

### NUTRITION

Nutrition during these years (ages 2 to 6) is a critical determinant of a child's physical, cognitive, and emotional development. At this stage, children experience rapid growth, and their dietary intake plays a crucial role in shaping their overall health, development, and future well-being. This chapter explores the importance of proper nutrition in preschoolers, supported by research statistics to highlight the impact of nutritional choices on their development.

#### 1. PHYSICAL GROWTH AND DEVELOPMENT:

Nutrients such as proteins, calcium, and vitamins are vital for building strong bones, muscles, and tissues. According to the research, preschoolers who met the recommended dietary intake for protein and calcium showed a 15% higher growth rate compared to those who were deficient in these nutrients. Additionally, a World Health Organization (WHO) report indicates that globally, 22% of children under five years suffer from stunted growth due to poor nutrition, highlighting the importance of early intervention with proper nutrition.



#### 2. COGNITIVE DEVELOPMENT:

Proper nutrition directly impacts brain development and cognitive function. Preschoolers require nutrients like omega-3 fatty acids, iron, and zinc to enhance brain development, memory, and concentration. Preschoolers who regularly consumed diets rich in omega-3 fatty acids exhibited a 7-10% improvement in cognitive test scores compared to peers with low omega-3 intake. Furthermore, iron deficiency, which affects 25% of preschoolers globally, has been linked to a 13% reduction in cognitive performance, according to research from the Centres for Disease Control and Prevention (CDC).

#### 3. IMMUNE SYSTEM SUPPORT:

A balanced diet rich in vitamins, minerals, and antioxidants strengthens the immune system, reducing the likelihood of infections and illnesses. Data from the National Institutes of Health (NIH) indicates that preschoolers who consume adequate amounts of fruits and vegetables have a 20% lower risk of developing common childhood illnesses such as colds and infections. Additionally, a study published in Paediatrics found that children with diets deficient in essential nutrients were 30% more likely to experience recurrent infections, impacting their school attendance and overall well-being.

#### 4. ESTABLISHING HEALTHY EATING HABITS:

The preschool years are a crucial time to establish healthy eating habits that can last a lifetime. It has been observed that that children exposed to a wide variety of healthy foods during preschool years were 25% less likely to develop obesity by the age of 10. Also a study suggests that preschoolers who regularly consumed home-cooked meals were 35% more likely to maintain healthy eating habits into adolescence.

### 5. LONG-TERM HEALTH OUTCOMES:

Nutrition during the preschool years sets the stage for long-term health outcomes. Proper nutrition during this period can reduce the risk of chronic diseases such as obesity, diabetes, and cardiovascular disease later in life. The World Health Organization (WHO) estimates that children who receive proper nutrition in their early years have a 50% lower risk of developing obesity and related chronic diseases in adulthood.

#### 6. IMPACT OF MALNUTRITION:

Malnutrition during the preschool years can have severe consequences, including developmental delays, weakened immune systems, and increased hospitalizations. According to the Global Nutrition Report, 149 million children under five are stunted, and 45 million suffer from wasting due to malnutrition. Additionally, the CDC reports that malnourished preschoolers are 2.5 times more likely to experience developmental delays and 1.8 times more likely to be hospitalized compared to their well-nourished peers.

The importance of nutrition for preschoolers cannot be overstated. A well-balanced diet not only supports their physical immediate cognitive development but also lays the foundation for lifelong health. By ensuring that preschoolers receive the nutrients, parents, right caregivers, and educators can help them thrive in all aspects of life, setting them on a path toward a healthy and successful future. The research statistics presented in this chapter underscore the critical need for proper nutrition during these formative years and highlight the far-reaching impact of early dietary choices on a child's overall well-being.





# CHAPTER 2

### **Understanding Picky Eaters**

Picky eating is a normal part of a child's development and should be addressed early on to prevent it from becoming a long-term habit. Picky eaters are children who:

- Do not want to try new foods.
- · Have strong preferences for certain foods.

This is common among children aged 2-6, who are going through rapid growth and development and may be more sensitive to tastes and textures. a child's natural aversion to new foods.

