Four-Month Visit

MassGeneral Hospital for Children

Congratulations, your baby is 4 months old and becoming more interactive and playful every day! The following are some tips to help you along.

Feeding and Nutrition

- At this age, your baby may feed less frequently (usually 4-7 times a day) but in larger amounts.
- A rule of thumb is that each day babies take about 2 ½ ounces of formula per pound of their weight.
- Your baby will regulate his intake day to day to meet his own needs. Instead of going by fixed amounts, let your baby tell you when he has had enough (he may turn his head away or spit out the nipple).
- Only give your baby breast milk or formula. Babies this age don't need plain water or juice.
- Don't give your baby honey until after age 1.
- Mix formula with faucet water (even if your baby doesn't have teeth yet) since it has fluoride to keep teeth growing beneath the gums healthy.
- Don't put your baby to bed with a bottle or prop a bottle in his mouth.
- If your baby is breastfed only or taking less than 32 oz of formula/day, he should continue taking a Vitamin D supplement (400 IU/day).
- Spitting up is common and is not dangerous if your baby is acting well and gaining weight. This usually gets better around 6-9 months.

Starting Solids

- Breast milk or formula will continue to be a major source of your child's nutrition throughout the first 12 months.
- Most babies start solids between 4 to 6 months of age. What are signs of readiness to begin? Your baby should be able to sit on her own, grab for things to put in her mouth, and close her mouth around a spoon. She will also show interest when you are eating.
- Start once a day with infant cereal (rice, barley or oatmeal) fortified with iron. Mix 1 tablespoon of cereal with 4-5 tablespoons of breast milk or formula. To begin, make the mixture the consistency of soup and gradually prepare it thicker.
- Always spoon-feed cereal. **Don't put cereal in a bottle.**
- Babies generally have a strong tongue thrust reflex so don't be surprised if a lot of food ends up on the floor. It may take a few feeds before your baby figures out what to do.
- Once your baby has mastered cereal, try fruits or vegetables. Give one new food at a time and wait 2-3 days before starting another in order to watch for any signs of allergic reaction such as rash, vomiting or diarrhea. Over the next few months, gradually increase to 2-3 solid meals a day.

Pooping

- As you introduce solid foods, poops may change in color, consistency and frequency. It is normal for your baby to strain before pooping successfully as long as the poops are soft.

Safety Tips

1. Always keep one hand on your baby. Do not leave him alone on the bed, couch or changing table. Never leave your baby alone in the bathtub.
2. Don't put your baby in an infant walker at any age.
3. Your baby's car seat should remain in the back seat facing the rear window.
4. Minimize the risk of burn accidents to your baby: do not smoke, drink hot liquids or cook while holding your baby.
5. Turn your hot water heater down to 120° or lower to avoid burns.
6. Now is a good time to childproof your home. Keep medicines, cleaning supplies, small or sharp objects, plastic bags, balloons, sockets and cords out of your baby's reach. Anything that fits inside a toilet paper roll is a choking hazard.
7. Make sure that your smoke detectors are working and properly installed. Change batteries at least once a year.
8. Avoiding direct sun exposure (especially 10am-4pm when UV rays are strongest) is best. If not possible, sunscreen (preferably unscented and chemical-free) is ok for babies but test it first on a small patch of skin.

continued >

Four-Month Visit continued...

MassGeneral Hospital for Children

Sleeping

- At this age, babies may sleep 8-12 hours at night and take 2-3 naps for an average of 15 hours of total sleep/day.
- Now is a good time to start a bedtime routine if you haven't already – this helps signal to your baby that it is time to go to sleep. You may want to dim the lights, read a book or sing to your baby.
- Place your baby in her crib when she becomes sleepy but is still awake so she learns to self-soothe and fall asleep without your help.
- If your baby wakes up fussing at night, try waiting a few minutes before responding to see if she can soothe herself back to sleep. If she keeps crying, check on her but don't turn on the light, play with her, or pick her up. Instead, gently pat her and/or say "shhh" to let her know you are there.
- Continue to place your baby on her back to sleep to decrease the risk of Sudden Infant Death Syndrome. If your baby is already rolling over, she may not stay on her back – this is ok.
- Don't put loose, soft bedding, pillows, wedges, or stuffed animals in the crib. Lower the crib mattress before your baby starts to sit up.

Development

- Babies vary greatly in development. At this age, many babies will:
  1) Start to engage you in "conversation". Your baby may babble and pause to give you a chance to respond.
  2) Begin to roll over and reach for objects.
  3) Sit when propped up (not by herself) and have better head and neck control.
- Try these tips to help with development:
  1) Talk and sing out loud to your baby. Repeat the sounds your baby makes back to her. Listen to music and dance with her. Play pat-a-cake and peek-a-boo.
  2) Look at books with hard cardboard pages and bright pictures together. It is very normal for your baby to put books in her mouth.
  3) Continue 'tummy time' on a firm surface several times a day.
  4) Give your baby soft and brightly colored toys (rattles, balls and squeak toys) that make noise or move when touched.
  5) Talk to your doctor if you have any concerns about your baby's development.

