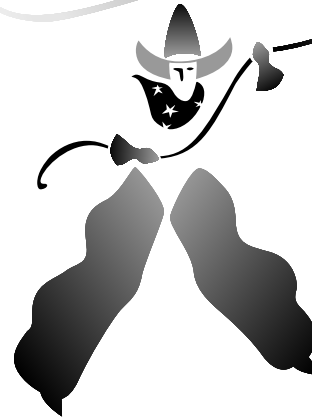


Child Development

3-4 Years



My name is _____.

The date is _____.

I weigh _____ pounds, and I am _____ inches tall.

Development

Normally three- and four-year-olds are active, enthusiastic, and verbal. They are able to speak in sentences that are mostly intelligible. They can pedal a tricycle, jump with two feet, and briefly balance on one foot. They are able to put on some clothing and shoes as well as feed themselves.

Safety and Prevention of Injuries:

- U** Children should remain in a forward-facing car seat with a harness, in the backseat of the car, for as long as they fit the weight and height limits of the car seat. Around 4 years of age, some children have outgrown their car seats, so they should be changed to booster seats, also placed in the backseat of the car. Children use booster seats until they are 8-12 years of age or 4'9" tall.
- U** Parents and children should always wear a helmet when riding a bike, skateboard, or scooter.
- U** Keep doors and gates locked when there is a possibility that your child may fall down steps. Continue to keep a gate at the top of the stairs.
- U** Store knives and other dangerous items out of reach. Lock up firearms and ammunition in separate spaces.
- U** Teach your child the danger of chasing a ball or an animal into the street, but do not rely on the child to remember such instructions. Children need to be closely supervised when near a street.

U Advise your child to be careful around strange dogs, and to be especially careful around a dog that is eating.

U Watch your child at all times in or around the water. Discuss water safety. Knowing how to swim does not make a child water-safe at this age.

U Talk to children about not following strangers and not to allow touching they don't like by others.

U Apply sunscreen (SPF 30 or higher) if going outdoors for more than a few minutes.

U Help your child memorize your phone number and address.

Good Parenting Practices:

U Provide your child with opportunities to talk about his/her day. Try to have a special time alone with the child, especially if there are siblings.

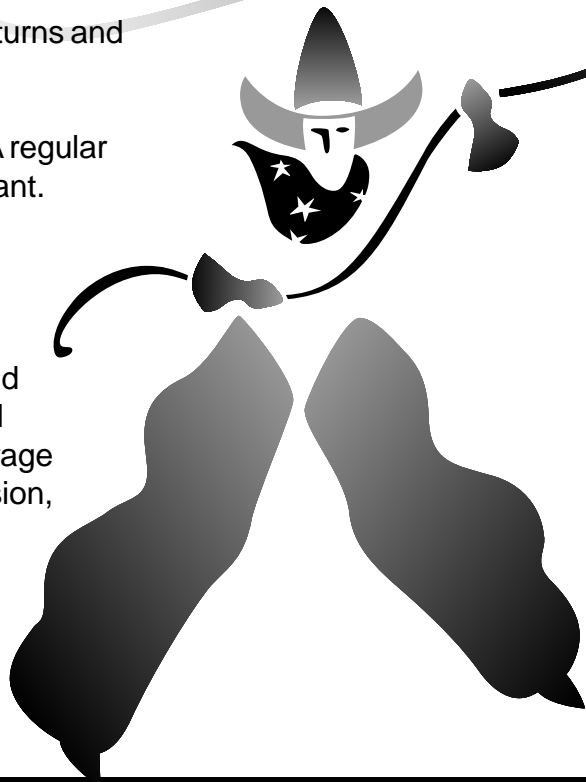
U Allow your child to explore, show initiative, and communicate. Encourage independence by offering choices in appropriate situations, such as "turkey or peanut butter and jelly," "red t-shirt or yellow," "this story or that one?"

U Promote out-of-home experiences, such as nursery school and play groups, as good opportunities to learn and gain experience. Discuss your child's ability to separate from parents and interact with peers.

U At this age, your child understands taking turns and is beginning to share. Encourage this.

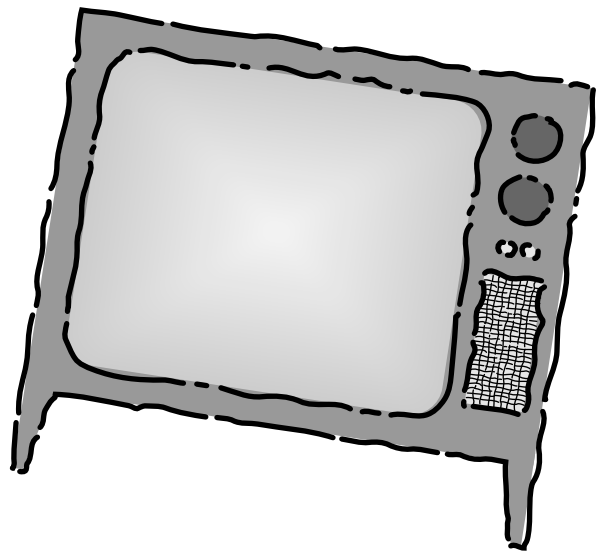
U Your child may discontinue his daily nap. A regular bedtime and bedtime ritual remain important. Occasional night fears are normal.

U Encourage active play with blocks, simple puzzles, beads, and pegs. A child of this age enjoys sand and water play, books and reading. Pretend-play, using both toys and household objects, is developing. Discourage passive activities such as watching television, and limit screen time (TV, video games, Smartphone apps, computer, etc) to 2 hours per day or less.



Television: Reducing the Negative Impact

Television has a tremendous influence on how children view our world. Many youngsters spend more hours watching television from birth to 18 years of age than they spend in the classroom. The positive aspects of television viewing include seeing different lifestyles and cultures. Children today are entering school more knowledgeable than children before the era of television. In addition, television has great entertainment value. Although television can be a good teacher, many children watch it excessively and, therefore, experience some of the negative consequences described below.



Harmful Aspects of Television

Television displaces active types of recreation. It decreases time spent playing with peers. A child has less time for self-directed daydreaming and thinking. It takes away time for participating in sports, music, art, or other activities that require practice to achieve competence.

Television interferes with conversation and discussion time. It reduces social interaction with family and friends.

Television discourages reading. Reading requires much more thinking than television. Reading improves a youngster's vocabulary. A decrease in reading scores may be related to too much time in front of the television.

Heavy television viewing (more than 4 hours per day) definitely reduces school performance. This much television interferes with study, reading, and thinking time. If children do not get enough sleep because they are watching television, they will not be alert enough to learn well on the following day.

Television discourages exercise. An inactive lifestyle leads to poor physical fitness. If accompanied by frequent snacking, watching television may contribute to weight problems.

Television advertising encourages a demand for material possessions. Young children will pressure their parents to buy the toys they see advertised. Television portrays materialism as the "American way."

Television violence can affect how a child feels toward life and other people. Viewing excessive violence may cause a child to be overly fearful about personal safety and the future. Television violence may numb the sympathy a child normally feels toward victims of human suffering. Children may be more aggressive in their play after seeing violent television shows.

