

VACCINE INFORMATION

**** None of the vaccines in our office contain Mercury or Thimerosal ****

Our Official Philosophy on Vaccines

In recent years there has been a lot of controversy about whether vaccinations could be the cause of, or a trigger for, Autism (a developmental disorder characterized by social and language delays). Much has been written about it online and discussed in the media. It is hard to know what is fact and what is fiction. Especially when you, as parents, are genuinely looking to do what is best for your child. We understand this concern and would like to address some of the medical facts and dispute some of the misinformation so as to help you make a decision that you are comfortable with. We also care very much about what is best for your child and protecting your children from life-threatening diseases. We would only treat your child as if they were our own. Please keep in mind that not everything you read about online, or hear about in the media, is fact. There is a lot of “hype” with regards to vaccines and a significant amount of misinformation.

1) Many have speculated about whether thimerosal or mercury (used as a preservative in vaccines) could be a contributing factor to autism. In 2001 the FDA demanded that thimerosal and mercury be removed from all vaccines except for influenza. Despite this, we unfortunately have continued to see an increase in the incidence of autism in America. If there were a correlation, we would have expected to see a decrease, but this did not happen. As a side note, we do not have any thimerosal or mercury in our vaccines except for some doses of flu vaccine.

2) The controversy started in 1998 when an article by Wakefield and 12 co-authors claimed that measles-mumps-rubella (MMR) vaccine may have contributed to the development of autism in 9 out of 12 children studied. Note, this is a very small study of only 12 children. In 2004 it was revealed that the study was biased because it was funded by trial lawyers (fighting the vaccine industry) and Wakefield was the only one aware of this bias. Once revealed, the 12 other co-authors retracted their signatures admitting that it was biased and unfounded.

3) New Jersey has one of the highest incidences of autism in the country. It is not clear why. We do know that we vaccinate our children in New Jersey with the same schedule and same number of vaccines as the rest of the country. There are no additional vaccines given to New Jersey children to contribute to autism. If it were true that the current American Academy of Pediatrics vaccine schedule may contribute to autism, then there should be a relatively similar incidence of autism in the country. It is more likely that the reason for the increase of autism in New Jersey is related to its industrial history, being one of the oldest states in the country with many industrial factories. Environmental factors must be considered a possible contribution to the increase in autism in our state.

4) The best and most convincing argument against vaccines causing autism came out of Europe. In Denmark 500,000 children born between 1991 and 1998 were retrospectively studied. In this **very large** study, half of the children were fully vaccinated and half were never vaccinated at all. When looking at the incidence of autism in the two groups, it was found that the incidence of autism was the same in both groups. There was no increase in the incidence of autism in the vaccinated children. This is an incredible study with a very large number of individuals being evaluated. It is rare to find such a significant cohort, but it should be appreciated how statistically significant these findings are.

5) Many parents ask us if there is a benefit to splitting up the vaccines. There have been no studies to prove that separating the vaccines confers any decrease in the risk of developing autism. We do prefer to give the vaccines in accordance to the American Academy of Pediatrics guidelines because it gives the child a “break” of about 2-3 months in between shots so that they do not experience the discomfort of possible side effects frequently (fever, sore legs, etc...). However, if you would prefer to split up the vaccines, we are flexible and would be willing to work out a schedule to keep the child on-track. Usually most parents who prefer this schedule will give 2 or 3 at a time, and then return 1-2 weeks later for another 1, 2, or 3.

6) As stated above, MMR vaccine was the initial vaccine that created the concern. According to the AAP guidelines it should be given between 12 – 15 months. Many parents are still concerned about giving their children the MMR vaccine when the time comes. Most pediatricians will give this vaccine at the 12 month check-up. Our office has chosen to defer this to the 15 month check-up. Not because we believe the vaccine will cause autism. More because if the child were to develop autism, there are usually more obvious signs by 15 months. This will help prevent regret or confusion for the parents who may have feared that the MMR vaccine caused the autism, if it had been given at 12 months. At the 15 month check-up, our office will conduct an M-CHAT questionnaire which is an Autism screen. If the child passes, then we are comfortable giving the MMR vaccine with your consent. If the child does not pass, we will investigate further and possibly give the child more time to see if the language and social development improves. Some parents have asked to split the MMR into 3 separate shots (measles, mumps, and rubella – given 1 month apart). No studies have proven any benefit to splitting these vaccines. In fact, there are many documented cases of children

