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GROWING A HEALTHY CHILD – ONE MOUTHFUL AT A TIME

Keith Ayob, Ed.D., R.D.

One of the basic goals of all new parents is to nourish and nurture their child. Feeding an infant is almost a primal need for many new parents, and while it may be instinctive in the animal kingdom, humans often need a little help and guidance. Indeed, sometimes the parents of children with special health care needs can feel like they need a whole course in infant feeding.

Sometimes parents also think they should instantly know what to feed their infant or young child, but nowadays, there is so much more information out there – in magazines, radio, television and the Internet – and there are so many choices in the supermarkets, that it's difficult for many new parents to know where to start.

WHAT ARE INFANTS AND TODDLERS EATING?

There's actually some excellent new research on infant feeding, including how feeding practices differ between cultures. Called the "Feeding Infants and Toddlers Study" (FITS), an initiative of the Gerber Company, it included 3022 infants, ages 4-22 months. The results were enlightening, but not always positive.

The good news was that both calorie and nutrient needs were met regardless of children's feeding skills. At the same time, children with the most advanced self-feeding skills had better intakes of several nutrients: magnesium and iron (present in chewy foods like meats), calcium (cheese is a new chewy food for self-feeders and adds to calcium intake), B-vitamins and folate (present in enriched grains, typical spoon foods like rice and macaroni). These skill-related differences in nutrient intakes faded as children aged.

The fact that nutrient and calorie needs were met does not mean that children were optimally nourished, however. The American Academy of Pediatrics recommends that:

- The introduction of solid foods should be delayed until 4-6 months.
- Juice should not be introduced into the diet before 6 months of age.
- Cow's milk should not be introduced until 12 months of age.

The FITS study found that these long-accepted feeding recommendations of the American Academy of Pediatrics for infants were being ignored to a significant degree:

- 3 in 10 infants were eating solid foods before 4 months of age.
- 1 in 6 drank juices or juice drinks before 6 months.
- 1 in 5 drank cow's milk before 12 months. Some even consumed skim or reduced-fat milk during the first year.

As a pediatric nutritionist, I found the FITS study important because of its unique insight into what a large, diverse group of infants and toddlers actually eats, even though the above feeding practices were disturbing. The study indicated some significant areas of concern, among them:

- Poor consumption of fruits and vegetables.
- Among children 7-23 months, 18-33% consume NO vegetables and 23-33% consume NO fruits on a given day.
- By age 15-18 months, the most common "vegetable" is French fries.

Not only are infants and toddlers not getting enough of what they need, they're eating too much of what they don't need. Half the children studied were eating desserts, sweets, salty snacks or sugar-sweetened beverages on a DAILY basis by the age of only 7-8 months. What's more, this trend only increased with age.

It is important to understand that the way families typically eat has changed. People do less cooking than ever before and more families eat out or rely on take-out food for their meals. Such meals usually are higher in fried foods, fat, salt, sugar, and are higher in calories. Such meals also tend to have fewer fruits and vegetables than meals prepared at home.

CHILDHOOD OBESITY – STARTING EARLIER THAN EVER

We've known for some time that overweight and obesity are epidemic among children. The FITS study gives us some insight on just when it might start. Infants and toddlers in every age group of the FITS study received too many calories. During the first 6 months of life, children were taking in about 50-60 more calories daily than they needed. That amount is

about the number of calories in half of a banana. This may sound benign, and on an occasional basis it is, but a steady diet of even 50 calories a day more than necessary can translate into a gain of 5 pounds in one year. Of course, as the children aged, the calorie picture worsened. From 6-12 months, they averaged about 160 extra calories daily (think two extra slices of bread), and between 12-24 months, toddlers were eating just shy of 300 extra calories per day. That's almost 30% more calories than a toddler's daily needs. At this rate, it's easy to understand how 10% of US children between 2-5 years are overweight, and many more are nearly so. Here in New York City, childhood obesity is at epidemic levels – far worse than the national figures. Twenty-five percent of our children are overweight – five times the number that would be expected. In addition, another twenty percent are at risk for becoming overweight. Do the math – when a city has a full 45% of its child population that's heavier than it should be, it adds up to a major pediatric health crisis today.

