

On the following pages are questions about activities babies may do. Your baby may have already done some of the activities described here, and there may be some your baby has not begun doing yet. For each item, please fill in the circle that indicates whether your baby is doing the activity regularly, sometimes, or not yet.

### Important Points to Remember:

- Try each activity with your baby before marking a response.
- Make completing this questionnaire a game that is fun for you and your baby.
- Make sure your baby is rested and fed.
- Please return this questionnaire by \_\_\_\_\_.

### Notes:

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## COMMUNICATION

	YES	SOMETIMES	NOT YET	
1. Does your baby make two similar sounds, such as "ba-ba," "da-da," or "ga-ga"? (The sounds do not need to mean anything.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. If you ask your baby to, does he play at least one nursery game even if you don't show him the activity yourself (such as "bye-bye," "Peeka-boo," "clap your hands," "So Big")?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your baby follow one simple command, such as "Come here," "Give it to me," or "Put it back," without your using gestures?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Does your baby say three words, such as "Mama," "Dada," and "Baba"? (A "word" is a sound or sounds your baby says consistently to mean someone or something.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. When you ask, "Where is the ball (hat, shoe, etc.)?" does your baby look at the object? (Make sure the object is present. Mark "yes" if she knows one object.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. When your baby wants something, does he tell you by pointing to it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				COMMUNICATION TOTAL ___

## GROSS MOTOR

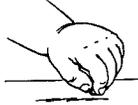
	YES	SOMETIMES	NOT YET	
1. While holding onto furniture, does your baby bend down and pick up a toy from the floor and then return to a standing position?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. While holding onto furniture, does your baby lower herself with control (without falling or flopping down)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your baby walk beside furniture while holding on with only one hand?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___



**GROSS MOTOR** *(continued)*

	YES	SOMETIMES	NOT YET	
4. If you hold both hands just to balance your baby, does he take several steps without tripping or falling? <i>(If your baby already walks alone, mark "yes" for this item.)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
				
5. When you hold <i>one hand</i> just to balance your baby, does she take several steps forward? <i>(If your baby already walks alone, mark "yes" for this item.)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
				
6. Does your baby stand up in the middle of the floor by himself and take several steps forward?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
<b>GROSS MOTOR TOTAL</b>				—

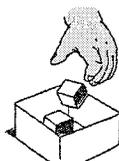
**FINE MOTOR**

	YES	SOMETIMES	NOT YET	
1. After one or two tries, does your baby pick up a piece of string with his first finger and thumb? <i>(The string may be attached to a toy.)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
				
2. Does your baby pick up a crumb or Cheerio with the <i>tips</i> of her thumb and a finger? She may rest her arm or hand on the table while doing it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
				
3. Does your baby put a small toy down, without dropping it, and then take his hand off the toy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
4. Without resting her arm or hand on the table, does your baby pick up a crumb or Cheerio with the <i>tips</i> of her thumb and a finger?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	— *
				
5. Does your baby throw a small ball with a forward arm motion? <i>(If he simply drops the ball, mark "not yet" for this item.)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
				
6. Does your baby help turn the pages of a book? <i>(You may lift a page for him to grasp.)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
<b>FINE MOTOR TOTAL</b>				—

*\*If Fine Motor Item 4 is marked "yes" or "sometimes," mark Fine Motor Item 2 "yes."*

**PROBLEM SOLVING**

- |   | YES                   | SOMETIMES             | NOT YET               |        |
|---|-----------------------|-----------------------|-----------------------|--------|
| 1. When holding a small toy in each hand, does your baby clap the toys together (like "Pat-a-cake")?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____  |
| 2. Does your baby poke at or try to get a crumb or Cheerio that is inside a clear bottle (such as a plastic soda-pop bottle or baby bottle)?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____  |
| 3. After watching you hide a small toy under a piece of paper or cloth, does your baby find it? (Be sure the toy is completely hidden.)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____  |
| 4. If you put a small toy into a bowl or box, does your baby copy you by putting in a toy, although she may not let go of it? (If she already lets go of the toy into a bowl or box, mark "yes" for this item.) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____  |
| 5. Does your baby drop two small toys, one after the other, into a container like a bowl or box? (You may show him how to do it.)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____* |
| 6. After you scribble back and forth on paper with a crayon (or a pencil or pen), does your baby copy you by scribbling? (If she already scribbles on her own, mark "yes" for this item.)                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____  |



PROBLEM SOLVING TOTAL \_\_\_\_\_

\*If Problem Solving Item 5 is marked "yes" or "sometimes," mark Problem Solving Item 4 "yes."

**PERSONAL-SOCIAL**

- |  | YES                   | SOMETIMES             | NOT YET               |       |
|--|-----------------------|-----------------------|-----------------------|-------|
| 1. When you hold out your hand and ask for his toy, does your baby offer it to you even if he doesn't let go of it? (If he already lets go of the toy into your hand, mark "yes" for this item.) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ |
| 2. When you dress your baby, does she push her arm through a sleeve once her arm is started in the hole of the sleeve?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ |
| 3. When you hold out your hand and ask for his toy, does your baby let go of it into your hand?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ |
| 4. When you dress your baby, does she lift her foot for her shoe, sock, or pant leg?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ |
| 5. Does your baby roll or throw a ball back to you so that you can return it to him?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ |
| 6. Does your baby play with a doll or stuffed animal by hugging it?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ |

PERSONAL-SOCIAL TOTAL \_\_\_\_\_

**OVERALL**

Parents and providers may use the space below for additional comments.