# CAUSES

- > Texture sensitivity: Aversion to certain textures such as mushy food.
- Environmental factors: Such as family habits and mealtime distractions.
- **Emotional factors**: As children may use food to assert their independence or cope with stress.
- Sensory issues: Such as those sensitive to tastes, smells, or colors, can also make mealtime challenging.



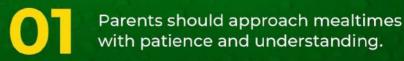
## **IMPACT**

- It can lead to nutritional deficiencies, stunted growth, and weakened immune systems.
- It can affect children's mental health, as they may experience anxiety or stress around mealtimes, leading to negative associations with food.
- Socially, picky eaters may feel isolated or embarrassed, causing social anxiety.

OVERCOMING CHALLENGES WITH PICKY EATERS

Parents should address picky eating habits early to ensure their children receive the necessary nutrients for optimal health. To address picky eating, parents can try the following:





Set a goal to introduce one or two new food items per week. Start with simple preparation (say "rice") then add Dal, after few days, ghee, then add vegetable so that child will take some time to develop taste.

Offer a variety of healthy options.



- Allow the child to choose what and how much they want to eat.
- Make process of eating cheerful through interesting ways of food preparation. Cut fruits and vegetables into different shapes.
- Use a big plate and small serving of food; your kids might be overwhelmed by large portions of foods that are unfamiliar or not their favourite.
- Environmental factors, such as mimicking the eating habits of their parents or siblings, and mealtime distractions like television or electronic devices should be taken into consideration.
- Creating a calm and distraction-free environment during meals can help encourage the child to focus on eating.
- Sit down together as a family for meals and encourage your kids to try a little bit of everything on their plate. This can help them develop a more adventurous palate and make mealtime a positive and enjoyable experience.
- Parents should not use any food as reward. This could lead to negotiating the number of bites of dinner that must be eaten to get dessert.
- Parents should encourage their children to eat but never force, even if the child refuses to eat sometimes. Of course everyone wants their child to eat at dinner, but skipping one meal will not harm healthy kids.

- Kids also have their likes and dislikes. Respect their likings to a limited extent. But, never discuss your dislikes in front of them. They will develop same habit.
- Creative ways to incorporate disliked foods into meals or offer alternatives that are more appealing can help develop a positive relationship with food and encourage healthy eating habits for years to come.
- Parents should not seek appetizer medicines for their child, as they are often not beneficial, and may have side effects.

### **REMEMBER,** EVERY CHILD

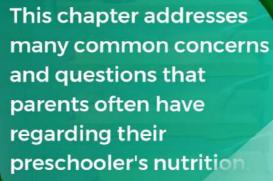
is different, so stay patient and positive in helping your child develop healthy eating habits.



### CHAPTER 3

Answering common queries by parents







# MY CHILD DOES NOT GAIN APPROPRIATE WEIGHT DESPITE ALL FOODS TRIED. WHAT HEALTH DRINK DO YOU RECOMMEND?

- "Health drinks" are claimed to be beneficial for health of the child. These could be fruit juice-based drinks, or supplements to be added to milk. They may provide hydration and some calories, but also add a lot of unhealthy sugar to the child's diet.
- When you perceive that the child is not gaining weight as per your expectations, you should first consult your paediatrician for a thorough medical checkup to exclude digestion, absorption problem or any systemic disease. In case, he is free from these, then focus on whether the quantity of food taken is providing adequate energy and nutrition appropriate for age.
- Some children are small eaters or fussy eaters. For them, diet, frequency, taste, and varieties along with responsive feeding practices should be tried.

- It is possible that child is growing well but not matching your expectations. Your paediatrician should be able to counsel you regarding this after checking his/her measurements.
- Liquid or health drinks cannot be substituted for regular diet of the child, and are not usually recommended for children to promote weight gain.

