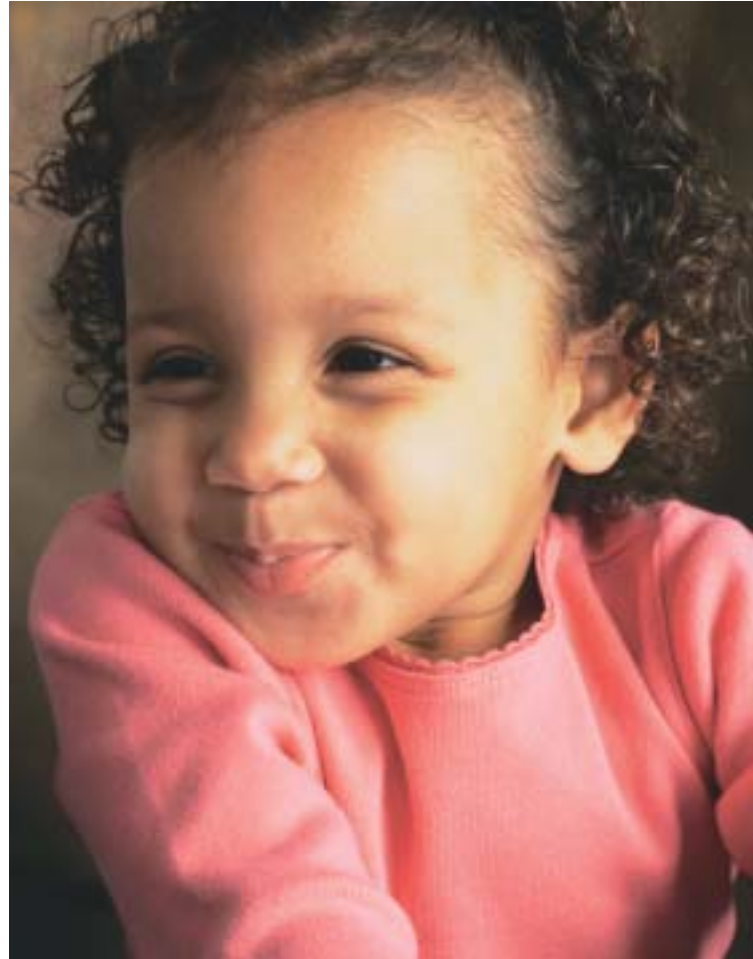


Feeding Infants and Toddlers Study Part 3: Picky Eaters: Big Problem, or Just a Phase?

Synopsis — The Gerber Feeding Infants and Toddlers Study (FITS) makes it clear that both picky and non-picky eater groups may not eat a variety of recommended foods, but picky eaters as a group are in no nutritional danger when mean intake is compared to current dietary recommendations. Although picky eaters may be meeting current standards for essential nutrients, there is some concern about whether these children will continue to do so if their acceptance for a limited number of foods persists over time.

It is important for pediatric professionals to challenge a parent’s assessment of their child as a picky eater, since the perception and potential labeling of “picky eater” may give parents a false sense that their child will never learn to like new foods. Encourage parents to offer a new food multiple times and in a pleasant context, and to remember that if they are not modeling dietary variety in their own meal and snack choices, then their child will be less likely to accept a variety of new foods. Pediatric professionals can work with parents to improve the diets of all children, even “picky eaters.”



“She goes on these food jags and it’s driving me crazy.”

“He’s only interested in his three favorite foods. I can’t get him to try anything different.”

“I’m worried she’s not getting enough nutrition because she’s such a picky eater.”

These are some of the concerns you might hear expressed by parents or other caregivers who are troubled by what they perceive to be a young child’s picky eating behavior. Picky eating is rarely an issue for infants less than 6 months of age, who are often fed a liquid diet of breast milk and/or formula. However, once babies do begin the transition to complementary foods, they experience a new range of oral sensory experi-

Although parents may be frustrated by their child's particular reactions to disliked foods, they are likely to be more concerned with the possibility that their child is missing out on essential nutrients and limiting dietary variety.



ences,¹ particularly bottle-fed babies who have grown accustomed to a similar flavor at every feeding. As the range of sensory experiences a baby encounters increases, so does the ability to indicate food preferences, both verbally and behaviorally.^{2,3} While some children may be happy to eat almost everything parents present to them, others may seem willing only to eat one or two favorite foods, causing parents to wonder if their child's nutritional health is in jeopardy.

