



WHOLESOME BABY FOOD RECIPES

from Asian homes to complement breastfeeding

Acknowledgments

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Preface

ANY YEARS AGO a scientist working in UN asked me if International Baby Food Action Network (IBFAN) would have evidence to say that family foods or indigenous foods work for complementary feeding. I began asking friends whether we need to work on this and asking myself why those children who eat normal and diverse foods are doing well in India and are not undernourished. So the real question was between those who have and those who don't have access to food.

Asia has been a huge repository of biodiversity, which has given rise to a variety of food cultures that have survived for millennia, including cultures related to the feeding of infants and young children.

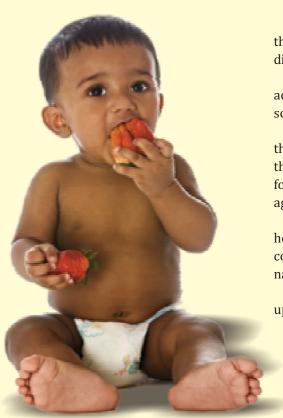
Today, these ancient food cultures are threatened with the relentless and aggressive marketing of baby milks and foods. Baby food manufacturers devalue home cooked foods, and project their own foods as being complete – meeting all the nutritional needs of growing children. Often food companies have done it by methods that are full of lies, e.g., by the use of unfounded health claims, use of health systems and medical advice, as well as policy interference at high level. Industry uses science to tell people to consume their products.

Such marketing does not merely replace the diversity of the foods used to traditionally feed children with uniformity, but it also makes the family dependent upon foods produced and processed outside their control.

Science also tells us that ultra-processed foods are harmful to human health.

Studies from several Asian countries have shown that dependency on purchased, processed baby foods increases the health costs for the family as well as for governments. There is thus an urgent need at both the family level as well as the national level to promote complementary feeding based on diversity of locally grown foods, to devise recipes that will incorporate all the essential nutrients for infants and young children – food that is processed at the family level and not in factories. This is critical because early nutrition sets the trend for life course.

Complementary feeding based on diversity of foods is also vital for giving a good foundation to healthy eating habits. Health problems like obesity and non-communicable diseases like cancers, heart problems and diabetes are increasingly being linked to the consumption of sugars and commercially processed foods.



In addition, complementary feeding based on diversity allows for the optimal development of the infant because it exposes him/her to different colours, textures, tastes, smells, and shapes.

Studies from several Asian countries have shown that

In the compilation of complementary feeding recipes from dependency on across Asia, we have tried to combine traditional wisdom with the latest scientific evidence on the nutritional needs of infants and young children. baby foods increases

Since these recipes come from the homes of families, I hope over the health costs for the years more will be added to these flavours and textures. We hope that the family as well as these recipes will make complementary feeding an exciting experience for both parents and children, and guide governments and international agencies into developing policies that encourage diversity-based feeding.

The book highlights what is best for future generations and will hopefully serve as a guide for the whole world in its fight with the commercial sector, whose ultra-processed products are competing with natural family foods.

As years pass by, the book, I hope, would be an example to keep up local foods from the family pot!

Dr. Arun Gupta Regional Coordinator IBFAN ASIA Asian countries have shown that dependency on purchased, processed baby foods increases the health costs for the family as well as for governments

The need for this book



A DEQUATE AND APPROPRIATE complementary feeding of infants and young children has been recognized as a crucial step in infant growth and development, and to prevent malnutrition. WHO and UNICEF have brought out publications on complementary feeding.

So why is there are need for an IBFANAsia book on complementary feeding?

Asia, particularly South Asia, has the highest number of malnourished children in the world. Inadequate breastfeeding and complementary feeding result in malnutrition.

The global food trade is finding a huge market in malnutrition. Driven by corporate money and power, governments and international bodies are entering into "public-private partnerships" with food corporations to find solutions for preventing and treating malnutrition. More often than not, these solutions are commercial products – fortified milks, baby foods, etc. However, malnutrition can be both prevented and treated with proper use of locally available, locally grown foods, prepared and fed to the child in the right way.

Concerned at the increasing pressure globally and nationally to dilute laws that protect breastfeeding and allow markets to determine infant feeding practices, participants from several Asian countries met in Mongolia at the OneAsia Breastfeeding Partners Forum 8 organised by IBFANAsia in 2011 and expressed the need for a compilation of recipes based on locally grown foods to counter the pressures of the food manufacturing industry. The idea was taken forward at the World Breastfeeding Conference held at Delhi in 2012, and the OneAsia Breastfeeding Partners Forum 9 at held at Laos in 2013. Participants from different countries contributed recipes, which have been adapted where needed to ensure that they meet the nutritional requirements of the child.

The recipes have been compiled for four specific reasons:

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TO PROMOTE PROPER GROWTH AND PREVENT MALNUTRITION IN INFANTS AND YOUNG CHILDREN

children need only breastmilk for the first six months of life. Thereafter, they need other nutritious foods along with and mental breastmilk meet their evolving nutritional requirements and to fill the nutritional gap between the total needs of the infant and the amount being provided by breastfeeding. They should receive nutritionally adequate and safe

Good complementary
feeding helps the
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complementary foods while breastfeeding continues for up to two years of age or beyond. Complementary foods should be adequate in amount, containing various food groups to provide sufficient energy, protein, and micronutrients with optimum frequency as required for the age. Locally grown and available foods are inexpensive and culturally acceptable, and can meet these requirements adequately if they are prepared appropriately at home.

Good complementary feeding helps the child grow well as it contains all the nutrients needed for good physical growth and mental development. Inappropriate and suboptimal complementary feeding can lead to malnutrition and increase vulnerability to diseases. This further weakens the child, and the vicious cycle of malnutrition sets in.

This book has been developed to give guidance on how to prepare nutritious complementary foods from locally grown and available food resources. Local recipes have been enriched where needed, so that they provide all the nutrients that the child needs. It provides key strategies for the governments to ensure good complementary feeding of infants and young children.

TO PROTECT ASIAN BIODIVERSITY AND KNOWLEDGE SYSTEMS

Asia has a wide diversity of foods – both cultivated and wild, including meats and fish. Asia also has a wealth of knowledge of the healing and healthful properties of these foods, which has been accumulated over a thousand years of discovery and study.

The foods of Asia have provided livelihoods to thousands of farmers, pastoralists and fisherfolk for centuries. These foods have also contributed significantly to the nutrition of the people of these regions over millennia. However, along with development, much of this diversity of foods and knowledge is being devalued.

As families stop using many of these foods, the wide diversity of foods in the region begins to shrink, leading to the loss of livelihoods of farmers and fisherfolk. As knowledge about these foods, especially wild foods, is lost, the food basket of the family shrinks and contributes to the increase in malnutrition.

At the same time, global corporations are trying to take monopoly control over food resources and the

knowledge associated with them by applying for patents and claiming intellectual property rights on them. A recent example is Nestle's attempt to patent the healthful properties of fennel. These properties were identified to by local people over millennia, and the knowledge about it kept alive through oral and written traditions, as well as everyday use of the food.

The recipes selected for this book are intended to promote the use of locally found and grown indigenous nutritious foods, preserve the knowledge of their healthful benefits in the public domain, and to contribute to the livelihoods of farmers and fisher folk.

TO PREVENT COMMERCIALIZATION OF INFANT FEEDING

Modernization is changing the lifestyles of families and often increasing the workload of women both in the home and outside. Food manufacturing companies are taking advantage of this, and promoting their products as the best foods for children, through attractive advertising, discounts and special offers.

Besides increasing the costs of infant and young child feeding, many of the commercial food products for children have too much sugar, or salt or other chemicals that can cause harm. They can also become contaminated with several disease causing germs and micro-organisms. Thus commercial foods also often lead to disease, resulting in more expenses for health care.

This book addresses the needs of working parents, with recipes for nutritious mixes that can be made at home with locally grown foods and stored for a few days or weeks.

ENERGY DENSE FOODS

Children who are sick or malnourished require energy dense foods. This book contains a section on foods that are energy dense.

WHO CAN USE THIS BOOK?

• Parents and caregivers can use this book to experiment with recipes for complementary foods for their infants and young children.

• Community programme personnel and ministries of health and nutrition can adapt these recipes to meet local conditions to promote appropriate and adequate complementary feeding. INTRODUCTION • 07

How to use this book

To make it easy for the user, this book has been divided into several sections:

IMPORTANCE OF COMPLEMENTARY FEEDING

- Why continued breastfeeding is important
- Growth and development
- Complementary feeding as a learning experience

HOW MARKETS INFLUENCE COMPLEMENTARY FEEDING DECISIONS

WHAT IS GOOD COMPLEMENTARY FEEDING

- When to start complementary foods
- Why starting complementary foods too early can be dangerous
- Signs that a child is ready for complementary foods
- What foods to give as complementary food
- How to give complementary foods to
- Infants 6 months to one year
- Children one year of age and older
- Encouraging young children to eat

COMPLEMENTARY FOOD RECIPES

As many foods that can be used for complementary feeding and their preparation are common to several Asian countries, we divided the recipes by age. The same recipes can be mashed thoroughly for feeding younger infants, and small pieces left intact for older children. Even infants can be encouraged to try and feed themselves. The recipes have also been listed by country.

The recipes in this compilation are only samples of the creative ways in which parents across Asia use their local resources to prepare healthy and nutritionally adequate foods for their children. IBFAN ASIA encourages parents to try out these recipes and also experiment with new ones. IBFAN ASIA also encourages governments and organizations working in the area of child health and nutrition to localize these and other recipes so that children grow up well-nourished and healthy.

• Recipes for 6-9 months old infants

 $\bullet \ Recipes for infants \ and \ young \ children \ from \ 9 \ months \ onwards$

- Recipes for young children 12 months and older
- Nutritious snacks
- Nutritious mixes
- Energy dense recipes

RICH SOURCES OF MICRONUTRIENTS



Importance of complementary feeding



Complementary feeding is the gradual introduction of semi-solid and solid foods to the infant's diet, along with continued breastfeeding, till the child can fully feed herself/himself with ordinary family foods in adequate quantities. This transitional period is when the child is most vulnerable to malnutrition. The incidence of malnutrition rises sharply during the period from 6 months to 18 months of age in most countries, and the deficits acquired at this age are difficult to compensate for later in childhood.

Health and nutritional status, responsive care, early stimulation and active learning in the first three years are critical in the development of intelligence, personality, social behavior and enhanced lifelong learning capacity.

Research demonstrates that when children's earliest years are affected by hunger, poverty, disease, or whose minds are not stimulated by appropriate early developmental care at home and within the environment, their future is compromised. Such children are unable to develop to their full potential and productivity and thus contribute less to national development.

The WHO/UNICEF Global Strategy on Infant and Young Child Feeding (IYCF)/WHA Resolution 55.25 May, 2002 recommends that complementary foods should be

• Timely – meaning that they are introduced when the need for energy and nutrients exceeds what can be provided thru exclusive breastfeeding and frequent breastfeeding.







- Adequate meaning that they provide sufficient energy, protein and micronutrients to meet a growing child's nutritional needs.
- Safe meaning that they are hygienically stored and prepared, and fed with clean hands using clean utensils and not bottles and teats.
- Properly fed meaning that they are given consistent with a child's signals of appetite and satiety, and that meal frequency and feeding method- actively encouraging the child, even during illness, to consume sufficient food. Using fingers, spoon or self–feeding are suitable for this age

Optimal infant and young child feeding means

- Starting to breastfeed from the first hour after birth
- Exclusive breastfeeding for the first six months of life, whenever the baby wants, and giving nothing else, not even water
- Starting complementary feeding when the baby completes six months of age
- Continued breastfeeding with complementary feeding for at least two years and more

WHY CONTINUED BREASTFEEDING IS IMPORTANT

- Breastmilk continues to provide the infant with immuno-protective factors, like antibodies, which reduce the likelihood that it will become sick.
- The antibodies present in breastmilk continue to protect the infant against several common diseases, including diarrhea and respiratory diseases.
- At the beginning, the infant cannot consume enough complementary foods to meet its nutritional needs as its stomach is small. Breastmilk continues to provide significant amounts of energy, proteins and micronutrients that the baby needs.
- Continued breastfeeding appears to lower the risk of obesity, diabetes and certain childhood cancers.
- $\bullet \, Sucking \, promotes \, normal \, tooth \, development, which \, bottle \, feeding \, cannot.$
- Women who continue to breastfeed have lower risks of getting breast and ovarian cancer, diabetes, osteoporosis, heart disease and high blood pressure.

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GROWTH AND DEVELOPMENT

The first three years of life, beginning at conception are essential for growth and development; any shortfall in







growth or in mental development during this period of time may never be regained.

 $Growth\ refers\ to\ increases\ in\ child's\ body\ size\ and\ changes\ in\ their\ proportion.$

In the first two years after birth, height increases by 75%, and weight increases by four times. The brain grows fastest during this period, doubling in size.

Development refers to the orderly process of change in a child's abilities towards increasingly more complex ways of moving, thinking, speaking, feeling, and relating to people and objects in the environment. Growth and development are interdependent; for a child to be able to develop, she has to be growing as well.

Children who are better nourished are less lethargic, more curious and ready to explore, and therefore make better use of opportunities to learn how to solve problems and manipulate objects. Improving overall nutrient intake during early childhood can result in improved cognition in childhood and adolescence. About half of the adult's intelligence is inherited: about half is due to the environmental stimulation the child receives. Much



When a child is not gaining weight or is gaining weight more slowly than expected for more than one month in infants below four months of age, or two months in older infants, it is a sign of growth faltering. It may be the first sign of inadequate feeding in an otherwise healthy child. Growth faltering should be picked up immediately and the cause should be established. Growth Monitoring as a routine service using standards charts like WHO growth standards charts may help in early detection of faltering.

The health/nutrition worker should analyze the underlying factors for growth faltering which may be inadequate feeding or any acute illness, most commonly diarrhea and respiratory infections. Teething in the second half of infancy may also lead to decreased food intake. To address inadequate feeding, the health/nutrition worker must counsel the mother to exclusively breastfeed if the infant is below 6 months of age and increase the intake of appropriate complementary foods along with continued breastfeeding in older infants and young children.

of the effect of the child's environment occurs in the earliest years of life.

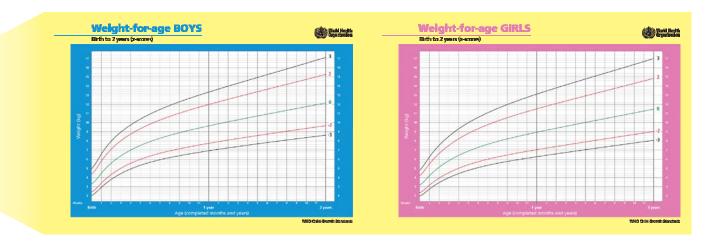
Parents can evaluate their children's growth, health and development because they are constantly interacting with their children. They can recognize signs of hunger and feed the child before crying begins. A responsive parent understands what a child is trying to do and can provide support for learning attempts and praise the child for what the child manages to do. They can detect the child's happiness or irritability. Parents may not recognize that a child is short or undernourished, but they can recognize a child who is constantly crying or child is trying to do and unhappy. Support for parents and families can improve all aspects of care for growth and for development..

COMPLEMENTARY FEEDING AS A LEARNING EXPERIENCE

The period of complementary feeding is full of learning experiences for the infant that are essential for growth and development as well for optimizing the complementary feeding impact.

The infant learns the differences between various flavors, aromas, appearances and textures of food; its

A responsive parent understands what a can provide support for learning attempts and praise the child for what the child manages to do



food preferences in later life are strongly influenced by learning and experience at this age. For example, feeding children only with sweetened foods may often lead to a preference for sugar that could result in problems of obesity and non-communicable diseases in adulthood.

