



Maternal, Infant, and Young Child Nutrition in Malawi

Community Nutrition Workers

RECIPE BOOK



Photos by Osborne Sibande



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IYCN USAID's Infant
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Nutrition Project

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Preface

Malnutrition continues to be a public health and development insult in Malawi. Stunting, wasting, underweight, and deficiencies in micronutrients (iron, vitamin A, and iodine) are common. Although a recent Malawi Demographic Survey report¹ shows a reduction in prevalence of chronic malnutrition in children under five, malnutrition is still unacceptably high for a country that is politically and economically stable. Acute and chronic illnesses, as well as inadequate feeding practices by caregivers, are among the major causes of malnutrition and poor growth among children in Malawi. Inadequate feeding practices may result from lack of skills to optimally prepare and serve food to children as well as lack of access to high-quality foods.

The Malawi government recognizes the importance of proper nutrition for Malawians. To this end, the government has created a conducive policy environment for promoting adequate nutrition for the populace through the formulation of the National Nutrition Policy and Strategic Plan (NNPSP). This recipe book has been developed in pursuit of the translation of the NNPSP to everyday life. The book has been substantially adapted from the *I-Life Consortium in Malawi* recipe book and from *Recipe Book on Zambian Traditional Foods*.

This recipe book is part of the training package for the Infant & Young Child Nutrition (IYCN) Project implemented by PATH; it can also be used as a standalone document. The IYCN Project engages community nutrition workers to provide maternal, infant, and young child nutrition counselling and support to caregivers in the community. It is expected that community nutrition workers will use this recipe book as a guide to help caregivers adequately feed children. The recipes can be adapted to suit the individual caregivers' situation, taking into account available food resources in the household.

The main focus for this recipe book is on pregnant and lactating women and children younger than 24 months. Inadequate nutrition during pregnancy and the first 24 months after birth can cause irreversible growth deficits resulting in increased morbidity, complications of delivery, and reduced productive capacity. Thus, lifelong benefits can be realized if adequate nutrition is ensured during this period.

The book has been demarcated into three parts. Part 1 provides information on appropriate feeding practices. The purpose is to provide goals for optimal feeding. The second part briefly discusses processing and preservation methods for ingredients that may be used in complementary feeding. Part 3 contains recipes for complementary foods as well as foods for pregnant and lactating women. Recipes have been organized according to the age of the child. These recipes are not meant to replace the normal household meals but to complement such meals so as to improve the dietary intakes.

¹ National Statistical Office. *Malawi Demographic and Health Survey*. Zomba, Malawi; 2010.

Part 1: Appropriate maternal and child feeding practices

Introduction

Every pregnancy should be planned so a woman can structure her diet to enter pregnancy in good health. Well-being of the child-to-come depends on well-being of the mother. Pregnant women need proper nourishment throughout pregnancy. From conception to birth, all parts of the fetus are made from nutrients that come from the pregnant woman. Proper nutrition is crucial to avoid compromising the health of the mother and fetus due to higher physiological and metabolic demands made on the woman. Pregnant women should consume an extra main meal in a day and ensure that the meals contain a variety of foods.

Equally important is adequate nutrition of the mother during breastfeeding/lactation. The process of lactation is nutritionally demanding for women. Poor nutrition affects the quality of breastmilk. When the mother is malnourished, muscle protein is mobilized to maintain milk protein content. This may accelerate wasting in lactating women. Lactating women should increase intake of most nutrients. Eating a variety of foods at each meal—including fruits, vegetables, meat, or milk products—can increase nutrient intake. Breastfeeding mothers should eat at least three main meals a day. In addition, they should drink something every time they breastfeed—milk, water, *thobwa*, or juice are best.