Teething/Oral Care

Teething usually starts between 4-7 months but timing is variable. It may cause mild fussiness, crying, low-grade fever (not >101°F) and drooling. To help, gently massage your baby's gums or let him chew on a wet towel. Before teeth come in, wipe your baby's gums with a moist cloth after feedings (especially before bed). Once teeth appear, brush them twice a day using water on a soft baby toothbrush. To prevent tooth decay, never let your baby fall asleep with a bottle.

Immunizations (*vaccine schedule may vary slightly by practice)

Today: 3 shots and 1 oral	Next Visit (at 6 months-old):
-DtaP / Polio / HIB (combined)	-DtaP / Polio / HIB (combined)
-Pneumococcal	-Pneumococcal
-Rotavirus (oral)	-Rotavirus (oral)
-Hepatitis B (variable)	-Hepatitis B (variable)

Websites

- AAP Healthy Children | http://www.healthychildren.org (Health topics and news updates from the American Academy of Pediatrics)
- AAP Immunization Info | http://www.aap.org/immunization (Research-based information about childhood vaccines)

Your child's next routine visit is recommended at 6 months-old.

Important Numbers

- Poison Control 1-800-222-1222
- Parental Stress Line 1-800-632-8188
- Domestic Violence Help Line 1-617-724-0054 (HAVEN)
- Smoking Quit Line (free): 1-800-TRY TO STOP
- Your doctor's office

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VACCINE INFORMATION STATEMENT

Your Child's First Vaccines

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 www.immunize.org/vis

The vaccines covered on this statement are those most likely to be given during the same visits during infancy and early childhood. Other vaccines (including measles, mumps, and rubella; varicella; rotavirus; influenza; and hepatitis A) are also routinely recommended during the first five years of life.

Your child will get these vaccines today:

☐ DTaP ☐ Hib ☐ Hepatitis B ☐ Polio ☐ PCV13

(Provider: Check appropriate boxes.)

1 Why get vaccinated?

Vaccine-preventable diseases are much less common than they used to be, thanks to vaccination. But they have not gone away. Outbreaks of some of these diseases still occur across the United States. **When fewer babies get vaccinated, more babies get sick.**

7 childhood diseases that can be prevented by vaccines:

1. Diphtheria (the 'D' in DTaP vaccine)

- **Signs and symptoms** include a thick coating in the back of the throat that can make it hard to breathe.
- **Diphtheria can lead to** breathing problems, paralysis and heart failure.
  - About 15,000 people died each year in the U.S. from diphtheria before there was a vaccine.

2. Tetanus (the 'T' in DTaP vaccine; also known as Lockjaw)

- **Signs and symptoms** include painful tightening of the muscles, usually all over the body.
- **Tetanus can lead to** stiffness of the jaw that can make it difficult to open the mouth or swallow.
  - Tetanus kills about 1 person out of every 10 who get it.

3. Pertussis (the 'P' in DTaP vaccine, also known as Whooping Cough)

- **Signs and symptoms** include violent coughing spells that can make it hard for a baby to eat, drink, or breathe. These spells can last for several weeks.
- **Pertussis can lead to** pneumonia, seizures, brain damage, or death. Pertussis can be very dangerous in infants.
  - Most pertussis deaths are in babies younger than 3 months of age.

4. Hib (*Haemophilus influenzae* type b)

- **Signs and symptoms** can include fever, headache, stiff neck, cough, and shortness of breath. There might not be any signs or symptoms in mild cases.
- **Hib can lead to** meningitis (infection of the brain and spinal cord coverings); pneumonia; infections of the ears, sinuses, blood, joints, bones, and covering of the heart; brain damage; severe swelling of the throat, making it hard to breathe; and deafness.
  - Children younger than 5 years of age are at greatest risk for Hib disease.

5. Hepatitis B

- **Signs and symptoms** include tiredness, diarrhea and vomiting, jaundice (yellow skin or eyes), and pain in muscles, joints and stomach. But usually there are no signs or symptoms at all.
- **Hepatitis B can lead to** liver damage, and liver cancer. Some people develop chronic (long term) hepatitis B infection. These people might not look or feel sick, but they can infect others.
  - Hepatitis B can cause liver damage and cancer in 1 child out of 4 who are chronically infected.

6. Polio

- **Signs and symptoms** can include flu-like illness, or there may be no signs or symptoms at all.
- **Polio can lead to** permanent paralysis (can't move an arm or leg, or sometimes can't breathe) and death.
  - In the 1950s, polio paralyzed more than 15,000 people every year in the U.S.

CDC
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

7. Pneumococcal Disease

- **Signs and symptoms** include fever, chills, cough, and chest pain. In infants, symptoms can also include meningitis, seizures, and sometimes rash.
- **Pneumococcal disease can lead to** meningitis (infection of the brain and spinal cord coverings); infections of the ears, sinuses and blood; pneumonia; deafness; and brain damage.
  - About 1 out of 15 children who get pneumococcal meningitis will die from the infection.

Children usually catch these diseases from other children or adults, who might not even know they are infected. A mother infected with hepatitis B can infect her baby at birth. Tetanus enters the body through a cut or wound; it is not spread from person to person.

