



Child Nutrition Program

Community Flipbook

What is the purpose of this flipbook?

This flipbook is intended to support education for families on proper nutrition and health practices by providing a storyline based in six categories: general nutrition, health conditions, women and infants, nutrition by age, feeding support and mealtimes, and hygiene and sanitation.

How should the flipbook be used?

A community educator who has reviewed and is familiar with this flipbook's content should present the flipbook's story and lead discussions using the questions provided. Interaction and discussion between the presenter and audience as well as among audience members on the topics covered is essential to the efficacy of this education tool. Questions from audience members are encouraged and the presenter can tailor discussion based on the needs of each unique audience within the scope of nutrition and health practice.

Introduction

Each illustration in this flipbook is accompanied with a caption to introduce a nutrition or health topic and questions to lead discussion related to this topic. Your responses and participation are important to this experience. Please listen, respond and ask as needed so that you and the participants take full advantage of this educational discussion. When printing, print on both sides with flipping on the short edge.

Additional Resources

This flipbook is supported by content in Holt International's Community Resource Manual. Additional information at www.holtinternational.org/nutrition-health/



Child Nutrition Program

Community Flipbook



The Chandekar family consists of Rahul, Priya, 7-year-old Punan, 3-year-old Aaruni and 6-month-old Mannya. Mom and Dad want to keep their family, their loved ones, and their community healthy. It is important to them, so they take some valuable steps each day to achieve this.



QUESTIONS

How important is health to you?

Who in your life do you want to keep healthy?

What are ways that you help keep your family healthy?



SECTION 1

**GENERAL
NUTRITION**



SECTION 1

**GENERAL
NUTRITION**

ACTIVITY 1.1



ACTIVITY 1.1

Mom and Dad know that for their family to stay healthy and for their children to develop well, they all need good nutrition.



QUESTIONS

What is nutrition?

Nutrition is consuming and using food to grow, repair and maintain the body's tissues and functions. It plays a critical role in health, growth and brain development throughout a person's lifespan.

What are the 5 food groups?

Fruits, Vegetables, Grains/rice/potatoes, Proteins/meats/beans/legumes and Dairy/milk/calcium- rich foods

What is another essential nutrient?

Water! Water is needed by every cell in the body to function.



ACTIVITY 1.2



ACTIVITY 1.2

When mom plans what to feed her family that day, she thinks about how she can include a variety of foods in their meals and snacks. She knows that eating foods from all food groups is very nutritious. One way she remembers how to include a variety of foods in their diet is thinking about colors. By feeding her family foods of all different colors, she knows she is optimizing their nutritional health.



QUESTIONS

Why is eating a variety of food from all the food groups important?

This ensures that your body gets all the essential nutrition it needs including proteins, fats, carbohydrates, vitamins and minerals.

What foods do you include in your meals and snacks for the day?

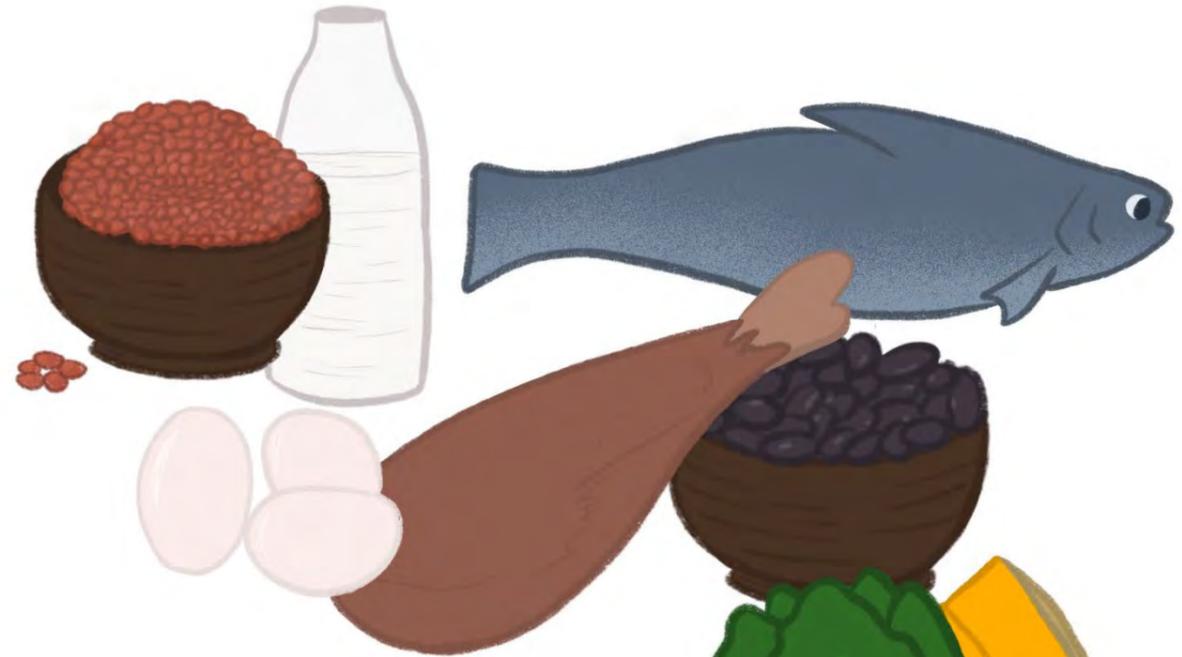
Are there any new foods you want try?

How can you make sure you and your family eat a variety of foods?

Eating foods of all different colors and trying new foods more often.



ACTIVITY 1.3



ACTIVITY 1.3

Mom and Dad always try to feed their children foods like eggs, milk, fish, fresh green vegetables and fruits because they help to provide essential nutrients like vitamin A, vitamin C, iron and iodine.

QUESTIONS

What does vitamin A help with and what are some examples of vitamin A rich foods?

- Important in vision, immunity, skin health and bone and teeth growth
- Eggs, liver, oranges, mango, broccoli, fish

What does vitamin C help with and what are some examples of vitamin C rich foods?

- Important in immunity, skin health, and helps to improve iron absorption
- Citrus fruits, broccoli, pepper

What are some other important nutrients you have heard of?

What does iron help with and what are some examples of iron rich foods?

- Brain development, healthy blood, immune system
- Meats, spinach, legumes, soya

What does iodine help with and what are some examples of foods containing iodine?

- Helps regulate growth, development and how the body uses energy and makes proteins
- Iodized table salt, saltwater fish and shellfish, dairy products



ACTIVITY 1.4



ACTIVITY 1.4

The Chandekar family decided to start a kitchen garden. Mom learned from her friends that a kitchen garden can be a great way to provide fruits and vegetables to her family and is very simple to do!

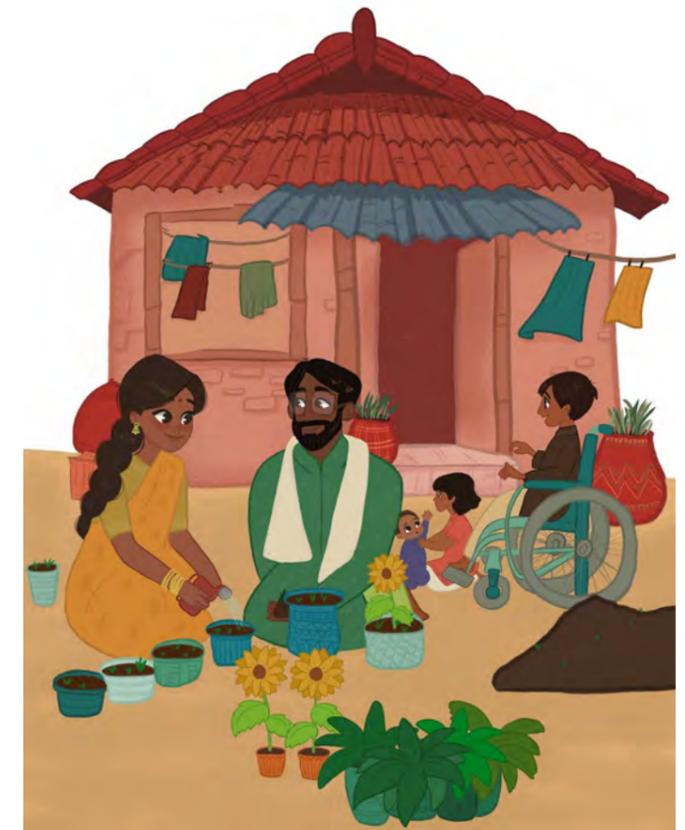
QUESTIONS

What is a kitchen garden?

A small garden near your kitchen containing fruits, vegetables and herbs.

Why might you start a kitchen garden?

Having easy access to fruits, vegetables, and herbs makes it easier for you and your family to include these foods into meals. Increasing your fruit and vegetable intake helps you get more essential vitamins and minerals to support your nutritional health. Lastly, having a kitchen garden promotes healthy behaviors by getting physical activity through planting and harvesting.