Tips For Healthy Television Viewing

Encourage active recreation. Help your child become interested in sports, games, hobbies, and music. Occasionally turn off the television and take a walk or play a game with your child.

Read to your children. Begin reading together when your child is an infant and encourage him to read on his own as he becomes older. Some parents help children earn television or video game time by spending an equivalent time reading. Help your child improve his conversational skills by spending more of your time talking with him.

Limit screen time (TV, video games, computer, Smartphone apps, etc) to two hours per day or less. An alternative is to limit screen time to one hour on school nights and two to three hours per day on weekends. You occasionally may want to allow extra viewing time for special educational programs. Computer use for school work does not count toward this screen time limit.

Don't use television as a distraction or a baby-sitter for preschool children. Preschoolers' viewing should be limited to special television shows and videotapes that are produced for young children. Because the difference between fantasy and reality is not clear for this age group, regular television shows may cause fears.

If your child is doing poorly in school, limit television time to one half hour each day. Make a rule that homework and chores must be finished before television is watched. If your child's favorite show is on before he can watch, try to record it for later viewing.

Set a bedtime for your child that is not altered by television shows that interest your child. Children who are allowed to stay up late to watch television are usually too tired the following day to remember what they are taught in school. By all means, don't permit your child to have a television in her bedroom because this eliminates your control over television viewing.

Turn off the television during meals. Family time is too precious to be squandered on television shows. In addition, don't have the television always on as a background sound in your house. If you don't like a quiet house, try to listen to music.

Teach critical viewing. Turn the television on only for specific programs. Don't turn it on at random and scan for something interesting. Teach your child to look first in the program guide.

Teach your child to turn off the television at the end of a show. If the television stays on, your child will probably become interested in the following show and then it will be more difficult for your child to stop watching.

Encourage your child to watch some shows that are educational or teach human values. Encourage watching documentaries or real-life dramas. Use programs about love, sex, family disputes, drinking, and drugs as a way to begin family discussions on these difficult topics.

Forbid violent television shows. This means you have to know what your child is watching and turn off the television set when you don't approve of the program. Develop separate lists of programs that are acceptable for older and younger kids to watch. Make your older children responsible for keeping the younger ones out of the television room at these times. If not, the show is turned off. The availability of cable television and recording devices means that any child of any age has access to the uncut versions of R-rated films. Many children under 13 years of age develop daytime fears and nightmares because they have been allowed to watch such movies.

Discuss the consequences of violence if you allow your older child to watch violent shows. Point out how violence hurts both the victim and the victim's family. Be sure to discuss any program that upsets your child.

Discuss commercials with your children. Help them identify high-pressure selling and exaggerated claims. If your child wants a toy that is a lookalike version of a television character, ask how he or she would use the toy at home. The response will probably convince you that the toy will be added to a collection rather than become a catalyst for active play.

Discuss the differences between reality and make-believe. This type of clarification can help your child enjoy a show and yet realize that what is happening may not happen in real life.

Set a good example. If you watch a lot of television, you can be sure your child will also. The types of programs you watch also send a clear message to your child.

Instructions for Pediatric Patients by Barton D. Schmitt, M. D., Pediatrician. Adapted from *Your Child's Health*, Copyright © 1991 by Barton D. Schmitt, M.D.. Reprinted by permission of Bantam Books.

CAR SAFETY SEATS

The major killer andcrippler of children in the United States is motor vehicle crashes. Improper use of child safety seats causes death or injury in thousands of children each year. Seven out of ten children in child safety seats are not properly buckled in.

Important safety rules

- Always use a car safety seat, starting with your baby's first ride home from the hospital.
- Never place a child in a rear-facing car safety seat in the front seat of a vehicle that has an airbag.
- The safest place for all small children to ride is in the back seat.
- Set a good example: always wear your seat belt. Help your child form a lifelong habit of buckling up.
- Remember that each car safety seat is different. Read and keep the instructions that came with your seat.
- Read the owner's manual that came with your car on how to correctly install car safety seats.

CHOOSING A CAR SEAT

Choose a car safety seat that is right for your child's age and size.

<u>AGE GROUP</u>	<u>TYPE OF SEAT</u>	<u>GENERAL GUIDELINES</u>
Infants/Toddlers	Rear-facing only seats and rear-facing convertible seats	All infants and toddlers should ride in a Rear-Facing Car Seat until they are 2 years of age or until they reach the highest weight or height allowed by their car safety seat's manufacturer.
Toddlers/Preschoolers	Convertible seats and forward-facing seats with harness	All children 2 years or older, or those younger than 2 years who have outgrown the rear-facing weight or height limit for their car seat, should use a Forward-Facing Car Seat with a harness for as long as possible, up to the highest weight or height allowed by their car seat's manufacturer.
School-Aged Children	Booster seats	All children whose weight or height is above the forward-facing limit for their car seat should use a Belt-Positioning Booster Seat until the vehicle seat belt fits properly across their shoulder, typically when they have reached 4 feet 9 inches in height and are between 8 and 12 years of age.
Older Children	Seat belts	When children are old enough and large enough to use the vehicle seat belt alone, they should always use Lap and Shoulder Seat Belts for optimal protection. All children younger than 13 years should be restrained in the rear seats of vehicles for optimal protection.

Infant-Only Seats

- These are small and portable (sometimes come as part of a stroller system).
- These have a 3-point or 5-point harness.
- They can only be used for infants up to 20 - 35 pounds, depending on the model.
- Many come with detachable base, which can be left in the car. The seat clicks in and out of the base, which means you don't have to install it each time you use it.
- Most have carrying handles.

Convertible Seats

- These are bigger than infant-only seats.
- These can also be used forward-facing for older and larger children, therefore these seats can be used longer.
- Many have higher rear-facing weight limits than infant-only seats. These are ideal for bigger babies.
- They may have the following types of harnesses:



5-Point Harness

5 Straps:
2 at the shoulders
2 at the hips
1 at the crotch



T-Shield

A padded T-shaped or triangle-shaped shield attached to the shoulder straps.



Overhead Shield

A padded tray-like shield that swings.

Booster Seats

Your child should stay in a car seat with a harness as long as possible (i.e. as long as they fit the weight and height limits of the car seat) and then ride in a belt-positioning booster seat. You can tell when your child is ready for a booster seat when one of the following is true:

- He reaches the top weight or height allowed for the seat.
- His shoulders are above the harness slots.
- His ears have reached the top of the seat.

Booster seats are designed to raise your child so that the lap/shoulder belt fits properly. This means the lap belt is across your child's pelvis and the shoulder belt crosses the middle of your child's chest and shoulder. Correct belt fit helps protect the stomach, spine, and head from injury. Both high-backed and backless models are available. Booster seats should be used until your child can correctly fit in a lap/shoulder belt, which is typically when a child is at least 4'9" and 8-12 years old.

Government safety standards

Since January 1981, all manufacturers of child safety seats have been required to meet stringent government safety standards, including crash-testing. Choose a seat that has met Federal Motor Vehicle Safety Standard 213, with 1981 or later as the year of manufacture. When in doubt or if you have questions about installing your car safety seat, Child Passenger Safety (CPS) Technicians can help you. A list of inspection stations is available at www.seatcheck.org. You can also get this information by calling the National Highway Traffic Safety Administration (NHTSA) Auto Safety Hot Line at 888-327-4236.