Childhood obesity is also an ethnic issue. It's much higher in the African American and Hispanic population, possibly explaining why New York City's rates of child obesity are higher – we have a higher percentage of these groups than many other cities.

GOOD EATERS, PICKY EATERS – NATURE OR NURTURE?

Let's examine some of the process of learning to develop likes and dislikes about food. All children have favorite foods, but the preference for sweetness is inherent. We're born with it and this has been demonstrated as early as two days after birth. Some sugars taste sweeter than others, and when infants are fed water sweetened with different sugars (glucose, fructose, sucrose, etc.), they suckle more of the liquid that tastes sweeter (fructose), even though it has the same concentration of sugar and calories in it. This is all fine and well, but children's diets too often become somewhat "corrupted" as soon as sugar-sweetened foods are introduced. Indeed, many parents think that fruity baby food desserts have no sugar added. Wrong. If the item is labeled as a "dessert", such as "mango dessert," or is a combination food, such as "bananas with tapioca," then it's considered a "recipe" and can include any ingredients desired by the maker, including added sugar. If the jar says, "strained peaches," then it can't be anything but peaches.

Most new parents cannot wait to introduce their child to solid foods. Often parents see the tolerance of solids as a sign that the child is developing rapidly and ahead of expectations. But the child's digestive tract is still underdeveloped, even in a full-term infant, and waiting until at least 4 months for the introduction of solids is strongly recommended. Most parents I see have started solids long before this – sometimes as early as 6 weeks, by adding cereal to bottles of formula.

As quick as parents are to introduce new foods, the FITS study indicates that parents are just as quick to stop trying foods that are not immediately accepted by their child. It is well accepted that infants and toddlers often need numerous introductions of a new food – up to 12-15 separate occasions. Yet the vast majority of mothers (80% or more) in the FITS study made only 5 attempts or less at offering a new food before deciding that the child didn't like the food and not offering it again. And 1 in 4 parents of children ages 4 to 24 months stopped after as few as one or two tries! Limiting introductions to one or two tries limits the variety of foods in the child's diet to only those absolute favorites, which may or may not be nutritious. Moreover, this does a disservice to the child by not allowing him/her the benefit of time to adapt to new tastes. This child may be described as a picky eater (a frequent occurrence in my office) when in reality he/she simply hasn't been allowed enough time to accept a new food.

BARRIERS TO BETTER EATING

One of the most challenging tasks I have is explaining to parents that dietary changes for children (and adults, for that matter) take time, and getting them to accept just how much time. Think about any project or task you've ever attempted. Were you expected to walk on the first attempt? Ride a bike? Write your name? It's the same with learning to accept new foods. It's fully within the capabilities of each child, but the process cannot be rushed, and that may be the most difficult for parents to understand. They place such high priority on getting their child to eat every meal/snack that they forget that children need plenty of time for learning to accept new foods.

Another issue is strictly about parents, and their need to feel competent in their job. The thinking is, "If I get my child to eat enough, then I'm a good parent. If she doesn't want to eat, it's my fault and I have to fix it. Besides, if I give her what she wants, at least she'll eat something." Sometimes there are cultural issues attached to this. Among the families referred to me, many parents feel it is wrong to deny children food when they ask for it. This may stem from coming from an environment where food was in short supply, or from a belief that it is the mother's duty to ensure the happiness of her child, including where food and eating issues are concerned.