SECTION 2

**HEALTH
CONDITIONS**



SECTION 2
**HEALTH
CONDITIONS**

ACTIVITY 2.1



ACTIVITY 2.1

Mom and Dad know that good nutrition will help prevent their children from becoming malnourished. There are two main types of malnutrition; undernutrition and overnutrition.

QUESTIONS

What is undernutrition?

It is a type of malnutrition which occurs when the body is not getting enough essential nutrients from the diet to meet all of its needs.

What is overnutrition?

When someone eats more calories than their body needs.

What causes malnutrition?

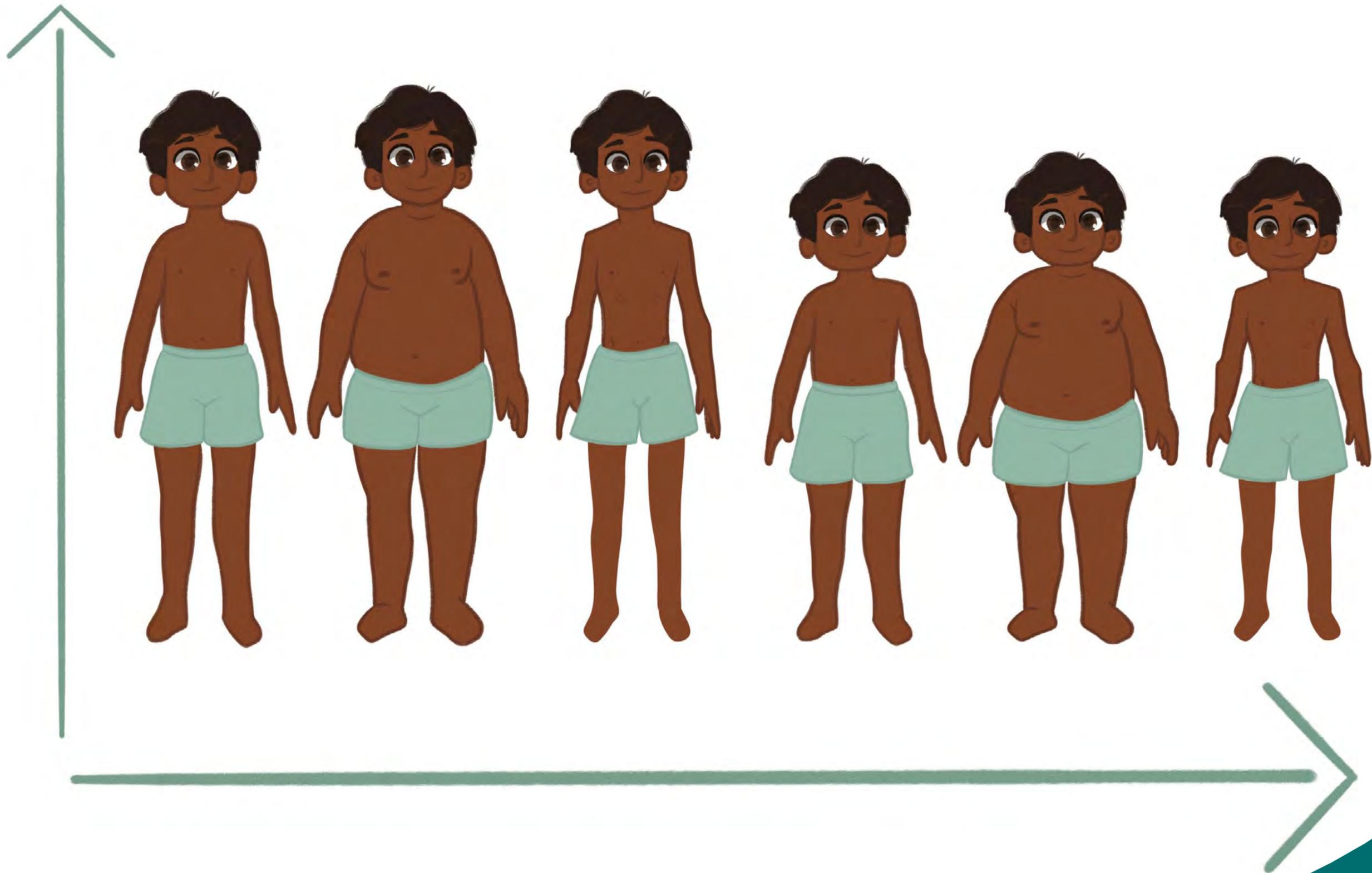
- Inadequate intake, increased energy needs or illnesses/ infections.
- Growth spurts and infections can cause increased energy needs and poor feeding practices or inadequate breastmilk can limit intake. Sometimes illnesses like diarrhea or parasite infections can also impact nutritional status.

What are some consequences of malnutrition?

Poor growth, impacted brain development, and poor immunity.

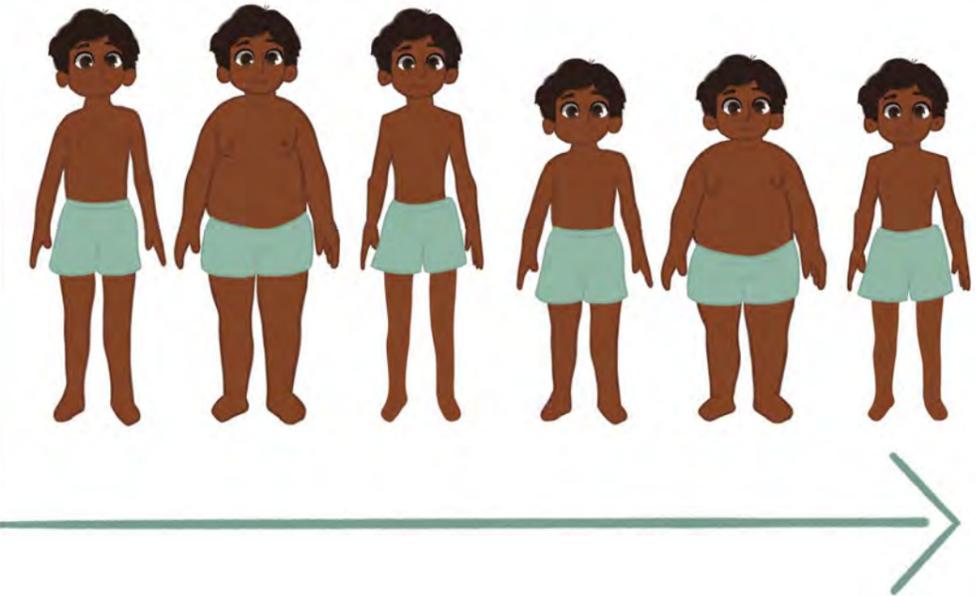


ACTIVITY 2.2



ACTIVITY 2.2

Dad knows that by ensuring his children get a variety of nutritious, minimally processed foods they can avoid becoming stunted, wasted, underweight, overweight or micronutrient deficient.



QUESTIONS

What are stunting, wasting, underweight, overweight and deficiency?

- Normal is when a child is the expected height and weight for their age.
- Overweight is when a child is too heavy for how tall they are.
- Wasted is when a child is too underweight for how tall they are.
- Stunting is when a child is too short for how old they are.
- Micronutrient deficiencies are another type of malnutrition which occurs when your child is not getting enough essential vitamins and minerals.
- Sometimes children can have multiple types of malnutrition, like being stunted, wasted and have micronutrient deficiencies or being stunted and overweight.



ACTIVITY 2.3



ACTIVITY 2.3

Aaruni was born at a low birth weight. This puts her at risk of iron deficiency anemia.

Anemia can make you feel tired and sick. Mom and Dad already make sure to get Aaruni treated with deworming medicine because this can help prevent anemia. To keep her healthy and strong, they make sure to give her iron rich foods like eggs, meat, soybeans, oatmeal, and spinach to help prevent their child from developing anemia.



QUESTIONS

What are ways you can prevent anemia?

- Getting your child treated with deworming medicine at one year old and every six months following
- Providing an iron rich diet including the foods listed above



ACTIVITY 2.4



ACTIVITY 2.4

When Manny is fussier than usual, not eating or sleeping well, lacking interest in playing or more lethargic, Mom will check her temperature. Checking a child's temperature helps determine if they have a fever. If they do have a fever, it could be a sign of many different conditions. Mom knows that sometimes fevers are normal but will treat a fever if her child is showing signs of discomfort.



What temperature qualifies as a fever?

- Rectal (in the bottom) > 38 C, > 100.4 F
- Tympanic (inside the ear) > 38 C, > 100.4 F
- Oral (in the mouth) > 37.5 C, > 99.5 F
- Axillary (under the armpit) > 37.2 C , > 99 F

When is it normal to have a fever?