Until now, there has been no published data available to parents and pediatric professionals that describe the eating behaviors of a significantly representative population of children under the age of two in the United States. Utilizing the data compiled through the Gerber Feeding Infants and Toddlers Study (FITS), researchers sought to understand more about the phenomenon of picky eating. Examination of the FITS data brings to light various issues relating to picky eating behaviors, such as whether those behaviors can be predicted, and if picky eater status places infants and toddlers in danger of consuming less than the optimal nutrient and energy intake.

The "Why" of Picky Eating

Although parents may be frustrated by their child's particular reactions to disliked foods, they are likely to be more concerned with the possibility that their child is missing out on essential nutrients and limiting dietary variety because he or she avoids specific foods or entire food groups.^{2,4} As children develop their own tastes for complementary foods, and often reject new foods their parents introduce, they may be perceived as picky eaters, problem feeders, or neophobics.^{5,6} To each parent, picky eating behaviors may have a different meaning, but in general there are specific behaviors reported by parents who perceive their child as a picky eater. These include the acceptance of a limited number of foods, an unwillingness to try new foods, a limited intake of vegetables and various other foods, and exhibiting strong food preferences.²

Picky eating behavior is not simply a matter of the child's unwillingness to accept certain foods and of emerging food preferences, it also corresponds with a time when children are beginning to assert their independence. The process of establishing preferences for certain foods and distaste for others is part of the individuation that all children must go through.⁷ A child's acceptance of a new food is also affected by a host of other factors that are independent of the child. The modeling that parents and siblings provide can be a powerful influence,^{8,9} as can specific family characteristics,¹⁰ and whether or not the mother has been exposed to and accepted a new food.¹¹ Within a social context, giving verbal praise can sway a child's preferences for a new food.¹² A child may also be more likely to accept new foods depending on the perceived opportunities to taste them,¹³ and if they have ample exposure to the food in question.^{14,15} Finally, the lingering, long-term effects of early feeding may come into play when a child decides for or against a novel taste sensation.¹⁶

Flavor preferences associated with picky eating behaviors may develop during infancy, or even prenatally. In recent years, studies have shown that even before infants are born, they are exposed through amniotic fluids to the flavors of foods their mothers eat, and nursing infants continue to encounter these flavors through their mother's breast milk.¹⁷ Through these very early experiences with the different flavors of a mother's diet, infants may be predisposed to accept certain tastes, and these preferences may later influence a child's acceptance of particular foods as their diet transitions from liquids to solids.¹⁷ So, if a pregnant or lactating mother prefers the flavors of foods seasoned with garlic, her child will already have been exposed to this pungent flavor, and more likely to accept solid foods flavored with garlic at a later time. These findings support the idea that a mother's diet during pregnancy is important to her child's later acceptance of a variety of healthy foods.

Picky eating behavior is not simply a matter of the child's unwillingness to accept certain foods and of emerging food preferences, it also corresponds with a time when children are beginning to assert their independence.

Using FITS to Examine the Picky Eater Phenomenon

Although a certain amount of picky eating behavior in children is to be expected, parents and pediatricians may wonder whether these behaviors negatively influence a child's nutritional intake. Utilizing the data collected in FITS, different facets of picky eating behaviors may be examined. Previously, the majority of published studies related to children's food acceptance were about children older than the FITS sample parameters of 2 to 24 months old.^{2,4,8,9,14,15,18-22} Only two small studies reported on children under 2 years of age^{23,24} and the findings have limited applicability to the larger population of children less than 2 years of age in the United States.