Vaccines that protect your baby from these seven diseases:

Vaccine	Number of doses	Recommended ages	Other information
DTaP (Diphtheria, Tetanus, Pertussis)	5	2 months, 4 months, 6 months, 15-18 months, 4-6 years	Some children get a vaccine called DT (Diphtheria & Tetanus) instead of DTaP.
Hepatitis B	3	Birth, 1-2 months, 6-18 months	
Polio	4	2 months, 4 months, 6-18 months, 4-6 years	An additional dose of polio vaccine may be recommended for travel to certain countries.
Hib (*Haemophilus influenzae* type b)	3 or 4	2 months, 4 months, (6 months), 12-15 months	There are several Hib vaccines. With one of them the 6-month dose is not needed.
Pneumococcal (PCV13)	4	2 months, 4 months, 6 months, 12-15 months	Older children with certain health conditions also need this vaccine.

Your healthcare provider might offer some of these vaccines as **combination vaccines**—several vaccines given in the same shot. Combination vaccines are as safe and effective as the individual vaccines, and can mean fewer shots for your baby.

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2 Some children should not get certain vaccines

Most children can safely get all of these vaccines. But there are some exceptions:

- A child who has a mild cold or other illness on the day vaccinations are scheduled may be vaccinated. A child who is moderately or severely ill on the day of vaccinations might be asked to come back for them at a later date.
- Any child who had a life-threatening allergic reaction after getting a vaccine should not get another dose of that vaccine. ***Tell the person giving the vaccines if your child has ever had a severe reaction after any vaccination.***
- A child who has a severe (life-threatening) allergy to a substance should not get a vaccine that contains that substance. ***Tell the person giving your child the vaccines if your child has any severe allergies that you are aware of.***

Talk to your doctor before your child gets:

- **DTaP vaccine**, if your child ever had any of these reactions after a previous dose of DTaP:
  - A brain or nervous system disease within 7 days,
  - Non-stop crying for 3 hours or more,
  - A seizure or collapse,
  - A fever of over 105°F.
- **PCV13 vaccine**, if your child ever had a severe reaction after a dose of DTaP (or other vaccine containing diphtheria toxoid), or after a dose of PCV7, an earlier pneumococcal vaccine.

3 Risks of a Vaccine Reaction

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own. Most vaccine reactions are not serious: tenderness, redness, or swelling where the shot was given; or a mild fever. These happen soon after the shot is given and go away within a day or two. They happen with up to about half of vaccinations, depending on the vaccine.

Serious reactions are also possible but are rare.

Polio, Hepatitis B and **Hib Vaccines** have been associated only with mild reactions.

DTaP and **Pneumococcal** vaccines have also been associated with other problems:

DTaP Vaccine

- **Mild Problems:** Fussiness (up to 1 child in 3); tiredness or loss of appetite (up to 1 child in 10); vomiting (up to 1 child in 50); swelling of the entire arm or leg for 1-7 days (up to 1 child in 30)—usually after the 4th or 5th dose.
- **Moderate Problems:** Seizure (1 child in 14,000); non-stop crying for 3 hours or longer (up to 1 child in 1,000); fever over 105°F (1 child in 16,000).
- **Serious problems:** Long term seizures, coma, lowered consciousness, and permanent brain damage have been reported following DTaP vaccination. These reports are extremely rare.

Pneumococcal Vaccine

- **Mild Problems:** Drowsiness or temporary loss of appetite (about 1 child in 2 or 3); fussiness (about 8 children in 10).
- **Moderate Problems:** Fever over 102.2°F (about 1 child in 20).

After any vaccine:

Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit: **www.cdc.gov/vaccinesafety/**

4 What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or unusual behavior.

  Signs of a severe allergic reaction can include hives, swelling of the face and throat, and difficulty breathing. In infants, signs of an allergic reaction might also include fever, sleepiness, and disinterest in eating. In older children signs might include a fast heartbeat, dizziness, and weakness. These would usually start a few minutes to a few hours after the vaccination.

What should I do?

- If you think it is a severe allergic reaction or other emergency that can't wait, call 9-1-1 or get the person to the nearest hospital. Otherwise, call your doctor.

  Afterward, the reaction should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor should file this report, or you can do it yourself through the VAERS web site at **www.vaers.hhs.gov**, or by calling **1-800-822-7967**.

VAERS does not give medical advice.

5 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

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**. There is a time limit to file a claim for compensation.

6 How can I learn more?

- Ask your healthcare provider. He or she 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** or **www.cdc.gov/hepatitis**

Vaccine Information Statement

Multi Pediatric Vaccines

11/05/2015

Office Use Only

42 U.S.C. § 300aa-26

VACCINE INFORMATION STATEMENT

Rotavirus 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 www.immunize.org/vis

1 Why get vaccinated?

Rotavirus vaccine can prevent **rotavirus disease**.

Rotavirus causes diarrhea, mostly in babies and young children. The diarrhea can be severe, and lead to dehydration. Vomiting and fever are also common in babies with rotavirus.

2 Rotavirus vaccine

Rotavirus vaccine is administered by putting drops in the child's mouth. Babies should get 2 or 3 doses of rotavirus vaccine, depending on the brand of vaccine used.

- The first dose must be administered before 15 weeks of age.
- The last dose must be administered by 8 months of age.

