

# COMMUNITY HEALTH WORKERS TRAINING GUIDE

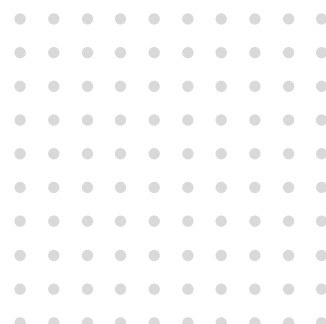


## COMPLEMENTARY FEEDING FOR INFANTS: TEACHING THROUGH THE DIDACTIC SEQUENCE

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## PRESENTATION

My professional journey began with my undergraduate studies at the Medical School of Centro Universitário de Volta Redonda (UniFOA), which I started in 2011 and completed in 2016. Throughout my time in college, I had the opportunity to closely experience the reality of the Brazilian Unified Health System (SUS), particularly in Volta Redonda, focusing on Pediatrics, which was already my preference.

I pursued specialization through the Pediatric Residency Program at Hospital São João Batista from 2017 to 2019, where once again I encountered the realities and challenges of SUS, especially in pediatric care. Currently, I work in primary care and also serve as an attending physician in the Pediatric Emergency Room and delivery room.

Following the COVID-19 pandemic, I began to notice a daily increase in the number of children being treated for overweight and obesity. I perceive a significant deficiency in the knowledge of caregivers regarding appropriate complementary feeding for infants.

Statements like, "Doctor, why can't I give this food when I ate it as a child and didn't die?" are part of my daily routine, demonstrating the resistance of caregivers. Faced with this reality, I feel challenged every day to devise strategies to educate parents and caregivers that this mindset will not improve the quality of life for children, who will be our future adults.

Therefore, in my Master's program in Teaching in Health Sciences and the Environment (MECSMA), I have chosen to build upon my experience regarding how infant feeding is managed by caregivers and the potential for intervention in this process, fostering a new dietary culture and thereby improving the quality of child health in the country.

## INTRODUCTION

The Community Health Agents Program (PACS) was created in 1999 to improve health in communities across Brazil. The idea was to connect health posts with people living in the neighborhoods. Since then, CHAs have played a crucial role in reducing maternal and infant mortality in northeastern Brazil. They have become key players in primary health care, working in various settings to promote health and prevent diseases.

Being a health agent is more than just having a job. It involves living in the community, understanding its needs, and helping people connect with health services.

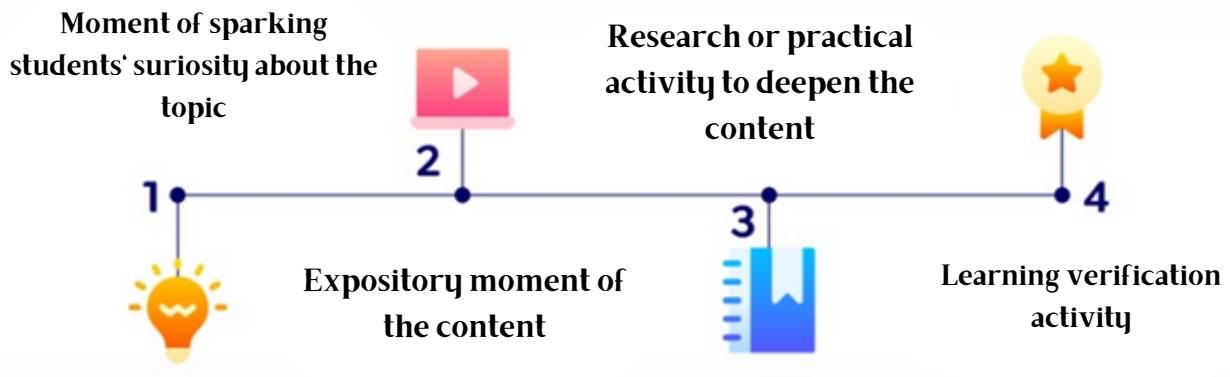
**Agents are like health messengers, always working to improve the lives of those around them!**

To do their job well, health agents need constant training. This helps them better understand community issues. However, it's important not to overload these professionals, as solving such problems is not simple! Therefore, aiming to assist in the training of agents and promote advancements in the area of infant feeding introduction, this guide was created.