1. Does your baby use both hands and both legs equally well? If no, explain:

YES

NO

2. Does your baby play with sounds or seem to make words? If no, explain:

YES

NO

3. When your baby is standing, are her feet flat on the surface most of the time?  
If no, explain:

YES

NO

4. Do you have concerns that your baby is too quiet or does not make sounds like  
other babies do? If yes, explain:

YES

NO

5. Does either parent have a family history of childhood deafness or hearing  
impairment? If yes, explain:

YES

NO

**OVERALL** *(continued)*

6. Do you have concerns about your baby's vision? If yes, explain:

YES

NO

7. Has your baby had any medical problems in the last several months? If yes, explain:

YES

NO

8. Do you have any concerns about your baby's behavior? If yes, explain:

YES

NO

9. Does anything about your baby worry you? If yes, explain:

YES

NO



# 12 Month ASQ-3 Information Summary

11 months 0 days through  
12 months 30 days

Baby's name: \_\_\_\_\_ Date ASQ completed: \_\_\_\_\_

Baby's ID #: \_\_\_\_\_ Date of birth: \_\_\_\_\_

Administering program/provider: \_\_\_\_\_ Was age adjusted for prematurity when selecting questionnaire?  Yes  No

**1. SCORE AND TRANSFER TOTALS TO CHART BELOW:** See *ASQ-3 User's Guide* for details, including how to adjust scores if item responses are missing. Score each item (YES = 10, SOMETIMES = 5, NOT YET = 0). Add item scores, and record each area total. In the chart below, transfer the total scores, and fill in the circles corresponding with the total scores.

Area	Cutoff	Total Score	0	5	10	15	20	25	30	35	40	45	50	55	60
Communication	15.64		●	●	●	●	●	○	○	○	○	○	○	○	○
Gross Motor	21.49		●	●	●	●	●	○	○	○	○	○	○	○	○
Fine Motor	34.50		●	●	●	●	●	●	●	○	○	○	○	○	○
Problem Solving	27.32		●	●	●	●	●	○	○	○	○	○	○	○	○
Personal-Social	21.73		●	●	●	●	●	○	○	○	○	○	○	○	○

**2. TRANSFER OVERALL RESPONSES:** Bolded uppercase responses require follow-up. See *ASQ-3 User's Guide*, Chapter 6.

- |  |            |           |  |            |    |
|--|------------|-----------|--|------------|----|
| 1. Uses both hands and both legs equally well?<br>Comments:    | Yes        | <b>NO</b> | 6. Concerns about vision?<br>Comments:   | <b>YES</b> | No |
| 2. Plays with sounds or seems to make words?<br>Comments:      | Yes        | <b>NO</b> | 7. Any medical problems?<br>Comments:    | <b>YES</b> | No |
| 3. Feet are flat on the surface most of the time?<br>Comments: | Yes        | <b>NO</b> | 8. Concerns about behavior?<br>Comments: | <b>YES</b> | No |
| 4. Concerns about not making sounds?<br>Comments:              | <b>YES</b> | No        | 9. Other concerns?<br>Comments:          | <b>YES</b> | No |
| 5. Family history of hearing impairment?<br>Comments:          | <b>YES</b> | No        |  |            |    |

**3. ASQ SCORE INTERPRETATION AND RECOMMENDATION FOR FOLLOW-UP:** You must consider total area scores, overall responses, and other considerations, such as opportunities to practice skills, to determine appropriate follow-up.

If the baby's total score is in the  area, it is above the cutoff, and the baby's development appears to be on schedule.  
If the baby's total score is in the  area, it is close to the cutoff. Provide learning activities and monitor.  
If the baby's total score is in the  area, it is below the cutoff. Further assessment with a professional may be needed.

**4. FOLLOW-UP ACTION TAKEN:** Check all that apply.

- Provide activities and rescreen in \_\_\_\_\_ months.
- Share results with primary health care provider.
- Refer for (circle all that apply) hearing, vision, and/or behavioral screening.
- Refer to primary health care provider or other community agency (specify reason): \_\_\_\_\_
- Refer to early intervention/early childhood special education.
- No further action taken at this time
- Other (specify): \_\_\_\_\_

**5. OPTIONAL:** Transfer item responses (Y = YES, S = SOMETIMES, N = NOT YET, X = response missing).

	1	2	3	4	5	6
Communication						
Gross Motor						
Fine Motor						
Problem Solving						
Personal-Social						

# Lead Screening for Children



Of all the health problems caused by the environment, lead poisoning is the most preventable. Despite this, almost 1 million children in the United States have elevated levels of lead in their blood. Any child can be at risk for lead poisoning.

Read more to learn about the risks of lead poisoning and how to prevent it, and about lead screening and treatment for lead poisoning.