For the first six months after birth, babies should be exclusively breastfed. Breastmilk contains enough nutrients for optimal growth and development of the infant during this period. After six months, however, breastmilk alone is not adequate to meet the nutritional needs of infants. Infants, therefore, need to be fed other foods in addition to breastmilk. Complementary foods are foods given to children in addition to breastmilk or breastmilk substitutes. The foods can be specially prepared or routinely consumed family foods. It is important that complementary foods are not introduced to the child earlier than six months because the child's digestive system is not mature enough to digest other foods apart from breastmilk.

Appropriate complementary feeding involves a combination of practices to maintain breastmilk intake and, at the same time, improve the quantity and quality of foods that children consume. Good complementary foods should be high in energy and other essential nutrients to ensure adequate growth and development of children. Complementary foods should also be soft enough (e.g., thin in consistency) and easy to digest. They should not contain any bones or hard pieces that may cause choking. Foods should also be given frequently. Frequent feeding is necessary for young children because they have small stomachs and cannot eat much at one time. Complementary foods should not have strong flavor and odor, such as spicy and salty foods.

In Malawi, the traditional complementary food is porridge prepared from maize flour and in some areas from cassava flour. Such porridge is bulky and low in energy and other nutrients. The porridge can be improved by adding energy-rich foods such as oil, margarine, avocado, or groundnut/legume flours. The bulkiness of the porridge can also be reduced by using flours from germinated or fermented cereals. Such porridge does not thicken as much as ordinary porridge. The porridge from flour of germinated cereals can be made with less water and so contain more energy and nutrients in a smaller volume. The other advantages of flours from germinated cereals include better absorption of iron and easier digestion. It is also safe because germs cannot grow easily in fermented porridge.

Feeding healthy children

Feeding children sometimes requires patience and creativity from the caregiver to ensure that the child eats adequate amounts of the food. Here are some tips to assist caregivers in feeding children (responsive feeding).

- Give more attention when the child eats well and less when it refuses food. A child may try to gain attention by refusing food especially if the child is unhappy or insecure.
- Make meal times peaceful and happy times. Children who are stressed may eat less food than those who are happy and relaxed.
- Feed the child slowly without rushing.
- Put the child's food on a separate plate to ensure the child gets his/her share, or make sure the child can reach all the foods in a meal.
- Feed when the child is hungry and not tired.
- Give a variety of foods, and mix the foods together so that the child does not pick out and eat only his/her favorite ones.
- Do not force the child to eat. If the child refuses food, take it away, cover it and offer it later.
- A thirsty child eats less. Make sure the child is not thirsty, but do not give a child too much drink before a meal.
- Feed the child in a clean environment to avoid distractions and food contamination.
- Give priority to children when serving food, because they are growing and their nutritional needs are high.
- Caregivers, including men, should take part in feeding the child in order to encourage the child to eat more.
- Include oil-rich foods together with vitamin A-rich foods in meals for better utilization of vitamin A.
- Promote use of vitamin C-rich foods together with plant-based, iron-rich foods for better utilization of iron by the body.
- Talk to children during feeding.

Responsive feeding

- Feed infants directly and assist older children when they feed themselves. Feed slowly and patiently, and encourage children to eat, but do not force them.
- If children refuse many foods, experiment with different food combinations, tastes, textures, and methods of encouragement.
- Minimize distractions during meals if the child loses interest easily.
- Remember that feeding times are periods of learning and love—talk to children during feeding, with eye-to-eye contact.

Feeding sick children

- Keep the child clean and comfortable before feeding.
- Give small meals using foods that are easy to swallow and that the child likes.
- Feed the child more frequently (e.g., every two hours).
- Give the child adequate liquids to drink, especially if the child is suffering from diarrhea or fever, and continue breastfeeding.
- Give children extra food during recovery period so that they regain lost weight.

- If the child continues to refuse food, consult a health worker.