Infants may take time to get used to the new flavors and textures of food. Some may need several exposures to a certain food over a period of time, with gaps between each exposure. Studies have shown that breastfed infants get adapted to new tastes and textures sooner than artificially fed infants, because they are already used to several flavors and odors transmitted through their mothers' milk.





Malnutrition and illness - their impact on learning

Malnutrition refers to the child's condition when too few nutrients are being used to replenish tissues for growth. Food shortage is a simple explanation, but many other factors contribute. The child who has an episode of severe malnourishment may have a lower IQ, and may never completely recover. Even children with mild to moderate malnutrition, or who have deficiencies of certain nutrients such as iron or iodine will run the risk of lower IQ. These effects are particularly strong prenatally and in the first two years of life.

Unlike malnutrition, illnesses do not have a direct effect on a child's ability to learn, but if illnesses are chronic or severe, the child's interest and opportunity to learn and explore will be limited. Over a long period of time, the cognitive, social, or emotional development of the child could be affected.



How markets influence complementary feeding decisions

E VER SINCE THE emergence of humankind, parents, especially mothers, have fed their infants and young children with foods that were needed to maintain their health – both breastfed them and given them other foods to eat as they grew older. The existence of humans till today is evidence of this. For millions of years such foods included a variety of life forms. Insects to larger animals like lizards, frogs, rats and snakes, birds and fish, shellfish, large mammals, as well as wild plants, roots, fruits and seeds provided growing children with adequate nutrients to meet their increasing needs. In many indigenous food cultures, foods from the wild continue to contribute significantly to infant and young child feeding.

Breastmilk was the primary source of energy. The infant was fed on demand, which enabled it to meet its entire energy needs. As many indigenous cultures show, breastfeeding continued well beyond two years of age, even up till the seventh year of life. In many cultures, including ancient Greek and several Asian cultures, infants were exclusively breastfed till the first teeth appeared, after which other foods were introduced.

Women mostly chewed the complementary food well before feeding the baby in the era of the hunter gatherer, as at this time there were few foods, if any, that could be easily fed to the baby. Most infections that could have passed from the mother to the baby were neutralized by the antibodies in breastmilk, as the mother continued to breastfeed her child. This is still being practiced in several parts of Asia today.

The development of agriculture introduced cereals into complementary feeding, and domestication of animals introduced animal milk. The shift from a hunter-forager society to an agricultural and a pastoral, and then to an industrial society has been an important reason for the decreasing period of breastfeeding. Today, the global norm for breastfeeding is exclusive breastfeeding for the first six months, followed by continued breastfeeding for two years and beyond. However, across the world, breastfeeding rates, especially exclusive breastfeeding, are low.

GROWTH OF COMMERCIAL INDUSTRY AROUND COMPLEMENTARY FOODS

Industrialization especially favoured the employment of women, who were willing to work for lower wages in unhealthy conditions for longer hours. This led not just to shortened periods of breastfeeding and early

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introduction of complementary foods, but also to the development of the processed food industry. The historical processes by which people secured food energy – hunting, gathering and agriculture – were replaced in the industrialized world by food industry.

Nutricia in Netherlands and Gerber Products (then called Fremont Canning Company) in the US were among the first companies to produce commercial complementary foods. They were soon joined by companies like Nestle, which were already manufacturing breastmilk substitutes, H.J. Heinz and several others.

By the 1920s, infant foods, which had grown to encompass ready-made baby cereals, fruits and vegetables, were promoted aggressively as convenience items, as well as superior to those made at home, and more "scientific". In this, they were greatly helped by the growing "science" of nutrition, and the involvement of the health system.

An 1880 advertisement by Mellins Food in Boston Daily Globe, April 11

"The Duty of Every Mother and especially those who are charged with the delicate and great responsibility of rearing hand-fed children, is to investigate the merits of the best artificial food for the preservation of infant life. The universal testimony of our most skillful physicians, and of thousands of mothers who have practically tested it, demonstrated beyond a doubt that Mellin's Food for Infants is the best, and contains exactly the ingredients necessary to insure the life and health of the little ones to develop them in body and mind, and secure robust health in childhood, manhood and womanhood."







Societal information on feeding and care of infants and young children became increasingly devalued, as did the resources used traditionally for this. The baby food industry has taken advantage of this, and presented its products as having all the nutrients that a growing child needs. With the growth of both nutrition as a "science" as well as market economies, well-to-do families and the educated class have begun to look down on both breastfeeding as well as the use of locally found and grown foods for complementary feeding.

In many countries, sourcing food no more means a trip to a tiny kitchen garden or the adjacent forest, where the woman has a choice between a variety of plants growing – not just satisfying hunger, but providing all the micronutrients needed. More and more, it means a trip to the supermarket to buy tins of manufactured baby food – processed and powdered cow's milk and grains to which chemicals in the form of micronutrients have been added.

The marketing techniques of baby food manufacturers are increasingly convincing people that meeting one's nutritional needs from such products is better than meeting them through consuming a diversity of natural foods.

THE BABY FOOD INDUSTRY IN ASIA TODAY

Today, the baby food industry is a thriving billion-dollar industry globally, dominated by Abbot, Mead Johnson, Nestle (which has bought out Gerber Foods) and Numico (Danone). In the U.S. alone, the average infant "consumes" 600 jars of baby food by its first birthday, in Europe about 240 jars.

In April 2014, Esther Renfrew, Market Intelligence Director at Zenith International, the specialist food and drink industry consultancy, assessed the global market for complementary foods at over US\$ 50 billion, predicted to grow at 8-9% annually in the next five years. The fastest growing regions, according to Renfrew, will be China at 19%, Indonesia with its high birth rate, and Japan. This is predicted to happen in spite of the declining fertility rates. These markets cannot grow unless more and more parents shift from homemade foods to industrially manufactured complementary foods.

The baby food industry thus spends huge amounts of money to attract parents both directly and through the health system. According to reports from retail industry, the advertising expenditure of Kraft Foods in the US alone

was US\$ 747 million for the year in 2012-2013. According to another report by AdAge, Nestle globally spent \$2.99billion in 2012 in advertising its products.

HOW THE BABY FOOD INDUSTRY LURES PARENTS

- Baby food manufacturers aim their promotion mainly at two targets the parent and the health system.
- Parents are bombarded with advertisements that project industrially processed foods as the best "scientific" nutrition that they can give their children.
- The companies make health claims, stating that their products contain specific ingredients that will enhance the infant's growth or intelligence, or eyesight, etc. Often these claims may not be completely accurate.
- Baby food manufacturers display their products attractively in shops and malls, so that parents are attracted to them. They also often have tie-ups with the shops and malls to provide incentives to promote their products.
- The internet provides baby food companies several ways of attracting parents either directly or indirectly.







Reaching parents through challenges, schools and books How Wveth "truth or dare" Gain School Advance -Nestle Baby and Me challenge increased its sales winning mothers' confidence No. 1 bestseller in Hong Kong in Philippines in India Despite having a brand awareness of With this campaign, Nestlé launched Gain School Advance, a nutritional 99%, Wyeth Gold had been declining milk brand from Abbott Laboratories 'Nestlé Baby and Me', a book for for three years in Hong Kong, as the aimed at children, targeted mothers expecting and lactating mothers in product caused 'digestive problems' India. The campaign addressed the to increase market share in the resulting in constipation in infants. Philippines. A key challenge was the lack of knowledge about nutritional Leveraging the insight that strict regulatory environment which needs in pregnancy and offered a knowledge-sharing happens in did not allow direct advertising of credible source of information. Nestle conversations between mothers, the formula milk. The campaign used the integrated information about Nestlé brand created a truth or dare insight that mothers were concerned nutrition brands into existing formats with their children' school challenge to have non-user mums by partnering with a publisher. Nestlé 'dare' other mums to try Wyeth Gold performance and launched a print, launched a book featuring ads, for 14 days and share their digital and on the ground strategy to promotional inserts and a branded experiences of the product. As a help mothers understand their child's bookmark, all of which made a result of the campaign, Wyeth Gold learning style. This included a strong impact on consumers, in increased its market share by 3.3%. workbook distributed in fee-paying terms of recall and connectivity with metropolitan schools, visits to prethe brand. The branded book sold schools to conduct seminars with over 300,000 copies during the initial mothers, and a website with couple of months of the campaign. information and worksheets for children. The campaign delivered a 20% increase in market share, ahead of the 12% growth experienced across the category.

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Enticing parents with health claims

Display in a mall in Sri Lanka has a picture of a person in the white coat of a health provider, giving the impression that these products are being recommended by him. The display also stocks colourful books for young children, another point of attraction.

HOW BABY FOOD MANUFACTURERS USE THE HEALTH SYSTEM TO PROMOTE THEIR PRODUCTS

Baby food manufacturers use the health system extensively to promote their products. As early as in 1934, the Wall Street Journal examined the nexus between the health professionals and the industry and noted that Competition from cheaper infant food products has been growing, but the quality of Mead-Johnson's products and the goodwill of the medical profession which has been painstakingly developed and retained, places the company in a position from which it cannot easily be dislodged.

Health professionals and workers are given gifts and other incentives by baby food manufacturers to promote their foods. These companies also often sponsor doctors, especially pediatricians for meetings, workshops, foreign trips, research opportunities and lecture opportunities. In addition, they offer continuing medical education to health professionals. Health professionals who benefit from the various incentives provided by the industry often end up promoting the company's products. Suggestions by health workers and health professionals are important influences on feeding decisions.

SHOULD YOU TRUST THE BABY FOOD INDUSTRY WHEN MAKING FEEDING DECISIONS FOR YOUR INFANT AND YOUNG CHILD?

No. It is important not to be misled by the commercial promotion or health claims made by the food companies.

It is important to remember that commercially processed complementary foods may not contain the diversity of nutrients in the quantities that the growing infant requires. Also the high price of such foods leads many parents to dilute the preparations so that the tins can last longer. Children fed with extra-dilute milks and foods do not get enough nutrients and become malnourished. The problem becomes worse without access to adequate amounts of clean potable water or proper sanitation. Studies have shown that a family's health care costs often increase if the infant is fed on formula and over-processed industrially manufactured foods.

When infants and young children get used to commercial foods it would be hard for them to adapt to family foods. The growing infant has to become accustomed to eating diverse foods. Family foods, appropriately prepared in ways the infant can handle, and fed in adequate quantities, can meet all its nutritional requirements. Communities all over the world have grown and thrived on family foods. In addition, the different flavors, textures and colors all provide learning opportunities to the infant.

COMMERCIAL NUTRITION

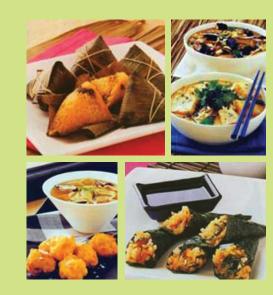
- Structured
- Take things apart and looks at pieces
- Reduced nutrients to smaller parts
- Treats symptoms but not the causes
- Unending need of micronutrient supplements
- Attractive food but inadequate nutrition



TRADITIONAL NUTRITION

Means whole foods, healthful & energy giving

- Promotes health and harmony in balance of yin and yang
- Functional foods in proper combination with consideration to:
 - Season• Color Flavor Therapeutic process Traditional wisdom



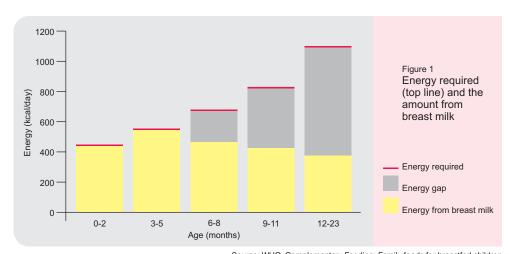
What is good complementary feeding

A FTER COMPLETING SIX months of age, the infant requires more energy, more protein, and more micronutrients like iron, zinc, and vitamins than is provided by breastmilk alone. Good complementary feeding means the addition of these nutrients through introducing semi-solid and solid foods, along with continued breastfeeding. During the period of complementary feeding, a baby gradually starts to get used to eating family foods. At the end of this period (which could be around the age of two years or more), breastmilk is usually fully replaced by family foods. However, breastfeeding can be continued for beyond two years if the child wants it.

WHEN TO START COMPLEMENTARY FOODS

Complementary feeding should start when the infant has completed six months of age. Fig. 1 shows the gap between the energy requirements of the infant and the energy supplied by breastmilk from six months onwards. If this energy gap is not met, the child stops growing or grows slowly, leading to malnutrition.

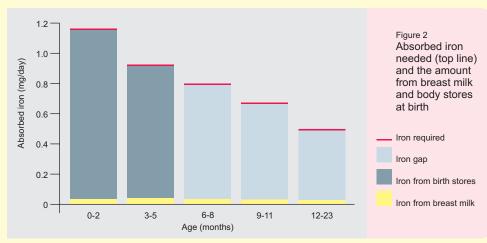




Source: WHO. Complementary Feeding: Family foods for breastfed children

Similarly, Fig. 2 shows the gap in the amount of iron an infant needs, and what is supplied by breastmilk. While breastmilk supplies very little iron to the infant in the first six months, a full-term baby is born with enough iron to cover its needs in the first few months. Thereafter, it needs external sources of iron. The gap is larger in the first year, as this is the period of faster growth, when the infant makes more new blood. Other micronutrients like calcium, zinc and vitamins also show gaps as the infant continues to grow.

Generally, except for iron and calcium, the nutrient gaps increase as the infant grows older and becomes more active. This is especially true of the energy gap. Complementary foods need to fill these gaps, so that the infant's growth and development takes place optimally, and it does not become malnourished.



Source: WHO. Complementary Feeding: Family foods for breastfed children

Delaying the introduction of complementary foods after the infant finishes its sixth month makes it vulnerable to malnutrition, micronutrient deficiency and illnesses.



Why starting complementary foods too early can be dangerous

An infant needs only breastmilk for the first six months of life. Exclusive breastfeeding gives immunity to the infant from several illnesses. Breastmilk contains 50+ known immune factors, and probably many more that are still unknown.

Introducing complementary foods before the infant has completed six months of age can be dangerous.

- The infant's digestive system cannot digest the food properly, causing unpleasant reactions like digestive upset, constipation, gas, etc.
- It exposes the infant to the risk of developing allergies.
- It may induce iron-deficiency anaemia. When iron supplements and iron-fortified foods are introduced too early, they can reduce the efficiency of the infant's iron absorption.
- It can lead to future obesity and increase the risk of developing noncommunicable diseases like diabetes, hypertension and heart disease in adulthood.
- The European Food Safety Authority's Panel on Dietetic Products, Nutrition and Allergies, in its scientific opinion holds that introducing complementary feeding too early increases the infant's risk of developing celiac disease and type 1 diabetes mellitus. The Panel also considers that early introduction of complementary feeding increases the risk of infectious morbidity.

SIGNS THAT A CHILD IS READY FOR COMPLEMENTARY FOODS

At the end of six months, an infant's reflexes, skills and physiology has matured enough to help it consume foods other than breastmilk (see Table 1).

An infant who is ready to be introduced to solids will

- Hold its head up and maintain a steady, upright position.
- Sit well when supported.
- Make chewing motions. The baby can move food to the back of the mouth before swallowing.
- Has gained weight appropriately. Most babies double their birth weight by the time they have completed six months of age.
- Is interested in what others are eating. The baby will eye the meals others are eating, will reach out to try the foods that others are moving from their plate to their mouth.