In this guide, you will find instructions for conducting a training workshop for Community Health Agents on Infant Feeding Introduction. All the workshop steps, based on a didactic sequence methodology, are explained on the following page. Additionally, other mentioned materials necessary for the training can be found at the end.

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# COMMUNITY HEALTH AGENTS AND INFANT FEEDING: TEACHING THROUGH THE DIDACTIC SEQUENCE



## 1 Presentation of the situation

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- Share the work proposal with the community health agents - hold a roundtable discussion and explain the purpose of this training.
- Assess the CHAs' prior knowledge on the subject: ask what they know about the topic or if they are familiar with it.
- To assist, show the photograph from the article featured on the obesity banner.

## 2 Expository moment of the content

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- Use the video resource to introduce them to the topic (Play on the computer or send the link to the group).
- Read the excerpt on infant palate development from the banner.
- Hand out the pamphlet to them and encourage them to read it together and make notes on the most important and/or interesting points (active reading).

## 3 In-depth activity on the content

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- Use the banner with the QUIZ and the YES or NO signs to conduct a dynamic activity after the active reading.
- If necessary, divide the participants into groups with the same number of members and distribute the signs. Ask the questions in sequence, instruct them to respond by raising the signs, and reveal the answer immediately afterward. Discuss what they thought about the answer.

## 4 Learning verification activity

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- Use Google Forms and share the link with the group members. Remember to make all questions mandatory and ensure participation is anonymous. For each participant, you'll need to create a new form.
- Ask questions such as: doubts and suggestions, whether they feel capable of discussing and teaching about the topic, and specific questions about the content covered to assess their understanding of the training.

# Doctor, why can't I give this food to the baby?

Teaching and learning about infant nutrition

1



2



The first 1000 days  
shape a lifetime



**Development of Infant Taste:** An infant's taste is developed starting from the womb, where various molecules from the mother's diet present in the amniotic fluid begin the baby's sensory training for flavor experiences after birth. The mother's diet during breastfeeding also influences the child's taste, as particles from the mother's food are present in breast milk, altering its flavor. Additionally, it is important to consider that the example set by parents can and should positively contribute to child development in various aspects, including nutrition.

(MENNELLA; JAGNOW; BEAUCHAMP, 2001).

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## Shall we learn with our booklet ?



Material produced by Pediatrician Giovana Fernandes Pinto Barra  
Supervisor: Dr. Adilson Pereira

(Professional Master's Program in Teaching in Health and Environmental Sciences - MEC SMA/UniFOA)



# QUIZ TIME !



## 1. Why not offer sugar before 2 years old?

In the first two years of life, the infant's taste is being developed, and the main environmental factors that interfere with the human genome are diet elements. Studies highlight that metabolic and nutritional factors early in human development have long-term consequences on health programming in adulthood.

## 2. Why avoid fruit juices before 1 year old?

Juicing fruit removes the fibers (which help reduce sugar absorption), leaving only fructose, thus increasing the calorie content of the food and raising the risk of obesity and future liver steatosis.

## 3. Which fruits are contraindicated for introducing solid foods?

It's important to note that no fruit is contraindicated, except for starfruit in cases of renal insufficiency.

## 4. Why not add salt to food before 1 year old?

Salt not only increases the risk of hypertension in the future but also affects the perception of taste buds, causing children to develop preferences for salty foods. Therefore, it should be avoided in the first year of life.