Good hygiene and proper food handling

Complementary foods can become contaminated with germs that can cause diseases such as diarrhea, which is particularly common in children 6 to 12 months old. Observing good hygiene practices during food preparation, feeding, and storage can prevent contamination and reduce the risk of diarrheal diseases. The following hygienic practices should be followed:

- Use safe drinking water that has been treated (for example by boiling) for washing, rinsing utensils, and preparing and cooking food for children.
- Store food and drinking water in clean covered containers and protect food and water from contamination by rodents, insects, and other animals.
- Use clean utensils to prepare and serve food. All utensils, such as cups, bowls, and spoons, used for an infant or young child's food should be washed thoroughly.
- Wash utensils immediately after feeding the child.
- Wash caregivers' and children's hands before food preparation and eating.
- Keep food preparation surfaces clean all the time.
- Cook food thoroughly.
- Serve children using clean cups and spoons and never use feeding bottles.
- Serve foods immediately after preparation; do not keep food at room temperature for more than two hours.
- Keep raw food materials away from cooked food.
- Store food safely in a dry place.
- Cover all open wounds and sores when handling the food.
- Keep hair short and covered when preparing food to prevent contamination.
- Dispose of child feces in a toilet or latrine.

Feeding children 6 to 9 months old

The 6- to 9-month period is a critical time for feeding infants because infants are just learning to consume other foods in addition to breastmilk. Infants must therefore be fed soft foods frequently and patiently. At 6 months of age, all babies need other foods in addition to breastmilk because:

1. Breastmilk alone cannot supply all the energy and nutrients required for growth and development.
2. Children at this age are able to eat and digest other foods.

However, care must be taken to ensure that these foods complement rather than replace breastmilk. Mothers should therefore continue to:

- Breastfeed the child on demand.
- Give the child complementary foods (e.g., enriched porridge, mashed fruits, and mashed vegetables such as pumpkin).
- Give fluids (e.g., water and homemade fruit juices).
- Avoid giving drinks with low nutrient values such as tea, coffee, and sugary beverages.

How to feed porridge to a baby 6 to 9 months old

- For the average healthy and frequently breastfed child, complementary food should be given two to three times a day.
- Give the child about half a cup of food per feeding (e.g., 50–100 ml) since their stomachs are small.
- Feed the baby from a cup or plate using a spoon.

Feeding children 10 to 12 months old

As children grow, their nutrient requirements also increase. There is a need to increase the amounts, consistency, variety, and number of complementary feedings to fill the gap between nutrients supplied by breastmilk and the child's nutrient needs. At around 9 months, a child needs to start eating soft *nsima* and other family meals in addition to weaning foods and breastmilk. These children should eat from a plate of their own. Eating from the same plate with older children or the rest of the family may prevent young children from eating enough food. Below are some guidelines that can be followed:



- Continue breastfeeding the child as needed and demanded.
- Give the child complementary foods such as:
 - Energy-dense combinations of soft food.
 - Finger foods (snacks that can be eaten by children).
 - Foods from the family diet (at about 12 months of age).

Foods from the family meals should be prepared as follows:

- Take out the child's food before adding any strong seasonings—children prefer food without strong flavor and odor.
- Soften the child's food with broth from meat, fish, or vegetables or with margarine or oil.
- Mash the food (e.g., boiled eggs, fruits, vegetables) with a fork or wooden spoon.
- Cut cooked meat and fish into very small pieces and take out all the bones.
- Increase quantity and feeding frequency of the complementary food as the child grows.
- Gradually increase food consistency and variety as the child grows older, adapting the diet to the child's requirements and ability.

Feeding children 13 to 24 months old

By the age of 12 months, children can eat suitable family meals and snacks. Therefore the child can be fed three family meals everyday (breakfast, lunch and dinner), one to two snacks between the meals, and breastmilk as demanded. Good snacks for young children should include foods that will encourage chewing to strengthen their teeth and jaws. The foods may include the following.

- Mashed or diced fruits (e.g., pawpaw, mango, avocado pear, banana).

- Mashed sweet potato (yellow colored).
- Boiled egg.
- Bread with margarine or groundnut paste (*chiponde*).
- Boiled (pasteurized) goat's or cow's milk.