# MY CHILD DOES NOT EAT IF I DO NOT GIVE THE MOBILE. SHOULD I ALLOW MY CHILD VIEWING MOBILE/TV WHILE TAKING FOOD?

- It is very important for the parents to differentiate between mealtime and screen time whether on mobile or television. When children eat sitting in front of any screen, they may not understand about what they have eaten, or they may also not know about portion control of food. They may either eat less or continue eating even though full.
- A routine should be set for the child and meals should be fed on time. In the absence of any schedule the parent may give snacks too frequently and the child may not feel hungry at the mealtime and parent may feed the child by occupying him/her with a screen and force feed.
- The family should make a habit of keeping away mobile, tablets, or switch off the TV while eating meals. The child should be counselled and explained continuously about harmful effects of screen on eyes and on eating meals.
- A child may eat slowly and take time to finish his/her meals so allow them to take time and eat. The parents should not try to fasten the process of feeding by making them watch TV or a mobile.

### HOW FREQUENTLY CAN JUNK FOOD BE GIVEN TO MY CHILD?

- Junk food is rich in sugar, salt, and fat and thereby rich in calories. It is low in protein, vitamins, and minerals. A child gets used to eating junk food when exposed to it either at home or outside.
- Sometimes parents use junk food as a reward for any achievement of a child or any celebration such as birthday, anniversary, etc. It is best to keep the child away from calorie dense and low nutrient junk food.
- Childhood is also the time for habit formation. Thus, junk food should not be given to the kids. Sometimes junk food is introduced due to convenience of cooking by parents and convenience in eating for children.
- The taste of junk food is delicious and well accepted by children and adults. Regular intake of junk food may lead to obesity or weight gain and other health problems.
- Alternative to junk food is to make healthy lookalike of these foods such as pizza can be made on a base of plain paratha with capsicum, corn, olives, cottage cheese, and tomato puree.
- Frankie can be made by cooking green leafy vegetables, tomato, cabbage, cottage cheese, and filled on a chapati base and rolled like a Frankie.



### IS IT OKAY TO GIVE JUICE REGULARLY?

- Fruit juices are not necessary for children. It is better to give whole fruit because juice does not provide any nutritional benefit.
- Most juices are sweet in nature which may cause dental caries, fructose found in fruits is equally bad for teeth.
- Indian Academy of Paediatrics (IAP) recommends that children of age 2–5 years should not be given >125 mL (half a cup) of fruit juice per day, and should be given preferably as fresh juice.
- Avoid giving juices if your child is having diarrhoea as it may worsen. Avoid canned or packaged juice.
- · Never give juices at bedtime as it may damage their teeth.
- For children who are obese, fruit juice can have adverse effect as it also provides calories and adds to weight gain.
- Fruit juice lacks fibre which is an essential part of diet so avoid in case of constipation.
- Some children may have gases or bloating after consuming fruit juice. It is not an essential part of balanced diet.
- Since juice is sweet in nature, giving it at an early age may give rise to preference for sweet things later in life.
- Sippers or feeding bottles should never be used to feed fruit juices or any other drinks to the child.



# WHAT IS ORGANIC FOOD? IS IT IMPORTANT TO USE ORGANIC FOODS FOR KIDS?

Organic food is grown without the use of synthetic chemicals such as humanmade pesticides and fertilizers, hormones, and does not involve genetic modification techniques.

- It is more important for a child to consume a wide variety of diet, including cereals, fruits and vegetables, whether organic or conventional.
- Organic food reduces exposure of children to pesticides but it is presently not known whether this translates into any direct benefit to the children. Moreover, the cost and availability of good quality organic unprocessed foods is a concern, and this should not be a deterrent to child's nutrition.
- It is more important for a child to consume a balanced and nutritious diet.