Age (months)	Reflexes/skills present	
0–6	Suckling/sucking and swallowing	
4–7	Appearance of early "munching", Increased strength of suck; Movement of gag reflex from mid to posterior third of tongue	
7–12	Clearing spoon with lips; Biting and chewing; Lateral movements of tongue and movement of food to teeth	
12–24	Rotary chewing movements Jaw stability	

Sources: Stevenson RD, Allaire JH. The development of normal feeding and swallowing. Pediatric clinics of North America, 38: 1439–1453 (1991); Milla PJ. Feeding, tasting, and sucking. In: Pediatric Gastrointestinal disease. Vol. 1. Philadelphia, B.C. Decker, 1991, pp. 217–223.







WHAT FOODS TO GIVE AS COMPLEMENTARY FOOD

Foods that are appropriate and that meet the growing infant's nutritional needs must be given as complementary foods.

APPROPRIATE COMPLEMENTARY FOODS

Appropriate complementary food is food that is made from locally grown and available ingredients to suit the infant's developmental age and needs. Food that is appropriate to the climate and culture is best suited to the baby. The wholeness of the food in terms of nutrients and its healing properties fits the growing needs of the baby and her/his sensitive body. Such food also ensures that the family enjoys food security.

Experts suggest that foods can be divided into five groups, as shown in Fig. 3. One food from each group should be used in every preparation. Adding some oil or fat to the food will enrich its energy value. Vary the food selected every day, so that the infant can get used to several odors and flavors.



Source: FAO. Complementary feeding for children aged 6 to 24 months – a recipe book for mothers and caregivers

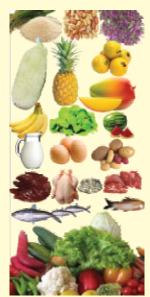


WHEN INFANT FORMULA OR ANIMAL MILK CAN BE DANGEROUS In many parts of the world, particularly in Southeast Asia, infants are often allergic to animal milk. Such infants should not be given animal milk, either fresh or in powdered or formula. The only milk such infants need is breastmilk. Expressed breastmilk can be used for cooking purposes also.

FOODS THAT NOURISH

Cereals like rice, wheat, maize and millet are the primary source of energy. **Meat** or flesh food is an extremely important source of protein and micronutrients like iron and zinc and several enzymes. The protein from meats is readily absorbed by the infant. Asian culture has sourced meat from a variety of animals – cow, buffalo, goat, lamb, deer, rodents, birds including chicken and a variety of jungle fowl, many varieties of snakes, frogs, snails, slugs, crabs and insects. While some of these sources may not be favored today by some people, they continue to form an important part of the diets of many communities, providing them with much required nutrients. The various sources of meat can replace one another in the given recipes.

Fish is an excellent source of protein, vitamin D and other nutrients. The protein in **egg** is best absorbed by the body. Eggs are a rich source of energy, protein, iron, vitamins (except Vitamin C) and several other nutrients. Some infants may be allergic to egg whites; it is best to start them on egg yolks, and gradually introduce egg white while noting whether there is any allergy or not.





Good
complementary
feeding ensures that
the infant gets foods
from at least 5
categories every
day. A mix of diverse
foods in adequate
quantities will ensure
that the infants and
young children get all
the nutrients required,
including
micronutrients.



Lentils and beans are of various kinds – lentil, mung bean, chickpea, bengal gram, pigeon pea, cow pea, soya bean, kidney beans, etc. Though they are not as easily absorbed by the body, they form an essential source of proteins and nutrients, particularly for vegetarians. Some beans may need to be soaked for some time, and then washed before using. The green beans of lentils, especially bean varieties, are used as vegetables. In many cases, the leaves can also be used for cooking. Soya bean is used to make a milk substitute which can be curdled to give tofu, or set as yoghurt. It forms a very important part of East and Southeast Asian food culture. Many baby food manufacturers promote soya milk as a substitute for infant formula. It is important to remember that the only milk a child under two years needs is breastmilk.

Seeds and nuts like groundnuts, sunflower seeds, almonds, and walnuts are excellent sources of proteins and micronutrients. Adding some nuts to the food makes it energy dense, as they are rich sources of oil.

Dairy products are also good sources of protein. But as the baby requires only breastmilk as milk until two years of age, these products can be used in cooking or as cheese.

Vegetables and fruits provide essential nutrients and fiber. **Starchy vegetables** like potatoes, yam, sweet potatoes, taro, are excellent sources of energy and fiber. **Red and yellow vegetables and fruits** like carrots, pumpkin, tomatoes, and fruits like mango, banana and papaya are good sources of vitamin A and fiber. **Green leafy vegetables** like spinach, amaranth leaves, moringa leaves, chenopodium leaves, ipomea leaves, coriander, pumpkin and gourd leaves, leaves of lentils and bean plants, are also a rich source of Vitamin A, in addition to iron and fiber. Fruits like banana and papaya are also rich vitamin C and iron; guava, lime and other citrus fruits are particularly rich in vitamin C, which is helps in absorbing iron.

Oils and sugars provide energy. Molasses and jaggery are also rich sources of calcium and iron, because of their processing A teaspoon or more of oil added to the food will make it energy-dense and help prevent malnutrition.

In areas where iodine deficiency diseases are prevalent, **iodized salt** should be used instead of any other kind of salt.

MILLETS – FORGOTTEN FOODS OF ASIA

Several types of millets have been grown and consumed historically all across Asia. However, in many countries, millets have been replaced in diets by rice and wheat, and now they are almost forgotten. Milletvarieties found in Asia include:

- Eleusine coracana (Ragi, Mandua, nachani, dhidho, kurakkan, canzi, gyar, thre, sampica, susu, shikokubei, etc.);
- Pennisetum typhoideum or pearl millet (bajra, sajje, kambu, yugu, etc.);
- Setara italic or foxtail millet (syowk, t'juu, sabog, kulasan, bulakot, kural, kauni, navane, rawla, tenai, etc.);
- Echinochloa spp. or barnyard millet (samuk, diirh, rumay, tvau, jhangora, kuthiravaali, etc.);
- Panicum spp. or little or common millet (pfan, baraga, pinj, sama, save, kutki, cheena, etc.);
- Paspalum scrobiculatum or kodo millet (koda, kodra, rebu bawang, rumput kinangan, suket krisik jaringan, kumpai batu, pala belang, sabung-sabungan, bias-biasin smau 'ânnchien, ya-sakhorbik, co' san tru'[n]g, co' tru'[n]g).
- Sorghum or great millet (jwar, jowar)

Millets are extremely nutritious grains. Besides energy, they provide a significant amount of protein, and are very rich in micronutrients including iron and calcium. They are also extremely hardy, growing easily even in areas where there is less water available for agriculture. They can thus form the foundation of food security for the entire household.

Millets can be soaked, germinated and dried before being used. This increases their nutritional value. They can also be popped before being used either as they are, or as a powder.





THESE ARE NOT GOOD COMPLEMENTARY FOODS

- Teas
- Artificially sweetened fruit juices (Freshly squeezed juices can be given, but it is better to give the fruit as a snack)
- Biscuits

HOW TO GIVE COMPLEMENTARY FOODS

Introducing complementary foods

- Ensure the food is well cooked and soft, and thick in consistency.
- $\bullet\,$ Start by giving two or three tables poons twice a day.
- Continue breastfeeding on demand.
- Increase the number of feeds, thickness and quantity in each feed gradually.







AGE	TEXTURE	FREQUENCY	AMOUNT AT EACH MEAL
6 months	Soft porridge, well mashed; vegetables, fruit plus frequent breastfeeds	2 times per day	2-3 tablespoonfuls
7-8 months	Mashed foods plus frequent breastfeeds	3 times per day	Increasing gradually to 2/3 of a bowl
9-11 months	Finely chopped or mashed foods and foods that baby can pick up	3 meals plus 1 snack between meals plus breastfeeds	3/4 of a 250 ml bowl
12-24 months	Family foods, chopped or mashed if necessary	3 meals plus 2 snacks between meals plus breastfeeds	A full 250 ml bowl or more



A one year old child needs at least half the quantity of food that an adult requires.

ENCOURAGING YOUNG CHILDREN TO EAT

A one year old child needs at least half the quantity of food that an adult requires.

A healthy child who is growing well, is fed frequently and is encouraged to eat usually has a good appetite. If the appetite decreases, it is a sign that something is wrong. Maybe the child is not feeling well, or is unhappy for some reason. The child could also be seeking extra attention, or is just plain being fussy. Or maybe the diet is monotonous. If the child's appetite does not improve, there is risk of malnutrition.

- Supervise the child's meals.
- Encourage the child to eat.
- Do not force feed.
- Be patient with the child.
- $\bullet \ \ Avoid feeding when the child is sleepy$







Points to remember

- 1. Breastfeeding for at least two years of age helps a child to grow strong and healthy.
- 2. Children who start complementary feeding at six months grow well.
- 3. A growing child needs family foods with a thick, soft consistency: foods that stay easily on the spoon nourish and fill the child.
- 4. Animal foods are special foods for children.
- 5. Legumes peas, beans, lentils and nuts are also good source of nutrients.
- 6. Vitamin C rich foods help body to absorb iron.
- 7. Dark green leafy vegetables and orange and yellow coloured fruits and vegetables help the child to have healthy eyes and fewer infections.
- 8. A growing child needs frequent meals and snacks: give a variety of foods.
- 9. A growing child needs increasing amount of food.



Points to remember when preparing or feeding infants and young children

Practise good hygiene when preparing complementary foods.

Wash your hands well with soap and water before preparing the food. Wash utensils well. Wash ingredients thoroughly.

Cook the foods till they are soft enough for the infant.

The food should be of the right consistency. It should be thick and not runny. When a spoon filled with the food is tilted, it should not run off the spoon, but stick to it.

Start by feeding two or three tablespoons twice a day and gradually increase the amount. By the 7th and 8th month, the infant should be consuming at least half a bowl of the food every day, given in three feeds.

Increase the quantity as the infant grows older. By the time a child is one year old, it requires half the amount of food an adult consumes.

While the first foods may need to be thoroughly mashed, leave diced vegetables and meat pieces without mashing as the infant grows older. This will help the infant get familiar with textures and tastes of different foods.

An 8- or 9-month old infant can easily pick up finger foods and eat them.

Add a spoon of oil to increase the energy content of the food. Encourage infants to feed themselves.

Use iodized salt in areas with iodine deficiency disease.

Continue breastfeeding on demand.



Throughout Asia, rice is usually the first grain fed to the infant. Rice is cooked very soft, in water or meat stock, and mashed very well before feeding. Soft cooked rice is variously called *Congee*, *Conjee*, *Borbor*, *Jook*, and so on. Both ordinary and glutinous rice is used for making this porridge. Often vegetables, fish, and meat are added during cooking and then

In many parts of Asia, wheat flour and semolina are also given as a first complementary food. These flours are usually available locally.

mashed.

Millets are also used in parts of Asia for preparing the first foods for infants. Various varieties can mostly be substituted for one another in recipes.

The recipes given here make approximately half a bowl of porridge for the 6-8 month old infant. The ingredients can be doubled for older infants.



Rice Soup

Ingredients

2 tablespoons rice

1/2 cup water
1/2 cup milk
2 teaspoons of mashed carrots or pumpkin and/or green leafy vegetables
Salt to taste

Method

Put the rice, milk and water in the pot and cook.

Cover the pot and cook until soft. Options: add grated/mashed carrots, pumpkin.

Note: this recipe is also good for coping with lack of appetite, nausea /vomiting, and colds.

calories (kcal) 158.5	carbohydrates (G) 27.82
PROTEIN (G)	FAT (G)
4.53	3 . 2 4
1RON (MG)	VITAMIN A (IU)
0.35	86.9
CALCIUM (MG)	ZINC (MG)
99.5	0 • 4

Wheat with Milk Porridge (improved Halwagak)

Ingredients

1 tablespoon wheat flour (germinated or plain)

1/4 cup milk

½ cup water

1 teaspoon oil

1 teaspoon pounded leafy vegetables or mashed carrots

1 teaspoon sugar

Salt to taste (preferably one light 2-finger pinch of salt)

Method

Mix wheat flour with milk.

Add water, mix and put it on fire to cook (10-15 minutes).

Add oil and sugar.

Add pounded vegetables and cook for 2-3 minutes

Add salt.

CALORIES (KCAL)	CARBOHYDRATES (G)
122.55	12.2
PROTEIN (G)	FAT (G)
3.11	6.815
IRON (MG)	VITAMIN A (IU)
0.866	61.65
CALCIUM (MG)	ZINC (MG)
55.85	0.343

Recipes for 6-8 months old infants*

*All nutritive values are approximate, calculated for dry ingredients; the values of stocks and soups are not included. Nutritive values of ingredients have been, taken from Nutritive Value of Indian Foods, by Gopalan et al (2007), National Institute of Nutrition, India.



Wheat with milk porridge



Wheat with beans porridge

Wheat with Beans Porridge

Ingredients

1 tablespoon wheat flour ½ tablespoon bean flour

1 teaspoon oil

11/2 cups water

1 teaspoon pounded leafy vegetables or mashed carrots

1 teaspoon sugar

Salt to taste (preferably one light 2-finger pinch of salt)

Method

Put the 1 cup of water and bean flour into the pot, mix well, bring to boil and simmer for 20 minutes. Make a paste of wheat flour with the remaining ½ cup of water and add it to the beans mixture in the pot. Mix well and cook the mixture for 10 minutes.

Add oil and sugar.

Add pounded vegetables and cook for 2-3 minutes.

Add salt.

Wheat with Egg Porridge

Ingredients

1 tablespoon wheat flour

1 egg

1 teaspoon oil

3/4 cup water

1 teaspoon pounded leafy vegetables or mashed carrots

1 teaspoon sugar (optional)

Salt to taste (preferably one light 2finger pinch of salt)

Method

Put the water into a pot and add the wheat flour, mix well, bring to boil and simmer for 5 minutes. Add the egg, oil and sugar (optional) and cook for 2-3 minutes. Add the pounded vegetables and cook for 2-3 minutes. Add salt.

Potato and Milk Mash

Inaredients

1 medium size potato (about 100g) or ½ cup of chopped pieces of potatoes

1/4 cup milk

½ cup water

1 teaspoon oil

1 teaspoon pounded leafy vegetables or mashed carrots Salt to taste

Method

Peel potato, cut it into small pieces and cook in water until soft and the water is almost finished.

Mash potato pieces.

Add milk and mix well.

Cook for 3-5 minutes.

Add oil.

Add the pounded vegetables and cook for 2-3 minutes. Add salt.

CALORIES (KCAL)	CARBOHYDRATES (G)
122.45	14.8
PROTEIN (G)	FAT (G)
3.71	5.375
IRON (MG)	VITAMIN A (IU)
1.121	48.9
CALCIUM (MG)	ZINC (MG)
20.15	0.568

270.45	carbohydrates (G) 10.55
PROTEIN (G)	FAT (G)
15.21	18.585
IRON (MG)	VITAMIN A (IU)
2.891	41.85
CALCIUM (MG)	ZINC (MG)
70.85	0.343

calories (kcal) 160.05	carbohydrates (G) 23.84
PROTEIN (G) 2 . 5	FAT (G) 6.155
IRON (MG)	VITAMIN A (IU)
0.611	384
calcium (mg)	ZINC (MG)
43.65	0.543

Potato and Egg Mash

Ingredients

1 medium size potato (about 100g.) or ½ cup of chopped pieces of potatoes

1 egg

1/2- 3/4 cup water

1 teaspoon oil

1 teaspoon pounded leafy vegetables or mashed carrots Salt to taste

Method

Peel potato, cut it into small pieces and cook in ½ cup water until soft and the water is almost finished. Mash potato pieces.

Add the egg and the remaining 1/4 cup of water and mix well. Cook for 3-5 minutes.

Add oil.