Researchers used the FITS data to explore four issues related to the parents' perceptions that their child aged 4 to 24 months was a picky eater. First, the large sample size of FITS allowed for a cross-sectional survey of primary parents to determine the prevalence with which a given child might be considered a picky eater, and the effects that this perception might have on energy and nutrient intakes, based on a one-day food recall. Second,

researchers analyzed the data to determine whether or not they could effectively predict picky eater status. The third issue involved a comparison of foods eaten from major food groups and foods within those groups for picky eaters vs. non-picky eaters. Lastly, researchers sought to determine how many times parents offered a new food before deciding their child disliked it.

Parents with a child aged 4 to 24 months were asked whether or not they considered their child to be a very picky eater, a somewhat picky eater, or not a picky eater. This survey was taken as part of the larger FITS, for which specific methodology has been published.²⁵ Rather than defining "picky eater" during the interview, the parents' perceptions of this term were used as the basis of definition. This differs from two other studies that sought to determine the prevalence of picky eating, in which mothers described the behaviors and completed assessments scales designed to identify neophobic behavior.^{2,26} Responses of polled FITS parents were coded as yes, no, don't know, or refusal. When asked how many times a new food was offered before a parent decided that the child disliked it, respondents chose from the answers of once, twice, 3 to 5 times, 6 to 10 times, and more than 10 times.

Analyzing the Data

To make comparisons between children perceived as picky and non-picky eaters, data from infants and toddlers who were perceived as "very picky" or "somewhat picky" according to their parents were compiled to form a "picky eater" group for each of the age groupings utilized throughout FITS (4 to 6, 7 to 8, 9 to 11, 12 to 14, 15 to 18, and 19 to 24 months). Similarly, a data set was compiled for those in each age group who were not considered picky eaters. Based on one 24-hour dietary recall for each child, researchers determined food and formula intakes (including nutritional supplements), and coded the data using the Nutrition Data System Research Manual.²⁷ From the outset of analyzing results for the picky eater study, it seemed unlikely that either picky eaters or non-picky eaters would be at risk of nutrient inadequacy, based on the very low prevalence rate found for the entire sample of children.²⁸ Nutrient and energy intakes were calculated, and statistically significant differences ($P < .05$) between the two groups were determined.

To answer the question of which foods were being consumed and at what ages, percentages were calculated for major food groups and for particular foods within those groups by age of child and by picky eater

The FITS data provide new information about ethnicity and picky eater behaviors. For example, non-Hispanic Black parents reported the highest percentage of perceived picky eater behaviors for the ages 9 to 11 months (44%), 12 to 14 months (41%) and 15 to 18 months (61%).



status. Data for children aged 15 to 24 months were merged because most transitions in types and amounts of foods consumed occur from 7 to 14 months of age. Because of many independent factors known to influence children's food acceptance, characteristics of the child (e.g. gender, age, weight-for-age percentile, ever breast fed status) and of the parents (e.g. education, and household income) were used to predict picky eater status, the dependent variable. Information about how many times parents offered a new food was summarized by age and tested for group differences. That is, did parents of picky eaters compared to non-picky eaters differ in the number of times they offered new foods before deciding their child disliked it?

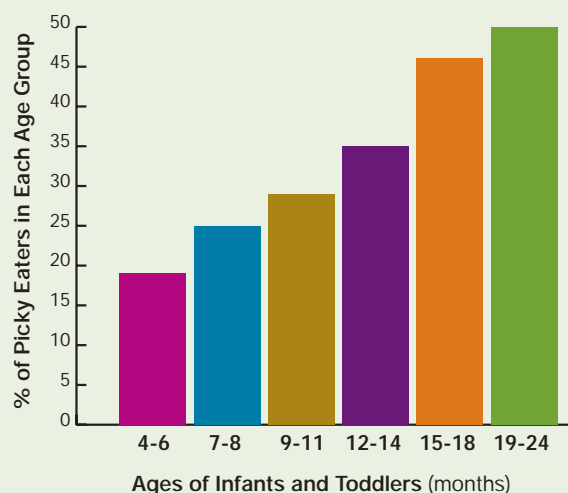
Predicting Picky Eater Status

Figure 1 shows the percentages of FITS parents who considered their child to be a picky eater for each age grouping. The parents were mostly mothers (91%), who had verified their responsibility for foods selected and offered to their child. At 4 to 6 months of age, only 19% of children were reported as picky eaters; this percentage more than doubled for children 19 to 24 months of age.