- After immunizations (fever may last for 1-2 days after vaccinations)
- When teething (temperature is usually not higher than 37.8°C/100°F)

How should you feed a child with a fever?

- Offer the child plenty of fluids like water and soups or regular breastmilk for those still taking milk.
- If the child has diarrhea and/or vomiting, offer an oral rehydration solution if needed.
- Limit amount of fruit juice.
- Avoid sugary drinks.
- Do not force feed.
- Offer small frequent meals (every 3-4 hours) if appetite is low.



ACTIVITY 2.5



ACTIVITY 2.5



If her children are feeling bloated, have abdominal pain, and/or are not eating well, Mom suspects that they might have constipation. Constipation is when stools are hard and dry, or stool frequency is less than three times a week. They know that newborns may have several bowel movements a day whereas their older children may only have one. Knowing this helps them determine if a change has occurred and if they should treat their child.

QUESTIONS

What can constipation be caused by?

- Inadequate fluid or fiber intake
- Lack of routine toileting habits
- Forced toilet training
- Avoidance of bowel movements because of pain
- Postponing going to the bathroom when the urge to have a bowel movement is felt
- Stressful events

What are some symptoms of constipation?

Abdominal pain, decreased intake, bloating, irritability, pain, cramping and/or straining with passing stools

What are some methods of prevention and treatment?

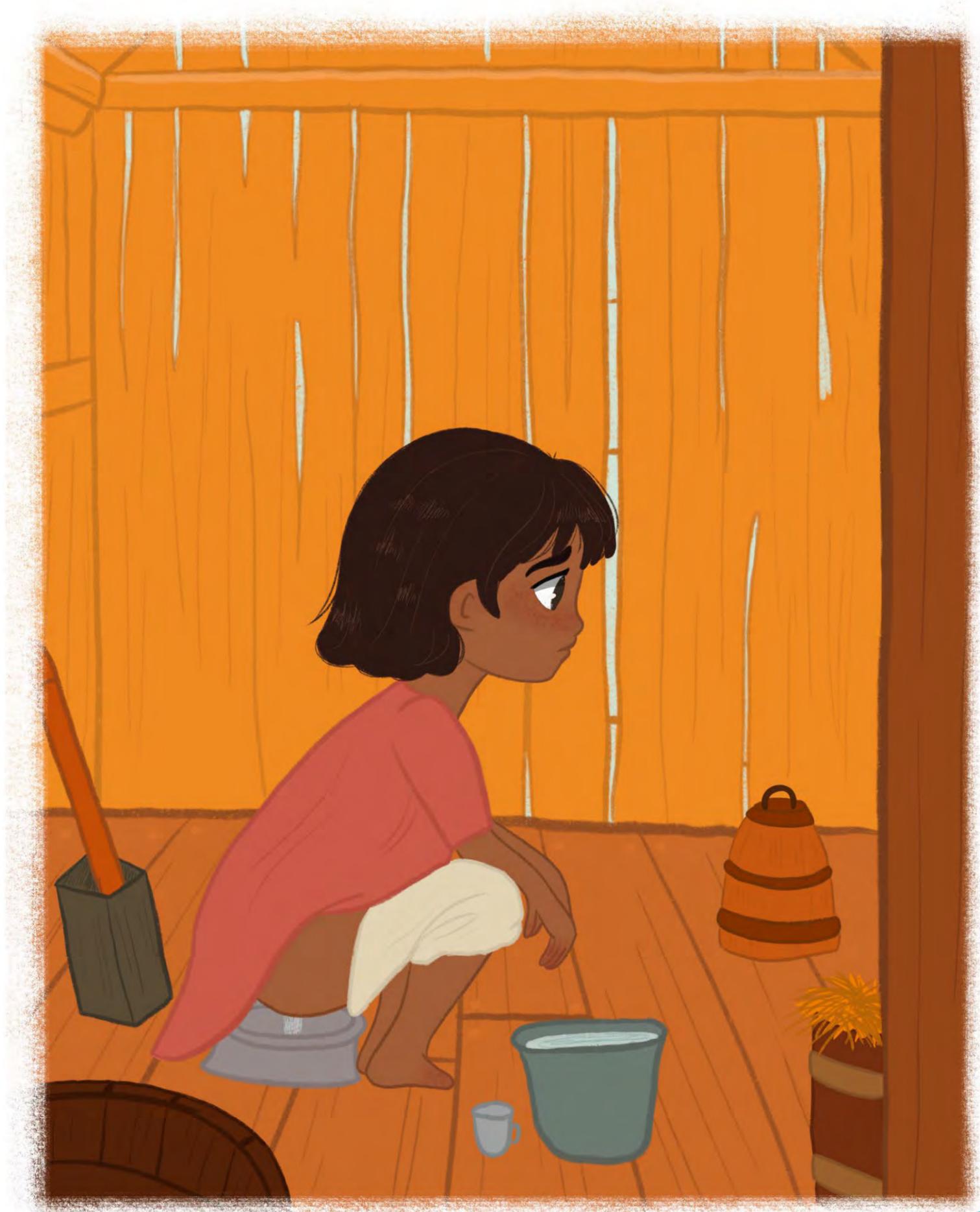
- Have more fiber (vegetables, fruits, whole grains, beans and legumes), water, clear soups, vegetable juice and fruit juice (prune, pear and apple juice)
- Encourage regular daily activity of at least 20 to 30 minutes
- Set up regular times for going to the toilet and allow enough time
- Only use laxatives if recommended by the doctor and use as directed

Juice indications by age:

- Age < 6 months, no juice
- Age 6-12 months, limited and not before bedtime
- Age 1 to 6 years, < 4-6 ounces of juice/day
- Age 7 to 18 years, < 8 to 12 ounces/day



ACTIVITY 2.6



ACTIVITY 2.6

Mom and Dad know that diarrhea is a serious threat to their children's health.

QUESTIONS

What is diarrhea?

The passage of loose or liquid stools more frequently than normal for a child. There are three types:

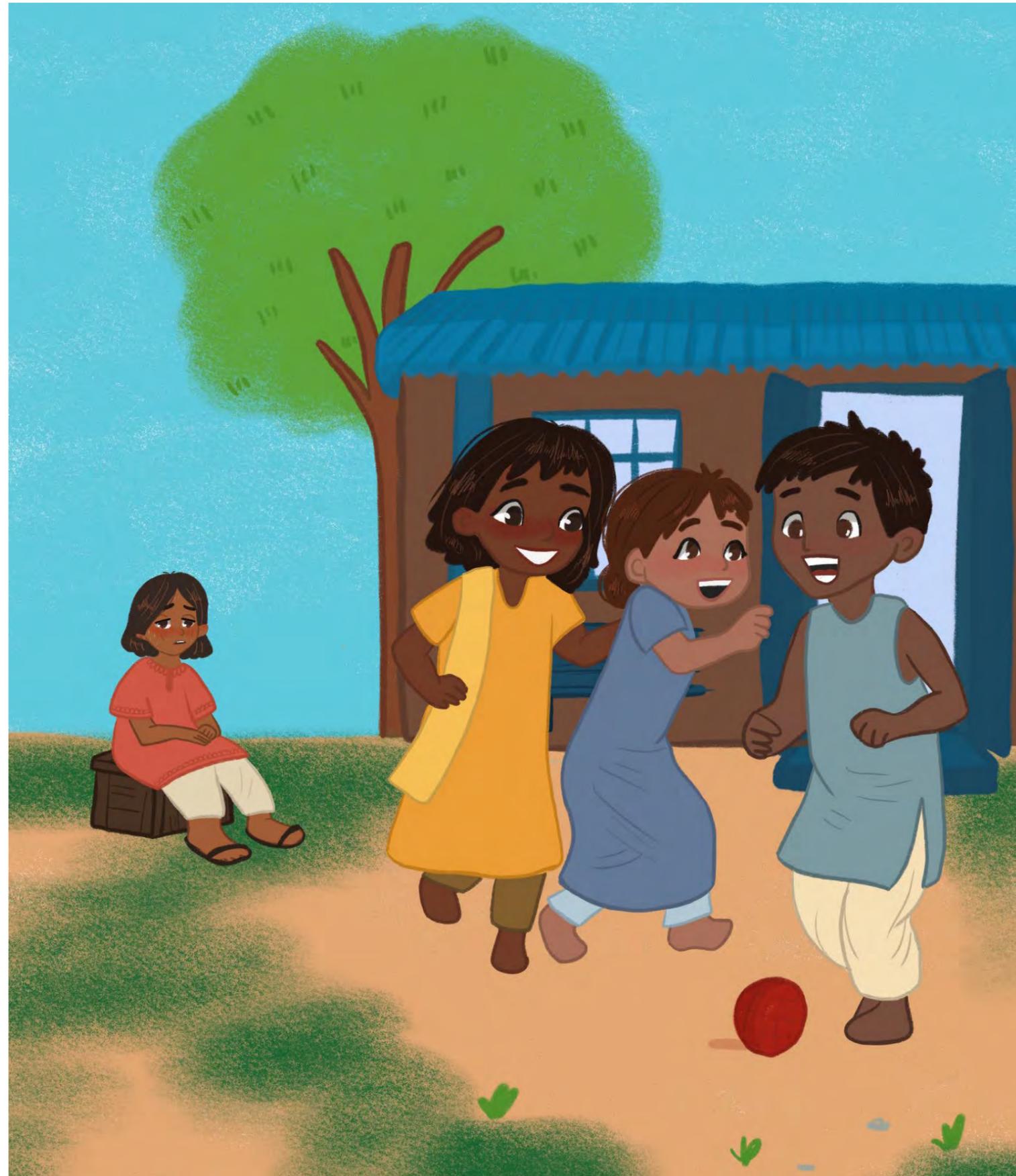
- Acute: sudden onset and presence of more than three loose, watery stools within 24 hours for two days or longer.
- Persistent: starts like acute diarrhea but lasts for 14 days or longer.
- Chronic: a diarrhea episode lasting for 28 days or longer, or multiple episodes with few weeks in between.