Almost all babies who get rotavirus vaccine will be protected from severe rotavirus diarrhea.

Another virus called porcine circovirus (or parts of it) can be found in rotavirus vaccine. This virus does not infect people, and there is no known safety risk. For more information, see **http://wayback.archive-it.org/7993/20170406124518/https://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm212140.htm**.

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

3 Talk with your health care provider

Tell your vaccine provider if the person getting the vaccine:

- Has had an **allergic reaction after a previous dose of rotavirus vaccine**, or has any severe, life-threatening allergies.
- Has a **weakened immune system**.
- Has **severe combined immunodeficiency** (SCID).
- Has had a type of bowel blockage called **intussusception**.

In some cases, your child's health care provider may decide to postpone rotavirus vaccination to a future visit.

Infants with minor illnesses, such as a cold, may be vaccinated. Infants who are moderately or severely ill should usually wait until they recover before getting rotavirus vaccine.

Your child's health care provider can give you more information.

4 Risks of a vaccine reaction

- Irritability or mild, temporary diarrhea or vomiting can happen after rotavirus vaccine.

Intussusception is a type of bowel blockage that is treated in a hospital and could require surgery. It happens naturally in some infants every year in the United States, and usually there is no known reason for it. There is also a small risk of intussusception from rotavirus vaccination, usually within a week after the first or second vaccine dose. This additional risk is estimated to range from about 1 in 20,000 US infants to 1 in 100,000 US infants who get rotavirus vaccine. Your health care provider can give you more information.

As with any medicine, there is a very remote chance of a vaccine causing a severe allergic reaction, other serious injury, or death.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

5 What if there is a serious problem?

For intussusception, look for signs of stomach pain along with severe crying. Early on, these episodes could last just a few minutes and come and go several times in an hour. Babies might pull their legs up to their chest. Your baby might also vomit several times or have blood in the stool, or could appear weak or very irritable. These signs would usually happen during the first week after the first or second dose of rotavirus vaccine, but look for them any time after vaccination. If you think your baby has intussusception, contact a health care provider right away. If you can't reach your health care provider, take your baby to a hospital. Tell them when your baby got rotavirus vaccine.

An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, or weakness), call **9-1-1** and get the person to the nearest hospital.

For other signs that concern you, call your health care provider.

Adverse reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report, or you can do it yourself. Visit the VAERS website at **www.vaers.hhs.gov** or call **1-800-822-7967**. *VAERS is only for reporting reactions, and VAERS staff do not give medical advice.*

6 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines. Visit the VICP website at **www.hrsa.gov/vaccinecompensation** or call **1-800-338-2382** to learn about the program and about filing a claim. There is a time limit to file a claim for compensation.

7 How can I learn more?

- Ask your health care provider.
- 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**

FEVER FACTS

Dear Parents,

Fever is probably the most common of all pediatric complaints, affecting millions of infants and children throughout childhood. While many of you may become concerned, even anxious, when your child develops a fever, you can be reassured that this most natural of symptoms usually indicates that your child's immune system is alive and functioning well.

This brochure was designed to put fever in perspective by providing you with the facts about fever and some helpful advice on fever management. We hope that the content will be both informative and useful, empowering you to take charge of your child's fevers whenever they arise.

Understanding Fevers

Fever - an increase in body temperature - is one of the body's normal defenses against attack from an infection or another disease. It is therefore a symptom, not a disease itself.

A part of the brain that acts as the body's thermostat controls body temperature by balancing hot and cold signals throughout the body. Factors that influence body temperature are infections; vaccines and medications; and injury. Body temperature increases also occur with exercise, excessive clothing, a hot bath, or hot weather.

Fever may actually play a role in fighting infections and shortening their course by turning on the body's immune system, thereby increasing the release and activity of white blood cells and other germ-killing substances.

The usual fevers (100.4°F to 104°F) that all children get are not harmful. Most are caused by viruses and may last 3 to 5 days. In general, the height of a fever doesn't relate to the seriousness of the illness. How sick your child acts is what counts, and that should determine whether he or she needs a doctor's attention.

INSIDE

INSERT

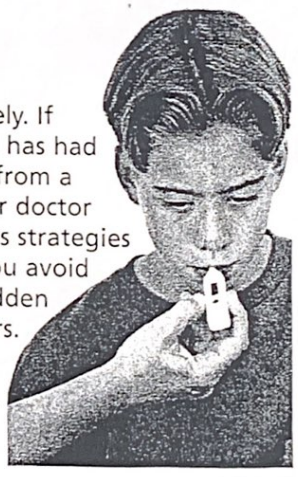
Medication Dosing Chart
and
When to Call the Pediatrician

Fever Fears

The following are some commonly held fears regarding fever:

- *MY CHILD WILL HAVE A CONVULSION (SEIZURE) WITH FEVER.*

Only a small percentage of children have a seizure caused by a fever. These usually occur in children between 6 months and 6 years of age. It is not only the height of the fever but also how rapidly the temperature rises that puts a child at risk for a seizure. Although these seizures are frightening for parents, they usually are without serious long-term consequences. If you think your child has had a seizure during a fever, you should call your doctor immediately. If your child has had a seizure from a fever, your doctor will discuss strategies to help you avoid future sudden high fevers.