The American Academy of Pediatrics also publishes a list of infant/child safety seats that is updated yearly. To obtain this list, go to <http://www.healthychildren.org/English/safety-prevention/on-the-go/pages/CAR-Safety-Seats-Product-Listing.aspx>.

California Law

California law (as of 1/1/2012) states that each child must be properly restrained in a child safety seat or booster seat in the back seat of the car until the child is 8 years old or at least 4'9" in height. The law specifically states that:

- Children under the age of 8 must be secured in a car seat or booster seat in the back seat.
- Children under the age of 8 who are 4'9" or taller may be secured by a safety belt in the back seat.
- Children who are 8 years and over shall be properly secured in an appropriate child passenger restraint system or safety belt.
- Passengers who are 16 years of age and over are subject to California's Mandatory Seat Belt law.

Exceptions to the law are:

- A. There is no rear seat.
- B. The rear seats are side-facing jump seats.
- C. The Child Passenger Restraint System cannot be installed properly in the rear seat.
- D. All rear seats are already occupied by children under the age of 7 years.
- E. Medical reasons necessitate that the child or ward not ride in the rear seat. The court may require satisfactory proof of the child's medical condition.

A child may NOT ride in the front seat with an active passenger airbag if:

- A. The child is under one year of age,
- B. The child weighs less than 20 pounds, or
- C. The child is riding in a rear-facing Child Passenger Restraint System.



Sun Protection

Protect Your Child From The
Number One Cause of Cancer:
The Sun!



Did You Know?

- Skin cancer is the most common type of cancer.
- Many skin cancers can be prevented.
- Ultraviolet (UV) radiation, which causes skin cancer, is present even in the shade, on cloudy days, or in the winter months when the sun isn't as strong as a bright summer day.
- Childhood sun exposure is especially important in terms of cancer. A child or adolescent who has had 5 or more sunburns is twice as likely to get melanoma.
- UV exposure is especially high in locations like San Diego, which are nearer to the equator.

Sunburn

Sunburn is caused by overexposure of the skin to the ultraviolet (UVA/UVB) rays of the sun or a sun lamp. Minor sunburn is a first degree burn which turns the skin pink or red with swelling and pain. Prolonged sun exposure can cause blistering and a second degree burn. Sunburn does not cause third degree burns or scarring. Blistering sunburns, especially in childhood, significantly increase the risk for future skin cancers including malignant melanoma.

Tips For Enjoying The Sun Safely

- **Apply sunscreen** to your baby or child anytime she will be outdoors for more than a few minutes at a time, even in the winter or if you plan to stay in the shade. If you have a family rule that everyone wears sunscreen before going outside and you start at an early age, your child is more likely to cooperate when she's older. Apply sunscreen 30 minutes before going outdoors for best absorption.
- **Pick the right sunscreen.** The higher the SPF, the more protective the sunscreen is. Sunscreen with titanium or zinc in it provides a physical as well as chemical barrier, and protects better than other sunscreen. Waterproof sunscreen is helpful, but even waterproof sunscreen needs to be reapplied after water exposure. Spray-on sunscreen is less effective than traditional lotion. Suntan lotion or oils are mainly lubricants and do not block the sun's burning rays, and may even cause more burning.

- **Reapply** sunscreen every 2 hours (even on cloudy days) and after swimming or sweating.
- **Put on a hat.** If you insist that your child wears a hat from the time she is a young infant, she is more likely to keep hats on when she is older.
- **Cover up.** Whenever possible, keep your child covered with long sleeves, long pants, a wide brimmed hat, and sunglasses with plastic lenses with UVA/UVB protection. Darker clothes block more sun than light clothes. Tightly woven fabric is more protective than looser weaves. UPF clothes are specially designed clothing that are more effective at blocking the sun than regular clothing.
- **Avoid being out** in the sun between 10:00 am and 4:00 pm if possible. Stay in the shade when possible.
- **Be careful at high altitude and near reflective surfaces.** Sun exposure increases at higher altitudes. Water, sand, and snow increase sun exposure through reflected rays.
- **Avoid tanning, either in the sun or in a tanning booth.**

When Sunburn Happens

Acetaminophen (Tylenol) or ibuprofen (Advil, Motrin) can be used to reduce discomfort. Cool baths and/or wearing cool wet clothes on burned areas can be more comfortable. Drink plenty of water and keep well hydrated.

Moisturizing or aloe creams applied several times a day may reduce swelling and pain. Do not use petroleum jelly or other ointments that inhibit heat and sweat from escaping because these prolong healing. First aid creams or sprays for burns often contain benzocaine, which can cause an allergic reaction.

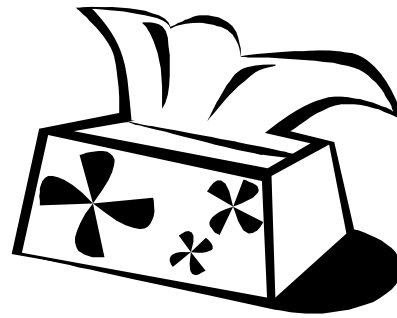
Call Our Office Immediately If:

- Your child becomes unable to look at lights because of eye pain.
- An unexpected fever over 102°F (38.9°C) occurs along with a sunburn.
- The sunburn becomes infected.
- An infant less than one year old sustains a second degree burn.

Call Our Office During Office Hours If:

- Several blisters break open.
 - You have other questions or concerns.
-

The Common Cold in Children



What is it?

The cold is by far the most common illness of infancy and childhood. Another name for the common cold is an upper respiratory infection (URI). On average, children get 10 colds per year, often back-to-back in the fall and winter.

What causes it?

At last count, over 100 different viruses have been implicated and isolated as causes of the common cold. A cold is a viral infection that causes inflammation of the linings of the nose, throat, and larynx (voice box). This inflammation results in swelling of these linings and an outpouring of fluids and mucus.

How do you catch it?

A baby or child does not catch a cold by going outside the house or by being in a draft or by a blanket falling off or by not being dressed warmly enough. Colds are contracted from someone else who has a cold. Colds are usually transmitted via "droplet spray," for example by coughing or sneezing. Colds are very contagious.

What are the characteristics of a cold?

The main symptoms of a cold are runny nose and watery eyes. The nose may become plugged by the mucus; this can cause a baby to breathe noisily. Some of the fluid and mucus drains down the throat causing irritation and frequently

stimulating a cough. As an additional response to the infection, it is not unusual for the child to develop a low-grade fever. Sore throats are also common.

How long does a cold last?

The average duration of a common cold is 7 to 10 days. The younger child may experience 6 to 10 colds a year. It is not unusual for several of these infections to occur almost one after another. The first year in school (daycare or kindergarten) is notorious in terms of the large number of colds acquired. This is due entirely to an increased exposure to other children with colds. Likewise, a large family means more exposure and consequently more colds. Exposure to colds in the early years is good for the immune system.

Treatment:

There is no specific prevention, treatment or cure for the common cold. There is no solid scientific evidence demonstrating that high doses of vitamin C or zinc or any other supplement either prevent or cure the cold. Antibiotics do not help with cold symptoms or make colds get better faster, and often have severe and even life-threatening side effects. The best we can do is to help relieve the symptoms of the cold while allowing it to take its natural course, and to assure you that complications are not occurring.