What puts children at risk for diarrhea?

- Lack of access to a safe water source.
- Living in a building or community with poor sanitation infrastructure.
- Relying on caregivers, cooks and other adults to practice good hygiene.
- Living in close quarters with other children and caregivers.



ACTIVITY 2.7



ACTIVITY 2.7

Mom and Dad take diarrhea very seriously because they know it can lead to other severe health conditions like dehydration and malnutrition. They make sure to practice good sanitation and hygiene, consume a variety of healthy foods and safe water, and vaccinate their children against measles.

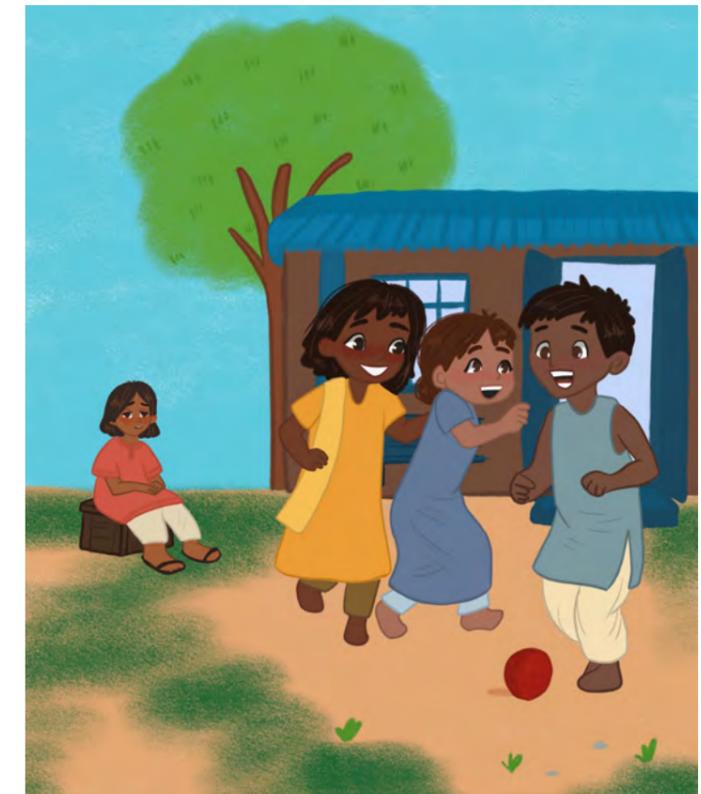
QUESTIONS

What are some potential complications of diarrhea?

- Dehydration - It should be treated through fluid and electrolyte replacement as soon as possible. Generally, dehydration occurs faster in infants and young children, in hot climates, and when there is fever.
- Malnutrition
- Infection – It can be caused by lack of appetite, loss of nutrients through diarrhea and loss of zinc which is important for the child's health and development

What can you do to help treat diarrhea?

- Prevent dehydration from occurring if possible.
- If dehydration occurs, treat quickly using appropriate fluids and/or oral rehydration solution (ORS).
- Give zinc supplements for 14 days to reduce the severity of the episode and to reduce the incidence of diarrhea episodes in the following 2 to 3 months.
- Continue feeding during the episode and increase feeding after the episode.
- Use antibiotics only when appropriate, i.e. in the presence of bloody diarrhea.
- Abstain from administering anti-diarrheal drugs to children.



SECTION 3

WOMEN & INFANTS:

BEFORE, DURING AND
AFTER PREGNANCY





SECTION 3

WOMEN & INFANTS:

BEFORE, DURING AND
AFTER PREGNANCY

ACTIVITY 3.1



ACTIVITY 3.1



Before starting their family, Mom and Dad knew they wanted to use contraceptives and family planning methods to ensure births were spaced so that they would be able to best provide for their kids. They worked together to have a plan that allowed them to have their 7-year-old, 3-year-old and 6-month-old while remaining food secure, financially secure and healthy as a family.

QUESTIONS

What are some consequences of closely spaced pregnancies?

- Premature births
- Low birth weight infants
- Mother's nutrient stores have not fully replenished for her to be strong again
- Difficult pregnancies and increased risk of mortality
- Malnourished babies
- Reduced length of breastfeeding for currently breastfeeding infants
- Malnutrition among children, especially those currently breastfeeding
- Can increase risk of transmitting HIV to fetus if mother is HIV positive

What are some benefits of family planning?

- Healthier mothers, unborn babies, children and families
- Full-term babies
- Strong families
- Economic and food security
- Reduces stunting and mortality
- Ability to afford having more children attend school and become well educated
- Safer pregnancies
- Reduced risk of transmitting HIV to the unborn baby if mother is HIV positive

Family Planning Recommendations

- Space pregnancies 3 years apart, youngest child should be 2 years old before becoming pregnant again
- Access family planning methods from local health center to match your family's needs
- Plan for new children to match available family resources



ACTIVITY 3.2



ACTIVITY 3.2

When mom was younger, before she became pregnant, she focused on good nutrition so that her body could develop and prepare for potential adulthood and starting a family. She ate three meals a day and focused on eating variety of foods, especially foods that contain vitamin A, vitamin C, iron and protein.



QUESTIONS

What are some things a woman can do to be healthy in adulthood and have healthy pregnancies?

- Wait until age 20 before becoming pregnant to allow for your body to fully develop.
- Eat at least three meals a day with one meal containing a protein rich food such as eggs, fish, tofu or meat.
- Focus on eating a variety of foods, especially foods that contain vitamin A, iron and protein.
- Take an iron and folic acid supplement as prescribed by a health center or doctor.
- Consume vitamin C-rich foods with iron foods or iron supplements to improve iron absorption.
- Take deworming medicines twice yearly or as prescribed.
- Do daily physical activity or exercise of at least 60 minutes per day.
- Aim to drink 2.7 liters or 9 cups of water per day.



ACTIVITY 3.3



ACTIVITY 3.3

When mom was pregnant with each of her kids, she and her husband made sure to prioritize her and her baby's health. She focused on getting good nutrition, taking prenatal vitamins, and resting when she needed to.



QUESTIONS

What are some things a woman can do so that she and baby are healthy during pregnancy?

- Eat one extra meal per day
- Eat a diverse diet of colorful foods, such as fruits and vegetables which are full of essential vitamins and minerals
- Try to eat iron and folate rich foods daily such as legumes, green leafy vegetables, whole grains and meats
- Consume vitamin C-rich foods with iron foods and iron supplements to improve absorption
- Consume iodized salt
- Rest more frequently
- Drink plenty of clean safe water, pregnant women need extra fluids. Pregnant women should aim for 3 liters of water or 10 cups of water a day.
- Take iron and folic acid supplementation throughout pregnancy
- Take deworming medication or vitamin A supplements as recommended by doctor



ACTIVITY 3.4



ACTIVITY 3.4

During lactation, Mom continued to focus on getting enough good nutrition so that her body would feel better sooner and baby would receive all the essential nutrients they needed from breastmilk.

Breastfeeding requires a lot of calories and nutrients from the mother, so it is important to Mom that she receives nutrition for her body and to help her baby grow strong and healthy.



QUESTIONS

What are some things a woman can do so that she and baby are healthy after birth and while mom is breastfeeding?

- While breastfeeding, women should aim to drink 3.8 liters or 13 cups of clean safe water
- Take time to rest and get at least 8 hours of sleep
- Consume a minimum of 4-6 meals per day
- Eat a diverse diet full of colorful foods, such as fruits and vegetables
- Eat protein-rich foods such as fish, eggs, legumes, nuts and meats
- Increase intake of iron-rich foods to help replenish iron stores lost from blood during delivery and through breastfeeding.
- Consider continued iron and folic acid supplementation for three months after delivery
- Consume vitamin C-rich foods with iron foods and iron supplements to improve absorption of iron
- If living in an area with malaria, both mother and child should sleep under an insecticide-treated mosquito net



ACTIVITY 3.5



ACTIVITY 3.5

Mom used exclusive breastfeeding after delivery for 6 months and “The Pill” after 6 months post delivery to space out her pregnancies.