## How can lead hurt my child?

Children, primarily those younger than 6 years, can be exposed to lead if they

- Get lead dust from old paint on their hands or toys and then put their hands in their mouths
- Breathe in lead dust from old paint
- Eat chips of old paint or dirt that contain lead
- Drink water from pipes lined or soldered with lead

Once lead enters the body, it travels through the bloodstream and is stored mainly in the bones where it can remain for a lifetime. Very high levels of lead in the body may cause many long-term problems, including

- Developmental delays
- Hearing loss
- Seizures and coma
- Kidney problems
- Anemia
- Growth problems

Most children with high lead levels in their blood show no obvious symptoms until they reach school age. At that point, some may show learning and behavioral problems. Others with high lead levels may experience symptoms such as stomach pain, headaches, vomiting, or muscle weakness.

## Where can lead be found?

You may have heard that children can be harmed by the lead in pencils. This is not true. There is no actual lead in pencils and there is no lead in the paint on the outside of pencils. Lead is found in the following places:

- Dust and paint chips from old paint
- Homes built before 1950, particularly those that are in need of repair or are in deteriorating condition
- Homes built before 1978 that are being renovated
- Soil that has lead in it
- Hobby materials such as stained glass, paints, solders, fishing weights, and buckshot
- Folk remedies
- Workplace dust brought home on the clothing of people who have jobs that use lead, such as foundry workers, smelter workers, and radiator repair mechanics
- Food stored in some ceramic dishes (especially if made in another country)...
- Older painted toys and antique furniture such as cribs

## Should my child be screened for lead?

If you can answer "yes" to any of the following questions, especially numbers 1, 2, and 3, your child may need to be screened for lead. Talk to your pediatrician about lead screening for your child.

1. Does your child live in or regularly visit a house that was built before 1950, including a home child care center or the home of a relative?
2. Does your child live in or regularly visit a house built before 1978 that has been remodeled in the last 6 months? Are there any plans to remodel?
3. Does your child have a brother, sister, housemate, or playmate who is being treated for lead poisoning?
4. Does your child live with an adult whose job or hobby involves exposure to lead?
5. Does your child live near an active lead smelter, battery-recycling plant, or other industry likely to release lead into the environment?
6. Does your child live within 1 block of a major highway or busy street?
7. Has your child ever been given home remedies such as azarcon, greta, or pay looah?
8. Has your child ever lived outside the United States?
9. Does your family use pottery or ceramics for cooking, eating, or drinking?
10. Have you seen your child eat paint chips?
11. Have you seen your child eat soil or dirt?
12. Have you been told your child has low iron?

Adapted from the Centers for Disease Control and Prevention's *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*.

- Tap water in older homes that have lead pipes or lead solder in their pipes
- Automobile batteries

## Prevention—what you can do

- If your home was built before 1950, ask your child's pediatrician to test your child for lead.
- If your home was built before 1978, talk with your child's pediatrician or your health department about safe ways to remodel *before* any work is done.
- When removing lead paint, be sure to use a certified contractor. Trying to remove the paint on your own can often make the condition worse. Know your state's laws regarding lead removal. Some states only allow certified contractors to remove lead. Be sure to seal off the room or area you are remodeling with heavy plastic until the job is done.

- Clean and cover any chalking, flaking, or chipping paint with a new coat of paint, duct tape, or contact paper. It is important to check for paint dust or flaking paint at window areas where children often play. Be aware that these are temporary measures only, and that lead must be completely removed for your child's best protection.
- Repair areas where paint is dusting, chipping, or peeling before placing cribs, playpens, beds, or highchairs next to them.
- Wet mop floors, damp sponge walls and horizontal surfaces, and vacuum with a high-efficiency particulate air vacuum (HEPA vac) if you are concerned about the possibility of lead dust in your home. Although good cleaning is a temporary solution, complete removal of the lead is the best protection.
- Encourage your children to wash their hands often, especially before eating.
- Have your home or apartment checked for possible lead contamination before moving in. Keep in mind that landlords are legally responsible for removing any lead found on their property.
- If you work around lead or have hobbies that involve lead, change clothes and shoes before entering your home. Keep clothes at work or wash work clothes as soon as possible.
- Check with your child's pediatrician or your health department to see if your area has a problem with lead in the water.
- If you have lead pipes, run the first morning tap water for 2 minutes before using it for drinking or cooking. Use cold tap water for mixing formula, drinking, or cooking because hot tap water can have higher amounts of lead in it.

You can also reduce the risks of lead by making sure your child eats a well-balanced diet. Give your child nutritious, low-fat foods that are high in calcium and iron, like meat, beans, spinach, and low-fat dairy products. Calcium and iron in particular reduce the amount of lead absorbed by the body.

### Lead screening

The only way to know for sure if your child has been exposed to lead is to have your child's pediatrician test your child's blood. Lead screening tests use either a small amount of blood from a finger prick or a larger sample of blood from a vein in the arm. These tests measure the amount of lead in the blood.

### Treatment

For children with *low* levels of lead in their blood, identify and eliminate the sources of lead to avoid future health problems. Children with *high* levels of lead in their blood usually need to take a drug that binds the lead in the blood and helps the body get rid of it. This treatment may be given as a series of shots or as oral medicine depending on the severity of the lead poisoning. Some children with lead poisoning need more than one type of treatment and several months of close follow-up. If the damage is severe, the child may need special schooling and therapy.