- **Fever:** Fever is not a disease; it is simply a sign that there is an infection somewhere in the body. Fever itself is not dangerous; rather, it can be beneficial both in helping to eliminate the infecting organism and enabling us to follow the progress of the infection. Fever can be lowered (not eliminated) by appropriate doses of acetaminophen (Tylenol) or ibuprofen (Advil, Motrin), though ibuprofen cannot be given to babies under six months old. These medicines can keep the child comfortable, but when the medication wears off, the fever will return. It is important not to overdress the child with fever; lightweight clothing enables the skin to radiate some of the excess heat generated by the body.

- **Runny nose:** In the younger child up to nine months, most breathing occurs through the nose and not through the mouth; therefore, it is important to keep the nasal passages clear. Suctioning the fluids and mucous from the nose with a nasal syringe can be quite effective. Saline nose drops (such as Little Noses or Ocean®) can help lubricate the nasal passages and improve the efficiency of nasal suctioning. Oral decongestants are of limited value in relieving the symptoms of the common cold. The benefits are even less noticeable in younger children, and over the counter medications shouldn't be used without a physician's instruction in children less than six years old.

- **Cough:** Cough with the common cold usually results from drainage of the nasal mucus into the throat and also from the irritation this drainage may cause to the lining of the throat. Efforts directed at relieving the nasal congestion are most helpful in alleviating the cough. Medications are rarely of benefit and shouldn't be used without a physician's instruction in children less than six years old.

- **Fluids:** The child with a cold has an increased fluid requirement due to the URI and its accompanying fever. It's important to keep a sick child well hydrated. Water, tea, Pedialyte and juices are fine for this purpose, after six months of age.

- **Solid foods:** Appetite is frequently poor in response to the infection. Forced feedings of solids may result in vomiting and should be discouraged. As long as a sick child is staying well hydrated with fluids, not eating solids well for a few days while sick is not dangerous.

- **Environment:** Keeping the house cool will help to keep the child comfortable, and if the weather is permissible, the child can go outside without any danger. Increasing the humidity of the house also can be helpful and can be accomplished by using a cool-mist vaporizer or humidifier. This will soothe the inflamed tissues of the nose and throat and may help reduce the cough.

Possible complications:

If the inflammation spreads beyond the nose and throat to the trachea (windpipe), lungs or ears, we are dealing with complications. Among the more common complications are pneumonia and ear infections. Clues to these secondary complications may be:

- 1) Fever over 102°F (39°C)
- 2) Painful crying or screaming
- 3) Excessive irritability
- 4) Severe continuous cough
- 5) Difficulty in breathing

Please call this office if you have any questions regarding the management of a cold or the appearance of any of the signs of complications.

FEVER IN CHILDREN

What Is Fever?

Fever is the body's normal response to infections and may be helpful in fighting them. When white blood cells attack germs, they release chemical signals which cause the brain to elevate the temperature. This elevation may help the body kill the germs faster. The usual fevers (100°F to 104°F) that all children get are not harmful. Most are due to viral illnesses; some are due to bacterial ones. Teething does not cause fever.

The symptoms and characteristics of fever include a rectal temperature over 100.4°F (38.0°C), oral temperature over 100°F (37.8°C), and axillary (armpit) temperature over 99°F (37.2°C). While the body's average temperature is 98.6°F (37°C), it fluctuates from a low of 97.6°F in the morning to a high of 100°F in the late afternoon. Mild elevations of temperature can be caused by exercise, excessive clothing, hot weather, or warm food or drink. If you suspect one of these causes, retake the temperature after 30 minutes.

How Do You Take Temperatures?

Use digital, not mercury, thermometers because they are safer, faster, and more accurate. For children under five years of age, use axillary or rectal measurements. Most children four or five and older are ready for oral

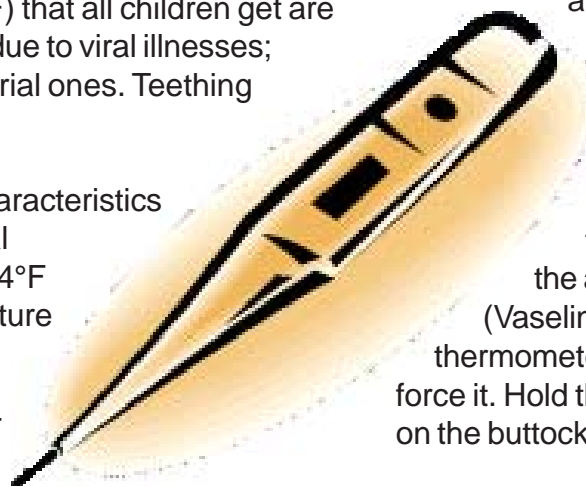
readings. Ear thermometers may be unreliable, especially in children under one year old. In young children, high ear thermometer readings should be confirmed by another method.

Axillary: Place the tip of the thermometer in a dry armpit, and close the armpit by holding the elbow against the chest. If you're uncertain about the result, check it with a rectal thermometer.

Rectal: Place your child stomach-down on your lap, or on his back on a changing table. Lubricate the end of the thermometer and the opening of the anus with petroleum jelly (Vaseline or KY Jelly). Carefully insert the thermometer about one inch, but never force it. Hold the child still and rest your hand on the buttocks to stabilize the thermometer.

Oral: Be sure your child has not recently taken a cold or hot drink. Place the tip of the thermometer underneath the tongue on either side, rather than at the front of the mouth. The child should hold it in place with the lips and fingers (not the teeth), keeping the mouth closed and breathing through the nose. If the nose is congested, take an axillary temperature.

You do not need to check your child's temperature if he is not sick, or many times a day when he is sick. Remember that the main purpose of temperature-taking is to determine if a fever is present, not to chart its every move.



How Long Does Fever Last?

Most fevers associated with viral illness range between 101°F and 104°F and last for one to three days. In general, the height of the fever isn't related to the seriousness of the illness. What counts is how sick your child acts. With most infections, the level of fever bounces around for two or three days. Shivering or feeling cold indicates that the fever has peaked; sweating means it is coming down.

It is important to understand that there is no evidence that fever itself can be harmful unless the temperature exceeds 107°F. Fortunately, the brain's thermostat keeps nearly all untreated fevers below this level. A small number of young children may develop convulsions (seizures) with fever. While these are frightening, they do not appear to cause harm and are not usually a sign of more serious illness. Still, call your child's doctor if your child has a febrile seizure.

When Should I Call?

If your child is under three months old, call us day or night if the rectal temperature is greater than 100.4°F. Beyond three months, call immediately if the fever is over 105°F, your child is crying inconsolably or whimpering, or cries if you touch or move him. Also call immediately if the child's neck is stiff, any purple spots are present on the skin, breathing is difficult and no better after you clear the nose, or a convulsion (seizure) has occurred. Call if burning or pain occurs with urination. Also call if your child is under two years of age and has a fever of 104°F or greater. Call if the fever has been present more than 72 hours, more than 24 hours without obvious cause, or has returned after going away for more than 24 hours.