It is important to realize that food is also an effective, albeit not ideal, short-term pacifier; hence it is often used to control behavior or worse, to control "noise-making," such as making sounds, simple words, or any verbalization. I try to stay on the lookout for this tendency in parents and make a point of addressing the issue. From a nutrition and health perspective, it's important for the child to learn that food is not an appropriate coping mechanism. Food is food. It's for quelling an appetite and for stimulating our taste buds, but it's for use at an appropriate time and in response

to our internal hunger cues. Infants and toddlers have wonderful internal cues to eat (and stop eating), and it is critical that parents learn to recognize and honor these internal cues. Too often, when parents use food to control behavior they are short-circuiting an infant's internal cues. In essence, they are telling the infant, "Forget about whether you are hungry or not, I'm giving you a cookie. Now take it and keep quiet." This conditions the child to eat for the sake of the oral stimulation and distraction that eating brings, rather than for the main reason to eat – because the body needs food.

Feeding (whether a meal, bottle, snack, or even a pacifier) to keep a child quiet will simply channel the infant or toddler's coping mechanisms in one direction – always toward food. It also prevents infants/toddlers from doing one of their jobs, namely chattering. Speech and language cannot develop without practice. Again, repeated tries and practice are necessary in order for a goal to be achieved, whether the goal is to begin verbal communication or accept a new food.

Under normal circumstances, by the age of 4 years, children's appetites begin to be more externally driven. We hope that by then the internal cues remain intact and can still exert a strong influence on consumption, and they will if they are properly reinforced in the younger years.

THE PARENTAL INFLUENCE

Good eaters are sometimes just born that way. They eat all their veggies and whatever else they're served without a problem, and they stop when their bodies have had enough. Those children seldom see the inside of my office. I am more likely to see the other 98% of children. More children could be at least closer to having better eating habits, however, if they witnessed better eating habits at home. Infants and toddlers may be driven by internal cues, but parents need to also motivate them in the right direction. When parents complain that their toddler is "not eating the way I think he should" I can almost guarantee that the parents aren't eating the way I think they should – at least when they're in front of the child.

Fact: I never see children eating BETTER diets than their parents. Another fact: all parents are role models for their children, whether they like it or not. We need them to be POSITIVE role models. This means more than just serving good, healthy meals and snacks. It means that parents need to eat at least one meal per day with their toddler. Sure, sometimes it's a messy affair. Sometimes it's less than a smooth experience, but it's an important one. Perhaps more than with any other learning experience, when it comes to food and eating, toddlers learn what they see.

Many parents complain that their children don't eat fruits and vegetables. I always ask, "Do YOU eat them? In front of your child?" Most often they say they don't, because they never ate them as a child, but that they

want something better for their child. Good intent, but it won't happen unless the parents are willing to begin changing their own eating habits. If done gradually, there's absolutely hope.

Good, healthy eating also involves snacks. Snacks are important, and shouldn't be dismissed as just fluff food. They should serve to round out the infant and toddler's nutrient intake. At the same time, there is a point where enough is enough. Eating or drinking nearly every waking hour, or eating snacks as frequently as 12 times per day, as reported for some of my patients, is too much for both overweight and underweight children. Overweight infants and toddlers simply have more opportunities to gain unneeded calories. Underweight children may be fed often because they are finicky eaters, and parents feel the child will starve if not constantly offered food and drinks. On the contrary, too frequent offerings often result in the child taking only a bite or a sip here and there, never really developing a strong appetite at any time and consuming too little by the end of the day. I reassure parents that even a newborn eats only every two or three hours.

Finally, a word about "exercise." For infants and toddlers, scratch the step classes and the treadmill. All they need is age- and developmentally appropriate play, but they need it every day. At these ages, that's their "work," and it is just as important for growth as good, healthy food. Indeed, daily playtime can help regulate appetites as well, and help children learn that pleasure need not always involve food.

One of the best gifts a parent can give a young child is the experience of developing an appetite and having that appetite sated by good healthy food prepared by a parent who also eats with that child daily. We need to help caregivers understand that developing this process takes time. Like any aspect of raising children, it cannot be rushed, but it can be facilitated and encouraged. Indeed, one of the best gifts I can give my patients' caregivers is permission to take the time and learn to enjoy the journey – one mouthful at a time.

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