QUESTIONS

What are some other methods of family planning you can use any time post delivery and what is their effectiveness with consistent and correct use?

- Breastfeeding up to 6 months (99.1%)
- Barrier methods such as condoms (Male condom – 98% and Female condom – 95%)
- Intrauterine devices (99.4%)
- Implants (99.9%)
- Sterilization (Male – 99.9% and Female - 99.1-99.5% depending on type)
- Natural family planning (Effectiveness rates not available)
- Withdrawal (96%)
- Abstinence or outercourse (100%)

What are some methods that can be used 6 weeks post delivery?

- Mini pills (progesterone only) (99.7%)
- Progesterone-only injectable (99.8%)

What are some methods that can be used 6 months post delivery?

- Combined oral contraceptives (“The Pill” contains progesterone and estrogen) (99.7%)
- Combined injectable (contains progestin and estrogen) (99.95%)

What family planning methods are most effective with consistent and correct use?

- Abstinence or outercourse (100%)
- Combined injectable (contains progestin and estrogen) (99.95%)
- Implants (99.9%)
- Male sterilization (99.9%), female sterilization (99.1-99.5% depending on type)
- Intrauterine devices (99.4%)



Why is it consistent and correct use of family planning methods important?

Inconsistent and/or improper use of family planning methods can greatly reduce the effectiveness of each method therefore increase chances of pregnancy.



SECTION 4

**NUTRITION
BY AGE**

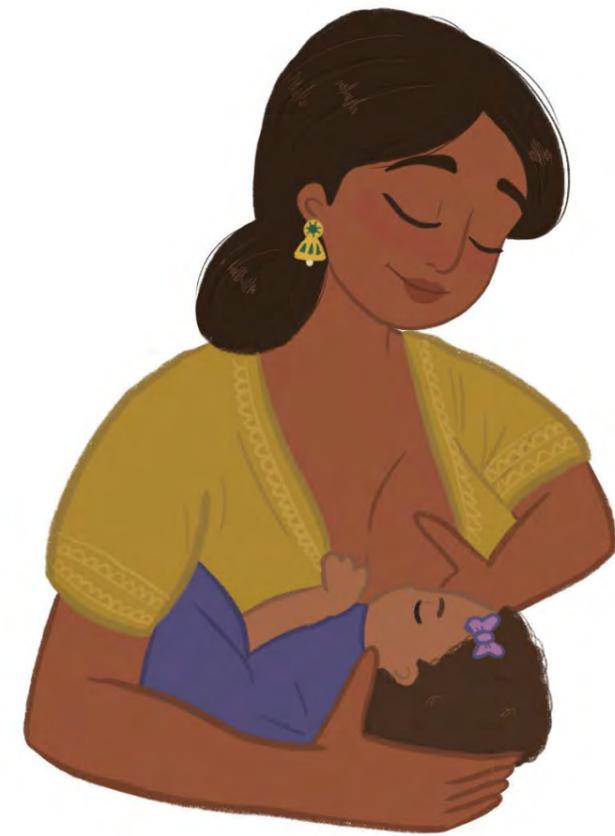


SECTION 4

**NUTRITION
BY AGE**



ACTIVITY 4.1



ACTIVITY 4.1

Mom exclusively breast feeds the first 6 months of her baby's life because she knows that breast milk contains all the essential nutrients for her baby needs for growth and development. She makes sure to hold baby in a comfortable and safe position for easy feeding.



QUESTIONS

Why is it important to breastfeed your baby?

Breastmilk has essential nutrients and antibodies for baby's growth and development.

Do women in your community face problems with breastfeeding? What kind of problems? Where do women seek help with these problems?

Why is it important to exclusively breastfeed for the first 6 months of a baby's life?

Breastmilk has everything a baby needs to grow and helps the mother's body. Specifically, infants grow better, are less likely to have infections or diarrhea, sleep better, have reduced risk of allergies, asthma or other health issues and do better in school later in life when fed breast milk. For mothers, breastfeeding provides them protection against illness, helps with maternal weight loss, improves bonding and delays menstrual periods.



ACTIVITY 4.2



ACTIVITY 4.2

Mom breastfeeds whenever her baby is hungry. She knows that by breastfeeding her baby at least 8 to 12 times a day helps her baby stay healthy and grow properly. Mom also feels better when she feeds baby often because it helps her produce enough milk and keeps her comfortable.



QUESTIONS

What should you feed a baby who is less than six months?

Exclusively breastmilk until six months old. Babies' digestive systems are not ready for other foods yet and if they receive other foods instead of breastmilk, they can become malnourished.

How can a mother tell a baby is ready to breastfeed?

When they lick their lips or sticking out their tongue, root (which is moving their jaw, mouth, or head to look for your breast), open their mouth, suck on things, become fussy or stick hands in their mouth.

How often should you breastfeed your baby?

At least eight to twelve times a day for optimal growth. Newborns will feed every 2-3 hours. By 2 months, babies feed every 3-4 hours and by six months, every 4-5 hours.

How long should you breastfeed your baby?

Breastfeeding is recommended up to 2 years, although most children will begin weaning or transitioning to solid foods as their primary intake by 1 year



ACTIVITY 4.3



ACTIVITY 4.3

Since Manny is just turned 6 months old, she only receives breast milk. Mom knows that it is safe to introduce complementary foods after 6 months. She will soon introduce some rice cereal and puree fruits and vegetables to baby while continuing to mostly breastfeed.

QUESTIONS

When is it safe to introduce complementary foods?

Six months, to complement their intake of breastmilk.

How much complementary food do infants need?

Initially, they should receive complementary foods 2–3 times a day between 6–8 months and increase to 3–4 times daily between 9–11 months and 12–24 months. Additional nutritious snacks should also be offered 1–2 times per day for ages 12–24 months, as desired.

By 12 months, most children can eat the same types of foods as consumed by the rest of the family, while keeping in mind the need for nutrient-dense foods, including animal-sourced foods like meat, poultry, fish, eggs and dairy products.

What are some examples of safe complementary foods for babies?

Great first foods include rice cereal and pureed fruits and vegetables. Gradually increase food consistency and variety as the infant gets older, adapting to the infant's requirements and abilities.

Infants can eat pureed, mashed and semi-solid family foods beginning at 6 months. By 8 months most infants can also eat “finger foods” (snacks that can be eaten by children alone).

What foods should infants not be eating?

Avoid foods in a form that may cause choking, such as whole grapes or raw carrots.

Avoid giving drinks with low nutrient value, such as tea, coffee and sugary soft drinks. Limit the amount of juice offered to avoid displacing more nutrient-rich foods, including breastmilk.



Demo:

Infants' stomachs are only about the size of their fists. If they fill that space up with non-nutritious foods like soda, then they will not get enough essential nutrition and can become malnourished.



ACTIVITY 4.4



ACTIVITY 4.4

When Aaruni was 14 months old, she started showing interest mostly in solid foods. Mom and Dad decided it was time to wean her to a balanced diet.

QUESTIONS

What are some methods to help with weaning?

- Let children practice holding cups and spoons as early as 6 months.
- Gradually increase the use of cups and allow children to feed themselves.
- Be consistent with children's mealtime schedules and attentive during the meal.

Be a role model and let the child watch you eat and drink. Children learn from watching others. Once weaning is complete, the average young child should have three meals per day with additional snacks offered 2-3 times per day.



ACTIVITY 4.5



ACTIVITY 4.5

Mom knows that children go through growth spurts and need lots of food to grow strong. To get enough food, she wants to make sure her children get enough servings of each foods group.

QUESTIONS

How many servings from each group does a child need per day?

- Cereals, pasta, rice, potatoes, bread: 2-3 servings per day (1 serving = 1 piece of bread; ($\frac{1}{2}$ cup or 113 grams of cooked rice or cereal).
- Fruits and vegetables: approximately 230-470 grams (1-2 cups) per day or 5 servings.
- Cow or animal milk (full fat), dairy or calcium-rich foods: approximately 2 servings or 470 milliliters (2 cups) per day.
- Meats, beans and legumes: 2-4 servings per day (1 serving = 1 egg, 113 grams of cooked lentils or beans, 57 grams soya, 28 grams mutton, chicken or fish).

Children also need lots of clean safe drinking water everyday.

- Ages 1-5: 4-5 cups / 1.3 – 1.5 liters
- Ages 4-8: 5-6 cups / 1.7 - 1.8 liters
- Ages 9-13: 7–8 cups / 2.1- 2.4 liters
- Ages 14-18: 8–11 cups / 2.3- 3.3 liters

How big do the servings need to be?