Part 2: Processing and preserving ingredients

Sometimes caregivers have limited time to prepare food. The ingredients used for preparing complementary foods may require some form of pre-treatment to reduce the cooking time or improve the nutritional value of the food. In this part of the booklet, a number of processes are explained to enable caregivers to prepare ingredients for use in complementary feeding. These ingredients can be prepared and stored for use whenever they are needed.

Dried sweet potato chips or grates

1. Wash sweet potatoes and peel with a clean knife.
2. Grate or slice the potatoes into small pieces.
3. Soak in cold water containing lemon juice (20 ml or two lemons per 15-liter bucket) for 10 to 15 minutes to prevent browning.
4. Dry on a raised stand (*thandala*) or in a solar dryer.
5. Put the dried potatoes in a bag and store in a dry place.
6. The dried potatoes can be milled into flour.

N.B: When the potatoes are prepared in good time there is no need of soaking overnight.

Dried cassava chips or grates (sweet varieties)

1. Wash the cassava tubers and peel with a clean knife.
2. Grate or slice the cassava tubers into small pieces.
3. Dry on a raised stand (*thandala*) or solar dryer.
4. Put the dried chips in a bag and store in a dry place.
5. The dried chips can be milled into flour.

Malting of cereals for use in complementary foods

1. Clean the grains by removing all broken and moldy seeds. The grains should not be shriveled, but should be fully matured and properly dried (not damp).
2. Soak the cleaned grain in clean water at room temperature for at least 6 hours. For every cup of grain, use one and a half cups of water.
3. After 6 hours of soaking, drain the water from the grain. Add fresh water to the grain and rinse.
4. Place the steeped grain in a winnowing basket and cover to maintain the moisture in the grain.
5. The grain should be left to germinate for 4 to 6 days until the shoot is about 1 to 2 cm long.
6. Dry the germinated seeds on a mat spread out in the sun. Separate any tangled clumps to avoid the growth of molds.
7. Turn the malt frequently to facilitate drying.
8. Dry the malt until the roots break when rubbed between fingers.
9. Mill the malt immediately.

Soybean flour

1. Clean soybeans by removing stones and dirty and moldy beans.
2. Boil adequate water depending on the amount of soybeans (1 part soybeans to 3 parts water).
3. Drop the beans into boiling water without causing the water to stop boiling.

4. Boil the soybeans for 30 minutes.
5. Remove soybeans from the fire, drain the water from the soybeans, and rinse in cold water.
6. Remove the skins of the cooked beans (dehull) by rubbing between hands while rinsing with cold water.
7. Dry the dehulled beans in the sun until they are fully dry and do not stick to each other. Dried beans can be stored for 3 to 4 months.
8. The dried beans can be milled into flour at a local mill. This flour should be kept in a dry place and used within 1 month. The flour does not keep for long before it starts to have maggots.

Pre-treated pigeon pea or cowpea flour

1. Clean and sort the pulses (cowpeas or pigeon peas or beans or ground beans).
2. Boil adequate water depending on the amount of the peas or beans.
3. Drop the beans into boiling water without causing the water to stop boiling.
4. Boil for 15 to 20 minutes.
5. Remove the pulses from the water and roast/bake in an oven for 45 minutes.
6. Remove the pulses from the heat and dry in the sun.

Popped sorghum flour

1. Clean the grains by removing all broken and moldy seeds. The grains should not be shriveled, but should be fully matured and properly dried (not damp).
2. In a pan, roast the sorghum to make it pop.
3. Mill the popped sorghum into flour.

Groundnut flour

1. Sort nuts, removing all discolored and moldy nuts.
2. Grind the nuts in mortar.
3. Sieve to separate out any large pieces to regrind.
4. Keep the flour in a container in a dry place

Likuni phala flour

1. Clean and sort 8 parts of maize grains.
2. Clean and sort 1 part of groundnuts.
3. Clean and sort 1 part of pulses (cowpeas or pigeon peas or beans or ground beans).
4. Soak the pulses in cold water for about 3 hours.
5. Remove the pulses from the water and roast/bake in an oven for 45 minutes.
6. Remove the pulses from the heat and dry in the sun.
7. Mix the maize, groundnuts, and pulses, and mill into flour.