Which Medications Should I Use?

Check with our office before using medication for children under four months of age. Children of any

age can be given acetaminophen (Tylenol®, Tempra®, Liquiprin®, Panadol®) if the fever is causing discomfort. Acetaminophen will reduce the fever but usually not bring it down to normal and the fever may recur after the acetaminophen wears off. Liquid ibuprofen (Advil, Motrin®) may also help improve comfort and reduce the temperature in feverish children and can be given to infants six months or older. See chart that follows for dosing. If your child is sleeping, don't awaken him for medications, and do not use them for more than three days without consulting your pediatrician.

Other Measures To Take:

Encourage, but don't force, extra fluids. Popsicles and iced drinks may help replace body fluids lost because of sweating. Keep clothing to a minimum because most heat is lost through the skin. Bundling up your child will cause a higher fever. Be especially careful of infants, who cannot undress themselves if they become overheated. If your child feels cold or is shivering, use a light blanket. Discourage vigorous activities because they produce additional heat. Normal play, however, is perfectly fine.

A Word of Caution About Aspirin

The American Academy of Pediatrics and other health organizations have recommended that patients through 21 years of age not receive aspirin if they have chickenpox or influenza (any cold, cough, or sore throat symptoms). Several studies have linked aspirin to Reye's syndrome, a severe illness that resembles encephalitis. Many pediatricians have stopped using aspirin for fevers associated with any illness because it has the potential to be so dangerous.

Medicines and Dosages to Reduce Pain and Fever

Choose the proper medicine, and measure the dose accurately.

1. Ask your healthcare provider or pharmacist which medicine is best for your child.
2. Give the dose based on your child’s weight. If you don’t know your child’s weight, give the dose based on your child’s age. Do not give more medicine than is recommended.
3. If you have questions about dosage amounts or any other concerns, call your healthcare provider.
4. Always use a proper measuring device. For example:
 - When giving acetaminophen liquid (e.g., Tylenol), use the device enclosed in the package. If you misplace the device, consult your healthcare provider or pharmacist for advice. Kitchen spoons are not accurate measures.
 - When giving ibuprofen liquid (e.g., Advil, Motrin), use the device enclosed in the package. Never use a kitchen spoon!

Take these two steps to avoid causing a serious medication overdose in your child.

1. Don’t give your child a larger amount of acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Motrin, Advil) than is shown in the table below. Too much of any of these medicines can cause an overdose.
2. When you give your child acetaminophen or ibuprofen, don’t also give them over-the-counter (OTC) cough or cold medicines. This can also cause a medication overdose because cough and cold medicines often contain acetaminophen or ibuprofen. In fact, to be safe, don’t give OTC cough and cold medicines to your child unless you talk to your child’s healthcare provider first.



Acetaminophen (Tylenol or another brand): How much to give?

Give every 4 to 6 hours, as needed, no more than 5 times in 24 hours (unless directed to do otherwise by your healthcare provider).

CHILD’S WEIGHT	CHILD’S AGE	OLD FORMULATIONS INFANTS’ DROPS 80 mg in each 0.8 mL or in each 1.0 mL	INFANTS’ NEW FORMULATION OR CHILDREN’S LIQUID 160 mg in each 5 mL (1 tsp) Kitchen spoons are not accurate measures.	CHILDREN’S CHEWABLES 80 mg in each tab	JUNIOR STRENGTH 160 mg in each tab
6–11 lbs (2.7–5 kg)	0–3 mos	Advised dose* _____	Advised dose* _____		
12–17 lbs (5.5–7.7 kg)	4–11 mos	Advised dose* _____	½ teaspoon or 2.5 mL		
18–23 lbs (8.2–10.5 kg)	12–23 mos	Advised dose* _____	¾ teaspoon or 3.75 mL		
24–35 lbs (10.9–15.9 kg)	2–3 yrs	1.6 mL (0.8 mL+0.8 mL)	1 teaspoon or 5 mL	2 tablets	
36–47 lbs (16.4–21.4 kg)	4–5 yrs		1½ teaspoon or 7.5 mL	3 tablets	
48–59 lbs (21.8–26.8 kg)	6–8 yrs		2 teaspoons or 10 mL	4 tablets	2 tablets
60–71 lbs (27.3–32.3 kg)	9–10 yrs		2½ teaspoons or 12.5 mL	5 tablets	2½ tablets
72–95 lbs (32.7–43.2 kg)	11 yrs		3 teaspoons or 15 mL	6 tablets	3 tablets

Ibuprofen (Advil, Motrin, or another brand): How much to give?

Give every 6 to 8 hours, as needed, no more than 4 times in 24 hours (unless directed to do otherwise by your healthcare provider).

CHILD’S WEIGHT	CHILD’S AGE	INFANTS’ DROPS 50 mg in each 1.25 mL 	CHILDREN’S LIQUID  100 mg in each 5 mL (1 tsp) Kitchen spoons are not accurate measures.	OLD FORMULATION CHILDREN’S CHEWABLES 50 mg in each tab	CHILDREN’S CHEWABLES OR JUNIOR TABLETS 100 mg in each tab
less than 11 lbs (5 kg)	0–5 mos				
12–17 lbs (5.5–7.7 kg)	6–11 mos	1.25 mL	Advised dose* _____		
18–23 lbs (8.2–10.5 kg)	12–23 mos	1.875 mL	Advised dose* _____		
24–35 lbs (10.9–15.9 kg)	2–3 yrs		1 teaspoon or 5 mL	2 tablets	1 tablet
36–47 lbs (16.4–21.4 kg)	4–5 yrs		1½ teaspoon or 7.5 mL	3 tablets	1½ tablets
48–59 lbs (21.8–26.8 kg)	6–8 yrs		2 teaspoons or 10 mL	4 tablets	2 tablets
60–71 lbs (27.3–32.3 kg)	9–10 yrs		2½ teaspoons or 12.5 mL	5 tablets	2½ tablets
72–95 lbs (32.7–43.2 kg)	11 yrs		3 teaspoons or 15 mL	6 tablets	3 tablets

* HEALTHCARE PROVIDER: PLEASE FILL IN THE ADVISED DOSE.

DIPHTHERIA TETANUS & PERTUSSIS VACCINES

WHAT YOU NEED TO KNOW

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

1 Why get vaccinated?

Diphtheria, tetanus, and pertussis are serious diseases caused by bacteria. Diphtheria and pertussis are spread from person to person. Tetanus enters the body through cuts or wounds.

DIPHTHERIA causes a thick covering in the back of the throat.

- It can lead to breathing problems, paralysis, heart failure, and even death.

TETANUS (Lockjaw) causes painful tightening of the muscles, usually all over the body.

- It can lead to “locking” of the jaw so the victim cannot open his mouth or swallow. Tetanus leads to death in up to 2 out of 10 cases.

PERTUSSIS (Whooping Cough) causes coughing spells so bad that it is hard for infants to eat, drink, or breathe. These spells can last for weeks.

- It can lead to pneumonia, seizures (jerking and staring spells), brain damage, and death.

Diphtheria, tetanus, and pertussis vaccine (DTaP) can help prevent these diseases. Most children who are vaccinated with DTaP will be protected throughout childhood. Many more children would get these diseases if we stopped vaccinating.