One quality of the FITS data that makes it unique among published studies is that the sample was drawn from a range of ethnic backgrounds, as opposed to many other food-acceptance studies that involved mostly white children who were older than two years of age.^{2,4,8,9,14,15,18-22} The FITS data provide new information about ethnicity and picky eater behaviors. For example, non-Hispanic Black parents reported the highest percentage of perceived picky eater behaviors for the ages 9 to 11 months (44%), 12 to 14 months (41%) and 15 to 18 months (61%). However, ethnicity was not found to be a predictor of picky eater status because similar findings were reported for Hispanics, non-Hispanic white, and "other" multiracial groups.

Within age categories, parents with children less than 6 months of age were much less likely to report the incidence of picky eater behaviors than were parents with children older than 19 months. This trend held true for both male and female children: picky eating

Figure 1: Percentage of Caregivers Who Perceived Their Infant or Toddler as a Picky Eater



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behavior reportedly occurred in 17% of male babies at 4 to 6 months, but 47% at 19 to 24 months, and in 23% of female babies at 4 to 6 months to more than half (54%) by 19 to 24 months. However, gender and ethnicity as well as household income were not factors that predicted parents' perceptions about the child as a picky eater. Whether a child lived in a household with an income of \$25,000 to \$49,000 (about 23% at 7 to 8 months to 48% at 9 to 11 months) or a household with an income of \$50,000 to \$74,999 (23% at 7 to 8 months and 52% at 19 to 24 months), results were similar. However, two factors emerged which are helpful in predicting picky eater status. Table 1 (page 6) shows that the older aged children were more likely to be considered picky eaters than children at younger ages. Also, a child who falls within the higher weight-for-age percentile is less likely to be perceived as a picky eater than a child whose weight is in a lower weight-for-age percentile.

There are some differences in nutrient and energy intake for picky eaters compared to non-picky eaters aged 7 to 11 months, and some infants and toddlers may consume only marginal quantities of major food groups. However, all nutrient and energy intakes met or exceeded the current dietary recommendations.

The Reality of the Picky Eater Problem

Nutrient and energy intakes of the picky eater group versus the non-picky eater group are shown in Table 2. For children younger than 7 months or older than 11 months of age, nutrient intakes showed few statistical differences. In contrast, there were 17 statistically significant differences found within the age groups of 7 to 8 months and 9 to 11 months. Overall, for the picky eater group aged 7 to 8 months, intakes of carbohydrates, vitamin C, thiamin, riboflavin, niacin, vitamin E, and iron were significantly lower than intakes of non-picky eaters. Similarly, for the ages 9 to 11 months, the picky eater group consumed less energy, total fat,

Table 1:
Independent Variables That Were Significant Predictors of Picky Eater Status of Infants and Toddlers^{ab}

Independent Variables	Odds Ratios	95% Confidence Interval
Age Category (mo)		
4-6	1.00	...
7-8	1.38	0.99 - 1.92
9-11	1.75	1.30 - 2.35*
12-14	2.20	1.56 - 3.10*
15-18	3.76	2.69 - 5.25*
19-24	4.45	3.15 - 6.28*
Weight-for-age-percentiles		
0-25	1.00	...
25-50	0.62	0.45 - 0.86*
50-75	0.61	0.45 - 0.84*
75-100	0.66	0.49 - 0.88*

^a Primary caregivers were asked whether they considered their children to be a very picky eater, somewhat picky, or not a picky eater. Very picky and somewhat picky eaters were compared with non-picky eaters.

^b Independent variables considered were gender, age, weight-for-age percentile, birth order, ever breast-fed status, ethnicity and the mother's education, working status, marital status, household income and residence.