New likuni phala (maize)

1. Clean and sort 4 parts of maize.
2. Clean soybeans by removing stones and dirty or moldy beans.
3. Boil adequate water depending on the amount of soybeans (1 part soybeans to 3 parts water).
4. Drop the beans into boiling water without causing the water to stop boiling.
5. Boil the soybeans for 30 minutes.

6. Remove soybeans from the fire, drain the water, and rinse in cold water.
7. Remove the skins of the cooked beans (dehull) by rubbing between hands while rinsing with cold water.
8. Dry the dehulled beans in the sun until they are fully dry and do not stick to each other.
9. Measure 1 part dehulled soy beans.
10. Mix the 4 parts of maize and the 1 part of dehulled soybeans.
11. Mill the mixture into flour.

New likuni phala (rice, cassava, sweet potatoes)

1. Clean soybeans by removing stones and dirty or moldy beans.
2. Boil adequate water depending on the amount of soybeans (1 part soybeans to 3 parts water).
3. Drop the beans into boiling water without causing the water to stop boiling.
4. Boil the soybeans for 30 minutes.
5. Remove soybeans from the fire, drain the water, and rinse in cold water.
6. Remove the skins of the cooked beans (dehull) by rubbing between hands while rinsing with cold water.
7. Dry the dehulled beans in the sun until they are fully dry and do not stick to each other.
8. Measure 1 part dehulled dry soy beans.
9. Mix 3 parts of either rice, dried cassava, or sweet potato chips with 1 part of dehulled soybeans.
10. Mill the mixture into flour. Keep dry in a tightly closed container.

Instant cassava or sweet potato flour

Ingredients

- 12 cups cassava or sweet potato flour (1 kg)
- 4 cups processed soybean flour
- 4 cups white maize flour
- 4 eggs
- 1 cup sugar
- ½ cup cooking oil
- 1 teaspoon salt

Method

1. Mix together the cassava flour, soybean flour, white maize flour or rice flour, and salt.
2. Break and beat the eggs; add the sugar and cooking oil and mix well.
3. Add the liquid mixture to the dry mixture of flours and mix well using the tips of your fingers.
4. Bake for about 30 min in small portions depending on the size of the pan; make sure that the mixture does not burn but is cream to light brown in color.
5. Take off the heat and leave to cool.
6. Once it is cooled, make sure that it is dry.
7. Sieve the flour and pound the large particles in a mortar; sieve until finished.
8. Mix the flour well and keep dry in a tightly closed container.

Soy milk

1. Clean soybeans by removing stones and dirty or moldy beans.
2. Boil adequate water depending on the amount of soybeans (1 part soybeans to 3 parts water).
3. Drop the beans into boiling water without causing the water to stop boiling.
4. Boil the soybeans for 30 minutes.
5. Remove soybeans from the fire, drain the water, and rinse in cold water.
6. Remove the skins of the cooked beans (dehull) by rubbing between hands while rinsing with cold water.
7. Grind dehulled soybeans in a blender or mortar.
8. Mix ground beans with water (3 parts) and boil for 8 minutes, then sieve with a cheesecloth to obtain milk.
9. Add 4 more parts of water to the milk, and boil the milk.
10. The milk is ready for serving (can be used just like cow or goat milk).

Part 3: Recipes

Complementary foods for children aged 6 to 9 months

Instant cassava porridge

Ingredients

1 tablespoon instant cassava flour
½ cup cold water
¼ teaspoon salt
1 teaspoon sugar (optional)

Method

1. Mix the instant cassava flour with the cold water; make sure there are no lumps.
2. Bring to heat and continue stirring until it starts to simmer.
3. Simmer for 5 minutes.
4. Add the salt and optional sugar.
5. Feed the child while the porridge is warm.