DTaP is a safer version of an older vaccine called DTP. DTP is no longer used in the United States.

2 Who should get DTaP vaccine and when?

Children should get 5 doses of DTaP vaccine, one dose at each of the following ages:

- ✓ 2 months
- ✓ 4 months
- ✓ 6 months
- ✓ 15-18 months
- ✓ 4-6 years

DTaP may be given at the same time as other vaccines.

3

Some children should not get DTaP vaccine or should wait

- Children with minor illnesses, such as a cold, may be vaccinated. But children who are moderately or severely ill should usually wait until they recover before getting DTaP vaccine.
- Any child who had a life-threatening allergic reaction after a dose of DTaP should not get another dose.
- Any child who suffered a brain or nervous system disease within 7 days after a dose of DTaP should not get another dose.
- Talk with your doctor if your child:
 - had a seizure or collapsed after a dose of DTaP,
 - cried non-stop for 3 hours or more after a dose of DTaP,
 - had a fever over 105°F after a dose of DTaP.

Ask your health care provider for more information. Some of these children should not get another dose of pertussis vaccine, but may get a vaccine without pertussis, called **DT**.

4

Older children and adults

DTaP is not licensed for adolescents, adults, or children 7 years of age and older.

But older people still need protection. A vaccine called **Tdap** is similar to DTaP. A single dose of Tdap is recommended for people 11 through 64 years of age. Another vaccine, called **Td**, protects against tetanus and diphtheria, but not pertussis. It is recommended every 10 years. There are separate Vaccine Information Statements for these vaccines.

Diphtheria/Tetanus/Pertussis

5/17/2007

5 What are the risks from DTaP vaccine?

Getting diphtheria, tetanus, or pertussis disease is much riskier than getting DTaP vaccine.

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

Mild Problems (Common)

- Fever (up to about 1 child in 4)
- Redness or swelling where the shot was given (up to about 1 child in 4)
- Soreness or tenderness where the shot was given (up to about 1 child in 4)

These problems occur more often after the 4th and 5th doses of the DTaP series than after earlier doses.

Sometimes the 4th or 5th dose of DTaP vaccine is followed by swelling of the entire arm or leg in which the shot was given, lasting 1-7 days (up to about 1 child in 30).

Other mild problems include:

- Fussiness (up to about 1 child in 3)
- Tiredness or poor appetite (up to about 1 child in 10)
- Vomiting (up to about 1 child in 50)

These problems generally occur 1-3 days after the shot.

Moderate Problems (Uncommon)

- Seizure (jerking or staring) (about 1 child out of 14,000)
- Non-stop crying, for 3 hours or more (up to about 1 child out of 1,000)
- High fever, over 105°F (about 1 child out of 16,000)

Severe Problems (Very Rare)

- Serious allergic reaction (less than 1 out of a million doses)
- Several other severe problems have been reported after DTaP vaccine. These include:
 - Long-term seizures, coma, or lowered consciousness
 - Permanent brain damage.

These are so rare it is hard to tell if they are caused by the vaccine.

Controlling fever is especially important for children who have had seizures, for any reason. It is also important if another family member has had seizures. You can reduce fever and pain by giving your child an *aspirin-free* pain reliever when the shot is given, and for the next 24 hours, following the package instructions.

6 What if there is a moderate or severe reaction?

What should I look for?

Any unusual conditions, such as a serious allergic reaction, high fever or unusual behavior. Serious allergic reactions are extremely rare with any vaccine. If one were to occur, it would most likely be within a few minutes to a few hours after the shot. Signs can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness. If a high fever or seizure were to occur, it would usually be within a week after the shot.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** your doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS web site at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS does not provide medical advice

7 The National Vaccine Injury Compensation Program

In the rare event that you or your child has a serious reaction to a vaccine, a federal program has been created to help pay for the care of those who have been harmed.

For details about the National Vaccine Injury Compensation Program, call **1-800-338-2382** or visit the program's website at www.hrsa.gov/vaccinecompensation.

8 How can I learn more?

- Ask your health care provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department's immunization program.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)**
 - Visit the National Immunization Program's website at www.cdc.gov/vaccines



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention

Polio Vaccine

What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages.
See www.immunize.org/vis.

Hojas de Información Sobre Vacunas están disponibles en español y en muchos otros idiomas. Visite <http://www.immunize.org/vis>

1 What is polio?

Polio is a disease caused by a virus. It enters the body through the mouth. Usually it does not cause serious illness. But sometimes it causes paralysis (can't move arm or leg), and it can cause meningitis (irritation of the lining of the brain). 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.

2 Why get vaccinated?

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 25,000 cases of polio reported each year. Polio vaccination was begun in 1955. By 1960 the number of reported cases had dropped to about 3,000, and by 1979 there were only about 10. The success of polio vaccination in the U.S. and other countries has sparked a world-wide effort to eliminate polio.

Today: Polio has been eliminated from the United States. But the disease is still common in some parts of the world. It would only take one person infected with polio virus coming from another country to bring the disease back here if we were not protected by vaccine. If the effort to eliminate the disease from the world is successful, some day we won't need polio vaccine. Until then, we need to keep getting our children vaccinated.

3 Who should get polio vaccine and when?

IPV is a shot, given in the leg or arm, depending on age. It may be given at the same time as other vaccines.

Children

Children get 4 doses of IPV, at these ages:

- A dose at 2 months
- A dose at 4 months
- A dose at 6-18 months
- A booster dose at 4-6 years

Some "combination" vaccines (several different vaccines in the same shot) contain IPV.

Children getting these vaccines may get one more (5th) dose of polio vaccine. This is not a problem.

Adults

Most adults 18 and older do not need polio vaccine because they were vaccinated as children. But some adults are at higher risk and should consider polio vaccination:

- (1) people traveling to areas of the world where polio is common,
- (2) laboratory workers who might handle polio virus, and
- (3) health care workers treating patients who could have polio.

Adults in these three groups:

- who have **never been vaccinated against polio** should get 3 doses of IPV:
 - Two doses separated by 1 to 2 months, and
 - A third dose 6 to 12 months after the second.
- who have had **1 or 2 doses** of polio vaccine in the past should get the remaining 1 or 2 doses.



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Control and Prevention

It doesn't matter how long it has been since the earlier dose(s).

- who have had **3 or more doses** of polio vaccine in the past may get a booster dose of IPV.

Your doctor can give you more information.

4 Some people should not get IPV or should wait.

These people should not get IPV:

- Anyone with a life-threatening allergy to any component of IPV, including the antibiotics neomycin, streptomycin or polymyxin B, should not get polio vaccine. Tell your doctor if you have any severe allergies.
- Anyone who had a severe allergic reaction to a previous polio shot should not get another one.

These people should wait:

- Anyone who is moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting polio vaccine. People with minor illnesses, such as a cold, may be vaccinated.

Ask your doctor for more information.

5 What are the risks from IPV?

Some people who get IPV get a sore spot where the shot was given. IPV has not been known to cause serious problems, and most people don't have any problems at all with it.

However, any medicine could cause a serious side effect, such as a severe allergic reaction or even death. The risk of polio vaccine causing serious harm is extremely small.

