



IN-DEPTH

CHILDREN'S  
HEALTH



# THE NOT-SO-BIG BABY

Can babies be obese? Doctors are worried that the seeds of childhood obesity are being planted earlier and earlier. The good news: Parents can do something about it. By Karen Springen

**F**or generations, Americans have cooed over and celebrated chubby babies. That could be changing. Much has been written about the rise in childhood obesity rates in the past three decades, less about how early obesity starts. One out of every five 6- to 11-year-olds in the United States—and 10 percent of 2- to 5-year-olds—are obese. Even newborns are showing signs of metabolic imbalances.

“People think a big baby is a healthy baby,” says Matthew Gillman, director of the obesity prevention program at Harvard Pilgrim Health Care Institute’s department of population medicine. “That doesn’t happen to be really good advice now.”

What advice is worth following? Read on.

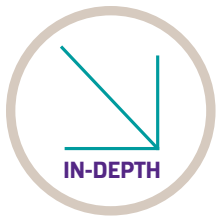
**Watch your prepregnancy weight.** “The problem of obesity gets transferred from one generation to the next,” says Rafael Perez-Escamilla, a professor of nu-

trition and public health at Yale University. “If mom is overweight or obese, that’s going to increase the likelihood the baby is going to be born with a predisposition to be obese.” Obese women are also more likely to have high blood pressure (and gestational diabetes) during pregnancy, which can constrict blood vessels and limit blood flow to the baby.

**Don’t smoke.** Smoking reduces fetal growth, and low birth-weight babies, like overweight newborns, are at greater risk for obesity later in life. One theory: When babies “stop smoking,” they crave more food, just as adults who kick the habit do. The thrifty gene hypothesis, on the other hand, proposes that low birth-weight babies are programmed to store fat.

**Keep pregnancy pounds to a minimum.** Forget the adage of eating for two. “Eat for 1.1 or 1.2,” says Gillman. The Institute of Medicine recommends weight

A bigger baby is not always a healthier baby. The ideal newborn weight is 5.5 to 8.8 pounds.



gains of 25 to 35 pounds for normal-weight women, 28 to 40 pounds for underweight women, 15 to 25 pounds for overweight women and 11 to 20 pounds for women who are obese. When a mom gains too much weight during pregnancy, her fetus becomes a prisoner of the hormonal environment in the womb and is exposed to high levels of blood sugar and insulin. Sugar crosses the placenta, so when the fetus' pancreas senses a lot of it, it makes too much insulin and the baby grows too fast.

**Have a C-section only if necessary.** A third of the babies in the United States are born by C-section, in part because obese moms are delivering bigger babies and thus are more likely to require the surgery. Gillman and his Harvard colleagues have found that C-section babies have double the risk of obesity at age 3. Some researchers theorize that's because bacteria in the birth canal play a role in reducing obesity risk.

**Breastfeed for at least a year.** "Breastfeeding kids can regulate their own hunger and satiety," says Lara Field, a pediatric dietitian at the University of Chicago. Parents can easily see how much bottle-

fed babies are consuming, so they tend to worry that their babies aren't consuming enough and want to see them finish the bottle. But babies suck more easily from bottles than from the human nipple, says Stephen Pont, medical director of the Texas Center for the Prevention & Treatment of Childhood Obesity at Dell Children's Medical Center, so rather than pacing themselves they often take in more than they need.

**Delay solid foods until six months.** This is true whether a baby is breast-fed or uses formula. "The earlier solid food is introduced, the higher the obesity," says Marlene Schwartz, deputy director of the Rudd Center for Food Policy & Obesity at Yale University. Gillman recently published a paper showing that formula feeders who ate solid food before four months had a six-fold increase in obesity at age 3. Why? "Formula-feeding parents tend to feed to a schedule and to a volume rather than have the baby self-regulate," he says.

**Stick to water or milk.** Babies and toddlers don't need juice. "Vitamin C is not a problem in this country," Schwartz says. "Do not drink your calories except for

## School Lunch Around the World

*What's for Lunch? How Schoolchildren Eat Around the World*, Andrea Curtis' highly visual look at what kids eat for lunch, grew out of the Toronto writer's own frustrations trying to pack nutritious lunches for her two school-aged boys. Not surprisingly, Curtis found many school lunch role models during her research, including these three. —Sarah Asp Olson

### France



**On the Menu:** A four-course meal that includes a salad, chicken or fish, cheese and bread. For dessert: fruit or occasionally a fruit tart.

**Idea Worth Stealing:** The French think of mealtime as another teaching opportunity. "In France, they really see school lunch as an opportunity to talk to kids about food and educate them about how to enjoy food," Curtis says.

### Brazil



**On the Menu:** Rice and beans, grilled beef or chicken, salad, a banana or other locally grown fruit such as pineapple or guava, plus juice.

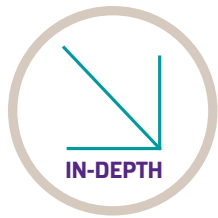
**Idea Worth Stealing:** In Brazil, every child in public school gets a free lunch. Also, 30 percent of each meal must be made from locally sourced foods, which has the added benefit of boosting nutrition and local economies.

