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PICKY EATING CHILDREN: HOW TO GUIDE PARENTS

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ABSTRACT: Children with picky eating habits draw parents to the clinic. The cause of picky eating may be owing to an underlying disease condition or may just be a passing phase in the life of the child. Except for transient nutritional deficiencies, there are no serious implications in adulthood. In view of unrealistic parental expectations on the growth and development of child, pediatricians need to counsel parents and provide guidelines for managing picky eating habits in children. Although the picky eating habits would not disappear overnight, a constant and persuasive attempt by employing a generalized approach discussed in this review would prove to be effective. The pediatricians can improvise their doctor-patient rapport by providing a practical guideline to parents, instead of dismissing the condition as normal.

INTRODUCTION: Worldwide, the most common complaint from parents is picky or fussy eating in an otherwise healthy toddler or pre-schooler. Although, the definition or description of parentally perceived picky eating in children (1–10 years) is not well defined, the term broadly includes.^{1–4}

- Eating limited quantity of food.
- Refusing to eat some particular kind of food, viz., some fruits and vegetables.
- Reluctant to try new foods (food neophobia).
- Accepting only a few types of food.
- Preferring drinks over food.
- Having strong food preferences.
- Preferring sweets and fatty foods instead of healthy foods.
- Preferring snacks instead of having proper meals.

Irrespective of the age, 13%–22% of the children are reported to be picky eaters.² Other studies have reported as high as 50%. Infants from the age of 4 months up to 24 months showed a steady increase in picky eating habits (as assessed by caretakers) from 19% to 50%.⁵ Since children have relatively high energy requirements, parents often worry about the eating habits of their children. Parents consult family practitioners and pediatricians with their concerns about eating problems because they are not equipped with definite strategies that address picky eating habits.⁶

CONCERN OF PARENT AND FAMILY PRACTITIONERS: Picky eating in children is a common reason for parental anxiety as it reflects on the overall development and future lifestyle changes in their children. Picky eating behaviors may be linked to nutritional problems.⁷

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EATING DISORDER IN ADOLESCENCE AND EARLY ADULTHOOD: Eating disorders in adolescence and early adulthood have been linked to picky eating habit in early childhood. Moreover, eating disorder has been found to occur in normal children and in children with medical or developmental disorders.³

SUBOPTIMAL DEVELOPMENT: In comparison to healthy eaters, children with infantile anorexia or picky eating habits presented with lower Mental Developmental Index (MDI) scores. Hence, picky eating in the earlier age is apparently related to with suboptimal development.⁸

FACTORS CONTRIBUTING TO PICKY EATING: Even before counseling parents about their concerns on picky eating habit in their children, physicians should systematically evaluate a child with feeding difficulties.

SERIOUS ORGANIC PATHOLOGY: Food refusal can be an indicator of serious or mild underlying pathology. Correction of the underlying condition would improve the picky eating habits in early childhood. In the absence of a specific and detailed approach to eating disorders in early childhood, Kerzner provided a practical approach for identifying the underlying pathology and mild to severe functional feeding difficulties.⁹

Step 1: Obtain a thorough medical and family history, examination of vital organ systems, anthropometrics and physical exam.

Step 2: Any cue from Step 1 should further help in identifying any of the following red flags

- Dysphagia, odynophagia-gastroesophageal reflux, eosinophilic esophagitis, and occasionally infections or toxic injury.
- Uncoordinated swallowing-cough, choking, or recurrent pneumonia (mostly in children with children with developmental limitations and neurological disorders like cerebral palsy).
- Interruption of feeding with cries-Pain.
- Vomiting and/or diarrhea.
- Atopic conditions, e.g. eczema.
- Failure to thrive.
- Developmental anomalies, including prematurity, congenital abnormalities and autism.

Step 3: Eating habits may change with treatment of underlying medical conditions, if not further probe into the feeding practices, problematic behaviors, and parent-child feeding interactions to assess characteristic of the feeding difficulty and offer customized treatment.