6 What if there is a moderate or severe problem?

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 breathing, weakness, hoarseness or wheezing, a fast heart beat, hives, dizziness, paleness, or swelling of the throat.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** your doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your doctor to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS website at www.vaers.hhs.gov or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

7 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) was created in 1986.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at www.hrsa.gov/vaccinecompensation.

8 How can I learn more?

- Ask your doctor. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)** or visit CDC's website at www.cdc.gov/vaccines

Vaccine Information Statement (Interim)
Polio Vaccine

11/8/2011

42 U.S.C. § 300aa-26



MMR (Measles, Mumps, & Rubella) Vaccine

What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

Hojas de Información Sobre Vacunas están disponibles en Español y en muchos otros idiomas. Visite <http://www.immunize.org/vis>

1 Why get vaccinated?

Measles, mumps, and rubella are serious diseases. Before vaccines they were very common, especially among children.

Measles

- Measles virus causes rash, cough, runny nose, eye irritation, and fever.
- It can lead to ear infection, pneumonia, seizures (jerking and staring), brain damage, and death.

Mumps

- Mumps virus causes fever, headache, muscle pain, loss of appetite, and swollen glands.
- It can lead to deafness, meningitis (infection of the brain and spinal cord covering), painful swelling of the testicles or ovaries, and rarely sterility.

Rubella (German Measles)

- Rubella virus causes rash, arthritis (mostly in women), and mild fever.
- If a woman gets rubella while she is pregnant, she could have a miscarriage or her baby could be born with serious birth defects.

These diseases spread from person to person through the air. You can easily catch them by being around someone who is already infected.

Measles, mumps, and rubella (MMR) vaccine can protect children (and adults) from all three of these diseases.

Thanks to successful vaccination programs these diseases are much less common in the U.S. than they used to be. But if we stopped vaccinating they would return.

2 Who should get MMR vaccine and when?

Children should get 2 doses of MMR vaccine:

- **First Dose:** 12-15 months of age
- **Second Dose:** 4-6 years of age (may be given earlier, if at least 28 days after the 1st dose)

Some infants younger than 12 months should get a dose of MMR if they are traveling out of the country. (This dose will not count toward their routine series.)

Some adults should also get MMR vaccine: Generally, anyone 18 years of age or older who was born after 1956 should get at least one dose of MMR vaccine, unless they can show that they have either been vaccinated or had all three diseases.

MMR vaccine may be given at the same time as other vaccines.

Children between 1 and 12 years of age can get a “combination” vaccine called MMRV, which contains both MMR and varicella (chickenpox) vaccines. There is a separate Vaccine Information Statement for MMRV.

3 Some people should not get MMR vaccine or should wait.

- Anyone who has ever had a life-threatening allergic reaction to the antibiotic neomycin, or any other component of MMR vaccine, should not get the vaccine. Tell your doctor if you have any severe allergies.
- Anyone who had a life-threatening allergic reaction to a previous dose of MMR or MMRV vaccine should not get another dose.
- Some people who are sick at the time the shot is scheduled may be advised to wait until they recover before getting MMR vaccine.
- Pregnant women should not get MMR vaccine. Pregnant women who need the vaccine should wait until after giving birth. Women should avoid getting pregnant for 4 weeks after vaccination with MMR vaccine.



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- Tell your doctor if the person getting the vaccine:
 - Has HIV/AIDS, or another disease that affects the immune system
 - Is being treated with drugs that affect the immune system, such as steroids
 - Has any kind of cancer
 - Is being treated for cancer with radiation or drugs
 - Has ever had a low platelet count (a blood disorder)
 - Has gotten another vaccine within the past 4 weeks
 - Has recently had a transfusion or received other blood products
- Any of these might be a reason to not get the vaccine, or delay vaccination until later.

4 What are the risks from MMR vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions.

The risk of MMR vaccine causing serious harm, or death, is extremely small.

Getting MMR vaccine is much safer than getting measles, mumps or rubella.

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

Mild Problems

- Fever (up to 1 person out of 6)
- Mild rash (about 1 person out of 20)
- Swelling of glands in the cheeks or neck (about 1 person out of 75)

If these problems occur, it is usually within 6-14 days after the shot. They occur less often after the second dose.

Moderate Problems

- Seizure (jerking or staring) caused by fever (about 1 out of 3,000 doses)
- Temporary pain and stiffness in the joints, mostly in teenage or adult women (up to 1 out of 4)
- Temporary low platelet count, which can cause a bleeding disorder (about 1 out of 30,000 doses)

Severe Problems (Very Rare)

- Serious allergic reaction (less than 1 out of a million doses)
- Several other severe problems have been reported after a child gets MMR vaccine, including:
 - Deafness
 - Long-term seizures, coma, or lowered consciousness

- Permanent brain damage
- These are so rare that it is hard to tell whether they are caused by the vaccine.

5 What if there is a serious reaction?

What should I look for?

- Any unusual condition, such as a high fever or unusual behavior. Signs of a serious allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** your doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your doctor to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report through the VAERS web site at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

6 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) was created in 1986.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at www.hrsa.gov/vaccinecompensation.

7 How can I learn more?

- Ask your doctor.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)** or
 - Visit CDC's website at www.cdc.gov/vaccines

Vaccine Information Statement (Interim)

MMR Vaccine

4/20/2012

42 U.S.C. § 300aa-26



CHICKENPOX VACCINE

WHAT YOU NEED TO KNOW

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

1 Why get vaccinated?

Chickenpox (also called varicella) is a common childhood disease. It is usually mild, but it can be serious, especially in young infants and adults.

- It causes a rash, itching, fever, and tiredness.
- It can lead to severe skin infection, scars, pneumonia, brain damage, or death.
- The chickenpox virus can be spread from person to person through the air, or by contact with fluid from chickenpox blisters.
- A person who has had chickenpox can get a painful rash called shingles years later.
- Before the vaccine, about 11,000 people were hospitalized for chickenpox each year in the United States.
- Before the vaccine, about 100 people died each year as a result of chickenpox in the United States.

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 blisters, are less likely to have a fever, and will recover faster.

2 Who should get chickenpox vaccine and when?

Routine

Children who have never had chickenpox should get 2 doses of chickenpox vaccine at these ages:

1st Dose: 12-15 months of age

2nd Dose: 4-6 years of age (may be given earlier, if at least 3 months after the 1st dose)

People 13 years of age and older (who have never had chickenpox or received chickenpox vaccine) should get two doses at least 28 days apart.

Chickenpox

3/13/08

Catch-Up

Anyone who is not fully vaccinated, and never had chickenpox, should receive one or two doses of chickenpox vaccine. The timing of these doses depends on the person's age. Ask your provider.

Chickenpox vaccine may be given at the same time as other vaccines.

Note: A "combination" vaccine called **MMRV**, which contains both chickenpox and MMR vaccines, may be given instead of the two individual vaccines to people 12 years of age and younger.