For young children are much smaller than adult serving sizes — about one-fourth of what an adult eats. A rule of thumb for serving sizes for young children is 15 grams or milliliters (1 tablespoon) of food per year of age. Adults often overestimate how much food a young child needs to eat, so start with a smaller portion size and provide more if a child asks for it.

- For example, a portion size for a 2-year-old would be about 30 grams (2 tablespoons).



***Demonstrate portion sizes.**

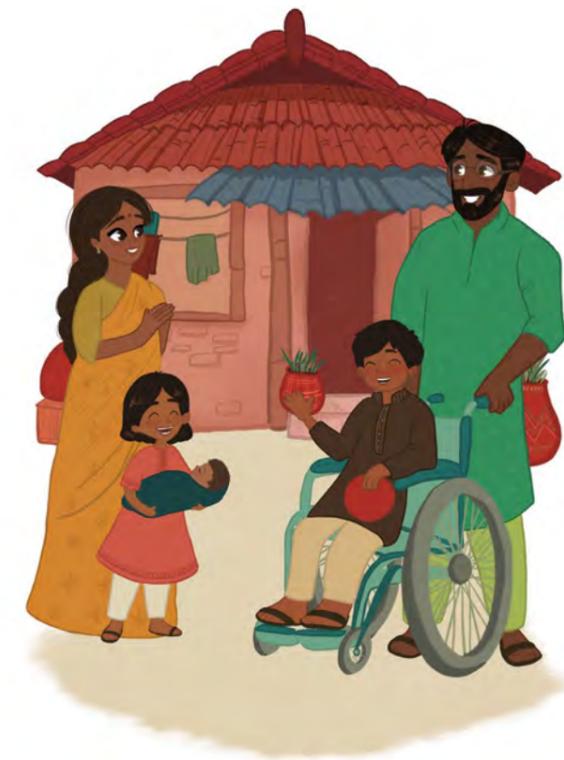


ACTIVITY 4.6



ACTIVITY 4.6

The kids in the family enjoy play time and physical activity. Mom and Dad encourage them to stay active so they can build muscle and grow up to live healthy lives.



QUESTIONS

Why is daily activity and exercise important?

It helps build strong muscles, joints and bones, supports healthy brain development, maintain a healthy weight, support heart and lungs, improve coordination skills and control of movement, and supports self-confidence and mental health.

Who should stay active and exercise?

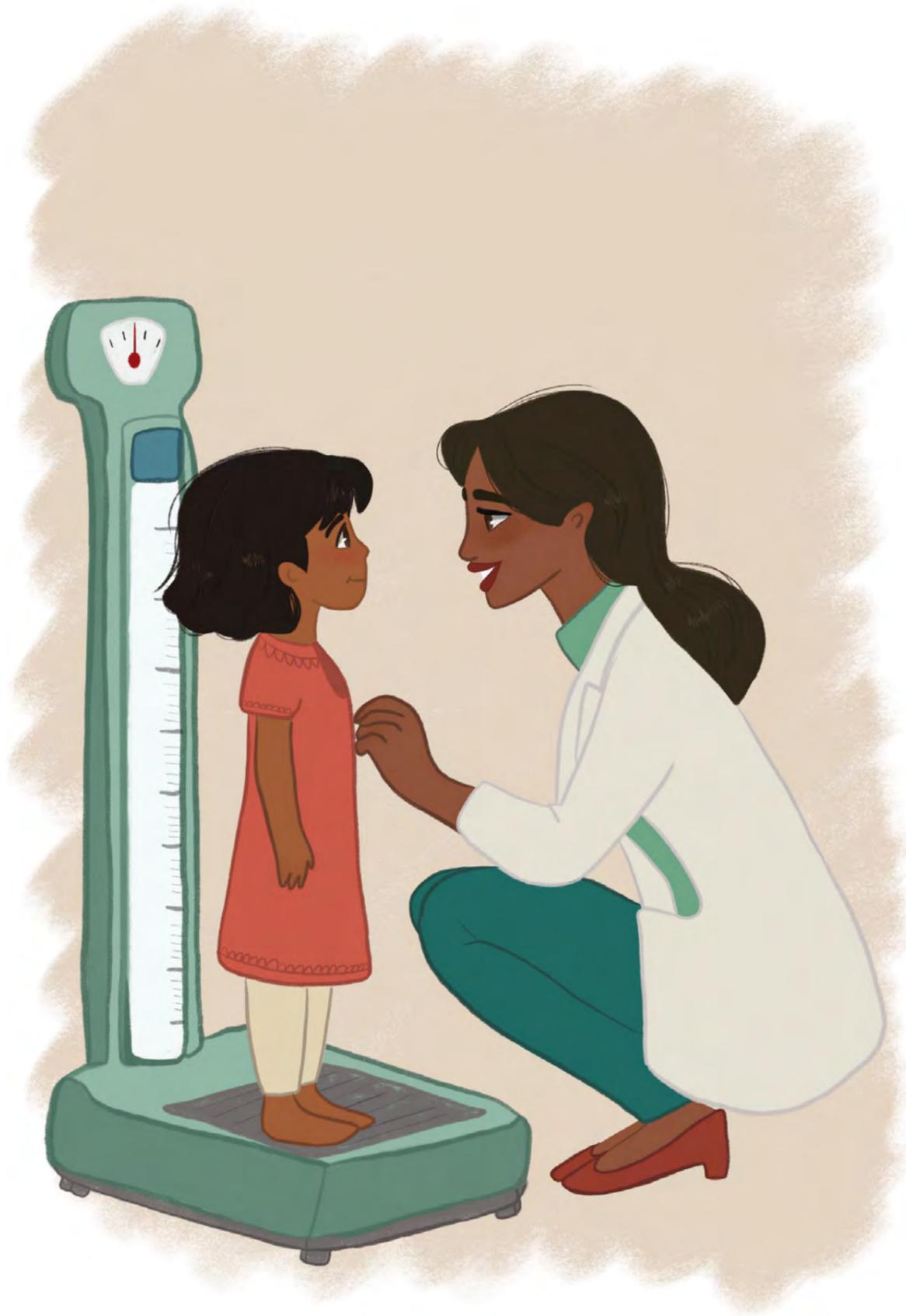
Staying active and exercising is important for all age groups, including children with disabilities.

What are some examples of ways to be physically active?

Play, chores, sports, exercise, transportation or games.

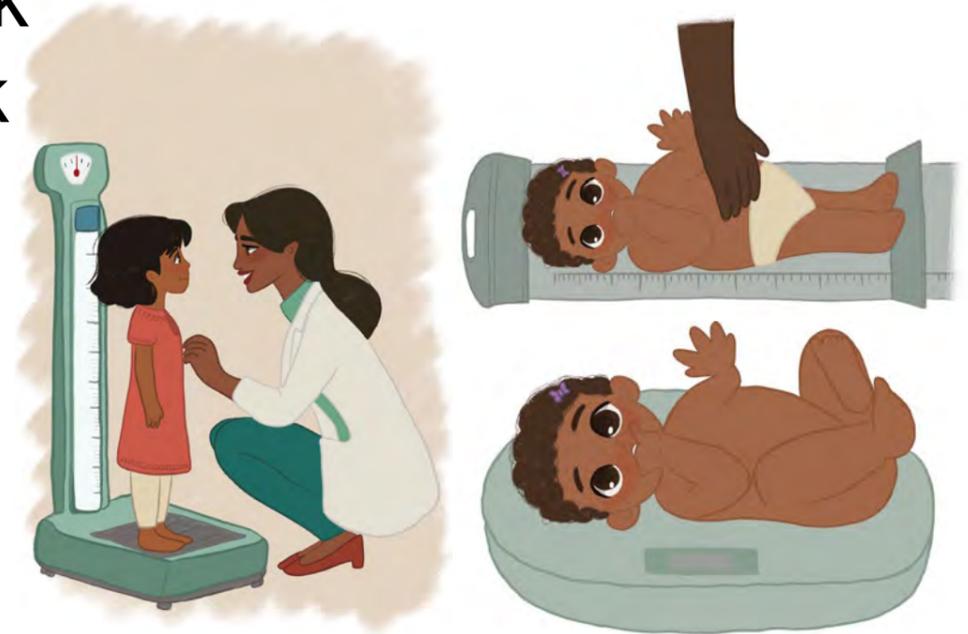


ACTIVITY 4.7



ACTIVITY 4.7

Mom and dad are on their way for a routine check up for their children. They know that health check ups are important because their children receive growth screenings.



QUESTIONS

Why are a child's checkups important?