Yield: One-third cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Instant sweet potato flour porridge

Ingredients

1 tablespoon instant sweet potato flour
½ cup water
¼ teaspoon salt
1 teaspoon sugar (optional)

Method

1. Mix thoroughly the instant sweet potato flour, water, and salt.
2. Heat the mixture while stirring continuously.
3. Simmer for 5 minutes.
4. Remove from heat and add the sugar.
5. Feed the child while the porridge is still warm.

Yield: One-third cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Banana sorghum porridge

Ingredients

¼ cup popped sorghum/soy flour
½ cup cow or goat milk
1 small banana
1 teaspoon sugar
Pinch of salt

Method

1. Combine the sorghum/soy flour with a quarter cup of milk.
2. Bring to the boil at medium heat and let it boil slowly for 5 minutes, stirring occasionally.
3. Mash the banana and a quarter cup of milk.
4. Combine banana and sorghum/soy mixtures.
5. Bring to the boil and immediately take off the heat; serve warm.

Yield: One-half cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Mashed sweet potatoes with milk

Ingredients

2 cups water
1 cup orange-flesh sweet potatoes, peeled and cubed
½ cup milk
1 teaspoon peanut butter
Pinch of salt

Note: Use orange-flesh sweet potatoes such as Zondeni or Kamchiputu to increase the vitamin A content of the dish.

Method

1. Boil the sweet potatoes and salt until well cooked.
2. Mash potatoes to fill 1 cup.
3. Add the milk until well mixed.
4. Feed mixture to the child while it is still warm.

Variation: Add margarine if available to improve the energy value of the dish.

Yield: One and a half cups

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

New likuni phala

Ingredients

¾ cup cold water
2 tablespoons new likuni phala flour
Pinch of salt
½ cup milk
1 teaspoon pounded leafy vegetables
1 teaspoon sugar

Method

1. Mix the flour with the cold water in a pot.
2. Place pot over heat and continue stirring until the porridge starts boiling.
3. Allow the porridge to boil on low heat for 10 minutes.
4. Add the salt and sugar.

5. Feed mixture to the child while it is still warm.

Yield: One-third cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Complementary foods for children aged 10 to 12 months

Mashed fruit (avocado pears) with milk

Ingredients

1 cup ripe avocado pear

½ cup milk (boiled)

Method

1. Peel and mash the ripe avocado pear.
2. Mix thoroughly the mashed avocado pear with milk.

Variations: If cow's milk is not available, goat's milk can be used instead. If avocado pears are not available, ripe bananas or pawpaws can also be used. If guavas are available, peel the guavas and cut into cubes. Boil the cubes until they are soft, and mash by passing through a sieve to remove the seeds. Use the mashed guavas.

Yield: One and a quarter cups

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Banana milk custard

Ingredients

1 cup cow's or soy milk

1 egg yolk only

2 tablespoons sugar

2 teaspoon cassava or sweet potato flour

1 banana

Method

1. Bring the milk to slow boiling over low heat.
2. Mash the banana and add to the boiling milk.
3. Mix the egg yolk, sugar, and cassava or sweet potato flour together in a bowl until well blended.
4. Add hot milk and banana to the eggs and sugar, mixing all the time
5. Return mixture to the pan and over a low heat gently stir with a wooden spoon until thickened.
6. Pour the custard into a cup and serve at once.

Yield: One cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Likuni phala with vegetables

Ingredients

¾ cup cold water
2 tablespoons likuni phala flour
Pinch of salt
½ cup milk
1 teaspoon pounded leafy vegetables
1 teaspoon sugar

Method

1. Mix the flour with the cold water in a pot.
2. Place the pot over heat and stir until the mixture starts boiling.
3. Allow the porridge to boil on low heat for 5 minutes.
4. Add pounded vegetables and cook for 2 to 3 minutes.
5. Add ½ cup milk.
6. Add salt and sugar.
7. Feed the child while mixture is still warm but not hot.