Add the pounded vegetables and cook for 2-3 minutes. Add salt.

calories (kcal)	carbohydrates (G) 22.74
PROTEIN (G)	FAT (G)
15	18.43
IRON (MG)	VITAMIN A (IU)
2.636	340.5
CALCIUM (MG)	ZINC (MG)
73.65	0 • 5 4 3

Potato and Bean Mash

Ingredients

1 Medium size potato (about 100g. or ½cup of chopped pieces of potatoes)

½ tablespoon bean flour

1 teaspoon oil

1 - 11/4 cups water

1 teaspoon pounded leafy vegetables or mashed carrots Salt to taste

Method

Peel potato, cut it into small pieces. Put ½ cup of water and bean flour into a pot, mix well, bring to boil. Add the remaining water and the potato pieces and cook for 20 minutes.

Add oil and pounded vegetables and cook for 2-3 minutes. Add salt.

calories (kcal) 170.96	carbohydrates (g) 27.09
PROTEIN (G)	FAT (G)
3.38	5 . 52
IRON (MG)	VITAMIN A (IU)
1.226	348.96
CALCIUM (MG)	zinc (mg)
18	0.543



Egg Suji

Ingredients

1 tablespoon semolina

½ egg

1 small piece ash gourd (can be replaced by green papaya) finely chopped

1/5 of a small carrot or a small piece of pumpkin finely chopped

1 ½ teaspoon sugar / molasses / jaggery

1 teaspoon oil

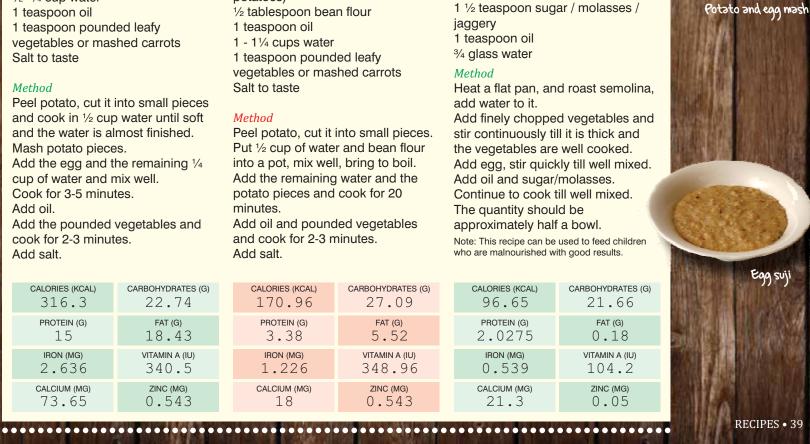
3/4 glass water

Method

Heat a flat pan, and roast semolina, add water to it.

Add finely chopped vegetables and stir continuously till it is thick and the vegetables are well cooked. Add egg, stir quickly till well mixed. Add oil and sugar/molasses. Continue to cook till well mixed. The quantity should be approximately half a bowl.

Note: This recipe can be used to feed children who are malnourished with good results.







and milk

babchi

Rice I

Rice Flour and Milk Babchi

Ingredients

½ cup (160g.) rice flour 2 cups (300ml.) water 1 cup (150ml.) milk 2 tablespoons oil Salt to taste

Method

Cook the rice flour with 2 cups of water for 10-15 minutes.
Add milk and continue to cook for 5minutes, stirring well to mix thoroughly.
Add salt to taste.

calories (kcal) 922.5	carbohydrates (G) 131.72
PROTEIN (G) 15.6	FAT (G) 36.95
1RON (MG) 0 . 3	VITAMIN A (IU) 304.5
CALCIUM (MG)	ZINC (MG)

Suji Porridge

Ingredients

Ingredients ½ cup wheat flour (can use rice flour instead if preferred) 1½ glass water

1 1/4 glass water 2 tablespoons oil

1 cup finely chopped dark green leaves (spinach, amaranth, ipomea, pumpkin leaves, moringa leaves, turnip leaves, etc.) Salt to taste

Method

Clean, wash and finely chop leaves. Cook wheat flour with water and oil, stirring to mix it thoroughly, for 10-15 minutes.

Add leaves and continue to cook for 5 minutes.
Add salt.

calories (kcal) 457	CARBOHYDRATES (G)
PROTEIN (G) 6.2	FAT (G) 30.7
1.36	VITAMIN A (IU) 3015
CALCIUM (MG) 44.5	ZINC (MG) 0.13

Vegetable and Cheese Puree

Ingredients

1 cup finely chopped carrot
½ cup lentils
1 cup finely chopped potato
1 slice cheese

1 slice cheese
1/2 cup coriander leaves

2 tablespoons oil

 $2 \frac{1}{2} - 3 \frac{1}{2}$ glasses water Salt to taste

Method

Clean and wash lentils.

Wash and finely chop vegetables. Clean, wash and chop coriander leaves.

Cook vegetables, lentils with water for 25-30 minutes.

Add coriander leaves and cheese and cook for 2 minutes.

Puree or mash the mixture well, and add salt.

Use within 24 hours.

calories (KCal) 652.5	carbohydrates (g) 64.9
PROTEIN (G)	FAT (G)
18.3	35.05
1RON (MG)	VITAMIN A (IU)
5.23	754.75
calcium (MG)	ZINC (MG)
219.5	2.03

Vegetable and cheese puree





Chicken and Carrot Rice Porridge (one portion)

Ingredients

1 tablespoon uncooked rice 1 teaspoon raw minced chicken ½ teaspoon chopped raw carrot ½ cup chicken, beef, or fish broth ½ teaspoon cooking oil

Method

Wash and clean rice.

Mix the rice and minced chicken with the broth and boiled until cooked. Add more water if necessary.

Add chopped carrots until soft. Add cooking oil.

Blend the mixture, ensuring the consistency is smooth (porridge should be thick, stick to the spoon and not runny).

calories (kcal)	carbohydrates (G) 11.76
PROTEIN (G)	FAT (G)
19.3	7.03
1RON (MG)	VITAMIN A (IU)
0.75	74.6
CALCIUM (MG)	ZINC (MG)
14.25	0 • 22

Nutritious Congee

Ingredients

2 tablespoons rice

1 tablespoon finely diced fish or meat (this can be any kind of meat that is eaten locally)

1 tablespoon dark green leafy vegetables I

1 teaspoon oil

Method

Clean and wash the rice well. Finely dice the fish or meat. Wash and finely dice the dark green leafy vegetable.

In a large utensil, add rice, meat, fish or lentil, and vegetable and oil. Add enough water to cook all the ingredients till they are very soft. When ready, the congee should fill half a bowl.

While introducing the food, mash it well.

calories (kcal) 170.1	carbohydrates (G) 23.86
PROTEIN (G) 5 • 5 4	FAT (G) 5 • 57
1RON (MG) 0 • 2	VITAMIN A (IU) 76.5
CALCIUM (MG) 14.2	ZINC (MG) 0 • 4



Note:

 As the infant gets older, very fine pieces of vegetables and meat can be left in the food without mashing, so that the infant learns the texture and taste of various foods.

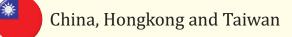
• The meat can be replaced by 1 tablespoon of lentils.

Nutritious Congee











Ground Pumpkin and Liver

Ingredients

Small pieces of pumpkin 1 thin slice of chicken liver Oil Sugar to taste

Boil or steam small pieces of

Method

pumpkin till soft.
Grind with a spoon to make a paste.
Boil chicken liver till fully cooked
and grind to a paste with a spoon.
Mix pumpkin and chicken liver
paste with oil and sugar.

calories (KCAL)	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
10.7	5 . 29
1RON (MG)	VITAMIN A (IU)
0.22	62 • 5
CALCIUM (MG)	ZINC (MG)
15	0.19

Egg and Meat Soup Custard

Ingredients

1 egg ½ bowl meat soup Few drops of oil

Method

Beat egg to mix yolk and white. Mix well with the meat soup. Put in a bowl and steam it for 10 minutes till it is set. Put a few drops of oil on top.

calories (kcal) 218	CARBOHYDRATES (G)
PROTEIN (G) 13.3	FAT (G) 18.3
1RON (MG) 2.1	VITAMIN A (IU) 37.5
CALCIUM (MG)	ZINC (MG)

Almond Rava Mix

Ingredients

1 almond powdered 1/2-1 teaspoon rava (suji) 1 teaspoon wheat flour 1/2 teaspoon sugar or jaggery 1/2 cup milk ½ teaspoon ghee or oil

Method

Heat oil in a pan and fry rava and wheat flour till fragrant. Stir continuously so that it does not burn.

Take off the fire, and stir in milk and mix well.

Add sugar.

Return to fire and cook, stirring, till the mix is of required consistency. Add powdered almond and cook for one minute more.

calories (KCAL) 355.45	carbohydrates (G) 26.15
PROTEIN (G)	FAT (G)
18.61	19.525
IRON (MG)	VITAMIN A (IU)
3.11	579.75
CALCIUM (MG)	ZINC (MG)
82	0 • 4

Wheat Gram Porridge

Ingredients

1 teaspoons (5g.) roasted and powdered wheat ½ teaspoon (3g.) Bengal gram roasted and powdered 1/2 teaspoon (3g.) roasted and powdered groundnut 1 tablespoons (5g.) sugar/jaggery 3-4 leaves of spinach or other green leafy vegetables

Method

Mix the wheat, Bengal gram and groundnut powders.

Make syrup of jaggery by dissolving it in some water.

Mix the powders and syrup, to make a thick batter.

Wash and boil spinach in water till soft, mash and strain through a clean cloth.

Add the vegetable juice to the batter and cook for a few minutes with continuous stirring till semisolid.

calories (KCAL) 318.25	carbohydrates (g) 5 9
PROTEIN (G)	FAT (G)
8.975	5.135
1RON (MG)	VITAMIN A (IU)
3.101	32.95
CALCIUM (MG)	zinc (MG)
30.25	0 . 675

Wheat Kheer

Inaredients

- 1 tablespoon whole wheat
- 2 teaspoons Bengal gram roasted and powdered

- 1 teaspoon sugar
- 1/2 teaspoons of roasted and powdered groundnut
- 1 cups water or milk (or mixed)

Method

Roast whole wheat and powder. Add roasted Bengal gram flour, sugar and crushed roasted groundnuts.

Add milk to it.

Cook for five minutes or till the desired consistency is reached.

calories (KCAL) 418.85	carbohydrates (g) 65.88
PROTEIN (G)	FAT (G)
14.91	10.685
IRON (MG)	VITAMIN A (IU)
3.93	110.8
calcium (MG)	ZINC (MG)
214.77	0.66

Toasted Millet Baby Cereal

Ingredients

- 1 teaspoon vegetable oil
- 1 tablespoon whole grain millet
- 1 cup boiling water

Method

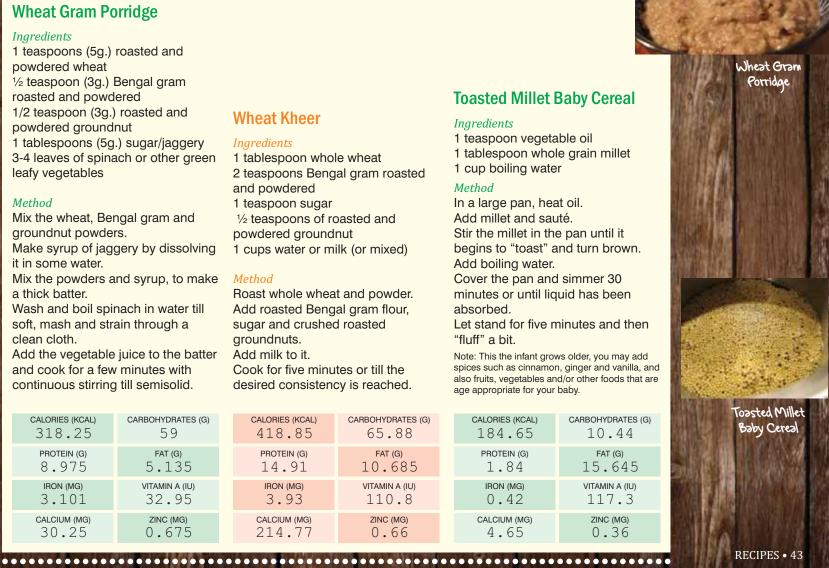
absorbed.

In a large pan, heat oil. Add millet and sauté. Stir the millet in the pan until it begins to "toast" and turn brown. Add boiling water. Cover the pan and simmer 30 minutes or until liquid has been

Let stand for five minutes and then "fluff" a bit.

Note: This the infant grows older, you may add spices such as cinnamon, ginger and vanilla, and also fruits, vegetables and/or other foods that are age appropriate for your baby.

calories (kcal) 184.65	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
1.84	15.645
IRON (MG)	VITAMIN A (IU)
0 . 42	117.3
CALCIUM (MG)	zinc (mg)
4.65	0 . 36









•••••••••••••••





Red Rice Porridge with Breastmilk

Millet Carrot and Apple Stew

Ingredients

- 1 tablespoon diced carrots
- 1 tablespoon millet, uncooked
- 1 cup of water
- 1 tablespoon diced apples

Method

In medium saucepan, combine carrots, water, the millet, diced apples and water.
Bring the mixture to a boil then reduce the heat to low.

Cover the pan and simmer for approximately 20 minutes.

calories (kcal) 65.7	CARBOHYDRATES (G) 14.01
PROTEIN (G)	FAT (G)
2.005	0 . 75
IRON (MG)	VITAMIN A (IU)
0 . 669	28.4
CALCIUM (MG)	ZINC (MG)
10.15	0.369

Pearl Millet and Vegetable Porridge

Ingredients

2 tablespoons pearl millet 1 teaspoon broken groundnuts 1 tablespoon lentil or pigeon pea 2 tablespoons diced carrot/pumpkin/sweet potato Salt to taste

Method

Mix and cook all ingredients together with water till soft.

calories (kcal) 193.65	carbohydrates (G) 34.18
PROTEIN (G) 9.01	FAT (G) 3 . 445
IRON (MG) 2 . 42	VITAMIN A (IU) 66 • 92
CALCIUM (MG)	ZINC (MG) 1 , 1 7

Red Rice Porridge with Breastmilk

Ingredients

1 tablespoon of red rice 2/3 cup (100 ml) drinking water 2/3 cup (100ml) breastmilk 2 teaspoons (10g) ripe banana mashed

Method

Grind the red rice first. Boil it with water in a pan. Stir it on low heat.

After the porridge is cooked, toss in the mashed banana and cook for a while.

Take the pan from heat and stir for a minute or two.

Then add the breastmilk and mix.

calories (kcal)	CARBOHYDRATES (G) 13.27
PROTEIN (G) 1.67	FAT (G) 4 . 68
IRON (MG) 0.336	VITAMIN A (IU) 7 . 8
CALCIUM (MG) 34.6	ZINC (MG) 0.015







Beef and Rice Porridge

Ingredients

10g. beef tenderloin ½ pear 1tablespoon rice 1 tablespoon finely cut vegetables like carrot, potato, broccoli, cauliflower, green leafy vegetables

Method

Boil the beef till it is thoroughly cooked.

Grind with 5-6 tablespoons of stock. Cook the rice in the remaining stock till it is very soft, adding more water if needed.

Add the ground beef

Grate pear and add to rice and beef. Add other vegetables and continue to cook till very soft.

calories (kcal) 95.85	carbohydrates (g) 19.29
PROTEIN (G)	FAT (G)
3.715	0 • 465
1RON (MG)	VITAMIN A (IU)
0.53	297
CALCIUM (MG)	zinc (mg)
17.75	0 . 254

Banana Rice Gruel

Ingredients

1 tablespoon (15g.) rice soaked 2 teaspoons (10g.) banana (from middle portion) 2/3 cup water

Method

Drain soaked rice.