## 5. At what age should I offer eggs? Should I offer the egg white first?

Eggs can be offered from the first meal during the introduction of solid foods, both the egg white and the yolk. Besides being an excellent source of protein and highly efficient nutritional cofactors, eggs are cost-effective and their consumption should be encouraged. To prevent contamination by enteropathogenic bacteria from the eggshell, eggs should always be consumed cooked.

## 6. Why shouldn't processed foods be offered in the first 2 years?

Pre-packaged processed foods (such as soft drinks, coffee, teas, and processed meats) contain excessive sodium, sugar, and fat. Therefore, they should be avoided.

## 7. Why is honey prohibited for children under 1 year old?

In this age group, *Clostridium botulinum* spores, which can produce toxins in the intestinal tract, may cause botulism, a severe and potentially fatal illness.

## 8. Can I give coffee with milk to my child?

Coffee with milk is a preparation that is part of our culture, but it is not recommended for children under 2 years of age. The caffeine and equivalent substances present in coffee, mate, black tea, natural guarana, and soft drinks, even in small quantities, are powerful stimulants and can make the child very agitated.

## 9. What is BLW (Baby-Led Weaning)?

BLW stands for Baby-Led Weaning, which means introducing complementary foods to babies using pieces of food rather than purees or spoon-feeding.

## 10. Which method is better, traditional or BLW?

There isn't a better or worse way to offer food. The Brazilian Society of Pediatrics (2018) recommends a combination of both methods: offering larger pieces of food for infants to hold and explore with their hands, as well as offering mashed foods on a spoon. This approach allows infants to explore and experience various food textures as a natural part of their sensory-motor learning.

## 11. Why not replicate the phrase "I ate and didn't die"?

Babies nowadays are different from babies in the past, just as we are different from our parents. The bread your father/grandfather ate was different from the bread you eat today. Wheat is more processed. The products used are different.

Even the pesticides used on grains are stronger than those used in our parents' time. This causes changes in our bodies, meaning our genes respond differently to some exposures. These changes, when passed on to our children, make them more susceptible to diseases that our parents didn't have. Just think about the types of food we eat!

**In your childhood, did you ever hear someone say that a child had cancer?**

**Or that a child had high blood pressure? Diabetes? Think about it!**



**Let's see if you've learned?  
Answer our Form!**



Material produced by Pediatrician Giovana Fernandes Pinto Barra  
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BOOKLET



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# RECOMMENDATIONS FROM THE BRAZILIAN SOCIETY OF PEDIATRICS

Complementary feeding of the  
infant



2023



**Prepared by Pediatrician Dr. Giovana Fernandes Pinto Barra in collaboration with advisor Professor Dr. Adilson Pereira (Professional Master's in Teaching in Health Sciences and the Environment - MEC SMA/UniFOA)**



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- Exclusive breastfeeding until 6 months of age.
- Starting from 6 months of age and when signs of readiness are present (interest in what others are eating, ability to hold head up, ability to grasp objects with hands), complementary feeding can be introduced, but breastfeeding should continue and be encouraged until 2 years of age.
- Blender and sieve should not be used in food preparation.
- Use fresh natural seasonings like parsley, green onion, onion, and garlic, and do not add salt until 12 months of age. From 1 year onwards, use salt sparingly.
- Do not use industrialized foods, ultra-processed foods, spicy foods, foods high in fat, or processed meats (ham, sausage, and hot dogs). Also, do not add jellies, flours, sugar, honey to fruits, and do not offer jellies, candies, chocolates, cookies, and soft drinks.





## COW'S MILK

**COW'S MILK AND ITS DERIVATIVES SHOULD ONLY BE OFFERED FROM 1 YEAR OF AGE!**

**COW'S MILK (FRESH, WHOLE, POWDERED, OR FLUID) IS NOT CONSIDERED SUITABLE FOOD FOR CHILDREN UNDER ONE YEAR OF AGE.**

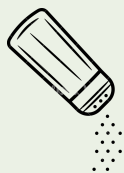
The inadequacies of cow's milk include:

**Low quality of fats:** Cow's milk has low levels of fatty acids, such as linoleic acid, which are ten times lower than infant formulas. Therefore, it is necessary to add vegetable oil to cow's milk to meet the nutritional needs of newborns.