ZINC DEFICIENCY: Although there is not enough evidence to link picky eating habits to zinc deficiency, zinc deficiency may be involved in the pathogenesis of anorexia nervosa.¹⁰ The clinical symptoms of zinc deficiency are similar to that of anorexia nervosa and one of the primary manifestations of zinc deficiency is reduced intake of food.¹¹ Zinc deficiency might impair taste and cause picky eating behavior, especially in the age group of 6–7 years.¹² In addition, the

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perception of smell, and textures is lost. Subtle flavors of vegetables might not be perceived by children's taste buds that have zinc deficiency.¹³

FOOD ALLERGY TRIGGERED RELEASE OF OPIATE-LIKE PEPTIDES: Opiate-like peptides released from incomplete breakdown of gluten or casein causes gastrointestinal disturbance, negatively affect brain function and development, and alter the food cravings in children.¹³ This phenomenon is typical in children with autism.

PARENT COUNSELING: With the understanding that the child is healthy and presents with normal physical and mental development, parents need reassurance about the normal growth pattern in children. Developing and maintaining a healthy lifestyle in future is likely to be determined by the parental attitude towards their children's weight and habits.¹⁴ The types of feeding difficulties in children may fall in either one of the following categories:

- Limited appetite.
 - Normal child with misperceived limited appetite.
 - Active child with little interest in feeding.
 - Depressed child with minimal interest in eating.
 - Child with poor appetite due to organic disease.
- Highly selective intake.
- Crying interferes with feeding (colic).
- Fear of feeding.

Depending on the type of feeding difficulties, parents need to be counseled appropriately to handle their children. Parents who perceive that their child is abnormally small or at risk of nutritional deficiency tend to overreact. In most instances, parental growth expectations are beyond the norm. Physicians should reassure and advise parents about the expected normal growth (Box 1).^{9,15,16} Weight gain in the first year would be three times the birth weight and half the height.¹⁵ A weight gain of 7 kg and height of 21 cm is normal in the first year. During the second and fifth year, there is slow weight and height gain of 1–2 kg and 6–8 cm per year, respectively. Between 1 and 5 years, the appetite is erratic. During this age, children tend to experience decrease in appetite.¹⁶

An active child presents with minimal appetite, are readily satiated, and easily distracted from eating. Alert, active, and inquisitive children are more interested in their environment than food. In such cases, parents usually make the mistake of allowing the child to graze throughout the day; coercing the child to eat and engage in power play during meal time. In this case, meal structuring to foster hunger and appetite is the key for changing the eating habits (Box 2).⁹

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Box 1. Basic feeding principles:

Serve age-appropriate food:

- Let parents take the onus of selecting appropriate food (nutritious food with appropriate texture) for the age.
- Meal should be less in fats, oils, sugar and salt.
- Let the child decide on what food and how much quantity of food it needs.
- Offer a tablespoon of food (per year of the child's age) and then serve extra, if the child finishes the meal.

Maintain appropriate boundaries:

- Let the parent decides where, when, and what the child should eat
- Let the parent respect the child's appetite or lack of appetite
- Parents should not force, coerce or bribe the child for completing the meals
- Do not make meal time an anxious moment for the child

Minimize distraction:

- Give 10-15 min for the child to settle down for eating meals. Over stimulated or tired child would feel less hungry.
- Maintain an atmosphere free from noise and distraction.
- Switch off television and remove toys that may distract the child from eating.
- Use a high chair and encourage the child to spend meal time at the dining table.

Stick to a routine:

- Normal routine would be three meals and an afternoon snack.
- Give a gap of 3–4 h between meals.
- Avoid snacks like juice and milk and provide only water for thirst because both might decrease the appetite for meals.
- Do not allow the child to graze throughout the day.
- As far as possible, ensure that meal timing coincides with that the family.

Limit duration:

- The child should start eating within 15 min after the meal is served.
- Remove the food after 15 min and meal time should not be longer than 30-35 min.
- If the child refuses to eat, do not prepare an alternative separate meal for the child.
- Let the child be seated at the designated place for specified time even if the child refuses to eat.

Systematically introduce novel food:

- Children may be food neophobic. Try to introduce new food repetitively for at least 10–15 times before giving up on it.
- Appreciate the child when he or she accepts new food.
- Never give food/ dessert as a reward for good behaviour.