Grind soaked rice without water to a fine powder.

Finely grate banana.

Add ground rice to water and place on fire.

When it boils, add grated banana. Cook for five minutes.

Note: The feces of babies fed banana rice gruel may contain stringy material. This is normal and not a cause for worry.

calories (kcal) 62.85	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
1.14	0 . 105
1RON (MG)	VITAMIN A (IU)
0.086	7 . 8
CALCIUM (MG)	ZINC (MG) 0 . 215

Sweet Potato and Groundnut Mash

Ingredients

1 small size sweet potato (about 50 grams or 1/2 cup of chopped pieces)

2 teaspoons groundnuts flour 1bowl (200ml) water

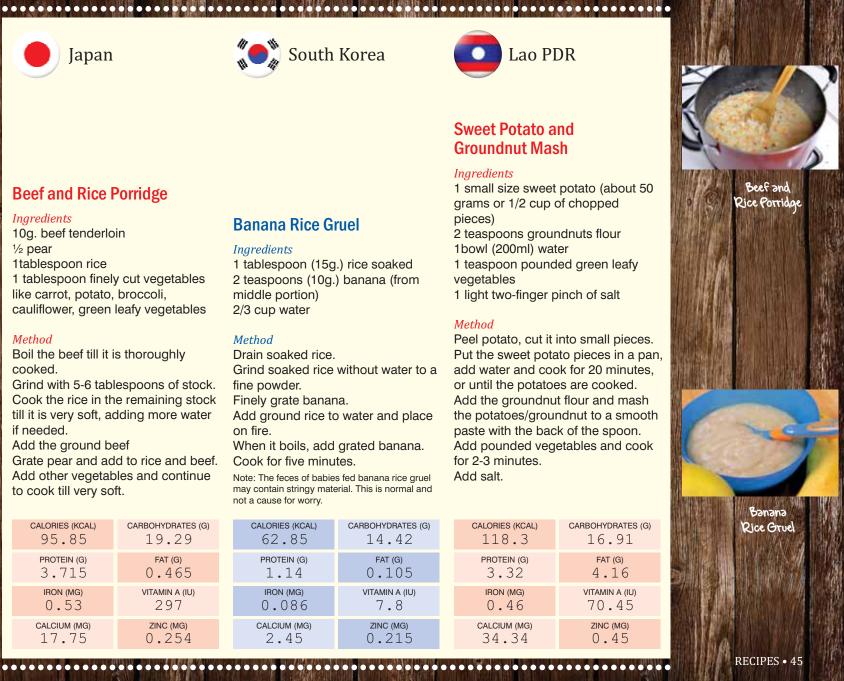
1 teaspoon pounded green leafy vegetables

1 light two-finger pinch of salt

Method

Peel potato, cut it into small pieces. Put the sweet potato pieces in a pan, add water and cook for 20 minutes, or until the potatoes are cooked. Add the groundnut flour and mash the potatoes/groundnut to a smooth paste with the back of the spoon. Add pounded vegetables and cook for 2-3 minutes. Add salt.

CALORIES (KCAL) CARBOHYDRATES (G) 118.3 16.91 PROTEIN (G) FAT (G) 3.32 4.16 VITAMIN A (IU) IRON (MG) 0.46 70.45 ZINC (MG) CALCIUM (MG) 34.34 0.45





Rice and Groundnut Mix

Rice and Groundnut Mix

Ingredients

- 4 level teaspoons rice
- 2 level teaspoons pounded groundnut flour
- 1 teaspoon pounded green leafy vegetables
- 1 bowl (200ml.) water
- 1 light two-finger pinch of salt

Method

Pound groundnut into flour and measure 2 level teaspoons and keep aside.

Mix rice with groundnut flour. Boil the water and add the rice and groundnut flour mix.

Reduce the heat and cook on low heat for 30 minutes.

Stir from time to time to make sure that the food does not stick at the bottom of the cooking pan.

Add the pounded vegetables, mix well and cook for 2-3 minutes.

Add salt to taste.

Note • As groundnuts contain oil, there is no need to add extra oil.

- Raw groundnuts can be pounded and used to get a different flavor.
- The pounded groundnuts can be replaced with bean flour made from dried beans. Add a teaspoon of oil to the recipe.

calories (kcal) 127.3	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
4.08	4 . 1
1RON (MG)	VITAMIN A (IU)
0 • 46	69 • 7
CALCIUM (MG)	ZINC (MG)
13.34	0.68

Sweet Potato and Egg Mash

Ingredients

I small size sweet potato (about 50 grams or 1/2 cup of chopped pieces)

- 1 egg
- 1 bowl (200ml.) water
- 1 teaspoon oil
- 1 teaspoon pounded green leafy vegetables
- 1 light two-finger pinch of salt

Method

Peel sweet potato, cut it into small pieces.

Put the sweet potato pieces into a pan, add water and cook for 20 minutes, or until the sweet potatoes are soft.

Mash the sweet potatoes into a smooth paste with the back of the spoon.

If too thick, add a little water to thin the paste to the right texture or consistency for the child.

Add the egg, oil and pounded v vegetables and cook for 2-3 minutes.

Add salt.





Puree Avocado

Ingredients

1/4 (30g) avocados

1/4 cup (50ml) expressed breastmilk

Method

Mash the avocado with a fork till it becomes a puree.

Sieve the mashed avocado. Mix milk together with pureed avocado.

calories (kcal) 237.8	CARBOHYDRATES (G)
PROTEIN (G) 7 . 35	FAT (G) 16.83
1 . 2	VITAMIN A (IU) 355.4
CALCIUM (MG) 56.64	ZINC (MG) 0.06

calories (kcal) 97	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
1.01	8 • 5 4
1RON (MG)	VITAMIN A (IU)
0.21	20.5
calcium (mg) 17	ZINC (MG)





Leek and Potato Soup

Ingredients

½ cup white portion of leek (100g) cut into pieces

- 1 (50g) potato diced
- 1 handful (50g) peas
- 1 tablespoon (10g) butter Water/ homemade stock

Method

Put butter in a pan, keep on fire, and add leek white portion and stir for a minute.

Add potato and peas stirring it for 2 minute.

Now add ¾ cup of vegetable stock or 1 cup water.

Let it boil for 30 minutes.

Mash the vegetables and blend into the soup.

calories (kcal) 263.35	CARBOHYDRATES (G) 31.85
PROTEIN (G) 6 . 2	FAT (G) 12.33
IRON (MG)	VITAMIN A (IU)
2.19	161.02
CALCIUM (MG)	ZINC (MG)
55	0.26

Mango and Banana Porridge

Inaredients

- 1 small ripe mango
- 1 small banana
- 1 tablespoon of cooked rice

Method

Peel mango and banana and grind it into a smooth paste with cooked rice.

Optional - can add some milk if needed.

calories (kcal) 207.2	CARBOHYDRATES (G)
PROTEIN (G) 2.14	FAT (G) 0 . 725
IRON (MG) 1.692	VITAMIN A (IU) 2821
calcium (mg) 31.5	ZINC (MG) 0 . 49

Mashed Potatoes

Inaredients

1 1/2 medium sized potatoes

1 teaspoon butter

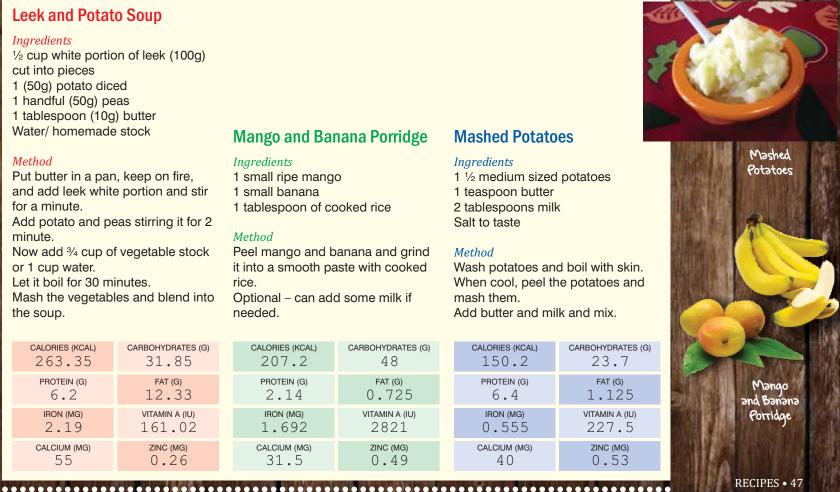
2 tablespoons milk Salt to taste

Method

Wash potatoes and boil with skin. When cool, peel the potatoes and mash them.

Add butter and milk and mix.

calories (kcal) 150.2	carbohydrates (G) 23.7
PROTEIN (G) 6 • 4	FAT (G) 1.125
IRON (MG)	VITAMIN A (IU)
0 • 555	227.5
calcium (mg)	zinc (mg)
40	0 . 53







Bantan with Egg

Ingredients

30q. meat 1 tablespoon plain flour 2/3 cup broth soup 1 teaspoon minced onion 1 tablespoon vegetable oil ½ egg 1/5th medium sized carrot Salt to taste

Method

Finely mince meat Finely chop vegetables. Cook flour with broth, vegetables, meat and oil till meat is fully cooked. Stir beaten egg into broth, and cook for a few minutes more. Add salt to taste.

DRATES (G)

.67

T (G)

815 IN A (IU)

1.25

C (MG)

144



Jaulo

Inaredients

2 tablespoons (30g.) rice 2 teaspoons (10g.) lentil (green or vellow gram) 2 teaspoons (10g.) chickpea 2 teaspoons (10g.) pigeon pea 1 teaspoon oil, ghee 2/3 cup water Pinch each of turmeric and cumin powder Salt and spices to taste

Method

Clean and soak chickpea and pigeon pea in water overnight. Mix rice, lentils, and soaked peas with water.

Add ghee, salt and spices. Cook in a pressure cooker for 15 minutes.

If pressure cooker is not used, cook until rice, lentils and peas are soft. Add water if necessary.

CALORIES (KCAL)	CARBOHYDRATES (G)	CALORIES (KCAL)	CARBOHYI
180.45	27.2	226.3	12
PROTEIN (G)	FAT (G)	PROTEIN (G)	FAT
7.61	2.3	8.185	12.
IRON (MG)	VITAMIN A (IU)	IRON (MG)	VITAMI
0.79	234	1.605	324
CALCIUM (MG)	ZINC (MG)	CALCIUM (MG)	ZINC
46.55	0.63	49.05	0.1

calories (KCAL) 207.3	carbohydrates (G) 41.21
PROTEIN (G)	FAT (G)
8 . 48	0 . 92
1.588	VITAMIN A (IU) 45.9
CALCIUM (MG)	ZINC (MG)
35.9	1 • 11

Jaulo







Milk and Rice Pudding

Inaredients

5 teaspoons (35g.) rice 3/4 cup (120ml.) milk 1 teaspoon (5g.) oil or ghee 2 teaspoons (10g.) sugar

Method

Boil rice and milk for 10 minutes, stirring periodically. Add sugar and continue to stir until the consistency is thick.

calories (kcal) 286	carbohydrates (G) 42.6
PROTEIN (G)	FAT (G)
6.2	10.1
1RON (MG)	VITAMIN A (IU)
0.37	163.6
calcium (mg)	ZINC (MG)
147	0 • 5

Kalabasa Lugaw (5 portions)

Inaredients

1/4 cup (8 teaspoons or 40g.) rice 100g. kalabasa (squash or pumpkin) 10 g. moringa leaves 200ml. expressed breastmilk.

Method

Cook all ingredients together till the rice and squash are very soft. Mash the rice and the squash.

Note: Nutritive values given for one portion

calories (kcal)	CARBOHYDRATES (G)
PROTEIN (G) 1.002	FAT (G) 1.454
1RON (MG) 0.161	VITAMIN A (IU) 1071.36
CALCIUM (MG)	ZINC (MG) 0.2952

Pork Bone Soup

Inaredients

1-1 1/2 kg.pork ribs 5-6 carrots 2-3 medium sized potatoes 2 tablespoons salt 6 glasses water Cooked rice

Method

Put water into a big pot and let it boil for 5 minutes.

Put pork ribs (bone in) into the pot and let boil for 45 minutes on lower power. Then, add salt.

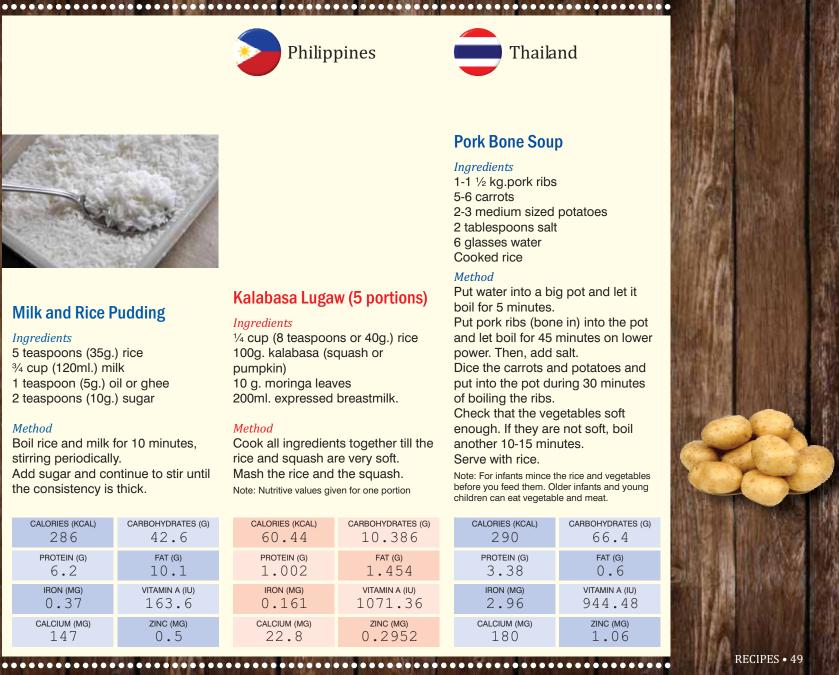
Dice the carrots and potatoes and put into the pot during 30 minutes of boiling the ribs.

Check that the vegetables soft enough. If they are not soft, boil another 10-15 minutes.

Serve with rice.

Note: For infants mince the rice and vegetables before you feed them. Older infants and young children can eat vegetable and meat.

calories (kcal) 290	carbohydrates (g) 66.4
PROTEIN (G)	FAT (G)
3.38	0 . 6
1RON (MG)	VITAMIN A (IU)
2.96	944.48
CALCIUM (MG)	zinc (mg)
180	1.06



Recipes for infants 9 months and older*

*All nutritive values are approximate, calculated for dry ingredients; the values of stocks and soups are not included. Nutritive values of ingredients have been, taken from Nutritive Value of Indian Foods, by Gopalan et al (2007), National Institute of Nutrition, India.



Nutritious Vegetable Kichuri





Firni

Ingredients

- 1 cup milk
- 2 tablespoon of rice or rice flour
- 2 tablespoon of sugar
- 2 three grains of cardamom
- 1 teaspoon chopped pistachios or nuts (if available)
- 1 teaspoon of chopped fruit, such as banana, apple, or raisin

Method

Mix the flour, sugar and cardamom in the milk and boil it for 5 minutes. Pour in flat plate and sprinkle the pistachio and fruits on the dish. Leave to become cold.

calories (kcal)	carbohydrates (G) 47.12
PROTEIN (G)	FAT (G)
7.81	8 . 98
1RON (MG)	VITAMIN A (IU)
0.73	82.27
CALCIUM (MG)	ZINC (MG)
191.15	0 • 4

Nutritious Vegetable Kichuri

Ingredients

2/3 fistful (20g) rice

1/3rd fistful (10g) lentil

½ teaspoon groundnut powder

1/8th small carrot or a small piece of pumpkin

3 pieces of 2in. each of green cowpea bean

3-4 spinach leaves

1 teaspoons oil

1/2 medium sized onions

 $\frac{1}{2}$ teaspoon ginger-garlic paste

1 pinch of turmeric powder

Method

Roast and grind groundnuts to a fine powder.