* $P \leq .05$

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Table 2:
Nutrient Intakes of Children by Picky Eater Status^a

Energy/Nutrients	Age (mo)		RDA/AI ^b 7-12
	7-8 (n=475) ^c	9-11 (n=677)	
Energy (kcal/d)	← means ± SD →		
Picky	785 ± 233 ^d	911 ± 263^e	739
Non-picky	838 ± 221	989 ± 338	
Carbohydrate (g/d)			95*
Picky	108 ± 35 (55%)^{ef}	130 ± 42 (57%)	
Non-picky	119 ± 36 (56%)	989 ± 338 (56%)	
Total Fat (g/d)			30*
Picky	32 ± 9 (37%) ^f	35 ± 12 (34%)^e	
Non-picky	33 ± 9 (36%)	38 ± 14 (35%)	
Vitamin C (mg/d)			50*
Picky	96 ± 43^e	103 ± 52	
Non-picky	107 ± 48	105 ± 56	
Folate (µg/d)			80*
Picky	156 ± 88	199 ± 103^c	
Non-picky	190 ± 335	228 ± 141	
Vitamin B₁₂ (µg)			0.5*
Picky	1.6 ± 1.1	1.9 ± 1.1^e	
Non-picky	1.7 ± 1.4	2.2 ± 1.0 ^c	
Thiamin (mg/d)			0.3*
Picky	0.73 ± 0.3^e	0.88 ± 0.4^e	
Non-picky	0.84 ± 0.4	0.94 ± 0.4	
Riboflavin (mg/d)			0.4*
Picky	1.1 ± 0.5^e	1.3 ± 0.5^e	
Non-picky	1.2 ± 0.6	1.4 ± 0.6	
Niacin (mg/d)			4*
Picky	9 ± 4^e	11 ± 5	
Non-picky	10 ± 5	11 ± 5	
Vitamin E (mg/d)			6*
Picky	9.3 ± 3.0^e	9.4 ± 4.0	
Non-picky	11.2 ± 8.7	9.6 ± 4.2	
Vitamin B₆ (mg/d)			0.3*
Picky	0.7 ± 0.4	0.8 ± 0.4^e	
Non-picky	0.7 ± 0.4	0.9 ± 0.5	
Calcium (mg/d)			270*
Picky	542 ± 241	608 ± 252^e	
Non-picky	597 ± 235	693 ± 338	
Magnesium (mg/d)			75*
Picky	98 ± 43	115 ± 44^e	
Non-picky	105 ± 40	131 ± 60	
Iron (mg/d)			11
Picky	14 ± 9^e	15 ± 10	
Non-picky	17 ± 8	16 ± 9	
Zinc (mg/d)			3
Picky	5 ± 2	5 ± 2^e	
Non-picky	5 ± 2	6 ± 3	

^a Children classified as picky eaters were rated by their primary caregiver as a very picky or somewhat picky eater.

^b Recommended Dietary Allowances (RDAs) are in bold type and Adequate Intakes (AIs) in ordinary type followed by an asterisk. Energy value is the Estimated Energy Expenditure (EER).

^c Weighted percentage of children in the total sample considered picky eaters, 25% at seven to eight months, and 29% at nine to 11 months.

^d Mean nutrient intake including supplements for one 24-hour recall per child; SD=standard deviation.

^e Nutrient intakes significantly differently ($P \leq .05$ for picky eater groups vs. non-picky eater group).

^f Weighted percentage of calories from macronutrients in parenthesis.

Picky eaters compared to non-picky eaters were more likely to consume French fries (18% vs. 11% at 12 to 14 months and 27% vs. 19% at 15 to 24 months), while picky eaters were less likely to eat mashed potatoes (about 5% for picky eaters vs. 12% for non-picky eaters at ages 9 to 24 months).



folate, vitamin B₁₂, thiamin, riboflavin, B₆, calcium, magnesium, and zinc than did their peer group.

While these results suggest that parental concerns about a picky eater's dietary intake may have some basis, in fact, their concerns can be put to rest. Yes, there are some differences in nutrient and energy intake for picky eaters compared to non-picky eaters aged 7 to 11 months, and some infants and toddlers may consume only marginal quantities of major food groups.²⁹ However, all nutrient and energy intakes met or exceeded the current dietary recommendations.

So What Foods Are They Eating?