who have autism who had received the MMR vaccine split up. But more importantly, there is no way to get the measles, mumps, and rubella vaccines split up anymore. The United States no longer manufactures them this way, and hasn't done so in many years. The only way to protect our children against measles, mumps, and rubella is to give the combined MMR vaccine. Keep in mind that the actual diseases caused by measles, mumps, or rubella can be very serious for our children and pregnant mothers. Please read page 50 for more details on the potential consequences and sequelae of measles, mumps, or rubella disease.

Finally, please remember how serious all of these diseases are that are being prevented by vaccinations. Many of them can cause death, brain death, deafness, blindness, and other serious sequelae. These diseases are still out there and still devastating children all over the world. Particularly, the younger the child the more vulnerable they are for complications of these diseases. We are very lucky and privileged as Americans to have access to these life-saving vaccines. We must remember that we do not live in a "bubble" as these diseases do emerge with some frequency throughout our nation. When it does, it often creates panic and fear once discussed in the media (i.e. Swine Flu in 2009, Coronavirus in 2020). Many times it is too late to give the vaccine to a child who is unimmunized once there is exposure or an outbreak.

Wishing you and your children a lifetime of wonderful health.

HACKENSACK PEDIATRICS

DIPHTHERIA, TETANUS, AND PERTUSSIS (DTP)

Diphtheria, Tetanus, and Pertussis are very serious infectious diseases.

Diphtheria

- Diphtheria causes a thick covering in the back of the throat
- It can lead to breathing problems, paralysis, heart failure, and even death.

Tetanus

- Tetanus causes painful tightening of the muscles, usually all over the body.
- It can lead to "locking" of the jaw so the person cannot open their mouth or swallow. Tetanus can lead to death.

Pertussis (Whooping Cough)

- Pertussis causes coughing spells so bad that it is hard for infants to eat, drink, or breathe. These symptoms can last for weeks. Pertussis is very deadly.
- It can lead to pneumonia, seizures (jerking & staring spells), brain damage, and death.
- In recent years we have seen a resurgence of Pertussis in teenagers and adults. It is not only a "baby illness." This age group usually infects the infants.

Diphtheria, tetanus, and pertussis vaccines prevent these diseases. Most children who get all of their shots will be protected during childhood. Many more children would get these diseases if we stopped vaccinating. There is also an adolescent and adult version of this vaccine to protect that age group again as immunity wears-off for most people by then (please see "Adacel/Boostrix" vaccine on page 42).

DTaP VACCINE

- Protects against diphtheria, tetanus, and pertussis
- Newer & better than DTP

DTaP vaccine is less likely to cause reactions than DTP. **We only give DTaP vaccine in our office so your children are less likely to have any side effects.**

What are the risks from these vaccines?

- As with any medicine, vaccines carry a small risk of serious harm, such as a severe allergic reaction or even death.
- If there are reactions, they usually start within 3 days and don't last long.
- Most people have no serious reactions from these vaccines.

Mild reactions (common):

- Sore arm or leg
- Fussy
- Tired
- Fever
- Less appetite
- Vomiting

* Mild reactions are much-less likely after DTaP than after DTP

Moderate to Serious Reactions (uncommon):

- Non-stop crying (3 hours or more) 100 of every 10,000 doses
- Fever of 105°F or higher 30 of every 10,000 doses
- Seizure (jerking or staring) 6 of every 10,000 doses
- Child becomes limp, pale, less alert 6 of every 10,000 doses

* With DTaP vaccine, these reactions are much less likely to happen.

Severe Reactions (Very Rare):

There are two kinds of serious reactions:

- Severe allergic reaction (breathing difficulty, shock)
- Severe brain reaction (prolonged seizure, coma or lowered consciousness)

* Most experts agree serious reactions are much less likely with DTaP vs. DTP.

Is there lasting damage?