- *HIGH FEVER IS A SIGN OF MENINGITIS.*

Meningitis can cause a high fever, but meningitis is very rare. The vast majority of high fevers are caused by common childhood illnesses that are not dangerous.

Treatment of Fevers

MEDICATIONS

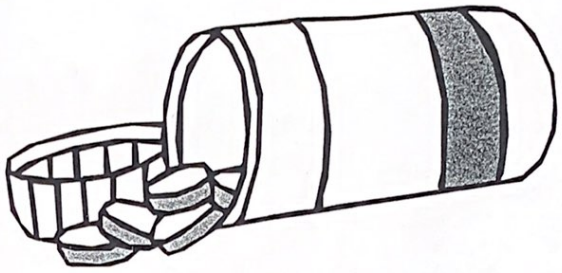
Remember that fever is helping your child fight infection, so use fever medications only if the fever is in the moderate range (over 101.5°F) or your child is uncomfortable. In general, fever medications are overused, and, as with all medications, there is a risk of dangerous side effects from giving them too frequently. **Simply undressing the child and offering a cool drink can reduce mild fevers.** If fever medications are to be used, be sure to give the correct dosage for your child's weight and within the appropriate time interval. The table included in this brochure provides all the information you will need about medication dosing.

Fever medications usually work within about an hour after they are given and will reduce a fever by 1.5°F to 2°F. Don't expect the medication to bring the temperature down to normal unless the fever was low-grade to begin with. Repeated doses may be needed to manage fever fluctuations as the illness runs its course, which may take several days. **If your child is sleeping comfortably, it is not necessary to awaken him to administer a fever medication.** If the fever is high enough to require medicine, your child will usually awaken on his own.

Remember that the response, or lack of response, of the fever to fever medication tells us little about the severity of the infection that caused it. If your child is smiling, playing, and drinking adequate fluids, you usually do not need to worry about the fever.

- *ACETAMINOPHEN PRODUCTS (TYLENOL, TEMPRA)*

Children two months of age and older can be given one of the acetaminophen products for fever. Give the correct dosage for your child's weight every 4 hours but not more frequently. Remember that these products are made in several different strengths (infant's and children's) and formulations (liquid and tablets), so be sure to choose the appropriate product for your child's age. For assistance in determining the correct dosage, see the dosing table included in this brochure.



- *IBUPROFEN PRODUCTS (MOTRIN AND ADVIL)*

Children six months of age and older can be given one of the ibuprofen products. Like acetaminophen products, ibuprofen comes in several strengths and formulations, so be sure to choose the appropriate product for your child's age. As with acetaminophen, ibuprofen should be used only if the fever is over 101.5°F or your child is uncomfortable. Ibuprofen is longer acting than acetaminophen and should be given every 6 to 8 hours but not more frequently. Again, see the table included in this brochure for assistance with dosing.

- *CAUTIONS ABOUT ASPIRIN*

The American Academy of Pediatrics has advised that all children (through 21 years of age) not take aspirin products. This recommendation is based on several studies that have linked aspirin to Reye's Syndrome, a rare but serious disease affecting the brain and liver following viral infections. Most pediatricians have stopped using aspirin for fevers associated with any illness.

CLASSIFICATION OF FEVERS*

MILD:	100.4°F - 101.5°F
MODERATE:	102°F - 104°F
HIGH:	>104°F

(*rectal temperature)

Please note: If your child is 3 months of age or less, a temperature of 100.4°F or greater (taken rectally or under the arm) is considered a high fever, and you should call your doctor immediately. See insert for other symptoms associated with fever that would require a call to the doctor.

SPONGING

Although helpful, sponging (artificially cooling the skin surface) is usually not necessary to reduce fever. **Never sponge your child without first giving a fever medication.** Sponge immediately only in emergencies such as heat stroke, delirium (acting very confused) from fever, a seizure from fever, or any fever greater than 106°F. In other cases, sponge your child only if the fever is over 103°F, the fever has stayed that high when you take the child's temperature 45 minutes after giving medication, or your child is uncomfortable from the fever. Until the medication has taken effect (by resetting the body's thermostat), sponging will only cause shivering, which is the body's attempt to raise the temperature.

If you choose to sponge your child, use lukewarm (85°-90°F) water. Sponging works much faster than immersion, so seat your child in about two inches of lukewarm water and wet the skin surface continually over about 20 minutes. If your child shivers, warm the water slightly, or wait for the fever medication to take effect. Your goal should be to reduce the fever by a few degrees, not to eliminate it entirely. Never use rubbing alcohol either alone or in the sponging water. The skin can absorb it, and it can cause coma if inhaled. And please remember never to leave your child unattended in the tub.

EXTRA FLUIDS

Because body fluids are lost due to sweating during fevers, encourage your child to take some extra fluids to replace those losses, but do not force him to drink. Your child may especially prefer popsicles or iced drinks during the fever.