Variation: If there is no milk, then use pounded small fish or organ meat.

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Maize, fish, and vegetable porridge

Ingredients

¾ cup cold water
2 tablespoons whole maize flour
1 tablespoon pounded fish
Pinch of salt
1 teaspoon pounded vegetables
1 teaspoon sugar

Method

1. Mix the flour and pounded fish with cold water in a pot.
2. Place the pot over heat and stir until the mixture starts boiling.
3. Allow the porridge to boil on low heat for 5 minutes.
4. Add pounded vegetables and cook for 2 to 3 minutes.
5. Add salt and sugar
6. Feed the child the mixture while still warm but not hot.

Variation: Can use ½ cup milk instead of pounded small fish or organ meat

Yield: One-third cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Complementary foods suitable for children aged 13 to 24 months

Mashed sweet potatoes with groundnut or soy flour

Ingredients

2 cups water
1 cup orange-fleshed sweet potatoes, peeled and cubed
3 tablespoons groundnut or soy flour
Salt to taste

Method

1. Wash the sweet potatoes and peel off the skin.
2. Cut into pieces and cook until half cooked or slightly cooked.
3. Add the groundnut or soy flour and salt.
4. Cook until soft enough to mash.
5. Mash and serve while warm.

Variations: If sweet potatoes are not available, you can use cassava or pumpkin.

Yield: One and a half cups

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Meat and vegetable mash

Ingredients

½ cup sweet potato, peeled and diced
½ cup green peas or fresh beans/cowpeas/carrot
¼ cup liver or pounded meat
1 tomato (skin removed)

Method

1. Combine sweet potato, meat, and vegetables in a small pot.
2. Add enough water just to cover the mixture.
3. Cook until tender, reserving liquid.
4. Mash to the desired consistency for smaller babies, or chop as needed for an older child.

Yield: One cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Whole maize meal porridge with liver

Ingredients

2 tablespoons whole maize meal flour
1 cup water
¼ cup liver
Pinch of salt

Method

1. Cut the liver into small pieces.
2. Cook the liver until well done.
3. Add a pinch of salt.
4. Mash the cooked liver through a sieve.
5. Separately, mix the maize meal with the cold water in a pot, then place the pot over heat and stir until the mixture starts boiling.
6. Allow the porridge to boil on low heat for 5 minutes.
7. Add mashed liver and mix thoroughly.
8. Serve warm but not hot.

Yield: One cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Rice, carrot, groundnut flour, and milk porridge

Ingredients

1 cup water
2 tablespoons milk
2 tablespoons rice
1 tablespoon groundnut flour
1 medium sized carrot
Pinch of sugar
Pinch of salt

Method

1. Cook the rice until done; add groundnut flour and milk.
2. Cook the carrot until done (10 minutes) and mash it.
3. Mix the rice-groundnut mixture with mashed carrot and add sugar and salt.
4. Serve warm but not hot.

Yield: One cup

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Mashed pumpkin, carrot, and rice mixture

Ingredients

2 cups water
1 cup pumpkin (peeled and chopped)
1 medium carrot (peeled and chopped)
1 teaspoon cooking oil
2 tablespoons milk
2 tablespoons rice

Method

1. Cook the rice until done.
2. Cook chopped pumpkin and carrot for 15 to 20 minutes or until tender.
3. Mash together the rice, pumpkin, carrot, cooking oil, and milk.
4. Serve warm but not hot.

Variation: Use peanut butter instead of cooking oil.

Yield: One and a half cups

Nutrition information: Rich in energy, protein, vitamin A, vitamin C, iron

Recipes for pregnant and lactating women

Pounded cowpea relish

Ingredients

1 cup cow pea grits
½ cup groundnut flour
1 tomato
1 onion
3 cups water
Salt to taste



Method

1. Put water into a pot and boil it.
2. Add the cowpea grits and boil for 10 to 15 minutes.
3. Add groundnut flour and cook for another 5 to 10 minutes.
4. Chop tomato and onion.
5. Add chopped tomato and onion to the mixture in the pot.
6. Cook for another 5 minutes.