- Experts disagree on whether pertussis vaccines cause lasting brain damage.
- If they do, it is very rare.

What can be done to reduce possible fever and pain after this vaccine?

- Give your child Tylenol® (if over 2 months) before/after the shot every 4 hours as needed for 1-2 days (doses are at end of the book).
- This is important if your child has had a seizure or has a parent, brother, or sister who has had a seizure.

What if there is a moderate to severe reaction?

- Any unusual conditions call a doctor or get the child to a doctor right away. Tell your doctor what happened, the date and time it happened, and when the vaccine was given. Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov.
- The National Vaccine Injury Compensation program is a federal program that helps pay for the care of those seriously injured by vaccines. For details about this program call 1-800-338-2382, or visit their website at: www.hrsa.gov/vaccinecompensation.

TETANUS AND DIPHTHERIA VACCINE (TD)

Tetanus (lockjaw) and diphtheria are serious diseases. Tetanus is caused by a bacteria that enters the body through a cut or wound. Diphtheria spreads when the bacteria passes from an infected person to the nose or throat of others.

Tetanus causes:

Serious, painful spasms of all muscles. It can lead to “locking” of the jaw so the patient cannot open his/her mouth or swallow.

Diphtheria causes:

A thick coating in the nose, throat, or airway. It can lead to breathing problems, heart failure, paralysis, and death.

Benefits of the vaccines:

Vaccination is the best way to protect against tetanus and diphtheria. Because of vaccination, there are many fewer cases of these diseases. Cases are rare in children because most get DTaP (Diphtheria, Tetanus, & acellular Pertussis) or Tdap (Tetanus, Diphtheria & Pertussis for teenagers & adults) vaccines. However, we are seeing more cases of pertussis (whooping cough) in all ages because teenagers and adults need revaccination. There would be many more cases if we stopped vaccinating people.

ADACEL or BOOSTRIX VACCINE (Tdap)
(Tdap – Tetanus, Diphtheria, and Pertussis for teenagers & adults)

Adacel is recommended now for all adolescents & adults aged 11 years and older. It replaces the original TD vaccine since many adolescents were coming down with pertussis infections (whooping cough). A small amount of acellular pertussis was added to the vaccine to boost adolescent immunity against this serious bacteria.

Side effects / What are the risks from Tdap or TD vaccine:

The most common side effect is local swelling, pain, and redness at the injection site and rarely fever. As with any medicine or vaccine there are very small risks that serious problems, even death, could occur afterwards. The risks from the Tdap vaccine are much smaller than the risks from the diseases themselves if people stopped vaccinating. Almost all people who get Tdap or TD will have no problems from it.

HEPATITIS B VACCINE

Hepatitis B is a serious disease. The Hepatitis B virus can cause short term (acute) illness that leads to:

- Loss of appetite
- Tiredness
- Pain in muscles, joints, and stomach
- Diarrhea and Vomiting
- Jaundice (yellow skin and eyes)

It can also cause long term (chronic) illness that leads to:

- Liver damage (cirrhosis)
- Liver cancer
- Death

About 1.25 million people in the U.S. have chronic Hepatitis B virus infection. Each year it is estimated that:

- 200,000 people, mostly young adults, get infected with Hepatitis B virus.
- More than 11,000 people have to stay in the hospital because of Hepatitis B.
- 4,000 to 5,000 people die from chronic Hepatitis B.

Hepatitis B Vaccine can prevent Hepatitis B. It is the first anti-cancer vaccine because it can prevent a form of liver cancer.

What are the risks from Hepatitis B vaccine?

A vaccine, like any medication, is capable of causing serious problems such as severe allergic reactions. The risk of hepatitis B vaccine causing serious harm or death is extremely small. Getting Hepatitis B vaccine is much safer than getting the Hepatitis B disease.

Most people who get Hepatitis B vaccine do not have any problem with it.

Mild reactions:

- Soreness where the shot was given, lasting a day or two (up to 1 out of 11 children and adolescents, or less, and about 1 out of 4 adults, or less)
- Mild to moderate fever (up to 1 out of 14 children and adolescents, or less, and 1 out of 100 adults, or less)

Severe reactions:

- Serious allergic reaction (extremely rare)

What if there is a moderate or severe reaction? What should I look for?