LESS CLOTHING
(BUNDLING CAN BE DANGEROUS)

Since most body heat is eliminated through the skin surface, your child's clothing should be kept to a minimum during a fever. Bundling a child can cause a higher fever; be especially careful with infants who cannot shed extra layers if they become overheated. During a fever, dressing the child in a single layer should be adequate. If at any time your child feels cold or develops shivering ("the chills"), offer a light blanket or a warm drink.

How to Measure Body Temperature

Obtaining an accurate measurement of your child's temperature with a thermometer requires some practice. If you have questions about this procedure, ask your pediatrician or office nurse to demonstrate how it is done and to observe you taking your child's temperature.

A rectal measurement is the most desirable and the most accurate, especially in an infant, because it reflects the body's central ("core") temperature. Oral temperatures are also reasonably accurate if performed properly. Underarm temperatures are the least accurate, but better than no measurement at all.

TYPES OF THERMOMETERS

1. Digital--These record temperatures with a heat sensor that runs on a small battery. They measure quickly, usually in less than 30 seconds, and can be used for rectal, oral, or underarm readings. They usually "beep" when the measurement is complete, and then display the temperature in numbers on a small screen. These thermometers are inexpensive and are recommended as the most reliable by pediatricians.

2. Glass--These come in two versions, rectal (with a round tip) and oral (with a thinner tip), and can also be used under the arm. They are the least expensive type of thermometer but also the slowest (usually requiring two to three minutes for a measurement) and the most difficult to read.

Mercury thermometers should not be used. We encourage parents to remove mercury thermometers from their homes to prevent accidental exposure to this toxin.

3. Ear Thermometers--These are infrared devices that read the temperature of the eardrum, which provides a measurement that is as sensitive as a rectal temperature. Although they are the fastest reading thermometers (less than two seconds), they are expensive and often inaccurate and therefore unreliable.

4. Other thermometers--Liquid crystal strips and temperature-sensitive pacifiers have been found to be inaccurate and unreliable and should be avoided.

RECOMMENDATIONS BY AGE FOR THERMOMETERS*

Newborn to three years - use a digital thermometer for use in the rectum (measure underarm temperature if unable to take rectally)

Over three years - a digital thermometer for use in the mouth (an oral thermometer), underarm, or rectum

*Ear thermometers, though frequently unreliable, can be used in children 18 months of age and older. When using this type of thermometer, two consecutive readings may help to determine reliability.

TAKING THE TEMPERATURE WITH DIGITAL AND GLASS* THERMOMETERS

1. Rectal

- Have your child lie stomach down on your lap.
- Apply a small amount of lubricant (petroleum or KY jelly) to the tip of the thermometer.
- Gently insert the thermometer past the anus into the rectum about 1/2 to 1 inch; never force it in. Hold your child still until the digital thermometer "beeps" or the glass thermometer takes the reading (one to three minutes.)

2. Underarm

- Place the tip of the thermometer in a dry underarm.
- Close the underarm by holding the elbow against the chest for three minutes (for glass thermometer) or until the digital thermometer "beeps."
- If you're uncertain about the result, compare it with a rectal reading.

3. Oral

- Be sure your child has not taken a cold or hot drink within the last 10 minutes.
- Place the thermometer under one side of the tongue and toward the back. An accurate temperature reading depends on proper placement.
- Have your child hold the thermometer in place with the lips and fingers (not the teeth) and breathe through the nose, keeping the mouth closed. If your child cannot keep his mouth closed because his nose is blocked, suction out the nose.
- Digital thermometers will "beep" when the temperature is read; glass thermometers should be left in the mouth for three minutes.

*Before insertion, glass thermometers should always be shaken until the liquid is below 98.6° F. To read a glass thermometer, rotate the thermometer until you can see the line. The line ends at the number that represents the temperature.

Medication Dosing

The chart insert shows our recommended dosing regimen for acetaminophen (Tylenol/Tempra) and ibuprofen (Motrin/Advil).

The factor that best determines the correct dose of medication for your child is his or her weight. If you are unsure of the exact weight, you may use the child's age, but this method is not as accurate: larger-than-average children for their age will be underdosed; smaller-than-average children risk overdose. Our chart provides both weight and age parameters, but we recommend that you use weight to arrive at the most appropriate dose of medication for your child.

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The benchmark of excellence in pediatric healthcare

This **Fever Facts** brochure was developed by Affiliated Pediatric Practices.

Your practice is a member of Affiliated Pediatric Practices - an organization working for the health and safety of your children.

This guide has been established solely as an additional resource for parents to utilize as they deal with fever at home. These guidelines do not constitute medical advice and do not replace the need to seek the independent medical judgement of your physician in each specific case. These guidelines are current as of the date that they are printed but are subject to change as new information may be developed.