Wash and soak rice and lentils for 10 minutes, then drain and keep aside.

Wash and chop vegetables finely. Heat utensil, add oil, chopped onion and ginger-garlic paste.

Stir for a few minutes.

Add soaked rice, lentils and groundnut powder and stir for 1-2 minutes.

Add water and cook till rice is half done.

Add chopped vegetables and leaves.

Cook till the kichuri is very soft and thick, and is about half a bowl in quantity.

calories (KCAL)	CARBOHYDRATES (G) 29.98
PROTEIN (G) 5 . 75	FAT (G) 6 . 34
1.62	VITAMIN A (IU) 936.15
CALCIUM (MG) 49.1	zinc (mg) 0 • 5 4



Rice and Pork Porridge

Ingredients

½ cup rice

½ cup minced pork

½ cup green leafy vegetables

2 tablespoons oil

1 liter water approximately Salt to taste

Method

Clean and wash rice Mince the pork Clean, wash and chop green leafy vegetables. Cook rice, pork and oil with half the

water for 25-30 minutes. Keep adding water as necessary. When the rice and pork are fully cooked and soft, add vegetables. Cook for 3 minutes more. Use within 24 hours.

CALORIES (KCAL) CARBOHYDRATES (G) 949 126.62 PROTEIN (G) FAT (G) 35.55 30.5 IRON (MG) VITAMIN A (IU) 2.77 355 CALCIUM (MG) ZINC (MG) 2.39 74.5

Fish and Mashed Potatoes

150g. fish ½ cup tomatoes

1 cup boiled potatoes

2 tablespoons butter

2 tablespoons oil

1 ½ cups water

Salt to taste

Method

Wash and finely chop tomatoes. Clean and wash fish.

Add tomatoes, fish and water and cook 15-20 minutes.

Debone the fish carefully, making sure all bones have been removed. To do this, place the fish on a plate and rub with your hand, till you have taken out all the bones.

Mash potatoes and add to the fish and tomato, along with butter, oil, and salt.

CARBOHYDRATES (G)

26.2

FAT (G)

56.6

VITAMIN A (IU)

1401

ZINC (MG)

0.53

Use within 24 hours.

CALORIES (KCAL)

746.7

PROTEIN (G)

33.35

IRON (MG)

5.28

CALCIUM (MG)

168

Mixed Vegetables and Beef

Inaredients

1/2 cup finely chopped carrots

½ cup diced potatoes

½ cup diced broccoli

½ cup diced cauliflower

½ cup diced pumpkin

½ cup diced tomatoes

½ cup minced beef

½ cup green leafy vegetables

½ cup coriander leaves

2 1/2 glasses water

2 tablespoons oil Salt to taste

Method

Wash hands and utensils thoroughly

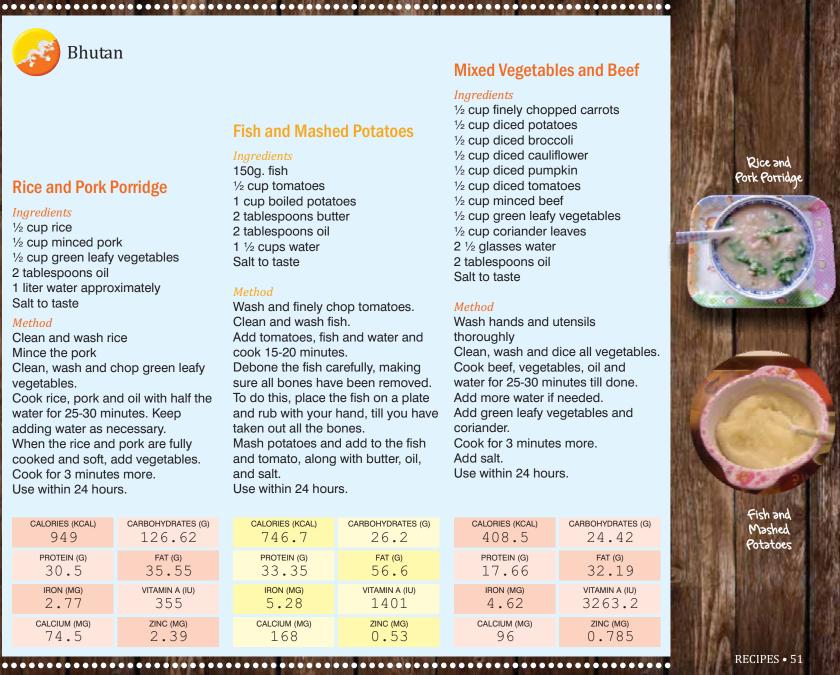
Clean, wash and dice all vegetables. Cook beef, vegetables, oil and water for 25-30 minutes till done. Add more water if needed.

Add green leafy vegetables and coriander.

Cook for 3 minutes more. Add salt

Use within 24 hours

calories (kcal) 408.5	CARBOHYDRATES (G) 24.42
PROTEIN (G)	FAT (G)
17.66	32.19
IRON (MG)	VITAMIN A (IU)
4.62	3263.2
CALCIUM (MG)	zinc (MG)
96	0 . 785











Cantonese Lean Pork Congee

Ingredients

- 2 tablespoons rice
- 1 teaspoon vegetable oil
- 1 cup water
- 1 small piece boneless pork loin roast
- 1 salted (hard-cooked) duck egg, chopped
- 1/8th inch piece fresh ginger root, thinly sliced
- 1 tablespoon chopped green onion Oyster sauce to taste Salt to taste

Method

Wash and clean rice. Finely mince pork roast Finely dice egg white Cook rice with water, ginger, salt and pork roast, adding more water as necessary.

When fully cooked, add chopped egg white, mashed egg yolk, chopped green onion and oyster sauce.

Pearl Millet Porridge

Ingredients

- 2 tablespoons pearl millet
- 1 tablespoon green gram lentil
- 2 teaspoons groundnut
- 2 tablespoons sugar or jaggery
- 2 tablespoons green leafy vegetable

Method

Roast and powder separately millet, lentil and groundnut.

Wash and steam the leafy vegetable till soft. Mash it.

Add the millet, pulse and groundnut powders to the mashed vegetable. Add water and jaggery and cook for a few minutes to a semi-solid consistency.

calories (kcal) 252.22	carbohydrates (g) 23.83
202 • 22	20.00
PROTEIN (G) 3 • 5 5	FAT (G) 10.26
1RON (MG) 0 . 56	VITAMIN A (IU) 78.75
CALCIUM (MG) 35.85	ZINC (MG) 0 . 43

CALORIES (KCAL) 355.45	CARBOHYDRATES (G)
333.43	20.13
PROTEIN (G) 18.61	FAT (G) 19.525
3.11	VITAMIN A (IU) 579.75
CALCIUM (MG) 82	ZINC (MG) 0 • 4

calories (kcal)	carbohydrates (g) 48.29
PROTEIN (G)	FAT (G)
10.582	5 • 63
IRON (MG)	VITAMIN A (IU)
2.091	1690.95
CALCIUM (MG)	ZINC (MG)
51.95	1.218

Millet Sweet Potato Porridge

Ingredients

- 1 cup millet
- 3 cups water
- 1 cup peeled diced sweet potato
- 1 slice peeled fresh ginger
- 1 cinnamon stick

Sugar/jaggery/honey to taste

Method

Steam sweet potato, ginger with cinnamon till cooked.

Cool, remove cinnamon stick and mash the sweet potato and ginger. Boil millet with water till it is well cooked.

Add mashed sweet potato mixture. Add sugar.

Note: Adding chopped nuts like groundnuts or walnuts or almonds increases the nutritional value of the porridge.

calories (kcal) 451	carbohydrates (g) 97.8
PROTEIN (G)	FAT (G)
13.5	4 . 6
IRON (MG)	VITAMIN A (IU)
3.02	38
calcium (mg)	zinc (MG)
77	2.51

Pearl Millet Khichri

Ingredients

3 tablespoons (45g.) pearl millet 5 teaspoons (25g.) greengram (mung) lentil

1 small (20g.) carrot/pumpkin/sweet potato/tapioca

½ teaspoon cumin 1½ teaspoons oil

Method

Wash and grate carrot. Boil lentils till half done.

Add millet and grated carrot and mix well.

Cook till the grains become soft. Remove from the fire.

Heat oil in a pan.

Add cumin and fry till it sputters. Add to the millet.

calories (kcal) 313.05	CARBOHYDRATES (G) 48.44
PROTEIN (G) 11.83	FAT (G) 9.77
IRON (MG) 2.435	VITAMIN A (IU) 177.3
CALCIUM (MG) 48.7	zinc (mg) 1.78

Vegetable Suji Upma

Ingredients

1 teaspoons (15g.) semolina 3 teaspoons pureed vegetables

1 teaspoon oil

1-2 cups water

Method

Dry roast the semolina, stirring continuously till it turns brown. Do not let it burn.

Keep the semolina aside. Add oil, water and pureed vegetables in a pan and bring to a boil.

Add the roasted semolina and mix well to remove lumps. Cook, stirring continuously till it is of the right consistency.

CALORIES (KCAL)	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
1.695	5 . 15
1RON (MG)	VITAMIN A (IU)
0.39	320.5
CALCIUM (MG)	ZINC (MG)
14.4	0.054

Vegetable Suji Upma



Sorghum Upma

Ingredients

3 tablespoons broken/coarsely ground sorghum

1 tablespoon roasted groundnuts

- 1 cup water
- 1 teaspoon oil
- 1 pinch mustard seeds

½ teaspoon white mung/urad lentils ½ teaspoon bengal gram

2 or 3 curry leaves (optional)

Method

Heat oil

Add mustard seeds.

When they splutter, add lentils and curry leaves.

When the lentils begin to brown, add broken sorghum and fry till it turns brown.

Add water and cook till soft.

Add broken groundnuts and cook for 2-3 minutes.

CALORIES (KCAL)	carbohydrates (G) 39.59
PROTEIN (G)	FAT (G)
9.795	11.972
1RON (MG)	VITAMIN A (IU)
2.726	63.12
CALCIUM (MG)	ZINC (MG) 0 795

Foxtail Millet Upma

Ingredients

½ cup foxtail millet

1 large onion chopped finely

3 cups water

1 teaspoon coconut oil

3/4 teaspoon mustard

3/4 teaspoon lentil

6-7 curry leaves Salt to taste

Method

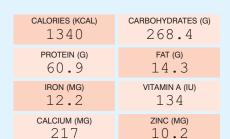
Dry roast millet for 3 minutes. Stir continuously so that it does not change color.

Take a large pan and heat oil. Add mustard seeds.

When it sputters, add lentil and curry leaves and fry till the lentil starts changing color.

Add water and salt and let it boil. Add roasted millet, and turn down the heat.

Cook the millet till all the water is absorbed.





Fruit Pudding

Ingredients

Banana/ Papaya/ Apple/ Guava/ Honey dew (alone or a mix of two or more of these)

1 cup full cream milk

1 teaspoon ghee or oil

Method

Chop or mash the fruit.

Mix with milk.

In a thick bottom pan boil the fruit and milk mixture till the entire quantity of milk becomes thick. Add ghee and continue to cook on a low flame.

For infants 6 to 8 months of age, blend the mixture before feeding.

calories (KCal) 320.5	carbohydrates (G) 47.2
PROTEIN (G)	FAT (G)
6 . 2	11.95
1.32	VITAMIN A (IU) 257.5
calcium (MG)	ZINC (MG)
207	0.21



Steamed Red Rice with Spinach and Egg

Inaredients

- 4 tablespoons red rice
- 2 eggs
- 1/3 cup spinach cut small pieces
- 3 glasses water
- 4 chicken feet
- 1 cup thick coconut milk

Method

Boil the chicken feet in water till it is reduced by half. Drain, and keep the liquid.

Add rice and coconut milk to the drained liquid and cook.

When rice is well cooked, turn the heat off.

Beat eggs and pour into the rice mix and stir well.

Pour the cooked rice in a heat-proof cup (tin cup) and add the spinach. Steam it for 5 minutes.

Note: This recipe makes 2 portions

calories (kcal) 770	carbohydrates (G) 24.3
PROTEIN (G) 32.85	FAT (G) 63.55
17.97	VITAMIN A (IU) 1330
CALCIUM (MG) 158	ZINC (MG)

Mashed Red Rice with Spinach and Tuna

Ingredients

1/3 cup (50g.) red rice, soaked in water for 30 minutes 1/3 cup (50g.) tuna diced fine

1/3 cup (50g.) spinach, cut into small pieces

- 1 glass (200 ml.) breastmilk
- 1 teaspoon of coconut oil Stock

500g. chicken feet

- 1 small piece celery
- 1 small carrot diced
- 8 glasses water

Method

Make the stock by boiling chicken feet, celery and carrots in water until the water is reduced by half.

Drain the stock, and keep the liquid. Boil the rice in the stock until it turns into porridge.

Add the tuna.

Stir for a while then add spinach and oil.

Mash all the ingredients until soft. Add breastmilk and mix well.

Note: This recipe makes 2 portions

calories (kcal) 349	carbohydrates (G) 27.2
PROTEIN (G) 19.7	FAT (G) 17.85
1RON (MG) 5 . 07	VITAMIN A (IU) 155
CALCIUM (MG) 102.8	ZINC (MG)



Chicken and Egg Porridge

Inaredients

2 tablespoons (30g.) rice

- 4 teaspoons (20g.) chicken breast
- 2 teaspoons (10g.) broccoli
- 2 teaspoons (10g.) potato
- 1 egg yolk
- 1 cup chicken broth

Method

Clean chicken breast, removing tendons and fat

Boil chicken breast.

Cut into pieces and pound in a mortar.

Boil broccoli and cut into very fine pieces.

Lightly cook potato and crush in a mortar.

Cook rice with chicken broth till soft. Add chicken breast pieces, broccoli and potato and cook 3 minutes. Add egg yolk and stir for 2 minutes.

calories (kcal)	carbohydrates (G) 26.42
PROTEIN (G)	FAT (G)
10.18	4 . 82
IRON (MG) 0 . 848	VITAMIN A (IU) 24.6
CALCIUM (MG)	ZINC (MG)
29.8	0 . 873







Rice Porridge with Sweet Potato and Cabbage

Ingredients

1/3 cup (50g.) rice 1/3 cup (50g.) sweet potato 2 teaspoons (10g.) cabbage 2 teaspoons (10g.) carrot 3/4 cup water

Method

Steam sweet potato and cut into fine pieces.

Remove the stalks from cabbage and cut into small pieces.

Cut carrot into small pieces.

Cook rice, cabbage and carrot with water.

When vegetables are cooked, add sweet potato pieces.

Cook till required consistency, adding water if necessary.

calories (kcal) 240	carbohydrates (G) 54.306
PROTEIN (G) 4.27	FAT (G) 0 . 43
1RON (MG) 0 . 64	VITAMIN A (IU) 62 • 2
CALCIUM (MG)	zinc (MG) 0 - 785

Rice and Egg Mix

Ingredients

4 level teaspoons rice

l egg

1 bowl (200ml.) water

1 teaspoon pounded green leafy vegetables

1 teaspoon oil

1 light two-finger pinch of salt

Method

Boil the water.

Add rice, reduce the heat and cook on low heat for 25-30 minutes. Stir from time to time to make sure that the food does not stick at the bottom of the cooking pan. When the rice is soft, add the egg

Add the pounded vegetables and cook for 2-3 minutes.

and cook for 2-3 minutes.