Any unusual condition, such as a serious allergic reaction, high fever, or behavioral changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness, wheezing, hives, paleness, weakness, a fast heartbeat, or dizziness. If such a reaction were to occur, it would be within a few minutes to a few hours after the shot.

What should I do?

- Call a doctor, or get the child to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccine was given.
- Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov.

CHICKENPOX (VARICELLA) VACCINE

Chickenpox (also called Varicella) used to be a common childhood disease. It is usually mild, but it can be serious, especially in young infants and adults. Since most children are vaccinated now, we hardly ever see the disease. Therefore, it is more important than ever to vaccinate your child because they are unlikely to contract the disease when young. As they get older, the risks of serious complications significantly increases if they were to contract the disease.

- The chickenpox virus can be spread from one person to another through the air, or by contact with fluid from chickenpox blisters.
- It causes a rash, itching, fever, and tiredness. The rash usually starts on the tummy and then spreads.
- It can lead to severe skin infections, scars, pneumonia, brain damage, or death.
- A person who has had chickenpox can get a painful rash years later called shingles.
- Prior to the vaccine about 12,000 people were hospitalized for chickenpox each year in the U.S.
- About 100 people used to die each year in the United States as a result of chickenpox.

Chickenpox vaccine can prevent chickenpox:

Most people who get chickenpox vaccine will not get chickenpox. But if someone who has been vaccinated does get chickenpox, it is usually very mild. They will have fewer spots, are less likely to have a fever, and will recover faster.

What are the risks from Chickenpox Vaccine?

A vaccine, like any medicine, is capable of causing serious problems such as severe allergic reactions. The risk of chickenpox vaccine causing serious harm or death is extremely small.

Getting Chickenpox vaccine is much safer than getting chickenpox disease.

Mild reactions:

- Soreness or swelling where the shot was given (about 1 out of 5 children, or less, and up to 1 out of 3 adolescents & adults, or less).
- Fever (1 person out of 10, or less).
- Mild rash up to a month after vaccination (1 person out of 20, or less). It is possible for these people to infect other members of their household, but this is extremely rare.

Moderate reaction:

- Seizure caused by fever (less than 1 person out of 1000).

Severe reactions:

- Pneumonia (very rare)

Other serious problems, including severe brain reactions and low blood count, have been reported after chickenpox vaccination. These happen so rarely that experts cannot tell whether they are caused by the vaccine or coincidental incidence. If they are, it is extremely rare.

What if there is a Moderate or Severe reaction? What should I look for?

Any unusual condition such as a serious allergic reaction, high fever, or behavioral changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness, wheezing, hives, paleness, weakness, a fast heartbeat, or dizziness within a few minutes to a few hours after the shot. A high fever or seizure, if it occurs, would happen 1 to 6 weeks after the shot.

What should I do?

- Call a doctor, or get the child to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccine was given.
- Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov.

POLIO VACCINE

Polio is a disease caused by a virus. It enters a child's (or adult's) body through the mouth. Sometimes it causes paralysis (can't move arms or legs). It can kill people who get it, usually by paralyzing the muscles that help them breathe.

Polio used to be very common in the United States. It paralyzed and killed thousands of people a year before we had a vaccine for it.

Inactivated polio vaccine (IPV) can prevent polio.

History: A 1916 polio epidemic in the United States killed 6,000 people and paralyzed 27,000 more. In the early 1950's there were more than 20,000 cases of polio each year. Polio vaccination began in 1955. By 1960 the number of cases had dropped to about 3,000; by 1979 there were only about 10. The success of polio vaccination in the U.S. and other countries sparked a worldwide effort to eliminate polio. *Today:* No wild polio has been reported in the United States for over 40 years. But the disease is still common in some parts of the world. It would only take one case of polio from another country to bring the disease back if we were not protected by the vaccine. If the effort to eliminate the disease from the world is successful, someday we won't need polio vaccine (i.e. small pox vaccine as an example). Until then, we need to keep getting our children vaccinated.

What are the risks from IPV?

