VACCINE INFORMATION SUMMARY

My personal philosophy:

I believe that vaccines are one of the most important public health advances of the past century. They have been so effective at preventing formerly deadly diseases that they have become victims of their own success—that is, since we no longer see or hear about the terrors of measles or whooping cough, many people (falsely) believe that these illnesses are no longer of concern. In fact, vaccine-preventable diseases still occur today, especially in areas where immunization rates have fallen, and there are still no specific treatments for many of these diseases once you catch them.

My personal recommendation, as that of most pediatricians, is to fully vaccinate your child. My 3 children had all of their shots. Some parents, for various reasons, choose not to protect their child by vaccinating against these diseases. The most important thing is to be well-informed from a variety of sources and not to believe everything you read on the internet or hear from a friend.

The following is my own individual view on specific vaccines and the problems of delayed immunization. The main risk for delaying shots is that your child may contract a serious or even deadly illness before she is adequately vaccinated. Remember, also—it is much easier to vaccinate a 2 month-old than explaining it to a 2 year-old (or an 8 year-old, for that matter)!

For more information, here are URLs for some web sites:

http://www.cdc.gov/nip/publications/pink/ -- the CDC's "Pink Book" of vaccine-preventable diseases.
http://www.vaccineinformation.org/ -- includes Q&A, photos, and other info about specific diseases.
http://www.immunize.org – includes common questions about vaccines, summaries of studies, etc.
http://vaccine.chop.edu -- info from the Children's Hospital of Philadelphia, one of the nation's leading children's hospitals--**has a really good "FAQ" section.
http://www.askdrsears.com/thevaccinebook/ -- Dr. Bob Sears' perspective on specific vaccines--a very good "middle of the road" perspective for parents wanting lots of information

Please take some time, think about the issues and information, and then make the decision that will be best for your child. The usual shot schedule in the first year of life is three shots at 2 months, again at 4 months, and again at 6 months—these are Hib, Pneumococcal, and a combination shot of DTaP + Hep B + polio (or sometimes separate Hep B, pneumococcal, and a combo shot of DTaP+Hib+polio). There is also a somewhat new oral vaccine (not a shot) for a common "stomach flu" virus called Rotavirus recommended at 2, 4, and 6 months. See the following page for more information about

these specific vaccines.

A comment regarding the use of thimerosal in vaccines:

Thimerosal, a form of ethylmercury that the body DOES eliminate, was used for over 60 years as a preservative for vaccines. Due to concerns about the potential for "overdosing" an infant with mercury (as the recommended number of shots rose), the vaccine manufacturers began to look for alternative methods of keeping vaccine supplies safe in 1999. As of today, **none** of the vaccines in the recommended childhood immunization schedule contain thimerosal as a preservative.

Most important now (the first 1-2 years of life):

Hib vaccine (Hemophilus influenzae type b)—Major cause of meningitis, pneumonia, and bloodstream infections. Peak attack rates occur in infants 6 to 7 months old, with a death rate of 2 to 5% even with current treatments. I personally have cared for many babies in the U.S. who DIED from Hib prior to introduction of the vaccine.

DTaP vaccine (diphtheria, tetanus and pertussis)—Diphtheria is present in many people's throats, but becomes dangerous when activated by another (viral) infection. Tetanus is an organism found in soil and will always be around in our environment—so a toddler walking on the beach could be susceptible if she gets scraped or cut. There is no specific treatment for tetanus, and the death rate is about 11%. Pertussis (whooping cough) is a very contagious disease that can be very serious for infants. There are still about 300,000 deaths per year world-wide due to pertussis, mostly in countries with low vaccination rates. Infants under 6 months old have the most problems with the disease; 72% of these babies will require hospitalization if they get pertussis; the death rate is 2 per 1000 overall, and 84% of the deaths are in the young infant age group. ***We had a major pertussis outbreak in North Hawaii in 2005-07.**

Pneumococcal vaccine (Prevnar)— Major cause of meningitis, pneumonia, and bloodstream infections (after Hib). Most common cause of severe ear infections. Getting harder to treat due to antibiotic resistance (so prevention more important).

MMR vaccine (measles, mumps and rubella)—Measles is a highly contagious respiratory virus. Complications are higher in kids less than 5 years old, with hospitalization required about 25% of the time. No specific treatment; death rate (in U.S.) 1 to 2 per 1000 cases (up to 25% in developing countries). Mumps is also a contagious respiratory virus that can cause meningitis, deafness, death (1 to 3 per 10,000 cases), and, in teen or older boys, inflammation of the testes and sometimes sterility. Rubella (German measles) is another virus that causes a milder, measles-like illness, with severe effects on a baby if a woman contracts rubella during her pregnancy—this causes very high rates of miscarriage, stillbirth, and severe birth defects.

Slightly less important now:

Hepatitis B vaccine—Before Hep B vaccine, about 18,000 children under 10 years old caught Hep B every year in the US. Only half of these caught it from their mothers at birth, the other half from another family member or someone else. Hawaii has 5 times the national average for Hep B carriers, and the virus can be transmitted by sexual activity, needles (e.g., piercing or tattoos), or even sharing toothbrushes, hand towels, or other casual contact.

Polio vaccine—Polio is a contagious virus that can infect the nervous system and cause paralysis; there were 21,000 cases of polio paralysis in 1952 in the U.S. (before the vaccine). The virus is close to being eliminated world-wide, but there are still outbreaks around the world, including one in Minnesota in 2005-06. There are NO serious side effects from polio vaccine.

Chickenpox (varicella) vaccine—This disease is usually mild in healthy children, but we are seeing more severe problems with secondary infections with staph or strep. As vaccine use becomes more popular, disease outbreaks become more rare. The vaccine is made from live weakened chickenpox virus. It seems that people who get chickenpox vaccine have less chance of getting shingles later than people who catch the chickenpox disease.

Rotavirus vaccine--Rotavirus is a very common cause of bad vomiting and diarrhea in infants, children, and adults. It is very contagious and has no specific treatment. Worldwide, it is a leading cause of childhood death; the only treatment is oral or IV hydration. The oral vaccine licensed in the US prevents about 74 percent of all rotavirus cases, about 98 percent of severe cases, and about 96 percent of hospitalizations due to rotavirus.