, it will not be released by these practitioners, or does not prove what these practitioners claim it proves.

A second group of vaccine foes consists of people for whom routine immunization appears to be a political, civil rights cause. Formerly, this group was called DPT (Dissatisfied Parents Together). However, this group found that their civil-rights style tactics of marches, signs and megaphones did not sway the public to agree with them. More recently, this group has adopted an official-sounding title, The National Vaccine Information Center. They now give interviews to news reporters, wearing white coats and using scientific jargon, attempting to raise questions in

listeners' minds about the safety and value of vaccines. They claim to have data showing all sorts of dangers from vaccines. However, when their claims are investigated, the reports are unfounded, unverifiable or nonexistent. (Unfortunately, this has not prevented them from receiving a sympathetic audience with news media.)

Lastly, there are support organizations for the benefit of parents whose children have certain chronic medical illnesses. These families suffer greatly because of their children's illnesses; one must be sympathetic to their desperate desire to find cures or explanations for their children's disabilities. Unfortunately, a few of these parents seek their answers in unproven medical theories, believing that food allergies, mega-vitamins, or other unproven theories hold the keys to their children's illnesses. Some of these parents have seized on vaccines as the explanation for their children's debilitating illnesses. However, as described above, although these parents are understandably anxious to find an explanation, there is no evidence to support the heartfelt contention that vaccines might have caused their child's disease.

So, should I have my infant vaccinated?

Absolutely, yes – on the recommended, standard schedule. Some parents have become so concerned about what they hear that they are more willing to trust the speculations of unscientific people they will never meet, instead of the scientific assurances of the doctors with whom they have an established relationship and ongoing trust. But the vaccine schedule, and the vaccines themselves, have been developed with an enormous amount of thoughtful research and scientific experience. That is why the schedule exists as recommended.

Research is continuing, of course, just as with every other aspect of medicine. We will continue to update our vaccine schedule as recommended, based not on political pressure but on the latest reliable studies. But I can assure my patients that I have more confidence in the vaccines we administer, given on the recommended schedule, than in almost anything else I discuss with parents. This is why vaccination rates are at historically high levels in America. Most parents trust vaccines and are eager to have their children protected by them. Almost all of the parents of my patients confidently agree to follow the recommended vaccine schedule.

Please protect your child with all the recommended routine childhood immunizations. I am happy to discuss with you any questions that this handout leaves unanswered

Vaccine Information: Resources for parents

Autism's False Prophets: Bad Science, Risky Medicine, and the Search for a Cure, by Paul A. Offit. Published in 2008, this expert evaluates the alarmist claims most commonly heard, and carefully explains why they are false.

Six Common Misconceptions and How To Respond To Them, by the Centers for Disease Control and Prevention: <http://www.cdc.gov/vaccines/vac-gen/6mishome.htm>

National Network for Immunization Information:

www.immunizationinfo.org

A web site published by the National Society for Infectious Diseases.

National Immunization Program, Centers for Disease Control and Prevention:

<http://www.cdc.gov/vaccines/>

Lots of great vaccine information for concerned parents, and a link to MMWR.

-- Of particular interest: "What would happen if we stopped vaccinations?"

<http://www.cdc.gov/vaccines/vac-gen/whatifstop.htm>

Pub Med/Grateful Med

<http://www.ncbi.nlm.nih.gov/sites/entrez>

The National Library of Medicine's on-line database of the most authoritative basic medical research journals. Try typing something like "measles vaccine effectiveness" and read dozens of abstracts!

National Immunization Coalition:

<http://www.immunize.org/reports/general.asp>

Stories of families who have suffered from vaccine-preventable diseases