



LET'S WEAN TO WIN

Empowering Parents, Nourishing Futures.

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Abstract: Weaning is a critical milestone in infant development, marking the transition from exclusive breastfeeding to solid foods. Successful weaning not only ensures optimal nutrition but also lays the foundation for healthy eating habits, cognitive development, and parent-child relationships. This paper provides guide for parents and caregivers, offering practical strategies and expert advice on navigating the weaning process. By empowering parents with knowledge and confidence, we aim to nourish brighter futures for children worldwide.

Key words: weaning foods, complementary foods, supplementary foods, nutrition, breast milk, hygienic practice, energy, nutrient dense, calorie dense, HFSS, ICMR.

I. INTRODUCTION

Human babies grow much more slowly than the young of other animals. They remain dependent on their parents for a long time. This can be emotionally rewarding for parents as they see the growth and development of their children, but it can also be difficult because of the extra food, time and energy they must give. Breast milk is the natural food that is first available to babies. They are slowly weaned from it on to the regular foods used by the family. This process must be very carefully watched to make sure that every baby grows well and stays healthy. Weaning, derived from the word "wenian," meaning "to accustom," is the process of transitioning an infant from breast milk to solid foods, beginning with supplementary food and continuing until breastfeeding is completely stopped. This process is crucial as breast milk alone cannot meet the increasing calorie and protein needs of infants after six months. Moreover, breast milk is deficient in vitamin C, iron, and vitamin D, making supplementation essential. The ideal time for introducing semisolid food is around six months, when the baby can sit up, swallow, and digest food. Delayed introduction of weaning foods can lead to undernutrition, increased diarrheal morbidity, and a reduced willingness to accept new foods.

In India, supplementary foods are often introduced too late, with urban elite and middle-income groups starting around 3-5 months, while urban and rural poor communities delay supplementation until 7-11 months. To meet nutritional requirements, weaning foods should be calorie-dense, providing at least 10% of energy as protein. Therefore weaning is the period when the diet changes from complete breast-feeding (up to 4-6 months) to when the child is able to eat normal family food (around one year). Homemade preparations are economical, easy to cook, safe and healthy for a growing baby.

II. What is Weaning?

For the first six months, exclusive breastfeeding provides all the necessary nutrients for a baby's optimal growth and development. However, beyond six months, breastfeeding alone is insufficient, and complementary feeding must be introduced to support continued growth and development. This process of introducing semi solid foods at the right age is now referred to as complementary feeding, replacing the term "weaning". The first two years of life are crucial for growth and development, and the concept of "1000 days" - spanning from pregnancy to the first two years of life - emphasizes the importance of optimal breastfeeding and timely, appropriate complementary feeding during this period.

III. When to start weaning and why?

At six months, breast milk alone is insufficient for optimal growth, and complementary feeding must commence. This milestone coincides with significant physical developments:

1. **Biting movement:** Emerges around five months
2. **Swallowing solids:** Develops between six to seven months
3. **Tongue movement:** Side-to-side motion develops by eight to twelve months
4. **Neck and head control:** Child develops coordination and balance
5. **Hand-to-mouth coordination:** Child learns to navigate food to their mouth.

Introducing weaning at six months is crucial, marking a "sensitive period." Delaying this introduction may lead to a "critical period," resulting in potential long-term difficulties with chewing and eating solids.

Other Reasons for weaning:

- 1. Intestinal maturity:** Ready to digest pulses and cereals
- 2. Gum development:** Hardening of gums and eruption of teeth enable chewing and gumming semi-solids
- 3. Decreased expulsion:** Child becomes less likely to push solids out of their mouth.

IV. What should be included in weaning foods?

For infants aged 6-12 months, the recommended daily energy and protein intake is 650-720 Kcal and 9-10.5g, respectively. However, breast milk alone provides approximately 500 Kcal and 5g of protein per day after six months, making complementary foods crucial for optimal growth. These foods should be micronutrient-dense, including oil seeds, nuts, milk, vegetables, and fruits, as well as protein sources like flesh foods, eggs, and pulses. Infants can be introduced to thoroughly cooked eggs, fish, and meat from eight months onwards, and different types of green leafy vegetables, non-leafy vegetables, and fruits should also be included. The consistency of complementary foods should be semisolid, and sugar, salt, fruit juices, and sugar-sweetened beverages should be avoided. By around one year, infants can be introduced to the family diet, with additional nutritious foods to enhance nutrient density.