Some people who get IPV get a sore arm or leg where the shot was given. The vaccine used today has never been known to cause any serious problems, and most people don't have any problems at all with it. However, a vaccine, like any medicine, could cause serious problems such as a severe allergic reaction. The risk of a polio shot causing serious harm or death is extremely small.

What should I look for?

Look for any unusual condition, such as a serious allergic reaction, high fever, or unusual behavior.

If a serious allergic reaction were to occur, it would happen within a few minutes to a few hours after the shot. Signs of a serious allergic reaction can include difficulty breathing, weakness, hoarseness, wheezing, a fast heartbeat, hives, dizziness, paleness, or swelling of the throat.

What should I do?

- Call a doctor, or get the child to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccine was given.
- Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov. Reporting reactions help experts learn about possible problems with vaccines.

HAEMOPHILUS INFLUENZAE TYPE B (HIB)

Haemophilus Influenzae Type B (HIB) infection is a serious disease caused by a bacteria. It usually strikes children under 5 years old.

Your child can get Hib disease by being around other children or adults who may have the bacteria and not know it. The germs spread from person to person. If the germs stay in the child's nose and throat, the child probably will not get sick. But sometimes the germs spread into the lungs or the bloodstream, and then Hib can cause serious problems.

Before Hib vaccine, Hib disease was the leading cause of bacterial meningitis among children under 5 years old in the United States. Meningitis is an infection of the brain and spinal cord coverings, which can lead to death, lasting brain damage, and deafness.

Hib disease can also cause:

- Pneumonia
- Severe swelling in the throat, making it hard to breathe.
- Infections of the blood, joints, bones, and membrane around the heart.
- Death

Before Hib vaccine about 20,000 children in the United States under 5 years old got severe Hib disease yearly and nearly 1,000 babies died each year. Hib vaccine can prevent Hib disease. Many more children would get Hib disease if we stopped vaccinating.

What are the risks from the Hib Vaccine?

A vaccine, like any medicine, is capable of causing serious problems such as severe allergic reactions. The risk of Hib vaccine causing serious harm or death is extremely small.

Most people who get Hib vaccine do not have any problems with it.

Mild reactions:

- Redness, warmth, or swelling where the shot was given (up to ¼ of children).
- Fever over 101°F (up to 1 out of 20 children, or less).
- If these problems happen, they usually start within 1 day of vaccination. They may last 2-3 days.

What if there is a moderate or severe reaction? What should I look for?

Any unusual condition, such as a serious allergic reaction, high fever, or behavioral changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness, wheezing, hives, paleness, weakness, a fast heartbeat, or dizziness within a few minutes to a few hours after the shot.

What should I do?

- Call a doctor, or get the child to a doctor right away.
- Tell your doctor what happened, the date and the time it happened, and when the vaccine was given.
- Ask your doctor, nurse, or health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov.

The National Vaccine Injury Compensation Program

In the rare event that your child has a serious reaction to a vaccine, a federal program has been created to help pay for the care of those thought to have been harmed by vaccines. For details about the National Vaccine Injury Compensation Program, call 1-800-338-2382 or visit their website at: www.hrsa.gov/vaccinecompensation.

MENINGOCOCCAL VACCINE (MENACTRA & BEXSERO)

Meningococcal disease is a serious illness caused by a bacteria. It is the leading cause of bacterial meningitis in children 2-18 years old in the United States. Meningitis is an infection of the brain and spinal cord coverings. Meningococcal disease can also cause serious blood infections.

About 2,600 people get meningococcal disease each year in the United States. 10-15% of these people die despite treatment with antibiotics. Of those who live, another 10% lose their arms or legs, become deaf, have permanent problems with their nervous systems, become mentally retarded, or suffer seizures or strokes.

Anyone can get meningococcal disease, but it is most common in infants less than one year of age and in people with certain medical conditions. High school and college students, particularly those who live in dormitories, have a 6 fold increased risk of getting meningococcal disease.