ACETAMINOPHEN (TYLENOL)* DOSING

MAY BE GIVEN EVERY 4 HOURS AS NEEDED. DO NOT EXCEED 5 DOSES IN A 24 HOUR PERIOD

The factor that best determines the correct dose of medication for your child is his or her weight

WEIGHT OR AGE	INFANT DROPS	LIQUID SUSPENSION 160MG/5ML	CHEWABLE/MELTAWAY 80MG/TAB	JR STRENGTH CAPS/ MELTAWAY TABS 160MG/CAPSULE (TAB)
9-12 lbs* OR 0-3 mos	No longer available	1.25 ml (40 mg)		
13-18 lbs OR 4-8 mos	in 80mg/0.8ml	2.5 ml (80 mg)		
19-25 lbs OR 9-20 mos	concentration	3.75 ml (120 mg)		
26-30lbs OR 21-30 mos		5ml (160 mg)	2 tabs	1cap/tab
31-35 lbs OR 3 yrs		6.25ml (200 mg)	2 ½ tabs	1 cap/tab
36-41 lbs OR 4-5 yrs		7.5ml (240 mg)	3 tabs	1 ½ cap/tabs
42-47 lbs OR 6 yrs		8.75 ml (280 mg)	3 ½ tabs	1 ½ caps/tabs
48-53 lbs OR 7 yrs		10 ml (320 mg)	4 tabs	2 caps/tabs
54-59 lbs OR 8 yrs		11.25 ml (360 mg)	4 ½ tabs	2 caps/tabs
60-71 lbs OR 9-10 yrs		12.5 ml (400 mg)	5 tabs	2 ½ caps/tabs
72-95 lbs OR 11 yrs		15 ml (480 mg)	6 tabs	3 caps/tabs
96 + lbs 12 yrs		Not recommended	Not recommended	4 caps/tabs

*FOR RECTAL TEMP OF 100.4 OR HIGHER IN AN INFANT < 3 MONTHS, CONTACT PHYSICIAN FIRST

IBUPROFEN (MOTRIN or ADVIL)* DOSING

MAY BE GIVEN EVERY 6-8 HOURS AS NEEDED. DO NOT EXCEED 4 DOSES IN A 24 HOUR PERIODS

WEIGHT OR AGE	INFANT DROPS 50MG/1.25ML	LIQUID SUSPENSION 100 MG/5 ML	CHEWABLE TABS/JR CAPS 100 MG/TAB (CAP)
6-15 lbs or 0-5 mos	IBUPROFEN SHOULD NOT BE USED IN INFANTS UNDER 6 MONTHS OF AGE		
16-20 lbs or 6-10 mos	1.875 ml (75 mg)	3.75 ml (75 mg)	
21-25 lbs or 11-20 mos	2.5 ml (100 mg)	5 ml (100 mg)	1 tab/cap
26-30 lbs or 21-30 mos		6.25 ml (125 mg)	1 tab/cap
31-35 lbs or 3 yrs		7.5 ml (150 mg)	1 ½ tabs/caps
36-41 lbs or 4-5 yrs		8.75 ml (175 mg)	1 ½ tabs/caps
42-47 lbs or 6 yrs		10 ml (200 mg)	2 tabs/caps
48-53 lbs or 7 yrs		11.25 ml (225mg)	2 tabs/caps
54-59 lbs or 8 yrs		12.5 ml (250 mg)	2 ½ tabs/caps
60-65 lbs or 9 yrs		13.75 ml (275 mg)	2 ½ tabs/caps
66-95 lbs		15.0 ml (300 mg)	3 tabs/caps
96lbs +		20 ml (400mg)	4 tabs/caps

We have found that generic versions of these medications are as effective as the brand name and may save you money. We encourage the use of generic medications.

NOTE: medications may come in different size bottles with different size droppers. Please make sure you read the dropper/medication dispenser carefully to ensure the correct dosage for your child. In order to ensure correct dosage, please be sure to use a standardized measuring device and not a kitchen teaspoon. If in doubt please contact your physician.

When to call your pediatrician if your child has a fever

Please note that the following are guidelines only. Your child's general appearance and the way he or she is acting are usually more important indicators of illness than the height of the fever. You should always call if your child looks or acts significantly ill for any period of time or if you are concerned about worsening health.

Call immediately if:

- Your child looks or acts very ill for any period of time.
- You think your child has had a seizure.
- Your child is less than three months old and has a temperature of 100.4°F or higher.
- Your child is over three months and less than three years old, and the fever is over 102°F and he or she is not acting well.
- Your child is over three years old, feverish, and does not look well, and does not perk up significantly after an appropriate dose of fever medicine.
- Your child is crying inconsolably.
- Your child cries if you touch him or move him.
- Your child is difficult to awaken.
- Your child complains or a stiff neck and cannot touch the chin to the chest without pain.
- Purple spots are present on the skin, and these do not blanch (whiten) when pressed firmly.
- Breathing is labored and no better after the nasal passages are cleared.
- Your child is unable to swallow anything and is drooling saliva.
- Your baby's fontanelle ("soft spot") is bulging when or she is sitting up quietly.
- There is redness or swelling around the eye or pain with eye movements.
- There is redness, tenderness, or swelling over an arm or leg.
- Your child walks with a limp or refuses to move a leg joint.
- Your child has a compromised immune system (e.g., the spleen has been removed, the child is undergoing chemotherapy, or is HIV positive) or sickle cell anemia.
- You have any other concerns about the fever that make you feel immediate call is necessary.

Call within 24 hours if:

- Your child suffers from a burning sensation or pain during urination.
- Your child complains of ear pain.
- Your child complains or a sore throat and any of the following: swollen glands, headache, abdominal pain, rash, or joint pain.
- Your child voids dark urine 3 or 4 weeks after a sore throat.
- You child's fever lasts more than 48 hours without any obvious cause or infection.