V. Hygiene Practices for Infant Care

- 1. Clean dietary ingredients:** Thoroughly clean all ingredients before preparation.
- 2. Wash vegetables:** Remove contaminants, parasites, and pesticides by washing vegetables well before cutting.
- 3. Steam-cook vegetables:** Preferably steam-cook vegetables to reduce nutrient losses during cooking.
- 4. Personal hygiene:** Mothers/caregivers should maintain proper personal hygiene during food preparation and feeding.
- 5. Clean utensils:** Thoroughly wash utensils used for cooking and feeding.
- 6. Cover feeding utensils:** Keep cups, plates, or other feeding utensils covered to protect them from flies and insects.
- 7. Store food safely:** Store home-made ready-to-cook foods in clean bottles or tins and consume them within the safe shelf life.

VI. How to introduce weaning foods to infants?

Steps to Introduce Weaning Foods:

- 1. Start with thin porridge:** Begin with a thin but not watery porridge, such as dal gruel, for 4-5 days.
- 2. Gradually increase thickness:** Increase the thickness of the porridge to a slurry consistency, introducing well-mashed or pureed foods.
- 3. Introduce new foods one at a time:** Add new foods, such as rice slurry, mashed potato, or steamed and pureed apple, one at a time.
- 4. Feed new foods for 4-5 consecutive days:** Continue feeding new foods regularly for 4-5 consecutive days to establish acceptance and detect potential intolerance or allergy.
- 5. Reintroduce rejected foods:** If a child does not accept a specific food item, reintroduce it after a few days.
- 6. Seek medical advice for persistent intolerance:** If intolerance persists, seek medical advice for diagnosis and treatment.
- 7. Gradually increase consistency and variety:** Once the child accepts various foods and textures, gradually increase consistency from semi-solid to solid foods, along with improving quantity, variety, and frequency of feeding.
- 8. Ensure minimum acceptable diet:** Ensure the child receives adequate quality and frequency of food, including at least five food groups: cereals/millet, pulses/egg/meat, nuts and oilseeds, breast milk/milk and milk products, and vegetables/GLVs and fruits.
- 9. Avoid sugar and reduce salt intake:** Avoid sugar and reduce salt intake to the bare minimum.
- 10. Follow minimum meal frequency:** Follow the minimum meal frequency guidelines: at least two meals per day for breastfed children at 6-8 months, three meals per day at 9-24 months, and at least four meals per day for non-breastfed children.
- 11. Prefer homemade complementary foods:** Prefer homemade complementary foods, prepared from common ingredients, which are nutritious, easily digestible, and recommended over commercially prepared foods.

VII. Are there any foods to be avoided?

Certain foods should be avoided when introducing complementary foods to infants. These include: - Refined and processed foods: biscuits, breads, pastry, chocolates, cheese, softy, ice cream, doughnuts, and cakes - Tinned, packaged, or stored foods with preservatives or chemicals - Fruit juices and fruit drinks - Commercial breakfast cereals - Repeatedly fried foods containing trans-fatty acids - Foods high in fat, salt, and sugar (HFSS)

VIII. How to Feed an Infant?

Infants require frequent, small meals throughout the day, with a minimum of four feedings. The food should be semi-solid in consistency to facilitate easy swallowing. Initially, infants may spit out food due to lack of coordination for swallowing, but this should not be mistaken for dislike. It is essential to start with small quantities (2-3 teaspoons) and gradually increase the amount as the infant becomes accustomed to swallowing semi solid foods.

- 1. Feed frequently:** Infants need to be fed at least four times a day.
- 2. Semi-solid consistency:** Food should be semi-solid for easy swallowing.
- 3. Start with small quantities:** Begin with 2-3 teaspoons and gradually increase the amount.
- 4. Do not force-feed:** Feed slowly and patiently, paying attention to the infant's hunger and satiety cues.
- 5. Responsive feeding:** Engage in mutual interaction with the infant during feeding, promoting emotional support and attentiveness.
- 6. Prioritize breastfeeding:** Continue breastfeeding as long as it is acceptable, as it provides essential nutrients and prevents dehydration.
- 7. Avoid distractions:** Refrain from passive feeding while watching TV or playing with phones.
- 8. Watch for hunger and satiety cues:** Pay attention to the infant's signals, such as sucking on the fist, drooling, or turning away.

IX. Conclusion:

Weaning is a pivotal milestone in infant development, and successful navigation of this process is crucial for optimal nutrition, healthy eating habits, cognitive development, and parent-child relationships. By empowering parents and caregivers with practical strategies, expert advice, and essential knowledge, we can ensure that infants receive the necessary nutrients for growth and development. Ultimately, a well-planned and executed weaning process lays the foundation for a brighter, healthier future for children worldwide.

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