

# Starting Solid Foods



# Start Healthy™

Stay Healthy

Feeding Guidelines



5 Principles for Feeding Your Infant

# Why have feeding guidelines for infants and toddlers?



Feeding your little one in a healthy way now not only promotes normal growth, but lays the foundation for healthy eating habits later, perhaps preventing obesity and other health problems.

But infants and toddlers have unique nutritional needs. So, you may be unsure about what—and when—to feed your child. That's why an expert panel of pediatric health and nutrition

professionals, using the American Dietetic Association's evidence-based review process, developed and published the **Start Healthy Feeding Guidelines for Infants and Toddlers**. The guidelines, reflecting the most current scientific research, provide the basis for this booklet, which offers practical feeding advice specifically for children under 24 months.

*The guidelines address five key areas to answer parents' and caregivers' most frequently asked questions:*

- 1 Developmental Signs:** How do I know when my baby is ready to begin eating solid foods? *Pages 4-5*
- 2 Nutrition Know-How:** What foods are best to feed my baby and why? *Pages 6-8*
- 3 Mealtime Advice:** How can I help my baby develop healthy eating habits to last a lifetime? *Pages 9-13*
- 4 Safety Tips:** What are the food safety concerns specific to infants? *Page 14*
- 5 Activity Guides:** How can I teach my child to enjoy movement and physical activity and help develop her motor skills? *Page 15*



Start Healthy. Stay Healthy.™

# From Newborn to Growing Baby

The first year of your baby's life is filled with more changes than he'll experience at any other time. Although it's hard to imagine now while you're breastfeeding or formula feeding, around the middle of the first year he'll be ready for his first taste of solid food.

This is a critical time for setting the stage for how a child can—and should—eat healthfully for the rest of his life. This booklet provides practical feeding advice on what, when and how to feed infants. The information also reflects the energy needs, portion sizes and food choices that they require. But you know your baby best.

So use this as a

flexible guide and adjust  
according to his needs.

And be sure to talk  
to your pediatrician  
about the right time for  
your little one to begin  
eating solid foods.



# Developmental Signs



By now, your little one is quite a pro at breastfeeding or formula feeding, but how will you know when he's ready to start eating solid foods? After all, adding pureed foods and infant cereals to his diet will not only provide nutrients, these foods expose him to flavors and textures, and are critical for teaching him to master eating skills.

So how do you know when he's ready? Generally, you'll see signs that he's ready to start solids around the middle of the first year. But keep in mind that every baby is an individual; your little one will develop at his own pace. Discuss it with your pediatrician.

Your baby may be ready to begin solid food if he does all of the following:

- *Sits with help or support*
- *Doubled birth weight and weighs 13+ lbs.*
- *Is hungry after 8-10 breastfeedings, or 32 oz. of formula, in a day*

**WHAT  
ARE YOUR BABY'S  
DEVELOPMENTAL  
SIGNS?**

**Physical Skills**

**Eating Skills**

**Appropriate  
Foods and Textures**



**What You Can  
Do to Help**



### Newborn/Head Up

- NEWBORN: needs head support
- HEAD UP: has more skillful head control

- NEWBORN: establishes a suck-swallow breathing pattern
- HEAD UP: tongue moves forward and back to suck



- NEWBORN & HEAD UP: Breastmilk or formula

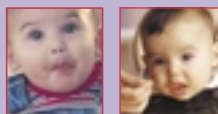
- If breastfeeding, eat a wide variety of healthy foods to teach your baby flavors, tastes and aromas through your breastmilk



### Supported Sitter

- She sits with help or support
- On tummy, she pushes up on her arms with straight elbows

- May push food out of his mouth with tongue
- Moves pureed food forward with his tongue to swallow
- Recognizes his spoon and holds his mouth open as spoon approaches



- Breastmilk or formula
- Infant cereals
- Thin pureed foods, such as single-ingredient baby foods

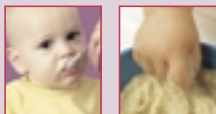
- Enhance baby's acceptance of cereal by mixing it with breastmilk or formula
- Respect baby's hunger and fullness cues—stop feeding him when he indicates he's full