As shown in Table 3, there are no glaring differences in which foods are consumed from the major food groups between picky eaters and non-picky eaters. General observations may be gleaned from Table 3, according to both age and picky eater status. On average, 90% of the FITS children over 6 months of

age ate grains and/or grain products on the day of the dietary recall. Further results from the grain group not included on this table showed that picky eaters aged 7 to 8 months and 15 to 24 months are less likely to consume unsweetened ready-to-eat cereals than are non-picky eaters. On the other hand, sweetened ready-to-eat cereals are consumed by a greater percentage of picky eaters aged 15 to 24 months (24%) as compared to non-picky eaters within the same age group (18%).

Fruits were preferred over vegetables for children in all age groups. In fact, 16 to 32% of children over 6 months of age did not reportedly eat even one vegetable on the sampled day. Picky eaters compared to non-picky eaters were more likely to consume French fries (18% vs. 11% at 12 to 14 months and 27% vs. 19% at 15 to 24 months), while picky eaters were less likely to eat mashed potatoes (about 5% for picky eaters vs. 12% for non-picky eaters at ages 9 to

Table 3:
Percentages of Children Consuming Food Categories by Picky Eater Status and Age^a

Food Category	Age (mo) ^b									
	4-6 Picky		7-8 Picky		9-11 Picky		12-14 Picky		15-24 Picky	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
	573	138	354	121	484	193	249	121	324	297
Grains and grain products	77	79	92	88	96	96	98	98	98	95
Vegetables	47	50	68	67	76	65	79	72	84	77
Fruits	57	64	90	83	89	89	94	84	84	87
Milk and milk products	100	100	100	100	100	100	99	100	97	97
Meat and other protein sources	5	7	13	20	45	33	75	72	89	86
Mixed dishes (e.g., casserole, sandwich, pizza)	13	14	46	52	66	58	72	68	71	67
Sweets, sweetened beverages, desserts	12	14	45	48	61	58	76	77	89	86
Other (water, added fats, salty snacks)	41	41	59	64	75	69	87	86	93	93

^a Children classified as picky eaters were rated by their caregivers as a very or somewhat picky eater on the day of the telephone interview.

^b Data represents one 24-hour recall per child in each of the five age groups.

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The FITS makes it clear that both picky and non-picky eater groups may not have a variety of recommended foods, but picky eaters as a group are in no nutritional danger when mean intake is compared to current dietary recommendations.

24 months). Although the FITS children may not be scrambling to gobble up lima beans or cauliflower, picky eaters (particularly those over 15 months) reportedly fancied fresh and frozen bananas. Nearly all infants and toddlers had milk and/or milk products on the day of the dietary recall.

For infants aged 7 to 11 months, less than half ate a source of protein such as meat, although this percentage rose to about three-quarters or more for children aged 12 to 14 months. For infants and toddlers who did consume a selection from the meat and protein group, chicken was the favorite choice. Non-picky eaters were more likely to eat a mixed dish, especially a pasta-based entrée such as spaghetti, ravioli, or lasagna, than were picky eaters. Although few parents with children 4 to 6 months of age reported consumption of foods from the sweetened beverage and dessert category, intakes increased for the older children in the study.

As expected, the proportion of infants and toddlers eating foods from the “other” category was greater for the older children as their diets became more diversified.

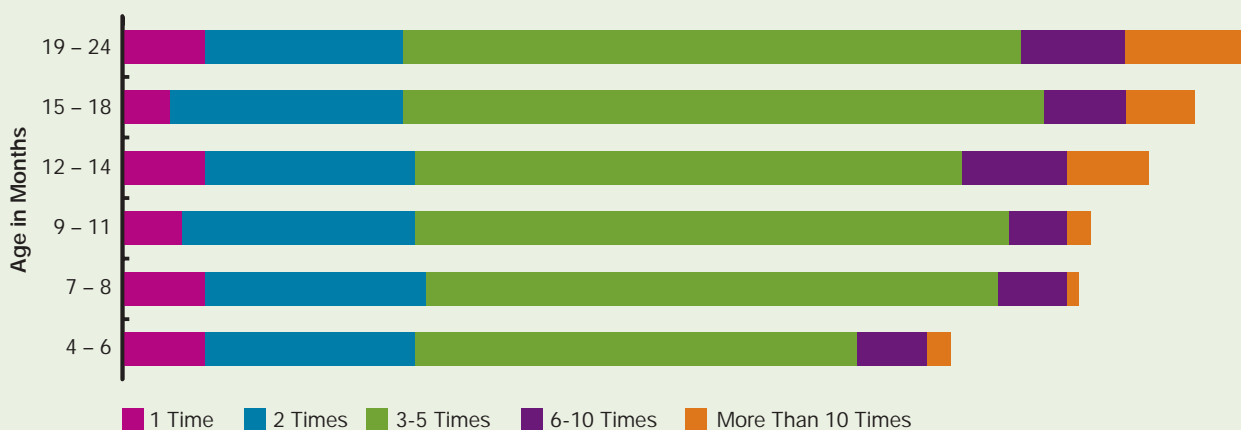
What is the Role of Parents in Promoting Food Acceptance?