Add salt to taste.

Note: If cooking for two children, or for two meals, double all ingredients except egg.

calories (kcal) 246.8	carbohydrates (G) 15.78
PROTEIN (G) 8.11	FAT (G) 16.77
1.2	VITAMIN A (IU) 354.7
CALCIUM (MG) 35.64	ZINC (MG) 0.29

Rice with Meat Mix

Ingredients

4 level teaspoons rice

2 teaspoons of finely chopped meat (especially liver)

1 bowl (200ml.) water

1 teaspoon pounded green leafy vegetables

1 teaspoon oil (when using lean meat)

1 light two-finger pinch of salt

Method

Boil the water and add rice. Reduce the heat and cook on low heat for 20 minutes.

Stir from time to time to make sure that the food does not stick at the bottom of the cooking pan.

Add the finely chopped or pounded meat and cook for another 10 minutes.

Add the oil and pounded vegetables. Mix well and cook for 2-3 minutes. Add salt to taste.

calories (kcal) 171	carbohydrates (G) 15.78
PROTEIN (G)	FAT (G)
3 • 46	10.42
1RON (MG)	VITAMIN A (IU)
0 . 15	144.7
CALCIUM (MG) 7 . 34	ZINC (MG) 0.29

Rice with Fish Mix

Inaredients

- 4 level teaspoons rice
- 1 level teaspoon pounded fish flour (big or small fish)
- 1 bowl (200ml.) water
- 1 teaspoon pounded green leafy vegetables
- I teaspoon oil
- 1 light two-finger pinch of salt

Method

Lightly roast the dried fish for 3-5 minutes before pounding.

Pound the fish into a fine powder and measure out 1 level teaspoon of fish flour.

Mix rice with pounded fish flour. Boil the water and add the rice/fish flour mix.

Reduce the heat and cook on low heat for 30 minutes.

Stir from time to time to make sure that the food does not stick at the bottom of the cooking pan.

Add the oil and pounded vegetables. Mix well and cook for 2-3 minutes. Add salt to taste.

Note: The light roasting of dried fish helps to reduce the fishy smell, and makes pounding easier.

Sweet Potato and Meat Mash

Ingredients

- 1 small size sweet potato (about 50 grams 1/2 cup of chopped pieces) 2 teaspoons finely chopped or pounded meat, especially liver
- 1 bowl (200ml.) water
- 1 teaspoon oil (when using lean meat)
- 1 teaspoon pounded green leafy vegetables
- 1 light two-finger pinch of salt

Method

Peel sweet potato, cut it into small pieces.

Put the potato pieces into a pan, add water and cook for 10 minutes. Add meat and cook for another 10 minutes or until the sweet potatoes and meat are well cooked and soft. Mash the sweet potatoes and meat with the back of the spoon.

If too thick, add a little water to thin the paste to the right consistency or texture for the child.

Add oil and pounded vegetables and cook for 2-3 minutes. Add salt.

Sweet Potato and Fish Mash

Inaredients

- 1 small size sweet potato (about 50 grams or 1/2 cup of chopped pieces)
- 2 teaspoons fish flour
- 1 bowl (200ml.) water
- 1teaspoon oil
- I teaspoon pounded green leafy vegetables
- 1 light two-finger pinch of salt

Method

Peel sweet potato, cut it into small pieces.

Put the potato pieces into a pan; add water and the fish flour. Cook for 20 minutes, or until the sweet potatoes are soft.

Mash the sweet potatoes into a smooth paste with the back of the spoon.

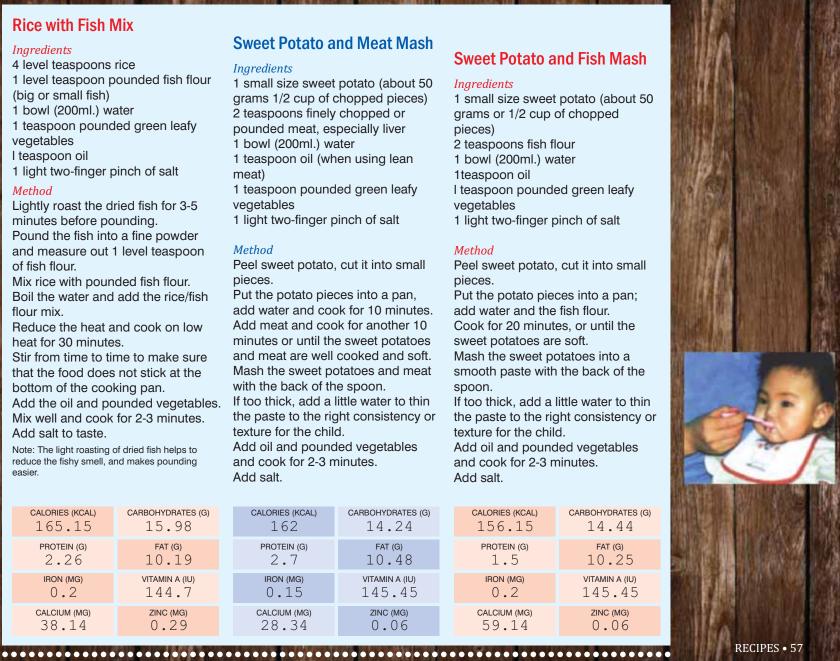
If too thick, add a little water to thin the paste to the right consistency or texture for the child.

Add oil and pounded vegetables and cook for 2-3 minutes. Add salt.

calories (kcal) 165.15	carbohydrates (G) 15.98
PROTEIN (G) 2.26	FAT (G) 10.19
1RON (MG) 0 • 2	VITAMIN A (IU) 144.7
CALCIUM (MG) 38.14	zinc (mg) 0 . 29

calories (kcal) 162	CARBOHYDRATES (G)
PROTEIN (G) 2 . 7	FAT (G) 10.48
IRON (MG) 0.15	VITAMIN A (IU) 145.45
CALCIUM (MG) 28.34	ZINC (MG) 0.06

calories (KCAL) 156.15	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
1.5	10.25
1RON (MG)	VITAMIN A (IU)
0 . 2	145.45
CALCIUM (MG)	zinc (mg)
59.14	0 . 06









Five Bean Rice

Ingredients

100 g. beans (optional use dried cowpea beans)
200g. rice
20g. wakame/scallop (optional use mustard greens)

1 teaspoon (5ml.) sesame oil

Method

Clean, wash and soak the beans for 4 hours.

Clean and wash rice.

Water for cooking

Finely chop wakame.

Put all the ingredients including oil in a utensil and cook till very soft.

Note: Nutritive values have been calculated using dried cowpea beans and mustard greens

calories (KCAL) 1469.8	carbohydrates (G) 211.54
PROTEIN (G) 38.5	FAT (G) 52.12
13.26	VITAMIN A (IU) 509.1
CALCIUM (MG) 128	zinc (mg) 7 . 4

Vegetable Pasta

Ingredients

2 florets (10g.) broccoli (optional use cauliflower)

 $\frac{1}{4}$ cup (50g.) peeled and chopped carrots

1 handful of cooked pasta made from 50g. dry pasta

Optional: grated cheese if you have already introduced it to infant.

Method

Steam broccoli and carrot until tender.

Blend lightly with cooked pasta.

Note: Nutritive values have been calculated using cauliflower

calories (kcal) 201	carbohydrates (G) 42.65
PROTEIN (G) 6.21	FAT (G) 0 . 5 9
1.98	VITAMIN A (IU) 240.07
calcium (mg) 54.8	ZINC (MG) 0.52

Pot Cheese with Carrots

Ingredients

1 ½ medium carrots 3 cups milk

1 teaspoon sugar

Method

Wash, peel and grate carrots finely. Steam till cooked.

Make cheese with 3 cups of milk. Add sugar and steamed carrot and mix well.

CALORIES (KCAL)	carbohydrates (G) 55.17
PROTEIN (G)	FAT (G)
15.305	18.65
IRON (MG)	VITAMIN A (IU)
1.9077	710.5
calcium (mg) 620.6	ZINC (MG)

Carrot Porridge

Ingredients

1/8 medium sized carrot 1/2 medium sized potato 1/8 medium sized turnip 1/2 medium sized tomato

1 cup meat soup

1 tablespoon vegetable oil or

2 tablespoons butter

½ teaspoon plain flour

Method

Finely dice carrot, potatoes, turnip and tomato.

Fry flour in butter for a couple of minutes.

Add meat soup, diced vegetables and oil.

Cook till the vegetables are done and the mixture is thick.

calories (kcal)	carbohydrates (G) 82.62
PROTEIN (G)	FAT (G)
17.455	43.15
IRON (MG)	VITAMIN A (IU)
2.6877	1694.5
CALCIUM (MG)	ZINC (MG)
646.8	0 . 58



Liver Mash

Ingredients

80g. Lamb liver 1/8 medium sized onion 1/6 medium sized carrot 1 tablespoon milk 1 teaspoon butter

Finely mince liver.

Method

Finely dice onion and carrot.

Heat butter in a pan.

Add minced liver and cook till done.

Add diced vegetables and cook till done.

Remove from fire.
Add the milk and mix well.

calories (kcal)	CARBOHYDRATES (G)
179.45	9.08
PROTEIN (G)	FAT (G)
22.68	3 • 5 7
IRON (MG)	VITAMIN A (IU)
0.83	269.65
calcium (MG) 63.6	ZINC (MG)



Yummy Noodle Soup (5 Portions)

Ingredients

200g. rice noodles100g. squash (optional use 200g. sweet potato) 1 whole peechay or bok choy (optional use 50g. cabbage) Water for cooking

Method

Cut the squash or sweet potato into small pieces.

When cooked, mash the squash or sweet potato.

Drop the noodles into the boiling pot of squash or sweet potato. Add finely chopped vegetables.

Note • Nutritive values are given separately for soup with squash and with sweet potato • Nutritive values given per portion

CALORIES (KCAL)

CARBOHYDRATES (G)

32 66

145.7	32.00
PROTEIN (G)	FAT (G)
3.18	0.23
IRON (MG)	VITAMIN A (IU)
0 . 448	726
CALCIUM (MG)	zinc (MG)
9 • 9	1.282
calories (KCAL)	CARBOHYDRATES (G) 43.02
PROTEIN (G)	FAT (G)
3.38	0.33
IRON (MG)	VITAMIN A (IU)
0 . 444	721.44
CALCIUM (MG)	zinc (MG)
26.3	1.274



Noodle Soup

NUTRITIVE VALUE USING SQUASH AND CABBAGE

NUTRITIVE VALUE USII





Play - Learn - Eat

The young children at Arugaan, Philippines rolled the bananas in the spring roll covering before it was fried, and sang Babababababanana. They looked forward to the sound of its crackling crispiness and started eating the dish from both ends.

Whole family members, including infants and young children prepare this soft and delicious favorite food at Arugaan. It is a Filipino version of spaghetti because it is has indigenous food crops: finely chopped squash and sweet potatoes, loads of tomatoes, onions, garlic, grilled eggplant - all sauteed and mixed with noodles boiled with cornsilk. The alternative to cheese is the grated corn. The children also used the noodles as art material before it was added to the dish.









Filipino Congee

Ingredients

2 tablespoons rice

1 cup chicken, fish, meat or beef broth

1 cloves garlic, minced

1 small red onion, minced

A small piece of ginger, cut into thin pieces

1 tablespoon chicken meat minced

1 hardboiled egg

Salt and black pepper to taste

Method

Wash and clean rice

Cook rice, chicken mince, onion, garlic and ginger in broth. Add more broth or water as necessary.

Dice egg white into small pieces, and mash egg yolk.

Add diced egg white and mashed yolk to rice when it is cooked, and mix well.

Add salt and pepper to taste.

calories (KCAL) 353.2	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
20.29	14.09
1RON (MG)	VITAMIN A (IU)
3 • 4	15
CALCIUM (MG)	ZINC (MG)
103.3	0 • 42

Thai Congee

Ingredients

2 tablespoons jasmine rice

1 cup water

1 black mushroom

1 small piece ginger finely shredded

1 small piece ham or pork roast,

finely diced

1 teaspoon sesame oil

½ teaspoon finely chopped coriander leaves

Salt and soy sauce to taste

Method

Wash and clean rice.

Finely slice mushroom.

Cook rice, meat and mushroom in water till well done. Add more water if necessary.

Add sesame oil to the rice. Add salt and soy sauce and coriander leaves and mix well.

calories (kcal) 98.3	CARBOHYDRATES (G) 8.95
PROTEIN (G) 2 . 8 3	FAT (G) 6 . 39
1RON (MG) 2.12	VITAMIN A (IU)
CALCIUM (MG) 3.1	ZINC (MG)





Nasi Goreng Brunei

Ingredients

6 tablespoons cooked rice
1 tablespoon minced beef
½ tablespoon spinach (leaf only),
chopped
½ tablespoon carrots, chopped
1 clove garlic, minced
½ small red onion, minced
1 teaspoon margarine

Method

Melt the margarine and sauté garlic and red onion until fragrant. Add in minced beef and cook thoroughly. Add in both chopped spinach and carrots.

Add in cooked rice to the mixture above and stir evenly. Serve.

calories (kcal) 389.52	carbohydrates (G) 74.67
PROTEIN (G)	FAT (G)
9 . 8 9	4 . 9
1.58	VITAMIN A (IU) 227.13
CALCIUM (MG)	zinc (MG)
37.27	1.31

Noodles with Meat and Tomato

Ingredients

Noodles Meat Tomato

Method

Boil noodles till soft.

Drain the noodles and cut them into small fragments.

Boil the meat with tomato for one hour.

Chop the cooked meat into small pieces.

Mix the noodles, meat pieces and soup.

CALORIES (KCAL)	CARBOHYDRATES (G)
232.4	40.55
PROTEIN (G)	FAT (G)
13.8	1.55
IRON (MG)	VITAMIN A (IU)
3.15	204.5
CALCIUM (MG)	ZINC (MG)
35.1	0



Nutritious Kichri

Ingredients

1 cup (100g.) broken wheat (can also be made with rice)
5 teaspoons (25g.) green gram (mung) lentil
5 teaspoons (25g.) chopped carrot
5 teaspoons (25g.) shelled peas
1/2 cup (50g.) chopped spinach
1 teaspoon (5g.) oil or ghee
½ teaspoon cumin
Pinch of turmeric powder
Salt to taste

Method

Clean, wash and soak rice and lentil for some time.

Add salt and turmeric powder. Cook till half done.

Add vegetables and continue cooking till soft and of required consistency.

Heat oil in a pan.

Add cumin.

When cumin turns brown, add to the porridge.

Serve with yoghurt.

calories (KCal) 577.25	carbohydrates (g) 76.42
PROTEIN (G) 38.34	FAT (G) 13.12
IRON (MG)	VITAMIN A (IU)
8.195	672.5
CALCIUM (MG)	zinc (MG)
120.25	1.75

Recipes for children 12 months and older*

*All nutritive values are approximate, calculated for dry ingredients; the values of stocks and soups are not included. Nutritive values of ingredients have been, taken from Nutritive Value of Indian Foods, by Gopalan et al (2007), National Institute of Nutrition, India.



Nasi Goreng Brunei

RECIPES • 61



High Energy High Protein Paratha

Ingredients

1/2 cup coarsely ground wheat flour 2 teaspoons cooked lentils 2 teaspoons cooked and mashed vegetables Ghee or oil to fry Salt to taste

Method

Mix flour, lentils, cooked vegetables, and salt, and knead into a pliable dough.

Take a small ball of dough and roll out into a round about 3 inches diameter.

Spread with ghee or oil and fold into

a triangle.

Roll out again.