- Receive growth screenings to ensure a child is growing normally
- Receive essential vitamins and vaccinations to support growth
- Can help to catch illnesses or diseases early for treatment



SECTION 5

FEEDING SUPPORT & MEALTIMES



SECTION 5

**FEEDING
SUPPORT &
MEALTIMES**

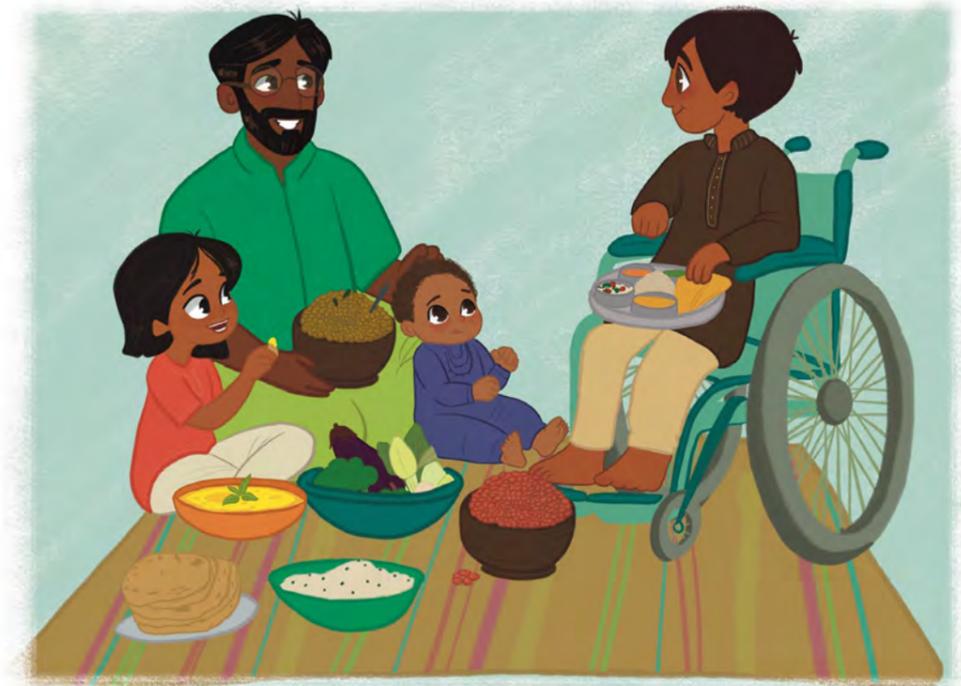


ACTIVITY 5.1



ACTIVITY 5.1

Dad makes sure his older children eat in a safe position. He knows that positioning is important to the safety of children when they're eating. Eating in the right position can help prevent your child from choking or coughing on their food and drink. He ensures that Punan and Aaruni sit upright at 90 degrees.



QUESTIONS

What does a safe eating position look like for a child?

Upright in chair with feet on the floor, sitting on their bottom on the floor with back straight, not laying down, not distracted or playing while eating.

Where do your children eat most of their meals? How can you make sure your children eat in a safe position?



ACTIVITY 5.2



Mom and Dad have had some practice with feeding their children from infancy through childhood. They know that textures are important to be mindful of for the safety of their children. Since Mom has just begun complementary feedings with Manny, she only provides smooth pureed family foods.

QUESTIONS

What foods and textures are appropriate at each age or development?

0 to 5 months:

- Sucking
- Liquids via breast and/or bottle

6 months:

- Sucking, Tongue thrust lessens, Mouth opens for spoon, Food moves from front of tongue to back
- Smooth pureed foods

7-9 months:

- Up and down movement
- Munching pattern for chewing develops, tongue thrust lessens even more, movement of tongue from side to side develops
- Thicker, smooth pureed foods
- Foods that dissolve with saliva such as teething biscuits, buttery crackers, etc.
- Soft table foods such as bananas, avocado, well-cooked carrots and squash, etc.

What foods and textures are appropriate at each age or development?

12-14 months:

- Munching pattern continues to develop, more mature chewing (rotary chew) emerges
- Soft and firmer table foods

14-18 months:

- Rotary chew continues to develop, lip movement and closure increases?
- Soft meats and mixed textures such as cereal with milk, soup, rice and beans, etc.

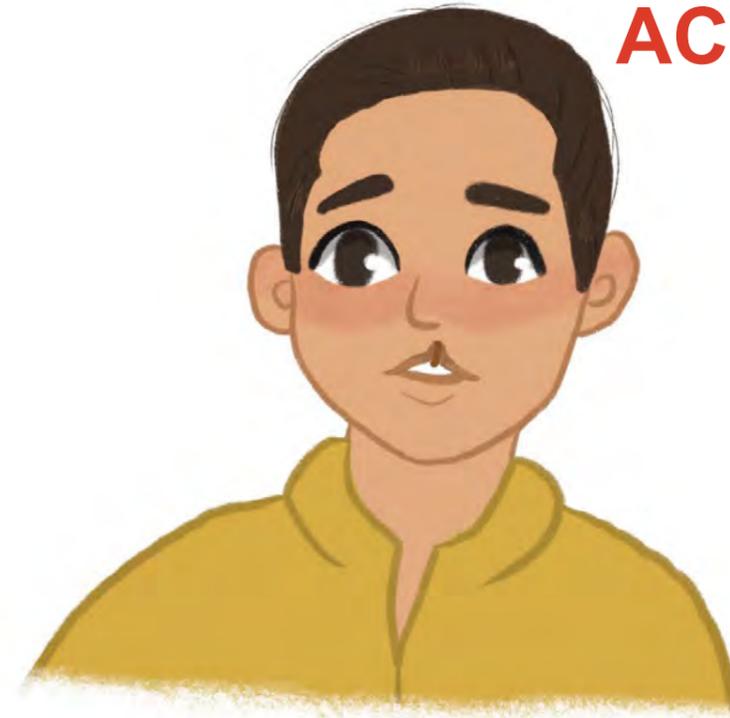
18-24+ months:

- Rotary chew is fully developed, lip closure is adequate for chewing and swallowing, Jaw stability improves and allows biting through foods of different thicknesses
- Meats
- Raw fruits and vegetables
- Mixed textures

ACTIVITY 5.2



ACTIVITY 5.3



Many children have disabilities. These children need love, play, and interaction the same as other children but sometimes need some additional support to grow and develop to their full potential. Some children like Pun need adaptive equipment like wheelchairs or special feeding utensils during meals or extra time at school to learn.

QUESTIONS

What are some common disabilities in your community?

Examples: Blindness, Down syndrome, cerebral palsy, ADHD, autism, cleft lip/palate

What are some common challenges for children with special needs?

- Abnormal growth (e.g., underweight, overweight and/or short stature or stunting)
- Inadequate food intake to support growth and health
- Feeding problems related to oral-motor (difficulty sucking, swallowing, chewing)
- Behavioral difficulties (easily distracted or stimulated, food refusal, aggressive behavior)
- Low muscle tone
- Chronic constipation or diarrhea

How do disabilities impact nutrition?

All children require good nutrition to grow and develop. However, children with disabilities which can impact their growth, diet, feeding and eating behaviors and bowel and fluid habits. When these problems are not adequately addressed, a child may become ill more often and for longer periods of time. The nutrition and feeding difficulties that children with disabilities experience can be improved or controlled but may not totally resolve. These children may require ongoing and periodic nutrition screening and intervention, and the participation of a team to provide interdisciplinary care.

ACTIVITY 5.3



ACTIVITY 5.4



ACTIVITY 5.4

Because food texture for your child is dependent on development, there are other considerations for children with disabilities. The Chandekar family is friends with a family whose child has cerebral palsy. This condition affects the child's ability to eat. For these children, mealtime may be longer and require more effort from their caregiver, leaving them at risk for malnutrition.



QUESTIONS

What is cerebral palsy (CP)?

CP is a disorder that affects a child's ability to move and coordinate the muscles of the body because of damage to the brain. Some children develop CP before they are born, during birth, or during the first years of life. Children with CP are the same as other children and need love, playtime and support.

How does CP affect eating?

CP affects the muscles that open and close the mouth, move the lips and tongue, and control swallowing. It can cause eating and drinking difficulties, also called dysphagia. These difficulties include minor to very severe problems with sucking, chewing, keeping food in the mouth, swallowing food and drinking safely, as well as taking a long time to complete a meal.

Why might foods be modified for a child with CP?

Some eating and drinking difficulties can result in food or drink going down the wrong way and into the lungs. This can lead to infection and, in turn, pneumonia. Some swallowing difficulties can lead to choking which may become a life-threatening medical emergency. A speech pathologist should be consulted urgently if you or your family member are experiencing these problems.



ACTIVITY 5.5



ACTIVITY 5.5

The Chandekar family tries to eat meals together when they can. Mom and Dad know that children can learn a lot from them at mealtime. They try to set a good example for their children so they learn essential feeding skills. They also allow their own children handle certain foods after 6 months. Exploring foods by touch can help babies learn how to feed themselves.



QUESTIONS

Does your family eat meals together?

Are there any barriers to eating meals together as a family? How can you make time to eat together as a family?

When should you let babies handle their own food?

It is appropriate to start to let your baby explore foods and utensils by touch after 6 months. You will still need to feed them breastmilk or complementary foods so they achieve good nutritional status but it is good practice to let them explore foods so they can learn how to feed themselves.