Parents may despair at their child’s picky eating tendencies, but they should be encouraged not to give up. Parents can take comfort in the fact that a child’s taste preferences develop over time,³⁰ and realize that there are many things they can do to expand the diets of their picky-eating children, from offering new foods numerous times to paying closer attention to their own dietary habits. The center-spread on the following pages offers several useful suggestions that parents can try.

The FITS makes it clear that while both picky and non-picky eater groups may not consume a healthy variety of recommended foods, picky eaters as a group are in no nutritional danger when mean intake is compared to current dietary recommendations. This is good news for parents who might be making what seems like the thousandth peanut butter and jelly sandwich. But the question of how to introduce more nutritious variety into all children’s diets still remains. Dietary variety is an important component to every child’s overall health, as growing bodies need calcium

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Figure 2:
Percentage of Mothers Offering a New Food a Specified Number of Times Before Deciding Their Infant or Toddler Disliked It



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Putting Research Into Practice

with William Wilkoff MD



While babies are helpless little creatures who must be fed, toddlers are crafty and resourceful little devils who can be trusted to feed themselves if presented with a balanced diet. Many parents however, have trouble making the transition from “feeder” to merely “food presenter”. Helping parents accept that their nutritional responsibility ends once they’ve put a balanced meal on the table can help prevent picky eating behavior in their children and make this part of parenting less stressful.

Obviously we can’t alter the biologic fact that toddlers grow more slowly than when they were infants and therefore require relatively less food. Nor can we magically erase the neophobia that makes them hesitant to try new tastes and textures. But, there are some simple strategies that can blunt the effects of these biologic imperatives.

For example, many picky eaters don’t eat much because their little bellies are always full of high energy liquid. So a good place to start preventive efforts is with the trend of overdrinking, a habit that can take root when an infant is allowed to use his mother’s breast or a bottle as a pacifier. If this habit persists, and it often does, drinking becomes not only a nutritional event but a process that must be repeated whenever the child is tired.

Once I am sure that a baby is gaining weight well, I encourage his parents to shorten feedings so that the infant finishes most of his feedings awake. This advice can sound counter-intuitive to anyone who has forgotten that we feed our children so that they will grow, not so they will sleep. However, in my experience, children who have acquired the skill of self-settling as infants are less likely to become overdrinking toddlers.

Another important crossroad comes at about four months of age when a baby begins to grasp at his bottle.



I join the parents in applauding the acquisition of this developmental milestone, but I caution them not to release their own grip on the bottle. I remind them that the formula belongs to the baby, but if they relinquish ownership of the container, it may be very difficult to get it back when it’s time for weaning. If this simple guideline is accepted and followed, the infamous and appetite blunting wander-bottle will be eliminated from the toddler landscape.

I also encourage parents to introduce a cup of very dilute juice or water at about five months using a sturdy glass or cup without a lid, rather than in a bottle. A spill-minimizing lid can be added once the child gets the hang of drinking and wants to control the cup. I also suggest that all drinking (at a minimum all non-water drinking) be done with the child sitting, initially on a lap, eventually in a high chair or at the table. This eliminates the wander-cup trap, which can be just as nasty as the wander-bottle.