Meningococcal vaccine can prevent the common strains of meningococcal disease in older children and adults. Meningococcal vaccine is not effective in preventing all types of the disease. But it does help to protect many people who might become deathly ill if they hadn't received the vaccine. Drugs such as penicillin can be used to treat meningococcal infection. However, despite that, about 1 out of every 8-10 people who get the disease dies from it. Those who do survive often have serious consequences for life. This is why it is important that people with the highest risk for meningococcal disease get the vaccine.

Pediatricians are giving either Menactra or Menveo vaccine, which is routinely given to all children 11 years & up, and for high-risk children aged 2 – 11 years old. Bexsero (the "B" strain) is given to all teenagers aged 16 years and older.

What are the risks from Meningococcal Vaccine?

A vaccine, like any medicine, is capable of causing serious problems such as allergic reactions. The risks of this vaccine causing serious harm or death is extremely small. Getting the vaccine is much safer than getting meningitis disease.

Mild reactions:

Some people who get meningococcal vaccine have mild side effects, such as redness or pain where the shot was given. These symptoms usually last 1-2 days. A small percentage of people who receive the vaccine develop a fever.

What if there is a serious reaction? What should I look for?

Look for any unusual condition, such as a severe allergic reaction, high fever, or unusual behavior. If a serious allergic reaction occurred it would happen within a few minutes to a few hours after the shot. Signs of a serious allergic reaction can include difficulty breathing, weakness, hoarseness, wheezing, a fast heartbeat, hives, dizziness, paleness, or swelling of the throat. In rare cases a serious reaction called *Guillain-Barre Syndrome* may occur where the individual experiences ascending paralysis (from the leg up) and severe headaches. But no evidence or studies have substantiated a true correlation between *Guillain-Barre Syndrome* and this vaccine.

What should I do?

- Call a doctor, or get the child to a doctor right away.
- Tell your doctor what happened, the date and the time it happened, and when the vaccination was given.
- Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov.

PNEUMOCOCCAL CONJUGATE VACCINE (PREVNAR)

Pneumococcal disease is a serious disease that causes significant illness and death. In fact, pneumococcal disease is responsible for about 200 deaths each year among children under 5 years old.

Pneumococcal disease is the leading cause of bacterial meningitis in the United States (meningitis is an infection of the covering of the brain). Each year pneumococcal disease causes many health problems in children under 5 including:

- over 700 cases of meningitis
- 17,000 blood infections
- 5 million ear infections

Important facts:

- Children under 2 years old are at highest risk for serious disease.
- Pneumococcus bacteria spreads from person to person through close contact.
- Pneumococcal infections can be hard to treat because the disease has become resistant to many antibiotics. This makes prevention of the disease even more important.
- Pneumococcal conjugate vaccine can prevent pneumococcal disease.
- Pneumococcal conjugate vaccine is licensed for infants and toddlers. It is excellent at preventing pneumococcal disease amongst these children. It also helps prevent the disease from spreading person to person.

The vaccine's protection lasts at least 3 years. Since most serious pneumococcal infections strike children during their first 2 years, the vaccine will protect them when they are at greatest risk as we start vaccinating with this vaccine at 2 months of age. For some older children and adults your doctor may choose to give a different vaccine called Pneumococcal Polysaccharide Vaccine (Pneumovax).

What are the risks from Pneumococcal Conjugate Vaccine?

In clinical trials, Pneumococcal Conjugate Vaccine was associated with only mild reactions:

- Less than 3 out of 10 children had redness, tenderness, or swelling where the shot was given.
- About 1 out of 10 (or less) had a mild fever.

However, like any medicine a vaccine could cause serious problems such as severe allergic reactions. The risk of this vaccine causing serious harm or death is extremely rare.

What should I look for?

Look for any unusual condition, such as a serious allergic reaction, high fever, or unusual behavior. If a serious allergic reaction occurred, it would happen within a few minutes to a few hours after the shot. Signs of a serious allergic reaction can include difficulty breath, hoarseness, wheezing, hives, paleness, weakness, a fast heartbeat, dizziness, or swelling of the throat.

What should I do?

- Call a doctor, or get the child to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccine was given.
- Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov.
- Contact the Center for Disease Control and Prevention (CDC) by calling 1-800-232-4636

MEASLES, MUMPS, AND RUBELLA (MMR)

Measles, mumps, and rubella (German measles) are very serious diseases. They spread when germs pass from an infected person to the nose or throat of others.