Nutrition information: Rich in protein, vitamins, and minerals

Bambara sausages

Ingredients

2 cups wet-treated bambara nuts
1 onion
1 tomato
1 teaspoon curry
½ cup wheat or cassava flour
½ cup cooking oil
½ cup water
Salt to taste



Method

1. Pound the wet-treated bambara nuts
2. Chop half of the onion.
3. Add curry, salt, and chopped onion to the paste and continue pounding.
4. Add flour (the flour serves to bind the mixture).
5. Roll the mixture into sausage shapes and fry in cooking oil until golden brown.
6. Chop the tomato and the rest of the onion.
7. Fry the chopped onion and tomato in a little cooking oil to make gravy.
8. Add the gravy to the sausages.
9. Add about ½ cup water and simmer for 10 to 15 minutes.

Note: These sausages can also be made from soybeans and cow peas.
Nutrition information: Rich in protein, carbohydrates, and minerals

Soya mash

Ingredients

1 cup cooked soybeans
2 eggs
2 green peppers
2 tomatoes
1 onion
2 tablespoons cooking oil
Salt to taste

Method

1. Mash the cooked soybeans and place in a frying pan.
2. Place the pan on heat while turning continuously until the water dries out.
3. Add cooking oil and continue frying until light brown.
4. Chop tomatoes, onions, and green pepper.
5. Add salt, chopped tomatoes, and green pepper to the fried mash.
6. Cook for about 5 minutes.
7. Break the egg in a cup to make sure it is fresh.
8. Add the egg to the mixture and stir well.

Nutrition information: Provides proteins and vitamins

Pumpkin seed mince balls

Ingredients

2 cups pumpkin seeds
1 cup water
1 onion
1 tomato
2 tablespoons cooking oil
Salt to taste

Method

1. Select and thoroughly wash good pumpkin seeds.
2. Pound the seeds in a mortar until finely mashed.
3. Chop half the onion.
4. Add salt and chopped onion to mashed seeds and continue pounding.
5. Squeeze out the oil and make the mash into balls.
6. Boil the mince balls until cooked.
7. Chop the remaining half onion and tomato.
8. Fry the onion and tomato and add the mince balls.
9. Cook until the tomato and onion are done.

Nutrition information: Provides energy, protein, vitamins, and minerals

Snacks

Bambara milk (*mkaka wa nzama*)

Ingredients

2 cups wet-treated bambara nuts
2 cups water
1 teaspoon sugar
Salt to taste

Method

1. Pound the bambara nuts into paste.
2. Put the pounded nuts into a bowl and then add water.
3. Squeeze the paste through a clean cloth to obtain milk.
4. Add sugar and salt to the milk.
5. Cool the milk.
6. Pour the milk in a jar.

Nutrition information: Provides energy, protein, vitamins, and minerals

Roasted pumpkin seeds

Ingredients

1 cup dried pumpkin seeds
Salt to taste

Method

1. Select and wash pumpkin seeds.
2. Roast the selected pumpkin seeds in a frying pan until brown.
3. Dissolve salt in water and add to pumpkin seeds in the frying pan.
4. Continue to roast until light brown.

Nutrition information: Provides protein, vitamins, and minerals (especially zinc and selenium)

Groundnut biscuits

Ingredients

1 cup wheat flour
1 teaspoon baking powder
Salt to taste
1 teaspoon sugar
2 tablespoons groundnut flour
1 teaspoon cooking oil
1 egg

Method

1. Sieve wheat flour and baking powder into a bowl.
2. Add salt, sugar, and groundnut flour.

3. Rub oil into the mixture.
4. Break egg into a cup and beat it.
5. Put the beaten egg into flour mixture and make a dough.
6. Roll out the mixture and make shapes as desired.
7. Place the shapes on baking sheet.
8. Bake in hot oven for 10 to 15 minutes.

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