# MY CHILD NEVER FINISHES TIFFIN IN NURSERY/DAYCARE, WHAT SHOULD I GIVE MY CHILD SO THAT HE/SHE FINISHES IT?

- This is a usual complaint from parents. First, we need to find out why your child does not finish the food? The following points should be kept in mind:
- Prepare a weekly menu for your child keeping his/her choices in mind.
- Be careful about both quality and quantity; some parents think that if extra food is given, the child will eat it under pressure of teacher/ caretaker, this is not a good idea.
- Child may get irritated or frustrated with this pressure tactics, on the other hand, it should not be too less as child may remain hungry.
- Do not force your child to eat more or restrict amount, appetite varies day to day.
- Variety in food you keep in tiffin, pack familiar food but new one each day.
- Avoid giving fruit juices instead send a water bottle as it may affect appetite.
- Try to give homemade food rather than packaged food.
- Children of this age are often interested in playing more than eating so try to give the food which can be finished quickly although fast eating is not good sometimes you can be liberal.
- You may pack roti/paratha roll or cut fruits, vegetable stick salad, idli garnished with vegetables or kheer in a wide-mouthed bottle.

### SCHOOL CAFETERIA



The school cafeteria is a special place because it's where all students come together to enjoy the same delicious food. Students find joy in eating healthy veggies and pulses because when given the same food, they often feel a sense of unity and connection. Eating together creates an atmosphere where everyone shares the same experience, bridging differences and fostering a sense of belonging. The uniformity of the meal removes distractions, allowing them to focus on the act of sharing, which strengthens bonds and creates a communal environment. Additionally, the simplicity of eating the same food can remove the pressure of making individual choices, leading to a more enjoyable and stress-free experience. It's a moment where they aren't just consuming food but are also feeding their sense of togetherness.

# Moreover, it's not just a place to eat

it's where they get the energy to power through their day! The food here is made with love and care, packed with all the nutrients they need to stay strong, focused, and ready for anything. Whether you're trying something new or enjoying your favourite dish, every bite helps you grow and play your best.

#### **Reference Links:-**

043-Nutrition-for-Preschoolers-2-5-Years.pdf by IAP https://kidshealth.org/en/parents/feed-preschooler.html



### **DT.PRAPTI ABROL**

### (M.SC. FOOD & NUTRITION)



### **PROFESSIONAL EXPERIENCE**

Worked as Dietetic intern for 20 days at Hero Dayanand Medical College Heart Institute, Ludhiana in April 2012.

Completed 20 days internship in Department of Dietetics at Dayanand Medical College & Hospital Ludhiana in May 2012. Worked as Dietetic Intern for 1month at PGI Hospital Chandigarh from 15th June -15th July, 2013.

Completed RD internship (December 2016 - June 2017) in DMCH, Ludhiana. One year experience of teaching in Manay Rachna International School, Ludhiana as a part - time teacher.

Worked as a Clinical Dietician in Hero DMC HeartInstitute, Ludhiana (April 2018 - September 2021). Worked as a Chief Dietician in Guru Teg Bahadur Sahib Hospital, Ludhiana (September 2021 – March 2022).

Worked as a Nutritionist cum Admission Counselor in DCM Young Entrepreneurs School, Ludhiana (April 2022 - February 2023).

Working as a Nutritionist cum Parent Relationship Officer in The Shri Ram Universal School, Ludhiana since February 2023 till date.

### **WORK SKILLS**

Participated in various Medical Camps across Punjab. Nutrition awareness lectures for the general public in DMC, hospital. Virtual Nutrition lecture during covid 19 for college students and faculty. Skillfully lead intern teams to train them in the best possible way.

Attended various seminars related to food and nutrition.

- · Life time member of IDA (Indian Dietetic Association).
- · Member of IAPEN, India

### PROJECT UNDERTAKEN

Undertaken research projectin M.Sc. on topic "Nutrient intake and anthropometric status of pre school children of women migrant laborers" 2014. Published a research paper "A Study on Nutrient Adequacy in Pre-school Children of Women Migrant Laborers in Ludhiana City" in Home and Community Science Journal.

- · Received Merit scholarship through out B.Sc.
- · Received sports scholarship through out B.Sc. and M.Sc. • Received sports scholarship through out B.Sc. and • Awarded with Dr. CK Hira Scholarship during M.Sc.

  - Active member of College Association i.e. Home Science Association during B.Sc



# Inankyou-

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