### Remember

Most young children put things other than food into their mouths. They chew on toys, taste the sand at the park, and eat cat food if given the chance. This rarely causes any harm, as long as poisons, small items that children can choke on, and sharp objects are kept out of reach. Lead, however, can be very dangerous to children. Infants and toddlers can get lead poisoning by putting their fingers in their mouths after touching lead dust, eating lead paint chips, or breathing in lead dust. Lead poisoning can cause developmental delay, hearing loss, seizures and coma, kidney problems, anemia, and growth problems. Talk with your child's pediatrician about getting a blood test, especially if your child is younger than 3 years. Take the steps listed in this brochure to make sure your child is not exposed to lead.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

### From your doctor

DEPARTMENT OF PEDIATRICS  
MCHK-PE  
CDR TAMC  
1 JARRETT WHITE ROAD  
TRIPLER AMC, HI 96859-5000



**Lead Exposure Risk Assessment Questionnaire**  
 Pediatric Clinic, Tripler Army Medical Center  
 (This form is covered by the Privacy Act of 1974)

PLEASE COMPLETE THIS QUESTIONNAIRE PRIOR TO SEEING THE NURSE. CIRCLE Y (YES) OR N (NO) IN THE COLUMN UNDER TODAY'S DATE. ONE OR BOTH PARENTS SHOULD THEN SIGN AT THE LEFT AND INITIAL UNDER TODAY'S DATE. PLEASE ASK THE NURSE OR PHYSICIAN FOR CLARIFICATION IF ANY QUESTIONS.

Signature _____	Date _____	_____	_____	_____	_____	_____
Signature _____	Initials _____	_____	_____	_____	_____	_____
	Initials _____	_____	_____	_____	_____	_____

- |  |     |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|-----|
| 1. Does this child live in or regularly visit a home, daycare center, preschool etc. built before 1960 with peeling or chipping paint or which has recent ongoing, or planned renovation/remodeling?   | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |
| 2. Is there a brother or sister, housemate, or playmate being followed or treated for lead poisoning?  | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |
| 3. Live with anyone whose job or hobby involves exposure to lead?  | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |
| 4. Have you ever been told your child has an elevated lead level?  | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |
| 5. Have you lived outside the United States in the last 12 months?   | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |
| 6. Have you lived near an active lead smelter, battery recycling plant, or any industry you know that releases lead?   | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |
| 7. Do you use home or folk remedies such as Alarcon, Alkohol, Azarcon, Bali Goli, Coral Ghassrd, Greta, Liga, Pay-loo-ah or Reuda? Do you use folk cosmetics such as Kohl or Surma? Do you use home made ceramic pottery, lead crystal or lead soldered cans to store food or drink? | Y/N | Y/N | Y/N | Y/N | Y/N | Y/N |

Do you live in military housing? Y/N  
 If yes, please give name of housing area.

Sponsor's SSN \_\_\_\_\_

Branch of service \_\_\_\_\_

Home Phone \_\_\_\_\_

Duty Phone \_\_\_\_\_



# Chickenpox

Last updated: February 2013

## What is chickenpox?

Chickenpox is a disease caused by the varicella zoster virus. It causes a rash and fever and can be serious, especially for babies, adolescents, adults, pregnant women, and people with weakened immune systems. The chickenpox vaccine protects against this disease.

## What are the symptoms of chickenpox?

Chickenpox causes a rash of itchy blisters. It starts on the face, chest, back, and stomach. A person can have 250 to 500 blisters. The rash can spread over the whole body, including inside the mouth, eyelids or genital area. Chickenpox also causes fever, headache, and tiredness. People are usually sick for 5 to 10 days.

You can still get chickenpox if you have been vaccinated against the disease. But, it is usually milder with less than 50 blisters and little or no fever.

## How serious is chickenpox?

Most children with chickenpox completely recover in a week. But, the itching can be very uncomfortable. Children with chickenpox miss several days of school or child care.

The disease can also cause serious problems, including:

- Bacterial infection of the skin and tissues under the skin (including group A streptococcal infections)
- Dehydration (loss of body fluids) from vomiting or diarrhea
- Pneumonia (lung infection)
- Encephalitis (brain swelling)

Some people may need hospital care. Chickenpox can even be deadly.

## How does chickenpox spread?

Chickenpox spreads easily through the air when an infected person coughs or sneezes. It can also spread by touching fluid from blisters.

## Benefits of the chickenpox vaccine

- Saves lives.
- Protects against serious disease.
- Prevents discomfort from disease.

## Side effects of the chickenpox vaccine

The most common side effects are usually mild and include the following:

- Sore arm from the shot in 1 out of 5 children and 1 out of 3 adolescents and adults
- Mild rash, up to 1 month after vaccination in 1 out of 25 people.

Serious side effects are very rare but can include the following:

- Seizures (jerking or staring) because of fever.
- Pneumonia (lung infection).

Children with chickenpox usually must miss school or child care for several days of school to avoid spreading the virus to others.

If a person vaccinated for chickenpox gets the disease, they can still spread it to others.

## What is the chickenpox vaccine?

The chickenpox vaccine protects against chickenpox. It is made from weakened varicella virus that protects children by preparing their bodies to fight the virus.