Measles causes:

- Rash
- Cough
- Fever

It can lead to:

- Ear infection
- Pneumonia
- Diarrhea
- Seizures
- Brain damage
- Death

Mumps causes:

- Fever
- Headache
- Swollen glands under the jaw & in front of the ears

It can lead to:

- Hearing loss
- Meningitis (*infection of brain and spinal cord covering*)
- Males can have painful, swollen testicles, infertility

Rubella causes:

- Rash
- Mild fever
- Swollen glands
- Arthritis (*mostly women*)

Pregnant women can:

- Lose their babies

Babies can be born with birth defects such as:

- Deafness
- Blindness
- Heart disease
- Brain damage
- Other serious problems

What are the risks from MMR vaccine?

As with any medicine, there are very small risks that serious problems, even death, could occur after taking a vaccine. The risks from the vaccine are much smaller than the risk from the diseases if people stopped vaccinating. Almost all people who get MMR have no problems from it.

No evidence truly substantiates whether MMR vaccine has been linked to Autism. However, in our office we will postpone the administration of this vaccine until it is clear that your child is not exhibiting signs of Autism. For more details see "Our Official Philosophy on Vaccines" page 38.

Mild to moderate reactions:

Soon after the vaccination, there may be soreness, redness, or swelling where the shot was given. 1-2 weeks after the first dose, there may be a rash (about 5 out of every 100 people). This usually lasts 1-2 days. Swelling of the glands in the cheeks, neck, or under the jaw. A seizure usually caused by fever. This is very rare.

1-3 weeks after the first dose there may be pain, stiffness, or swelling in one or more joints lasting up to 3 days (occurs in 1 out of every 100 doses in children, or less). Rarely, pain or stiffness lasts a month or longer, or may come and go; this is most common in women.

Tylenol® or Motrin® (non-aspirin) may be used to reduce fever and soreness.

Severe reactions:

** Note, these problems happen very rarely.*

- Serious allergic reaction.
- Low number of platelets (a type of blood cell) that can lead to bleeding problems. This is almost always temporary.
- Prolonged seizures, decreased consciousness, or coma.
- Problems following MMR are much less common with the second dose.

Ask your health department to file a Vaccine Adverse Event Reporting System (VAERS) form, call the VAERS yourself at 1-800-822-7967, or report online at www.vaers.hhs.gov. The National Vaccine Injury Compensation Program gives compensation to individuals thought to be injured by vaccines: 1-800-338-2382.

ROTATEQ VACCINE (Rotavirus Vaccine)

RotaTeq is an oral vaccine that can help protect your child from getting the rotavirus infection which causes fever, vomiting, diarrhea, and dehydration. The vaccine is given by mouth at 3 different times, each about one to two months apart. Nearly all children become infected with the rotavirus by the time they are 5 years old. This infection can be quite serious for younger children, especially infants, and if severe can lead to death. It is the leading cause of dehydration & hospitalization secondary to GI infection worldwide.

RotaTeq helps protect against diarrhea and vomiting only if they are caused by the rotavirus. It does not protect against other causes of diarrhea and vomiting. RotaTeq may not fully protect all children that get the vaccine, and if your child already had the virus it may not help them. The active ingredients of the vaccine include 5 live rotavirus strains (G1, G2, G3, G4 and P1).

Before giving RotaTeq let the doctor know if your child has:

- Any illness with fever. A mild fever or cold by itself is not a reason to delay taking the vaccine.
- Diarrhea or vomiting (not just normal spit-ups).
- Not gaining weight or growing as expected.
- A blood disorder or any type of cancer.
- A weak immune system because of a disease (including HIV infection).
- Receives treatment or takes medicines that may weaken the immune system (such as high doses of steroids) or has received a blood transfusion or blood products within the past 42 days.
- Was born with gastrointestinal problems, or has had a blockage or abdominal surgery.
- Has regular close contact with a member of the family or household who has a weak immune system (a person taking medicines or chemotherapy that may weaken their immune system).

Who should not receive RotaTeq?