Call during regular office hours if:

- Your child's fever is greater than 101.5°F for more than 72 hours.
- The fever has been normal for 24 hours and then returned.
- Your child has a history of seizures with fever, and you wish to review fever management.
- You have other concerns or questions regarding fever.

Centre Pediatrics: Starting Solid Foods

We recommend introducing solid foods between the ages of 4 and 6 months for formula fed or breastfed infants.

Readiness

Physical clues to indicate that your child is ready for solids:

- Ability to hold his/her head up well and sit with support.
- Interest in food: he/she is reaching or grasping for your food.
- Beginning to lose tongue thrust reflux and able to use to tongue to move food from the front to the back of his mouth.

Solids as Part of the Diet

- At first, food is mostly fun and does not provide much nutritional value for your infant—this comes from your breast milk or formula.
- Nursing sessions and/or bottles will likely remain the same in quantity until around 9 months of age when solids begin to take over more of the nutritional value.

What Foods do I Start With?

- Pediatricians used to recommend introducing food in a step-wise fashion and delaying introduction of certain high allergy foods. The most recent data now supports introducing all types of solids in the order that feels most comfortable to parents.
- Many parents start with iron-fortified rice or oatmeal cereal but you should not feel that this needs to be your starter food.
- We recommend starting with pureed yellow/orange vegetables (sweet potato/squash/carrots) as well as iron fortified cereals in the first few weeks.
- You may mix the cereal with some formula or breast milk. You may also mix a tablespoon of cereal into pureed vegetables or fruit.
- Fruits such as apple, pear, banana, plum, nectarine or blueberries are excellent fruit starters.
- Good starter vegetables are avocado, peas and green beans.

How to Start

- Choose a time that your infant is not very sleepy or very hungry—often one hour after a bottle or nursing session is a good time.
- Start with one new food every 3-4 days, watching for any reactions such as a rash, diarrhea, vomiting or wheezing.
- Try new foods in the morning or early afternoon and avoid them in the evening when it is more difficult to monitor reactions.
- Make eating a fun and social event! If you can, eat together with your baby and bring the seat up to the table where the family eats.
- Infant should be in a high chair or seated at an angle to avoid a choking risk.
- Spoon feed your infant or allow them to grab the puree and explore the food on their own — both are valuable, but messy techniques! As they get better, you can make your foods thicker and less runny.
- Feed your infant until they give you the cue they are done—shaking their head or pushing the food away.
- Watch your baby's impressions of new foods—remember to keep trying a new food at least 10-15 times before you think they don't like it!

Advancing Your Rainbow of Foods: 5/6/7 Months

- Fairly quickly you and your baby will want to move past fruits and vegetables and you can! There is no set order to food introduction, but generally parents feel comfortable expanding their infant diet once they are getting the hang of feeding and are around 5/6 months.
- Feel free to introduce:
  - Legumes—lentils, beans
  - Pureed meats—such as chicken, beef, lamb. Get creative if you like and make meat stews with chicken broth, apples, and sweet potatoes to provide new combinations.
  - Fish and tofu
  - Full fat yogurt—either plain or mixed with pureed fruit. Thicker yogurts, such as Greek style stay on the spoon and make feeds easier.
  - You can also use grated cheese in your purees, such as parmesan.
- You may use spices in your foods as well but we do recommend avoiding adding sugar or salt to your baby's foods at this stage.

Moving Past Purees: 8/9 months

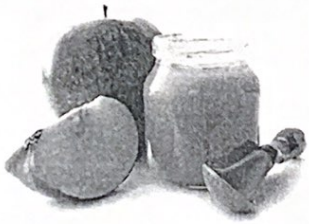
- Infant should be eating 3 solid meals a day by now with each feed ranging between a few tablespoons up to ½ a cup.
- At this age infants can typically reach for small items and pick them up between their fingers or between their fingers and palms. This means they are ready for cut up pieces of food!
  - Try pieces of whole eggs, bread, baked goods, soft cooked vegetables and fruits in pieces, very finely cut or ground meat, flaked fish, mashed legumes.
- Be aware of items that may be choking hazards.
- As your baby gets older they will be able to eat more foods from your plate such as pasta with meat sauce, meat balls, quinoa, rice with mashed beans, cheese, pieces of vegetables and fruit in bite size pieces, shellfish, nut butters, and much more.

Foods to Avoid:

- This list has gotten significantly smaller over the last decade as research has shown no decrease in food allergies by delaying introduction of allergenic foods.
- **Under one, your child should avoid drinking cow's milk to protect his/her kidneys and avoid eating raw honey to prevent infection with botulism.**
- After age 1, it is safe to add milk and honey into the diet.
- Avoid choking hazards such as whole peanuts, whole grapes, popcorn, uncooked hard vegetables.

Food Allergies:

The most recent studies are suggesting that introduction of more allergenic foods such as eggs, tree nuts, peanuts, and shellfish earlier rather than later has protective effects. Delaying these foods past the 9 month mark is likely not protective against future allergies. Talk with your doctor about specific questions or food concerns.



Have fun!!