3 Some people should not get chickenpox vaccine or should wait

- People should not get chickenpox vaccine if they have ever had a life-threatening allergic reaction to a previous dose of chickenpox vaccine or to gelatin or the antibiotic neomycin.
- People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting chickenpox vaccine.
- Pregnant women should wait to get chickenpox vaccine until after they have given birth. Women should not get pregnant for 1 month after getting chickenpox vaccine.
- Some people should check with their doctor about whether they should get chickenpox vaccine, including anyone who:
 - Has HIV/AIDS or another disease that affects the immune system
 - Is being treated with drugs that affect the immune system, such as steroids, for 2 weeks or longer
 - Has any kind of cancer
 - Is getting cancer treatment with radiation or drugs
- People who recently had a transfusion or were given other blood products should ask their doctor when they may get chickenpox vaccine.

Ask your provider for more information.

4**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. Most people who get chickenpox vaccine do not have any problems with it. Reactions are usually more likely after the first dose than after the second.

Mild Problems

- Soreness or swelling where the shot was given (about 1 out of 5 children and up to 1 out of 3 adolescents and adults)
- Fever (1 person out of 10, or less)
- Mild rash, up to a month after vaccination (1 person out of 25). It is possible for these people to infect other members of their household, but this is extremely rare.

Moderate Problems

- Seizure (jerking or staring) caused by fever (very rare).

Severe Problems

- Pneumonia (very rare)

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

Note: The first dose of **MMRV** vaccine has been associated with rash and higher rates of fever than MMR and varicella vaccines given separately. Rash has been reported in about 1 person in 20 and fever in about 1 person in 5. Seizures caused by a fever are also reported more often after MMRV. These usually occur 5-12 days after the first dose.

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

- Any unusual condition, such as a high fever, weakness, or behavior changes. Signs of a serious

allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** your doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your provider to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS website at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

6**The National Vaccine Injury Compensation Program**

A federal program has been created to help people who may have been harmed by a vaccine.

For details about the National Vaccine Injury Compensation Program, call **1-800-338-2382** or visit their website at www.hrsa.gov/vaccinecompensation.

7**How can I learn more?**

- Ask your provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)**
 - Visit CDC website at: www.cdc.gov/vaccines



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

Vaccine Information Statement (Interim)
Varicella Vaccine (3/13/08) 42 U.S.C. §300aa-26

MMRV (MEASLES, MUMPS, RUBELLA & VARICELLA) VACCINE

WHAT YOU NEED TO KNOW

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

1 Measles, Mumps, Rubella & Varicella

Measles, Mumps, Rubella, and Varicella (chickenpox) can be serious diseases:

Measles

- Causes rash, cough, runny nose, eye irritation, fever.
- Can lead to ear infection, pneumonia, seizures, brain damage, and death.

Mumps

- Causes fever, headache, swollen glands.
- Can lead to deafness, meningitis (infection of the brain and spinal cord covering), infection of the pancreas, painful swelling of the testicles or ovaries, and, rarely, death.

Rubella (German Measles)

- Causes rash and mild fever; and can cause arthritis, (mostly in women).
- If a woman gets rubella while she is pregnant, she could have a miscarriage or her baby could be born with serious birth defects.

Varicella (Chickenpox)

- Causes rash, itching, fever, tiredness.
- Can lead to severe skin infection, scars, pneumonia, brain damage, or death.
- Can re-emerge years later as a painful rash called shingles.

These diseases can spread from person to person through the air. Varicella can also be spread through contact with fluid from chickenpox blisters.

Before vaccines, these diseases were very common in the United States.

2 MMRV Vaccine

MMRV vaccine may be given to children from 1 through 12 years of age to protect them from these four diseases.

Two doses of MMRV vaccine are recommended:

- The first dose at **12 through 15 months of age**
- The second dose at **4 through 6 years of age**

These are *recommended* ages. But children can get the second dose up through 12 years as long as it is at least 3 months after the first dose.

Children may also get these vaccines as 2 separate shots: **MMR** (measles, mumps and rubella) and **varicella** vaccines.

1 Shot (MMRV) or 2 Shots (MMR & Varicella)?

- Both options give the same protection.
- One less shot with MMRV.
- Children who got the first dose as MMRV have had more fevers and fever-related seizures (about 1 in 1,250) than children who got the first dose as separate shots of MMR and varicella vaccines on the same day (about 1 in 2,500).

Your health-care provider can give you more information, including the Vaccine Information Statements for MMR and Varicella vaccines.

Anyone 13 or older who needs protection from these diseases should get MMR and varicella vaccines as separate shots.

MMRV may be given at the same time as other vaccines.

3 Some children should not get MMRV vaccine or should wait

Children should not get MMRV vaccine if they:

- Have ever had a life-threatening allergic reaction to a previous dose of MMRV vaccine, or to either MMR or varicella vaccine.
- Have ever had a life-threatening allergic reaction to any *component* of the vaccine, including gelatin or the antibiotic neomycin. Tell the doctor if your child has any severe allergies.
- Have HIV/AIDS, or another disease that affects the immune system.
- Are being treated with drugs that affect the immune system, including high doses of oral steroids for 2 weeks or longer.
- Have any kind of cancer.
- Are being treated for cancer with radiation or drugs.

Check with your doctor if the child:

- Has a history of seizures, or has a parent, brother or sister with a history of seizures.
- Has a parent, brother or sister with a history of immune system problems.
- Has ever had a low platelet count, or another blood disorder.
- Recently had a transfusion or received other blood products.
- Might be pregnant.

Children who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting MMRV vaccine. Children who are only mildly ill may usually get the vaccine.

Ask your provider for more information.

4 What are the risks from MMRV vaccine?

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

Getting MMRV vaccine is much safer than getting measles, mumps, rubella, or chickenpox.

Most children who get MMRV vaccine do not have any problems with it.

Mild Problems

- Fever (about 1 child out of 5).
- Mild rash (about 1 child out of 20).
- Swelling of glands in the cheeks or neck (rare).

If these problems happen, it is usually within 5-12 days after the first dose. They happen less often after the second dose.

Moderate Problems

- Seizure caused by fever (about 1 child in 1,250 who get MMRV), usually 5-12 days after the first dose. *They happen less often when MMR and varicella vaccines are given at the same visit as separate shots (about 1 child in 2,500 who get these two vaccines), and rarely after a 2nd dose of MMRV.*
- Temporary low platelet count, which can cause a bleeding disorder (about 1 child out of 40,000).

Severe Problems (Very Rare)

Several severe problems have been reported following MMR vaccine, and might also happen after MMRV. These include severe allergic reactions (fewer than 4 per million),

and problems such as:

- Deafness.
- Long-term seizures, coma, lowered consciousness.
- Permanent brain damage.

Because these problems occur so rarely, we can't be sure whether they are caused by the vaccine or not.

5 What if there is a severe reaction?

What should I look for?

Any unusual condition, such as a high fever or behavior changes. Signs of a severe allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** the doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your provider to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report through the VAERS website at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

6 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) was created in 1986.

Persons who believe they may have been injured by a vaccine may file a claim with VICP by calling **1-800-338-2382** or visiting their website at www.hrsa.gov/vaccinecompensation.

7 How can I learn more?

- Ask your provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)**
 - Visit CDC's website at www.cdc.gov/vaccines



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION



Vaccine Information Statement (Interim)
MMRV Vaccine (5/21/10) 42 U.S.C. §300aa-26