Some vaccinated people still get chickenpox, but they usually have a very mild case. Most have fewer blisters and little or no fever. They get well quickly. The vaccine prevents almost all cases of severe disease.



### When should my child get the chickenpox vaccine?

Children need two doses of the chickenpox vaccine at the following ages for best protection:

- The first dose at 12 through 15 months; and
- A second dose at 4 through 6 years.

### Why should my child get the chickenpox vaccine?

The chickenpox vaccine protects against an uncomfortable and sometimes serious disease.

Before the chickenpox vaccine, about 11,000 people in the U.S. needed hospital care each year for chickenpox, and about 100 people died each year of chickenpox.

### Is the chickenpox vaccine safe?

The chickenpox vaccine is very safe, and it is effective at preventing chickenpox. Vaccines, like any medicine, can have side effects. Most people who get the chickenpox vaccine have no side effects. Side effects that do occur are almost always mild, such as pain from the shot or fever. Serious side effects are very rare.

### If my child does not get the chickenpox vaccine, will he get the disease?

Before there was a vaccine, almost everyone got chickenpox. It was one of the most common childhood diseases.

With the vaccine, cases of chickenpox have dropped by about 90%. But if parents don't vaccinate their children, cases could go up again.

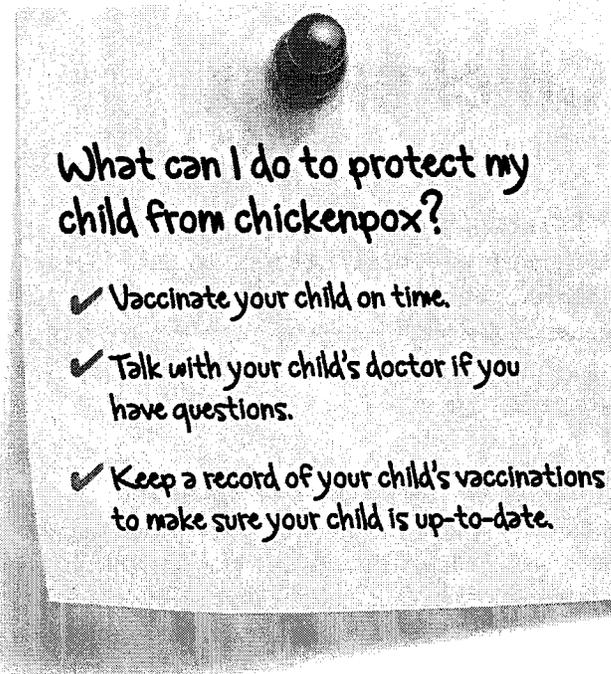
### Why not let children get chickenpox naturally?

Chickenpox can be a fairly mild disease, but it isn't always. There's no way to know who will have a mild case and who will be very sick.

### What is the MMRV vaccine?

The MMRV vaccine combines the MMR (for measles, mumps, and rubella) vaccine with the chickenpox vaccine. It was created to reduce the number of shots children get.

Children who get the first dose of MMRV vaccine at 12 to 23 months old may have a higher chance of a seizure caused by fever. But, this is not common. These seizures may be scary for parents, but they are not harmful to children.



### What can I do to protect my child from chickenpox?

- ✓ Vaccinate your child on time.
- ✓ Talk with your child's doctor if you have questions.
- ✓ Keep a record of your child's vaccinations to make sure your child is up-to-date.

CDC recommends that children younger than 4 get the first dose of MMR and chickenpox vaccines separately.

### Where can I learn more about the chickenpox vaccine?

To learn more about the chickenpox vaccine or other vaccines, talk to your child's doctor.

Call **800-CDC-INFO** (800-232-4636) or go to <http://www.cdc.gov/vaccines> and check out the following resources:

- Parent's Guide to Childhood Immunization—Varicella (Chickenpox): <http://www.cdc.gov/vaccines/pubs/parents-guide/default.htm>
- Infant Immunizations FAQs: <http://www.cdc.gov/vaccines/parents/parent-questions.html>
- Vaccines website for parents: <http://www.cdc.gov/vaccines/parents>

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and American Academy of Pediatrics strongly recommend all children receive the chickenpox vaccine according to the recommended schedule.

# Hib Disease

Reviewed February 2013

## What is Hib disease?

Hib disease is a serious illness caused by the bacteria *Haemophilus influenzae* type b. Babies and children younger than 5 years old are most at risk for Hib disease. It can cause lifelong disability and be deadly. The Hib vaccine prevents Hib disease.

## What are the symptoms of Hib disease?

Hib disease causes different symptoms depending on which part of the body it affects.

The most common type of Hib disease is meningitis. This is an infection of the covering of the brain and spinal cord. It causes the following:

- Fever and headache
- Confusion
- Stiff neck
- Pain from bright lights

In babies, meningitis may cause poor eating and drinking, low alertness, and vomiting.

Hib disease can also cause the following:

- Throat swelling that makes it hard to breathe
- Joint infection
- Skin infection
- Pneumonia (lung infection)
- Bone infection

## How serious is Hib disease?

Hib disease is very dangerous. Most children with Hib disease need care in the hospital. Even with treatment, as many as 1 out of 20 children with Hib meningitis dies.

As many as 1 out of 5 children who survive Hib meningitis will have brain damage or become deaf.