When it comes time to introduce solid food, I encourage parents not to give up on a food when their child rejects it for the first or the fifteenth time. I remind them that a food that never appears on the plate will never be eaten. It may never be a favorite, but in the long (sometimes very long) run it will be accepted.

Modeling is a powerful molder of toddler behavior, so I encourage parents to eat with their children —

even if this means sitting down and pretending to eat with the toddler whose bedtime comes before the rest of the family has arrived home. In addition to encouraging the child to eat, it reinforces the social aspects of a meal.

Finally, keep in mind that whether you and I think a child’s appetite is age-appropriate is irrelevant. If his parents perceive it as abnormal, then we have a problem to address. They need us to be available, knowledgeable, and understanding supporters. All of us worry about our children, but parents who have defined their child as a “picky eater” have special concerns. The worries may be a result of their own unresolved issues with food or they may be remnants from a frightening nutritional period in the child’s life, such as prematurity or a serious illness.

Asking the right questions and taking the time to listen to the answers will uncover parents who are particularly vulnerable to the stresses of typical toddler eating behavior. For example, I ask why the parent is concerned about his or her child’s eating habits. Often, I unearth some nutritional misconceptions that I can refute. Sometimes, I discover that the parent still harbors the unrealistic fear that her child will die if he doesn’t eat enough. Targeted reassurance can help these troubled parents cope with their picky eaters before it becomes a significant problem. ●

Dr. Will Wilkoff practices general pediatrics full time in Brunswick, Maine and writes a monthly column in *Pediatric News*. He has authored four books for parents, including: *Coping with a Picky Eater* (Simon & Schuster 1998), *The Maternity Leave Breastfeeding Plan* (Simon & Schuster 2002), and *How to Say No to Your Toddler* (Broadway Books 2003).



It is important for pediatric professionals to challenge a parent's assessment of their child as a picky eater since the perception and potential labeling of picky eater may give parents a false sense that their child will never learn to like new foods.

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from dairy products, vitamins from fruits and vegetables, carbohydrates from whole grains, and protein from meat and other sources.³¹ FITS data do suggest that some of the children sampled may have a very limited exposure to basic food groups, such as meats and vegetables. Although picky eaters may be meeting current standards for essential nutrients, there is some concern about whether these children will continue to do so if their acceptance for a limited number of foods persists over time.

Clearly, parents should not give in to a picky eater's every whim, but this is easier said than done, considering that the parents' role includes all decisions about the foods that the family eats. It may be difficult for parents to offer vegetables day after day, only to watch their child pick at them and push the food aside, or to stay calm while verbal and facial gestures underscore their child's rejection of the food. Parents should be encouraged to offer foods over and over in appealing ways, up to 10 times, rather than just 2 or 3;³² some researchers indicate that up to 15 exposures^{4,14} are needed to enhance food acceptance. Figure 2 (page 8) shows responses for the total sample, as there were no significant differences between the picky and non-picky eater groups in the number of times parents offered a new food. Most FITS parents only offered a new food 3-5 times, with a quarter of parents offering a new food only once or twice before deciding that their child dislikes it. Studies about food acceptance in older children show that exposure and repeated offerings enhance acceptance.^{4,15,21,23} Parents should be encouraged to think positively, as the next presentation of broccoli might just be the one that elicits smiles instead of frowns.



Conclusion

Picky eating behavior is a problem that almost every parent experiences from time to time, especially as a child grows older and begins to assert his or her newfound independence. FITS data confirms this notion, providing for the first time national data showing the prevalence of parents who perceive their child as a picky eater. The findings also indicate that parents may

perceive their child to be a picky eater regardless of the child's age, gender, or ethnicity, and of diverse household incomes. It is important for pediatric professionals to challenge a parent's assessment of their child as a picky eater, however, since the perception and potential labeling of picky eater may give parents a false sense that their child will never learn to like new foods. Encourage parents to offer new foods multiple times in pleasant contexts, and to remember that if they themselves are not modeling dietary variety in the foods eaten, then their child will be less likely to accept a variety of new foods. Pediatric professionals can work with parents to improve the diets of all children, even "picky eaters." ●

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