### Japan



**On the Menu:** Grilled mackerel, rice, miso soup, pickled cucumber, an orange or apple and milk.

**Idea Worth Stealing:** Japanese schools circulate monthly menus to families, listing calorie and nutrition information and where menu items are sourced. "They're not just educating the kids about healthy eating," Curtis says. "They're talking to the families."



**JOHN BESH**  
Restaurateur, author and host of *Chef John Besh's Family Table* this April on PBS

**Kids at his table:**  
Sons Brendan (16), Jack (11), Luke (9), Andrew (8)

**What they eat:**  
Louisiana staples such as gumbo and jambalaya and hearty pasta dishes with a side salad.

**Solution for picky eaters:** Always offer a variety of foods. Changing it up and having a wide variety invites exploration.

**Family snack:**  
Fruit, fruit and more fruit. Plus, nuts and delicious cheeses.

**Tip:** Don't just reheat leftovers, recreate them. If you have a little extra roast, chop it up and use it in a sloppy joe.

milk." Ditto for older kids. "Liquid calories are a big deal," says Dr. Claudia Fox, director of the Pediatric Weight Management Program at the University of Minnesota Amplatz Children's Hospital. "Juice, pop, Gatorade, Powerade, sweet teas—these are all drinks that provide empty calories and over weeks, months and years easily add extra pounds."

**Watch for the cues.** Babies will unlatch from their mother's breast when they are full or will appear to fall asleep. Toddlers will play with their food, get antsy in their highchair or climb down from the table; limit their meals to 15 to 20 minutes.

**Introduce veggies first.** You'll help your kids develop a taste for low-calorie, fiber-filled foods that leave them feeling full. When we have more bulk in the foods we consume, our bodies are much better at controlling our impulses for consuming large amounts of calories.

**Pay attention to portions.** "A child's stomach is about the size of a child's fist," says Sara Benjamin-Neelon, a registered dietitian at Duke University, who encourages parents to talk to their kids about feeling full and ask them, "Does your tummy still feel hungry or does it feel full?" Research, she says, has shown that kids as young as 2 years old begin to override their innate hunger and satiety cues.

**Watch out for sugars.** Babies who are introduced to unhealthy sweet foods first may develop a preference for it. "It's very easy for a parent to bring immediate satisfaction to a crying baby by offering these foods," says Perez-Escamilla. Field even suggests avoiding that classic parental standby Cheerios since refined carbohydrates can play a role in weight gain. Try instead finger foods such as bananas, avocados and soft-cooked carrots cut into small pieces.

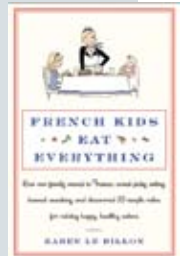
**Make sure they sleep.** "If infants sleep less than 12 hours, they have a two-fold increase in obesity three years later," Gillman says. That seems to hold true as kids age. To encourage good rest, put babies to bed in a quiet, dark room—without a bottle.

**Don't use food as a reward for good behavior.** The same goes for the clean plate club. "I wouldn't insist

## How Your Kids Can Eat like the French //



*In French Kids Eat Everything*, author Karen Le Billon chronicles how her family's move to northern France transformed her daughters' eating habits. How can the rest of us raise healthy-eating foodies?



### Cut Out Snacks

"I didn't believe this was physiologically possible! But I realized the French approach—with a structured meal routine—was better for children, not least because they eat more at mealtimes when more nutritious food is likely to be served."

### Don't Underestimate What They'll Eat

"My kids started out with a typical beige food diet, mostly subsisting on Cheerios, crackers, pasta and the like. By the end of the year, they were eating everything from spinach and salad to mussels and muesli."

### Work Your Way Up to Beef Bourguignon

"Learning to like new tastes and textures takes practice, time and loving support. Take the pressure off at the start by implementing this simple rule: You don't have to eat it, but you do have to taste it."

### Elevate Healthy Eating to Its Rightful Place

"How and why you eat is as important as what you eat. Learning a healthy eating routine is as important as toilet training or learning to read." —S. A. O.

they finish their plate to get dessert," says Lauren Graf, a clinical nutritionist at Montefiore Medical Center.

**Encourage movement from day one.** Overweight babies can have a trickier time rolling around or sitting up because they're too heavy to have the musculature to hold themselves up. "Babies spend a lot of time in strollers and car seats, strapped down and not able to move," Benjamin-Neelon says. "We need to allow infants to creep and crawl. It helps them develop muscles and it encourages achievement of motor milestones like walking." //

“It's not uncommon for families to think their kids are cute with a little extra toddler fat or preschool fat, so they may not recognize a weight problem with their own child. Comparison is sometimes tricky because so many kids now are overweight and obese. Often kids who are normal weight come into the clinic where they are surrounded by overweight kids and their parents think they are extremely underweight.”

—Dr. Julie Boman, Children's Hospitals and Clinics of Minnesota