## How does Hib spread?

## Benefits of the Hib vaccine

- Saves lives.
- Protects young children from serious disease and lifelong disability.
- Keeps others safe.

## Side effects of the Hib vaccine

The most common side effects are usually mild and last 2 or 3 days. They include the following:

- Redness, swelling, and warmth where the shot was given in 1 out of 4 children.
- Fever over 101 degrees in 1 out of 20 children.

Hib spreads when an infected person coughs or sneezes. Usually, the Hib bacteria stay in a person's nose and throat and do not cause illness. But if the bacteria spread into the lungs or blood, the person will get very sick.

Spread of Hib is common among family members and in child care centers.

## What is the Hib vaccine?

The Hib vaccine is a shot that protects against Hib disease. The vaccine protects children by preparing their bodies to fight the bacteria.

Almost all children (at least 95 children out of 100) who get all doses of the vaccine will be protected from Hib disease.

## Why should my child get the Hib vaccine?

Getting your child the Hib vaccine protects him against serious, and even deadly, illness. It is rare for a child who has had the Hib vaccine to get Hib disease.



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### When should my child get the Hib vaccine?

Children should get three or four doses of the Hib vaccine at the following ages for best protection:

- One dose at 2 months;
- A second dose at 4 months;
- For some brands, one dose at 6 months; and
- A final dose at 12 through 15 months of age.

It is safe to get the Hib vaccine at the same time as other vaccines, even for babies.

### Is the Hib vaccine safe?

The Hib vaccine is very safe, and it is effective at preventing Hib disease. Vaccines, like any medicine, can have side effects. But severe side effects from the Hib vaccine are very rare.

### If my child does not get the Hib vaccine, will he get Hib disease?

Without the vaccine, your child has a much greater chance of getting Hib disease. Most cases of Hib disease in the U.S. today are in children who have not had the Hib vaccine.

Before the Hib vaccine, Hib disease was the most common cause of meningitis in children younger than 5 years in the U.S. About 20,000 children got severe Hib disease each year, and about 1,000 died.

Today, with the vaccine, cases of severe Hib disease have dropped by more than 99%. Many more children would get sick from Hib if people stopped vaccinating.

### How can I learn more about the Hib vaccine?

To learn more about the Hib vaccine or other vaccines, talk to your child's doctor.

Call **800-CDC-INFO** (800-232-4636) or go to <http://www.cdc.gov/vaccines> and check out the following resources:

- Is Your Child Protected Against Hib Disease?: <http://www.cdc.gov/features/hibdisease/>
- Infant Immunizations FAQs: <http://www.cdc.gov/vaccines/>

### What can I do to protect my child from Hib disease?

- ✓ Vaccinate your child on time.
- ✓ Talk with your child's doctor if you have questions.
- ✓ Keep a record of your child's vaccinations to make sure your child is up-to-date.

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and American Academy of Pediatrics strongly recommend all children receive the Hib vaccine according to the recommended schedule.

# Measles

Last updated February 2013

## What is measles?

Measles is a serious respiratory disease caused by a virus. It spreads easily through coughing and sneezing. In rare cases, it can be deadly. The measles, mumps, rubella (MMR) vaccine protects against measles.

## What are the symptoms of measles?

- Measles starts with a fever, which can get very high.
- Soon after, it causes a cough, runny nose, and red eyes.
- Then a rash of tiny, red spots breaks out. It starts at the head and spreads to the rest of the body.
- The rash can last for a week, and coughing can last for 10 days.
- Some children who get measles also get diarrhea or an ear infection.

## How serious is measles?

Measles can be dangerous, especially for babies and young children. In the United States in 2011, 38% of children younger than 5 years old who had measles had to be treated in the hospital.

For some children, measles can lead to pneumonia, a serious lung infection. It can also cause lifelong brain damage, deafness, and even death.

One to three out of 1,000 children in the U.S. who get measles will die from the disease, even with the best care. About 150,000 to 175,000 people die from measles each year around the world—mostly in places where children do not get the measles vaccine.

## How does measles spread?

Measles spreads when an infected person breathes, coughs, or sneezes.

It is very contagious. You can catch measles just by being in a room where a person with measles has been, even after that person is gone. And you can catch measles from an infected person even before they have a measles rash.

## What is the MMR vaccine?

The MMR vaccine is a shot that combines vaccines for three diseases—measles, mumps, and rubella. The vaccine protects children by preparing their bodies to fight the measles virus. Almost all children (95 out of 100) who get two doses of MMR vaccine will be protected from measles.

## Why should my child get the MMR vaccine?

The risk of measles may be very high for unvaccinated U.S. residents who travel abroad. Measles is still common in other parts of the world, including countries in Europe, Asia, the Pacific, and Africa. Worldwide, about 20 million people get measles each year. So, two doses of MMR

## Benefits of the MMR vaccine

- Saves lives.
- Protects young children from serious disease.
- Keeps others safe.

## Side effects of the MMR vaccine

- The most common side effects are usually mild and include the following:
  - Fever in 1 out of 6 people.
  - Mild rash in 1 out of 20 people.
- Swollen glands in the cheeks or neck in very few people.
- Fever high enough to cause a seizure (jerking or staring) occurs in 1 out of 3,000 people. These seizures do not cause any long-term harm.
- Temporary joint pain and stiffness (mostly in teens and adults).
- Serious allergic reaction to the MMR vaccine occurs in fewer than 1 in 1 million people.

vaccine are recommended for all international travelers 12 months or older. Infants 6 through 11 months of age should get one dose before traveling.