### Independent Sitter

- She sits independently
- She can pick up and hold small objects in her hand
- Leans toward food or spoon

- Able to keep thick purees in his mouth
- Pulls his head downward and presses his upper lip to draw food from spoon
- Rakes food toward himself into his fist
- Can transfer food from one hand to another
- Can drink from a cup with help



- Breastmilk or formula
- Infant cereals
- Thin pureed foods, such as single-ingredient baby foods
- Thicker pureed foods, such as more advanced pureed baby foods
- Soft, mashed foods without lumps, such as cooked potatoes and carrots
- 100% juice

- Introduce one new food 2 to 4 days in a row before starting a new one
- Give baby a variety of thin and thick textures to help her develop the skills she needs

## Breastmilk Is Best

**Breastmilk is nature's most perfect food.** It's the best choice for your baby and you should breastfeed for as long as you can—ideally, for the first full year—to give your child the best start in life. It provides a natural defense against allergies and infections, contains fats needed for optimal brain development and may reduce the risk of obesity.



Breastfeeding also exposes your baby to a variety of flavors from the foods you eat, since these flavors are transferred in your breastmilk. This not only teaches your baby early on about the foods your family enjoys, but also helps increase the likelihood that he will accept new foods when he starts eating pureed foods.



*If you decide to formula feed, be sure to select a formula that is fortified with iron to meet your baby's nutritional needs.*

## Adding new foods to make sure your baby gets the critical nutrients.



By around the middle of the first year, all babies need to start solid foods to learn tastes, textures and how to eat. In addition, breastfed babies need certain nutrients from food to complement breastmilk. Iron and zinc are two nutrients, in particular, that become limited in the diets of exclusively breastfed babies.



### IRON and ZINC

Iron and zinc are essential for your baby's healthy physical growth and mental development, and zinc is also important to help promote the development of a healthy immune system.

#### So how do you give her these important nutrients?

Complement your breastmilk with foods like iron and zinc-fortified infant cereals or pureed meats.



#### Boost your baby's iron supply with vitamin C

Vitamin C helps your baby absorb iron better. So offer your baby foods that are rich in vitamin C like fruits and some vegetables. Try mixing iron-rich infant cereal with vitamin C-rich pureed fruits.





## More critical nutrients your little one needs.

### CALCIUM

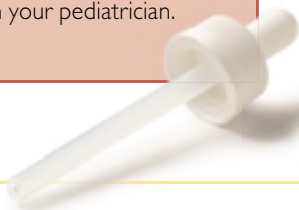


**Calcium helps your baby build strong bones and teeth.** And it's not only important during this time of rapid bone growth, but throughout life. If you're feeding your baby breastmilk or formula, she should be getting an adequate amount of calcium.

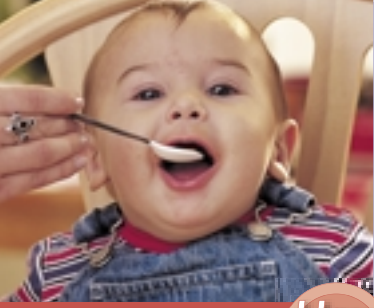
### VITAMIN D

**Vitamin D promotes your baby's absorption of calcium.** Vitamin D is formed naturally with exposure to sunlight, but in the effort to prevent skin cancer we've become more diligent about reducing our exposure to sun. Sunscreen and clothing protect babies from the harmful effects of the sun, but also prevent vitamin D from forming.

*The American Academy of Pediatrics* recommends a vitamin D supplement for exclusively breastfed babies and babies consuming less than 16 ounces of formula a day. Be sure to discuss vitamin D with your pediatrician.







A step-by-step guide  
for baby's first solids.

How  
to  
Tips

### Start with cereal.

- To get a very thin consistency, begin by mixing 1 tablespoon of single-grain cereal to a smooth texture with about 4 tablespoons of breastmilk, formula or water. (As he gets older, decrease the amount of liquid for a thicker texture.)
- Using a spoon, put the cereal to his lips, not in his mouth, so he can use his sucking skills.