ACTIVITY 5.6



ACTIVITY 5.6

Mom had trouble with Aaruni when she turned two because she was a picky eater. Instead of feeling frustrated, Mom knew that her child's preferences were because of their brain development. To help she let Aaruni touch and play with new foods before eating them so she could feel more comfortable and provided lots of opportunities to try new foods. She practiced patience and consistency and now at 3 years old, Aaruni enjoys many more foods than she did before.



QUESTIONS

What are some methods for helping picky eater?

- Offer exploration and often. Allow children the opportunity to explore foods (new and familiar) with their hands and utensils. Offer lots of opportunities for food exploration throughout each day.
- Encourage food interaction. Allow children the opportunity to feed themselves. When children feel more in control at mealtimes, they are more open to eating foods.
- Offer small amounts of new foods at a time to avoid overwhelming a child. More food can be provided once the first serving is finished. Offer new foods alongside familiar foods the child already enjoys. This reduces stress by letting a child see how they have options, including something they're accustomed to.
- Consistently offer a child many opportunities to become comfortable with foods at meals. Offer new foods often.
- Eat alongside a child. Children like doing what others are doing, so this is a great way to let them know that foods are safe and nourishing. Allow children the opportunity to eat alongside peers.
- Have fun experiencing foods in ways other than eating. Look at pictures of foods, play with pretend food, and talk about foods you see in your environment, such as at the local market or in the kitchen.



ACTIVITY 5.7



ACTIVITY 5.7

Interaction is not only important at mealtime. Positive and meaningful interactions boost the quality of life of the child, leading to improved health outcomes. Mom and dad are busy but they try to make time to play with their children. Play time helps babies learn and develop skills.

QUESTIONS

What are some ways of practicing positive interactions with children?

- Be fully present during interactions with a child — physically and mentally
- Be attentive to a child's needs to help them feel understood
- Respond in a timely manner so children learn to trust that caregivers will keep them safe
- Learn your child's individual wants and needs to be able to respond consistently and respectfully to each child





SECTION 6

HYGIENE & SANITATION



SECTION 6

HYGIENE & SANITATION

ACTIVITY 6.1



ACTIVITY 6.1

Rahul remembers how horrible it felt to have diarrhea last year. He learned that diarrhea could be caused by bacteria spread through unsafe food or water and person to person contact. Now he always boils water before using it and stores it in a sterile, container with a lid. He also makes sure to wash his hands before storing water to ensure the water does not become contaminated after boiling.



QUESTIONS

What causes diarrhea?

Bacteria spread through food, water, or people.

What is one strategy to help prevent diarrhea?

Boiling water before using it and storing it in a sterile container with a lid.

Why should you wash your hands before storing water?

To prevent the water from being contaminated before storing.



ACTIVITY 6.2



ACTIVITY 6.2

Another way the Chandekar family prevents the spread of harmful bacteria is handwashing often. Mom and dad make sure to wash their hands before preparing food or eating and after using the bathroom or changing diapers. They also help their children wash their hands before eating.



QUESTIONS

When should you wash your hands?

Before preparing food, before eating, after using the bathroom, after changing a diaper.

What are the steps to proper handwashing?

Wet hands, Apply soap to hands, Lather soap into hands, Rinse hands of soap, Dry hands using paper or cloth.



ACTIVITY 6.3



ACTIVITY 6.3

The Chandekar family built a basic handwashing station so that they can easily wash their hands when it is necessary. They learned that handwashing stations are simple, cost effective, and can help keep their family healthy. There are many ways to make a portable handwashing station and different models may be made depending on functional need.



QUESTIONS

When should portable handwashing stations be utilized?

When the kitchen or bathroom areas do not have a sink available, when water is not safe to use for handwashing, and when water is turned off to the available sink.

What are the basic equipment needed to create a portable handwashing station?

A covered container with a spout to hold potable water, a bucket or container to catch water, soap (or ash if soap is not available), and paper towels.



ACTIVITY 6.4



ACTIVITY 6.4

Dad helps by sterilizing pots, pans, bottles, dishes, and utensils in a bleach solution or boiling water between uses. Mom sanitizes food preparation surfaces with a bleach water solution daily. She also makes sure to keep food that is sitting out covered so it isn't spoiled by bugs or dirt.



QUESTIONS

Why is it important to keep cookware, dishes and utensils clean?

Eating with dirty plates, bowls utensils can spread harmful bacteria that cause diarrhea and other illnesses.

What methods can be used to sterilize pots, pans, dishes and utensils?

Boiling water or a solution of 8 milliliters of chlorine bleach with 4 liters of water. Allow solution to sit for 30 minutes before use.

What solution can you use to sanitize food preparation surfaces?

4 liters of water combined with 15 mL of chlorine bleach. Allow solution to sit for 30 minutes before use.

How can you prevent bugs and dirt from spoiling food that is left out?

Cover food that isn't being actively eaten.



ACTIVITY 6.5



ACTIVITY 6.5

Mom and dad remember to keep dry and canned goods in a cool, clean, and dry area. Keeping the food storage area clean is important to them because exposed food and unclean food storage can attract pests and animals that may carry harmful diseases that put their family at risk.



Questions

What should your pantry or storage for dry and canned goods be like?

- Pantry should be kept cool, clean, and dry.
- Items should be kept on shelves and off the floor.

How should you store cleaners and chemicals?

Cleaners and chemical should be clearly labeled, closed tightly, and underneath any food supply or stored separately.



ACTIVITY 6.6



ACTIVITY 6.6

The Chandekar family uses an improved latrine with a handwashing station nearby to benefit their family's health.

QUESTIONS

What are the components of an improved latrine?

Toilets are covered and/or waste is flushed away.

What should be nearby the latrine?

A handwashing station.

How does this help keep people healthy?

When toilets are covered or waste is flushed away, it limits the opportunity for flies to land on feces and spread bacteria or be spread by human contamination (unwashed hands or shoes) to food or other people. It reduces soil contamination and contaminated food.



ACTIVITY 6.7



ACTIVITY 6.7

There are many things you can do to help keep your family healthy. When you prioritize good nutrition, positive interaction, physical activity, safe feeding and eating, and sanitation and hygiene like the Chandekar family, you are taking care of your family.

QUESTIONS

What are some things you can do to keep your family healthy?



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References

1. Black RE, Victora CG, Walker SP, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet* 2013; 382(9890): 427-51.
2. DeLacey E, Tann C, Smythe T, et al. Learning from the Implementation of the Child Nutrition Program: A Mixed Methods Evaluation of Process. *Children* 2022; 9: 1965.
3. Guyon A. QV, Nielsen J., Stone-Jimenez,. Essential Nutrition Actions and Essential Hygiene Actions Reference Manual: Health Workers and Nutrition Managers. Washington, DC: CORE Group, 2015.
4. Hayes J, Quiring M, Kerac M, et al. Mid-upper arm circumference (MUAC) measurement usage among children with disabilities: A systematic review. *Nutrition and Health* 2023. DOI:10.1177/02601060231181607.
5. HemoCue AB. HemoCue Hb 801 System Operating Manual. hemocue.com: HemoCue AB; 2023.
6. JSI Research & Training Institute, Inc. Infant and Young Child Feeding Image Bank. <https://iycf.advancingnutrition.org/> (accessed 2020).
7. Kaplan T, DeLacey E, Quiring M, et al. Holt's International's Feeding and Positioning Manual: Guidelines for Working with Babies and Children. Eugene, Oregon: Holt International; 2019.
8. UNICEF. The Community Infant and Young Child Feeding Counselling Package: Facilitator Guide. In: URC/CHS, editor.; 2013.
9. United Nations Children's Fund (UNICEF). Seen, Counted, Included: Using data to shed light on the well-being of children with disabilities. New York: UNICEF; 2021.
10. Werner D. Disabled Village Children: A Guide for Community Health Workers, Rehabilitation Workers, and Families: Hesperian Foundation; 1987.
11. WHO Multicentre Growth Reference Study Group. WHO Child Growth Standards: Head circumference-for-age, arm circumference-for-age, triceps skinfold-for-age and subscapular skinfold-for-age: Methods and development. Geneva: World Health Organization, 2007.
12. WHO Multicentre Growth Reference Study Group. WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for height and body mass index-for-age: Methods and development. Geneva: World Health Organization, 2006.
13. World Health Organization. Essential Nutrition Actions. www.who.int; 2013.
14. World Health Organization. Growth reference data for 5-19 years. <https://www.who.int/growthref/en/>; 2019.
15. World Health Organization. Training Course on Child Growth Assessment: Measuring a Child's Growth. Geneva, Switzerland: WHO; 2008.
16. World Health Organization. WHO Hemoglobin concentrations for the diagnosis of anemia and assessment of severity. Geneva: Vitamin and Mineral Nutrition Information System, 2011.