Maintain neutral attitude:

- Do not get overly excited or animated (eg, it is not a good idea to fly airplanes into the mouth).
- Never become or even appear angry.

Encourage independent feeding:

- Provide the child with his or her own spoon.
- Allow food spillage and age-appropriate mess during meals.
- Cover the floor and high chair with a sheet to for easy cleaning of the mess.
- Use a bib but do not irritate the child by wiping the mouth with a napkin after each mouthful.
- Do not overtly discipline the child at the dining table.

Serve meals in a creative:

- Serve the meal in a manner that might excite the child.
- Try a variety of combination of food.

Be a role model:

- Children pick up habits from family members and so be a role model in eating healthy food.

Restrict nutritional supplements and readymade foods:

- Vitamins and mineral supplements are not generally required unless the child's diet is deemed nutritionally inadequate.
- Readymade foods are no substitute for nutritious homemade food.

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Box 2. Strategy for active child with little appetite:

- Parents should stick to a routine of three meals and an afternoon snack.
- Let the child begin eating within 15 min of serving food, and meal time should end 20 min later.
- Let the meals should be removed if the child fails to start or finish within a reasonable amount of time.
- Avoid grazing and do not offer juices or milk; provide only water between meals.

Unfavorable socioeconomic environment, psychoneurosis in the mother, or neurological problems in the child might promote depression along with minimal interest in eating. A change in environment and improved communication between the mother and child should be facilitated.⁹

In the presence of any organic disease, loss of appetite is common. Addressing the underlying condition is important to improve the picky eating habits. The child will slowly respond as the underlying condition is alleviated.⁹

Box 3. Strategy for a child with sensory food aversions:

- Initially let the child be served with minimal quantities.
- Expose the child to the food repeatedly (at least 10–15 times), perhaps first on the parent's plate.
- Keep the food within the reach of child but do not offer it until, the child wants to try. Children tend to try new food on their own but not when prompted to try.
- If the child expresses vomiting sensation or vomits, withdraw the food and try something that more closely resembles a preferred food.
- Camouflage/ mix the new food with the accepted food and gradually increase the quantity.
- Let parents not react or show anger towards the child's eating habit.

Children with highly selective intake might resist certain food with a particular taste, texture, smell, or appearance. The reason for this "sensory food aversions" could be related to disordered physiology, especially altered taste buds. Selective eating might adversely affect the nutritional status. Introducing new food items, one at a time might help in overcoming the sensory food aversions (Box 3).⁹

Irrespective of the reason, some children do not stop from crying while eating and parents tend to assume that the child might be still hungry and feed more frequently. Pediatricians should work on the trigger factors such as constipation, food sensitivity, or gastroesophageal reflux and provide comfort to the child.⁹

Most often infants with fear of feeding would resist attempts to feed by crying, arching, or refusing to open their mouths. Such behavior is related to history of noxious oral experiences of choking or oral intubation. Specialized hospital team support will be needed by the parent to help the child overcome the fear of feeding. The best way is to feed the infant when he or she is nearly asleep (Box 4).⁹

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Box 4. Strategy to feed infants, who fear feeding:

- Feed the child when it is half asleep. In that way, the infant can be desensitized to the previous adverse experiences and relieved from stress of the sight of food.
- If the child fears the bottle, offer a sippy cup or spoon instead.
- The infant should not be threatened or coerced.
- Steps to enhance oral motor skills while systematically cutting back on enteral tube feedings.

CONCLUSION: Picky eating is not a disease but just a phase in the life of the child that eventually phases out in due course. Despite children having normal growth, picky eating behavior is common reason for parental anxiety. In the absence of any serious pathological cause, parents rebuff to accept the prevailing condition and any amount of assurance from doctors seems insufficient. In such situations, instead of dismissing the case as mere parental anxiety, doctors should take measures to educate the parents and provide them with guidelines for overcoming the picky eating habits in children. Although there is not much evidence proving serious implications of childhood picky eating in adulthood, simple feeding principles can assist parents in overcoming their anxiety and the picky eating habits of children.

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