### Next comes pureed food.

- Offer any variety of single-ingredient foods to start. As with cereals, wait 2-4 days before introducing another new flavor.
- The order that you introduce fruits and vegetables doesn't matter.
- Once your baby has tried single-ingredient fruits and vegetables, you can move on to mixed varieties.
- Meat is an important source of iron and zinc to include in your baby's diet early.

## Mealtime Advice

### Where to Begin?



Once you and your pediatrician decide it's a good time to teach your baby about solid foods, start with single-ingredient foods—preferably iron-fortified single-grain infant cereal or pureed meats. Introduce them one at a time. Offer just one new food 2 to 4 days in a row before starting a new one. This makes it easy to watch for food sensitivities. If you suspect a reaction to a food, like a rash or upset stomach, stop feeding him that food and contact your pediatrician.

Think small.



Infants have small stomachs and need small, frequent feedings. Begin with a teaspoon of food and gradually give more as your baby accepts it, recognizing when he indicates he's full. It's important to recognize that a baby's day-to-day appetite may change and to adjust his portion sizes accordingly.

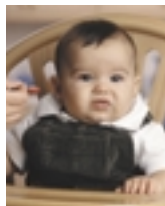
## Mealtime Advice



### Mastering new eating skills.

Once your baby has started eating solid foods, you'll notice that she's beginning to learn all kinds of new skills. Even if she can only take a few spoonfuls, she's learning that food can come in many tastes and textures.

Once she gets the hang of it, your baby will open her mouth wide for the spoon. You may notice her moving the food backward with her tongue, or even putting her hands in her mouth while she eats, to help her learn to swallow solids. Spoonfeeding is messy business—which only gets messier when she learns to feed herself. But be patient and before you know it, she'll be eating like a pro.



### Try, try, try again!

*How many times will it take your baby to get used to a new food? It could be more times than you think. Research has found that it takes repeated exposures (sometimes up to 10 or 15 times) before baby accepts some new foods. Ultimately, you want your baby to know and love as many fruits and veggies as possible. Because the more healthy foods he eats now, the more likely he'll be to choose them down the road.*

## Is she hungry...or full?

Whether your baby is still breastfeeding or formula feeding exclusively or has started eating baby foods, she is the best one to tell you whether she wants to eat or that she's full. If you learn to understand her hunger and fullness cues—and respond to them—you'll help her understand her own feelings of hunger and fullness.

**How  
to  
Tips**

### Reading her hunger and fullness cues

YOUNGER BABY	"I'm hungry!"	"I'm full!"
	<ul style="list-style-type: none"><li>• Cries or fusses</li><li>• Flails her arms and legs</li><li>• Smiles and looks at you, or even coos when you're feeding her</li></ul>	<ul style="list-style-type: none"><li>• Spits out nipple</li><li>• Stops sucking</li><li>• May even fall asleep</li></ul>

OLDER BABY	"I'm hungry!"	"I'm full!"
	<ul style="list-style-type: none"><li>• Opens mouth and moves towards the spoon</li><li>• May try to swipe food toward her mouth</li><li>• Gestures—she may nod or point or grab the spoon</li></ul>	<ul style="list-style-type: none"><li>• Turns head away from the spoon</li><li>• Spits out familiar foods or pushes it away</li><li>• Becomes distracted or notices surroundings more</li></ul>

She's Hungry!



She's Full!



She's Hungry!



She's Full!



# Mealtime Advice

## Strive for 5



Nutrition experts recommend five or more servings of fruits and vegetables a day—a healthy habit you can begin to teach your baby now. But how much is one serving? For younger babies, it's a small taste of single-ingredient pureed fruits and veggies—it could be as little as a tablespoon or less. For older babies, it's  $\frac{1}{4}$  of a cup or  $\frac{1}{2}$  of a container (3½–6 oz.) of pureed baby food fruits and veggies. A general rule for older babies is that 2½ containers of baby food per day (1¼ cups) meet that five-a-day recommendation.