Your child should not get the vaccine if he/she had an allergic reaction after getting a dose of this vaccine.

What are the risks from RotaTeq vaccine?

A vaccine, like any medicine, is capable of causing serious problems such as severe allergic reactions. The risk of RotaTeq vaccine causing serious harm or death is extremely small. Most children who get the RotaTeq vaccine do not have any problems with it.

- The most common side effects reported were diarrhea, vomiting, fever, runny nose, sore throat, wheezing, coughing, or ear infection. If your child develops sudden abdominal pain, vomiting, blood in their stools, or other changes in their bowel movements, it may be a sign of a serious problem. This presentation is **extremely** rare but if it were to happen you should **call the doctor immediately**.

You may also report any adverse reactions directly to the Vaccine Adverse Event Reporting System (VAERS) by calling 1-800-822-7967 or report online at www.vaers.hhs.gov.

GARDASIL VACCINE (HPV Vaccine)

Gardasil is a vaccine that helps protect against the diseases caused by Human Papillomavirus (HPV). There are 9 strains covered in the vaccine. The diseases caused by HPV are: 1) Cervical cancer, 2) Penile cancer, 3) Throat cancer, 4) Abnormal and precancerous cervical lesions, 5) Abnormal and precancerous vaginal lesions, 6) Abnormal and precancerous vulvar lesions, and 7) Genital warts in girls and boys. Gardasil helps prevent these diseases but it will not treat them once you have them. You cannot get these diseases from the Gardasil vaccine.

HPV is a common virus. In 2005 it was estimated that 20 million people in the US have the virus. There are many different types of HPV; some cause no harm. Others can cause diseases of the genital area. For most people the virus goes away on its own. When the virus does not go away it can develop into cervical cancer, precancerous lesions, or most commonly genital warts, depending on the HPV type. Cancer of the cervix is a serious disease that can be life-threatening. This disease is caused by certain HPV types that can cause the lining of the cervix to change from normal to precancerous. Genital warts in either boys or girls can be disfiguring and life-long as we currently have no cure. They often appear as skin-colored growths. They are found on the inside or outside of the genitals. They can hurt, itch, bleed, and cause discomfort. These lesions are usually not precancerous.

In 2005 the CDC estimated that at least 50% of sexually active people catch HPV during their lifetime. A male or female of any age who takes part in any kind of sexual activity that involves genital contact is at risk (not only intercourse). Many people who have HPV may not show any obvious signs or symptoms. This means that they can be carriers and pass the virus to others and not know it.

What you should know about GARDASIL:

Gardasil is recommended for girls and boys ages 9 through 26 years. It is given as two or three separate doses over the course of approximately 6 months. Vaccination does not substitute for routine cervical cancer screening. As with all vaccines, Gardasil may not fully protect everyone who gets the vaccine. It will not protect against diseases due to other HPV strains. The strains that it does protect against have been selected because they cause approximately 70% of cervical cancers and 90% of genital warts. This vaccine will not protect you against HPV types to which you may have already been exposed.

Before giving GARDASIL let the doctor know if your child:

- *Has had an allergic reaction to the vaccine or current illness with fever.*
- *Has a weakened immune system (for example, due to infection such as HIV).*
- *Is pregnant or planning to get pregnant. **GARDASIL is not recommended for use in pregnant women.***

What are the risks from GARDASIL vaccine?

A vaccine, like any medicine, is capable of causing serious problems such as severe allergic reactions. The risk of Gardasil vaccine causing serious harm or death is extremely small. By far the majority of individuals who get the Gardasil vaccine do not have any problems with it.

- *The most common side effects include:* pain, swelling, itching, and redness at the injection site; fever, nausea, dizziness, vomiting, or fainting are also possible. Allergic reactions are extremely rare but may present as difficulty breathing, wheezing, hives, or rash. Other uncommon reactions could be swollen glands, Guillain-Barre syndrome (see Meningococcal side effects), or headache. Please notify your doctor if any adverse reactions occur. You may also report any adverse reactions directly to the Vaccine Adverse Event Reporting System (VAERS) by calling 1-800-822-7967 or report online at www.vaers.hhs.gov.