### **Low quantity and quality of carbohydrates**

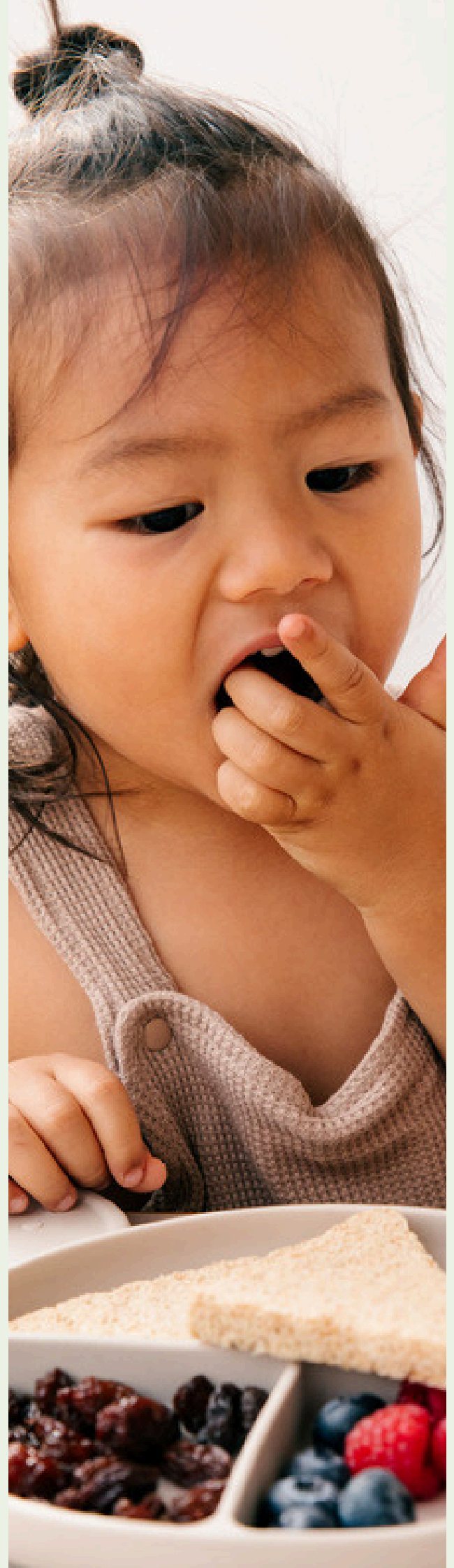
**High protein content:** The excess of proteins increases the risk of non-communicable chronic diseases such as hypertension, in addition to the quality of the protein contributing to future adiposity and compromising the digestibility and absorption of nutrients.



### **Low levels of vitamins D, E, and C**

**High sodium content:** Contributes to increased renal solute load, particularly harmful for low birth weight newborns.

- It is prohibited to give honey to children under 1 year of age due to the risk of botulism.
- Sugar is not recommended before 2 years of age.
- Currently, it is recommended not to offer fruit juice before 1 year of age. It is preferable to offer whole fruits (fruit puree or mashed fruit) due to the risk of predisposing to obesity. Juicing removes the fibers (which help reduce sugar absorption) and increases the calorie content of the food.
- It is important to encourage children to eat proteins, legumes, tubers, cereals, vegetables, legumes, and fruits daily. If the child does not accept them, these foods should be offered again at other meals.



# PLATE SCHEME



- To help the child become familiar with new textures, colors, and flavors, it is recommended to separate portions on the plate and not mix the foods. Some children may need to try certain foods at least eight to ten times to develop a taste for them.
- From the introduction of complementary feeding, potable water should be offered to the infant. This is because the amount of proteins and salts in foods is higher than in breast milk. To avoid overloading the kidneys, water intake is necessary.