## When should my child get the MMR vaccine?

Children should get two doses of the MMR vaccine at the following ages for best protection:

- The first dose at 12 through 15 months; and
- The second dose at 4 through 6 years old.

Children often get MMR vaccine at the same time as other vaccines. This is safe, even for young children.

During an outbreak, health officials may recommend the MMR vaccine be given to infants younger than 12 through 15 months of age, sometimes even to children as young as 6 months of age.

Additionally, measles is still common in many countries, including Europe, Asia, the Pacific, and Africa. Worldwide, about 20 million people get measles each year. So, the risk of measles may be very high for unvaccinated U.S. residents who travel abroad. Two doses of MMR vaccine are recommended for all international travelers 12 months or older. Infants 6 through 11 months of age should get one dose before traveling.



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## Is the MMR vaccine safe?

The MMR vaccine is very safe, and it is effective at preventing measles (as well as mumps and rubella). Vaccines, like any medicine, can have side effects. Most children who get the MMR vaccine have no side effects. Those that do occur are typically very mild, such as a fever or rash.

## If my child does not get the MMR vaccine, will he get measles?

Almost everyone who has not had MMR vaccine will get measles if they are exposed to the measles virus.

Before the measles vaccination program started in 1963, about 3 to 4 million people got measles each year in the United States. Also, each year about 48,000 people were hospitalized, 1,000 suffered brain damage or became deaf, and 450 died because of measles.

Thanks to the MMR vaccine, measles no longer circulates year round in the United States. But, because it is still common in other parts of the world, unvaccinated people can get measles when they are in other countries and bring it into the United States. They can infect other people, which can cause outbreaks in their communities.

Today, only about 60 people in the United States are reported to have measles each year. But this number can go up when people don't get the vaccine and are exposed to measles. In the late 1980s, measles cases went way up—and so did measles deaths—due to large numbers of unvaccinated children in some communities.

In 2011, the number of people reported to have measles in the United States was higher than usual. 220 people were reported to have the disease. That's more than any year since 1996. Measles sent 32% of these people to the hospital. People who had measles spread the disease to others. This caused 16 different measles outbreaks in 2011.

## Where do measles cases in the United States come from?

Most measles comes into the United States by U.S. citizens who recently traveled internationally and foreign visitors to the U.S.

### One Mom's Measles Story

Megan Campbell knows first-hand how serious measles can be. Her 10-month-old son got measles from an infected child in the waiting room at his doctor's office. That child, who was not vaccinated, contracted measles while on a trip outside of the U.S.

Megan's son got better and had no lasting effects of the illness. But he was very sick with measles. He spent 3 days in the hospital with an IV (a needle in the vein to give fluids) because he was unable to eat or drink. When he went home, he had another week of illness and high fevers.

At 10 months, Megan's son was too young to get the MMR vaccine. That's why he got sick with measles. At 12 months, Megan took him to get the MMR vaccine. Even though he couldn't get measles again, his mom knew the vaccine would protect him against mumps and rubella, two other serious diseases.

"This way, he won't suffer from mumps or rubella, or spread them to anyone else," said Megan.

## What can I do to protect my child from measles?

- ✓ Vaccinate your child on time.
- ✓ Talk with your child's doctor if you have questions.
- ✓ Keep a record of your child's vaccinations to make sure your child is up-to-date.

Some people in the United States choose not to get their children the MMR vaccine. These children are at higher risk for getting measles. And they can spread the disease to others in their communities, including to babies who are too young to get the vaccine and others who cannot get vaccinated because of certain health conditions.

## Is the MMR vaccine linked with autism?

No, many large and reliable studies of MMR vaccine have been done in the U.S. and other countries. None has found a link between autism and the MMR vaccine.

There are a couple of reasons why people believe autism is linked to vaccination. The first is because sometimes signs of autism do not appear until around the age the MMR vaccine is given. If a child is diagnosed shortly after getting vaccinated, this may seem like the vaccine caused autism.

Another reason some people think MMR is linked to autism is a study published in 1998 from the United Kingdom. One of the authors claimed that the MMR vaccine could contribute to the development of autism. That study got a lot of attention in the news. Since 1998, 10 out of 13 of the study's authors have withdrawn their support of the study, and the journal has retracted it.

## Where can I learn more about the MMR vaccine?

To learn more about MMR or other vaccines, talk to your child's doctor.

Call 800-CDC-INFO (800-232-4636) or go to <http://www.cdc.gov/vaccines> and check out the following resources:

- Measles homepage: <http://www.cdc.gov/measles>
- Infant Immunizations FAQs: <http://www.cdc.gov/vaccines/parents/parent-questions.html>
- Vaccines website for parents: <http://www.cdc.gov/vaccines/parents>

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and American Academy of Pediatrics strongly recommend all children receive the MMR vaccine according to the recommended schedule.