### Reach That Five-A-Day Goal:

- 1 The order in which you introduce fruits and vegetables doesn't matter. You may want to try some of the traditional favorites first (like applesauce, bananas and carrots).
- 2 Offer new flavors along with familiar favorites. It may take several tries before your baby learns to like some fruits and vegetables.
- 3 Respect your child's personal preferences. No one fruit or vegetable is going to make or break your child's diet.
- 4 Convenience is key. Prepared baby food is easy, safe, portable, nutritious and comes in appropriate portion sizes.
- 5 Let the colors of the rainbow be your guide each day. The more variety, the better!

Eat a rainbow every day*	
Color	Choices
Blue/Purple	Plums, grapes, blueberries, prunes
Red	Tomatoes, cherries, strawberries, red apples
Yellow/Orange	Sweet potatoes, squash, mangoes, peaches, carrots, yellow apples
White	Potatoes, bananas, pears, cauliflower
Green	Spinach, broccoli, green beans, peas, kiwis

## Mix it up with a rainbow of color.

Once your baby is used to eating different foods, an easy way to get variety into his diet is to think color. Colorful foods—a range of fruits, vegetables, and pureed meats or infant cereals—will provide him with a well-rounded, nutritious diet.



### Developing a Healthy Feeding Relationship

It's never too early to think about how you can help your little one develop a healthy relationship with food. While your role is to decide what foods to offer and when to offer them, let your baby be the one to decide whether to eat and how much to eat. And because he learns by watching and imitating you, be sure to set a good example.

### How to Tips

#### Other ways to mix it up.

Once your baby is used to eating many single-ingredient foods, try mixing a couple of his favorites together for added texture and new flavor combinations. Or try “combination” jarred baby foods, like pureed carrots and beef or mixed vegetables.



## Safety Tips

### Keep baby's food safe

Once your baby is eating solid foods, like infant cereals, pureed meats, fruits and vegetables, you must take care to keep his food safe. To avoid contaminating it for future use, never feed directly from the jar. Spoon out as much as you think your baby will eat. Don't put any leftovers he doesn't finish back in the jar or save them to feed later. Discard them. And once you open the jar, refrigerate the unused portion right away. You can safely keep the opened jar in the refrigerator for 1 to 2 days.

### Watch for food allergies

Babies with a family history of food allergies should be breastfed as long as possible and foods like milk, egg whites, wheat, and soy should not be introduced until well after the baby's first birthday. Some foods are associated with allergies that can be life-threatening to some people, like peanuts, tree nuts, fish and shellfish. So you should check with your pediatrician before introducing them, especially if there is a family history of food allergies.



### Reduce the risk of SIDS!

*The American Academy of Pediatrics* recommends that healthy infants be placed on their backs to sleep. This is lifesaving advice. Putting infants to sleep on their backs has cut the rate of Sudden Infant Death Syndrome (SIDS) by 40% since the early 1990s when the AAP began making this recommendation.



### Make time for tummy time

Be sure to spend a part of every day playing with your baby. Find a safe area on the floor, preferably on a carpet or blanket, and let your baby play unrestricted. Tummy time will help her develop the muscles in her head, neck, arms and shoulders, and begin to develop her tummy and back muscles.

Give her plenty of room to move. Limit the time she spends in confining equipment, like infant carriers, seats and swings. The old-fashioned entertainment of playing on the floor with her is still best.

But don't overdo it. Although activity and interaction with your baby are very important, she still needs lots of rest.

Don't interrupt your sleeping baby. When she wakes up, that's the time to play.



### Fun activities to try together

#### Younger babies:

- *Help him develop visual skills—lay your baby face up and then playfully move your hand or a finger puppet where he can see it.*
- *Lay baby on his back, place a stuffed animal by his feet and encourage him to kick it.*

#### Older babies:

- *Sit or kneel in front of seated baby, and hide a toy behind your back. Make a game of handing him a toy so he has to reach across his body to get it.*
- *Help him learn how to crawl—place a favorite toy in front of him, just out of reach, and encourage him to go get it.*

## Who's Who on Our Expert Panel

This booklet provides practical feeding advice from the Start Healthy Feeding Guidelines for Infants and Toddlers published in the *Journal of the American Dietetic Association*. The guidelines were created by an expert panel of pediatric health and nutrition professionals, comprised of:

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