**CAN BE USED AT ALL AGES (VARYING PORTION SIZES)**



Adapted and translated: Weffort and Lamounier, 2017

## HOW TO GET STARTED?

Pay attention to the child's signs of satiety! They have the ability to self-regulate their total calorie intake.

AGE	TEXTURE	QUANTITY
from 6 months onward	mashed foods	start with 2 to 3 tablespoons and increase the amount based on acceptance
from 7 months onward	mashed foods	2/3 of a cup or bowl of 250 ml
9 to 11 months	cut foods or lightly mashed	3/4 of a cup or bowl of 250 ml
12 to 24 months	cut foods	one cup or bowl of 250 ml

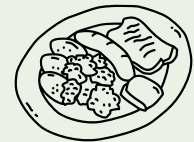
Source: Ministry of Health of Brazil, 2015



# NEOPHOBIA

It is characterized by difficulty in accepting new or unknown foods, meaning the child refuses to try any type of unfamiliar food that is not part of their food preferences.

- To change this behavior, it's necessary for the child to try the new food around 8 to 10 times, even if it's in small quantities.
- Frequent exposure to the same food in different presentations (recipes) contributes to reducing food neophobia. Parents should determine what, where, and how the child should eat. The child determines the amount to be consumed.



**REMEMBER!** Appetite is variable, momentary, and depends on various factors, including: age, physical and psychological condition, physical activity, room temperature, and intake at the previous meal. A tired or overly stimulated child may not immediately accept food, and in summer, their appetite may be lower than in winter.

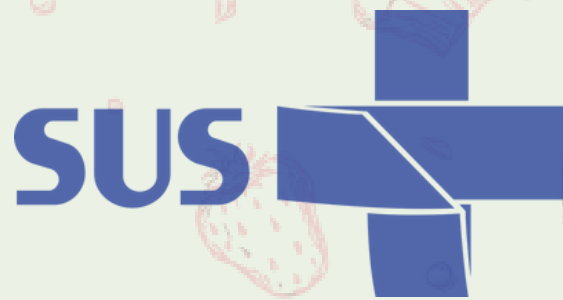


- When the child is capable of serving themselves at the table and eating independently, this behavior should be encouraged. Individual food preferences should be respected as much as possible.
- When a child persistently refuses a particular food, it's ideal to replace it with another that provides the same nutrients. If this food is essential, vary its preparation method.
- Meals should be playful and enjoyable. Encourage family meals, active participation of the child in food preparation, and autonomy in eating (without adult coercion) to foster good eating habits.
- Behaviors such as rewards, bribes, punishments, or coercion to force a child to eat are not recommended, as they can reinforce the child's food refusal. The way parents handle feeding practices can positively or negatively impact the quality and quantity of the child's diet throughout their life.



## REFERENCES

- BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança : aleitamento materno e alimentação complementar / Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. 2. ed. Brasília : Ministério da Saúde, 2015.
- SOCIEDADE BRASILEIRA DE PEDIATRIA. Manual de Alimentação: orientações para alimentação do lactente ao adolescente, na escola, na gestante, na prevenção de doenças e segurança alimentar. 4a ed. São Paulo: Departamento Científico de Nutrologia Sociedade Brasileira de Pediatria (SBP), 2018.
- WEFFORT, Virgínia Resende Silva; LAMOUNIER, Joel Alves. Nutrição Em Pediatria - da Neonatologia À Adolescência - 2ª Ed. Editora Manole. 2017



# YES

RAISE THIS SIGN IF YOU KNOW THE ANSWER TO THE QUESTION, OR IF THE ANSWER TO THE QUESTION IS 'YES'



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# NO

RAISE THIS SIGN IF YOU DON'T KNOW  
THE ANSWER TO THE QUESTION, OR  
IF THE ANSWER TO THE QUESTION IS  
'NO'



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# ATTENDANCE LIST

PERSON IN CHARGE:	DATE:
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