# Pneumococcal Disease

Last reviewed February 2013

## What is pneumococcal disease?

Pneumococcal disease is an illness caused by bacteria called the pneumococcus bacteria. It is often mild but can cause serious symptoms, lifelong disability, or death. Children under 2 years of age are among those most at risk for disease. The pneumococcal vaccine protects against this disease.

## What are the symptoms of pneumococcal disease?

There are many types of pneumococcal disease. Symptoms depend on the part of the body that is infected.

Pneumococcal pneumonia (lung infection) is the most common serious form. It causes the following:

- Fever and chills
- Cough
- Rapid breathing or difficulty breathing
- Chest pain

Pneumococcal meningitis is an infection of the covering of the brain and spinal cord. It causes the following:

- Stiff neck
- Fever and headache
- Pain from bright lights
- Confusion

In babies, meningitis may cause poor eating and drinking, low alertness, and vomiting.

Blood infection (bacteremia and sepsis) causes fever, chills, and low alertness. Pneumococcal disease causes up to half of middle ear infections (otitis media). Symptoms are ear pain; a red, swollen ear drum; and sometimes, fever and sleepiness.

## How serious is pneumococcal disease?

Pneumococcal disease ranges from mild to very dangerous. About 4,000 cases of serious disease (meningitis and sepsis) occur each year in children under 5 in the U.S. These illnesses can lead to disability like deafness, brain damage, or loss of arms or legs. About 1 out of 10 children who get pneumococcal meningitis dies.

## Benefits of the pneumococcal vaccine (PCV13)

- Saves lives.
- Protects young children from serious disease and lifelong disability.

## Side effects of the pneumococcal vaccine (PCV13)

The most common side effects are usually mild and include the following:

- Fussiness
- Sleepiness
- Loss of appetite (not wanting to eat)
- Soreness, redness, and swelling from the shot
- Fever

## How does pneumococcal disease spread?

Pneumococcal disease spreads when an infected person sneezes or coughs.

Children can carry the bacteria in their nose and throat, and spread the bacteria, without being sick. Sometimes the bacteria spread from the nose and throat into the blood or lungs, causing severe disease. Other times it can spread to ears or sinuses, causing mild infections.

## What is the pneumococcal vaccine or PCV13?

The pneumococcal vaccine is a shot that helps prevent pneumococcal disease. There are more than 90 types of pneumococcal bacteria. The vaccine called PCV13 protects against the 13 types that cause most of the severe illness in children. The vaccine can also help prevent some ear infections.

PCV13 protects children by preparing their bodies to fight the bacteria. Almost all children (about 9 children out of 10) who get PCV13 will be protected from the 13 types of pneumococcal bacteria in the vaccine.

## When should my child get PCV13?

All babies should get PCV13. They need four doses at the following ages for best protection:

- One dose each at 2 months, 4 months, and 6 months; and
- A fourth dose at 12 through 15 months of age.

If your child misses a dose or starts late, he should still get the vaccine. Talk to your child's doctor.

It is safe to get PCV13 at the same time as other vaccines. However, young children (12 through 23 months of age) who get inactivated flu vaccine and PCV13 at the same time appear to be at increased risk for seizures caused by fever, called febrile seizures. Studies done in 2010-11 showed that in this group, about one additional febrile seizure occurred among every 2,000 to 3,000 children vaccinated when the vaccines were given together than when they were given at separate visits. Febrile seizures are scary for parents, but they are not harmful to children. Ask your child's doctor for more information.

## Why should my child get PCV13?

Getting your child PCV13 protects him against serious, and even deadly, illness. There are medicines to treat pneumococcal bacteria, but these do not always prevent damage from the infection, and some bacteria have become resistant to those medicines. That means the medicines can't kill the bacteria. Preventing pneumococcal infection is the best option.

## If my child does not get PCV13, will he get pneumococcal disease?

Without the pneumococcal vaccine, your child is at risk for this serious disease.

Each year in the U.S., pneumococcal disease causes thousands of cases of pneumonia and ear infections. Babies younger than 2 years of age are most likely to have a serious case of pneumococcal

## What can I do to protect my child from pneumococcal disease?

- ✓ Vaccinate your child on time.
- ✓ Talk with your child's doctor if you have questions.
- ✓ Keep a record of your child's vaccinations to make sure your child is up-to-date.

disease.

Before the vaccine, there were about 700 cases of meningitis, 13,000 blood infections, and 200 deaths from pneumococcal disease each year among children younger than 5 years. After the vaccine was introduced, these numbers dropped quickly.

## Is PCV13 safe?

The pneumococcal vaccine is very safe, and it is effective at preventing pneumococcal disease. Vaccines, like any medicine, can have side effects. But severe side effects from PCV13 are very rare.

## How can I learn more about PCV13?

To learn more about PCV13 or other vaccines, talk to your child's doctor.

Call **800-CDC-INFO** (800-232-4636) or go to <http://www.cdc.gov/vaccines> and check out the following resources:

- PCV13 (Pneumococcal Conjugate) Vaccine for Parents: <http://www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm>
- Infant Immunizations FAQs: <http://www.cdc.gov/vaccines/parents/parent-questions.html>
- Vaccines website for parents: <http://www.cdc.gov/vaccines/parents>

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and American Academy of Pediatrics strongly recommend all children receive the pneumococcal vaccine according to the recommended schedule.