Put on a mildly hot girdle (tava) and cook till color starts changing. Take off the tava.

Crumble and add ½ teaspoon ghee. Knead, roll out again and put on tava.

Repeat the process at least three times until the paratha is fully cooked.

Crumble, and serve with milk, yoghurt, dal or vegetable. It can also be eaten plain.

Note: For sweet paratha, add jaggery instead of salt. Cook on very low fire as jaggery will tend to burn quickly.

Millet Vegetable Salad

Ingredients

1/2 cup soft cooked millet
1/4 cup soft cooked carrots - diced
1/4 cup soft cooked peas
1 tablespoon (or more) soft cooked chicken or beef - diced or shredded into small bits

Method

Toss all ingredients together in a bowl.

Serve as a finger food meal or snack.

CALORIES (KCAL)	CARBOHYDRATES (G) 28.31
PROTEIN (G) 6.255	FAT (G) 5 . 61
1RON (MG) 2.37	VITAMIN A (IU) 398.45
CALCIUM (MG)	ZINC (MG) 1 ∩ 1 4

200.57	CARBOHYDRATES (G) 41.42
PROTEIN (G)	FAT (G)
8.17	2 • 22
1RON (MG)	VITAMIN A (IU)
2.05	508.75
CALCIUM (MG)	zinc (mg)
40.5	2 . 1

Millet and Wheat Flour Pancakes

Ingredients

1 cup whole wheat flour 1/2 cup mixed millet flour 1 tablespoon baking powder 1 ½ cups milk 10ml. oil

2 teaspoon honey Water as required.

Pinch of salt.

Method

Mix all the ingredients with water to make a thick batter.

Keep aside to rest for 15 minutes. Heat a greased pan.

Pour a small amount of batter to make small sized pancake.

When small holes appear on the pancake, flip it over and cook the other side.

Add oil as needed to cook the pancake.

Note: Adding an egg to the batter will make it more nutritious. Do not add baking powder, and reduce the amount of water.

CALORIES (KCAL) 728.9	carbohydrates (G) 118.75
PROTEIN (G)	FAT (G)
23.08	20
IRON (MG)	VITAMIN A (IU)
6.669	199.5
CALCIUM (MG)	ZINC (MG)
251.5	3 • 4

Mixed Millet, Rice and Lentil Pancakes

Ingredients

1/4 cup horsegram
1/4 cup foxtail millet
1/4 cup little millet
1/4 cup pearl millet
1/4 cup finger millet
1/4 cup sorghum
1/4 cup kodo millet
1/4 cup barnyard millet
1/4 cup white gram (udad dal)
1/2 cup rice
1/2 tablespoon fenugreek seeds
Salt to taste

Method

Oil

Soak the udad dal and fenugreek seeds for 4 hours.

In another vessel soak rice and millets together.

Drain and grind the white gram and methi mixture with a little water to make a smooth foamy batter.

757.5	carbohydrates (g) 156.05
PROTEIN (G)	FAT (G)
29.8	5 • 5
IRON (MG)	VITAMIN A (IU)
6.625	70.98
CALCIUM (MG)	ZINC (MG)
150	4.91

Next grind the rice and millet mix to a slightly coarse batter.

Mix both the batters and leave overnight to ferment.

Next day, add salt to the batter.

Lightly grease and heat a pan.

Spread a little batter into a pancake.

Cook both sides, adding a little oil if needed.



Millet and Wheat Flour Pancakes

RECIPES • 63



Ingredients

4 tablespoons finger millet

4 teaspoons white gram (udad dal) Salt to taste

Oil for greasing containers

Method

Soak finger millet and dal separately for a few hours (If millet flour is used, soak for 20 minutes in water before using).

Grind separately and mix together. Add salt.

Leave overnight to ferment.

Next day, grease a few containers, and divide the batter between them.

Steam till cooked.

calories (kcal) 268	carbohydrates (g) 53.68
PROTEIN (G)	FAT (G)
12.16	2 . 86
IRON (MG)	VITAMIN A (IU)
2 • 44	26.8
CALCIUM (MG)	zinc (mg)
49.4	2 . 0 4

Kodo Millet Idli

Ingredients

3 heaped cups of kodo millet 1 cup white gram (udad dal) Salt to taste Oil for greasing containers

Method

Clean kodo millet and dal separately and soak in water for 3-4 hrs.

Grind udad dal to a fluffy batter.
Grind the millet to a fine paste.
Mix the two ground pastes together.
Add salt and mix well.

Leave to ferment overnight.

Next morning grease containers
and half fill each container with the
batter.

Steam till cooked.

calories (kcal) 1340	CARBOHYDRATES (G) 268.4
PROTEIN (G) 60.9	FAT (G) 14.3
12.2	VITAMIN A (IU) 134
CALCIUM (MG) 217	ZINC (MG) 10.2



Chicken and Rice Porridge

Ingredients

2 tablespoons rice

1 tablespoon finely chopped chicken liver

1 tablespoon finely diced tofu

2 in. piece of carrot finely chopped

3 4in. pieces of green beans finely chopped

1 glass (200 ml.) chicken stock or broth

Method

Clean and wash rice thoroughly. Clean and wash vegetables thoroughly, and then chop them fine. Finely chop chicken liver. Finely dice tofu.

Cook rice in chicken stock till half done.

Add vegetables and continue cooking till almost done.

Add chicken liver and continue to cook the porridge.

Stir in finely diced tofu.

The finished porridge should be about half a bowl.

calories (kcal) 143.5	carbohydrates (G) 26.31
PROTEIN (G) 7 . 47	FAT (G) 1.01
IRON (MG) 4.861	VITAMIN A (IU) 107.75
CALCIUM (MG) 31.5	ZINC (MG) 0 . 442





Beef and Mushroom Omelet

Ingredients

1 egg

3 tablespoons milk

3 button mushrooms

2 teaspoons finely chopped onion

1 tablespoon finely minced beef

A little butter or oil

Method

Break the egg into a bowl. Add milk and mix thoroughly. Peel the button mushrooms and cut into large chunks.

Add mushroom pieces and chopped onion to egg and milk mixture.

Heat a pan and add butter or oil. Frv the beef mince.

Add the egg, milk and vegetable mixture.

Stir with fork.

When half done, fold the mixture. Continue to cook till fully done.

calories (kcal) 266.1	CARBOHYDRATES (G) 2.91
PROTEIN (G) 18.07	FAT (G) 20.23
IRON (MG) 2.415	VITAMIN A (IU) 58.8
CALCIUM (MG) 110.5	ZINC (MG)

Mohinga

Ingredients

For the broth:

1 teaspoon gram flour

1/3 teaspoon rice flour

50g. flaked nga gyi, nga ku or nga yunt (a variety of river catfish, which can be replaced with a mix of mackerel and sardines or other fish) 200ml. vegetable or fish stock

1 small onion quartered

A fistful of shredded banana stem or banana flowers

A few drops of ngan-bya-yay (a variety of fish sauce)

For the spice paste

1 small clove garlic peeled

1 cm. knob of fresh ginger peeled

½ lemongrass stalk trimmed A few stems of fresh coriander (not

leaves) 1 tablespoon groundnut or other oil Pepper to taste

Other ingredients:

100a, rice noodles

1 small fish cake

430.94	carbohydrates (g) 80.735
PROTEIN (G)	FAT (G)
22.26	2.185
IRON (MG)	VITAMIN A (IU)
6.21	30.64
calcium (MG)	ZINC (MG)
204.65	0.05

A wedge of hardboiled egg Fried shallots or onions Be-gyun-kyaw (split pea crackers can be replaced by roasted peas or gram)

Method

Roast the gram flour and rice flour, stirring all the time till it is fragrant. Mix with 100ml. water till smooth. Grind the garlic, ginger, lemongrass and coriander stems to a paste. Heat oil in a large utensil and fry the ground paste till it is fragrant, for 2-3 minutes.

Add flaked fish and mash with a fork till it is smooth, and well mixed with the spice paste.

Add the flour and water mix and the vegetable/fish stock.

Bring to a boil, and then turn down the heat to simmer for 30 minutes. Add quartered onions, banana stem/blossom, and water if necessarv.

Cook for an hour, stirring if necessary.

Soak the noodles in just boiled water for 15 minutes. Drain and keep aside.

To serve:

Arrange the noodles in a bowl. Heat oil in a frying pan, and fry fish cake till golden.

Stir fish sauce into the fish and stock mix.

Pour the hot soup on the noodles. Garnish with fish cake, split pea crackers, egg and coriander leaves.





Raw Salad

Ingredients

1handful kamote (sweet potato) leaves

1 sayote (chayote – a greenish pearshaped gourd about 4-5in. long and approx. 3in. broad at the broad end) ½ pinya (pineapple)

A little garlic and onions sliced thinly into cubes

1 or more teaspoons of olive oil or virgin coconut oil Salt to taste

Method

Wash and slice kamote red leaves. Slice a thin piece from the top of the sayote and rub on the cut edge. Then peel the sayote. Cut into half and remove the seeds and white mid part. Slice very thin.

Remove pineapple skin including the eyes and the mid hard portion and slice very thin.

Sprinkle salt on the garlic and onions. Mix all ingredients together.

Add oil.

CALORIES (KCAL) CARBOHYDRATES (G) 91 10.8 PROTEIN (G) FAT (G) 5.1 0.4 IRON (MG) VITAMIN A (IU) 2.42 55.5 CALCIUM (MG) ZINC (MG) 20 0.11

Pinoy Pageti (8 Servings)

Ingredients

100g. thick sliced kalabasa (squash or pumpkin)

200g. kamote (sweet potato)

1 small (50g.) onion

1 small whole (10g.) native garlic

1 (100g.) eggplant grilled, peeled and mashed

2 ears of corn

1 whole (250g.) corn boiled and grated

200g. spaghetti

5 (250g.) kamatis (tomato)

6 teaspoonful coconut oil

2 tablespoon peanuts Salt and pepper to taste

Method

Slice unpeeled kalabasa into tiny cubes.

Slice kamote into tiny cubes.
Slice peeled onions into tiny cubes.
Slice peeled garlic into tiny cubes.
Slice tomatoes and remove the seeds save for the garden.
Heat oil and sauté garlic till brownish.

Add and sauté onions till pulpy Add and sauté tomatoes slowly simmering till boiling Add sliced kalabasa and kamote and cook.

Add the grilled eggplant, peeled and mashed.

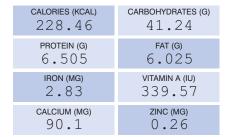
In separate casserole boil corn with its corn silk wrapped by its cover Boil together sliced onions and garlic with the corn

When boiling add the uncut long spaghetti

Sprinkle salt and coconut oil to the spaghetti

Pour a cup of boiled corn broth into the tomato and vegetable mixture Add salt and pepper to taste Add the half cooked spaghetti Cook till the spaghetti is soft. When spaghetti is soft, sprinkle pounded peanuts and boiled and grated corn.

Note: Nutritive value given per serving







Chicken and Lentil One Pot Dinner

Ingredients

- 1 egg
- 3 tablespoons milk
- 3 button mushrooms
- 2 teaspoons finely chopped onion
- 1 tablespoon finely minced beef
- A little butter or oil

Method

Break the egg into a bowl. Add milk and mix thoroughly. Peel the button mushrooms and cut into large chunks.

Add mushroom pieces and chopped onion to egg and milk mixture.

Heat a pan and add butter or oil. Fry the beef mince.

Add the egg, milk and vegetable mixture.

Stir with fork.

When half done, fold the mixture. Continue to cook till fully done.

CALORIES (KCAL) 348.85	carbohydrates (G) 54.85
PROTEIN (G)	FAT (G)
29.65	0 . 96
IRON (MG)	VITAMIN A (IU)
6.62	522.62
CALCIUM (MG)	zinc (MG)
141.75	2.25



Soup with Tofu Dumplings

Ingredients

- 3 tablespoons tofu
- 1 tablespoon plain flour
- 1 tablespoon corn flour
- 1 teaspoon chicken mince
- 1 cup chopped vegetables (broccoli floret, carrot, potato, onion, etc.)

Method

Place chicken mince and vegetables in a saucepan, and fill water to cover the food.

Bring to gentle simmer, and cook until vegetables are tender.

Mix tofu and flour.

While the soup is simmering, drop one teaspoon of the tofu mixture into the simmering soup. Repeat with remaining tofu mixture. Cook until the tofu dumplings are cooked.

calories (kcal) 191	carbohydrates (G) 32.93
PROTEIN (G)	FAT (G)
9.21	1.61
180N (MG)	VITAMIN A (IU)
15.64	480.55
CALCIUM (MG)	zinc (mg)
107.65	0 . 42

Meat/Fish Balls

Ingredients

Carrot

Flour

1 egg (beaten)

Cooked mincemeat/fish (can be replaced with finely chopped tofu)
Oil for frying (optional)

Method

Wash and grate or finely dice carrot. Steam the carrot and leave to cool. When cool, mix carrot with minced meat, egg, and flour to make a thick dough.

Shape into small balls.

Steam or fry the carrot and meat balls.

307.55	carbohydrates (G) 21.01
PROTEIN (G)	FAT (G)
22.41	14.755
IRON (MG)	VITAMIN A (IU)
3.835	476.35
calcium (mg)	zinc (MG)
150.8	0 . 33

Nutritious snacks for 9 months and older*

*All nutritive values are approximate, calculated for dry ingredients; the values of stocks and soups are not included. Nutritive values of ingredients have been, taken from Nutritive Value of Indian Foods, by Gopalan et al (2007), National Institute of Nutrition. India.







Puso Saging (Banana Heart Steak)

Ingredients

2 small or 1 medium banana hearts (will yield 6- 8 slices) 9-11 kalamansi or more 3 onions 7 teaspoon toyo (soy sauce) Coconut oil for frying

Method

Remove the hard outer leaves but save the saging bulaklak/banana blossoms for other recipes Wash and prick on two sides of the banana heart.

Place in a pot half filled with water and start heating it.

Remove from fire when it starts boiling.

When lukewarm, insert thin sticks or toothpicks into the puso saging so that it does not fall apart in pieces. Cut into ½ inch thick slices. Marinate in kalamansi juice and soy

sauce for two hours. Marinating it longer will make it salty.

Deep fry in coconut oil and keep aside.

calories (kcal) 151	carbohydrates (G) 82.6
PROTEIN (G) 10.8	FAT (G) 13.1
11.2	VITAMIN A (IU) 30
CALCIUM (MG)	ZINC (MG)

Slice onions thinly.

In a frying pan, sauté the slices in a little coconut oil.

Add the marinade and boil slightly. Pour over the fried puso saging and serve.

Chicken and Tofu Cutlets

Ingredients

- 1 tablespoon chicken mince
- 1 tablespoon silken or firm tofu
- 1 tablespoon soft cooked pumpkin 1/2 egg
- 1 teaspoon corn flour

Method

Mix all the ingredients and shape into cutlets.

Shallow fry on both sides till cooked and golden brown.

calories (KCAL) 119.25	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
12.01	7 . 48
IRON (MG)	VITAMIN A (IU)
5.638	10.15
CALCIUM (MG)	zinc (mg)
41	0 . 0 5

Small Fish Chop

Ingredients

- 2 tablespoons (30g.) rice flour
- 1 medium (90g.) potato
- 1 small (30g.) fish
- 2 teaspoons chopped cowpea
- 1 teaspoon chopped amaranth leaves
- 1 teaspoon chopped spinach
- 4 teaspoons chopped onion
- ½ teaspoon ginger garlic paste 2 teaspoons oil.

Method

Clean and wash small fish. If larger fish is being used, first debone it. Grind onions into a paste Season fish with a little ginger garlic paste and onion paste.

Leave for 10 minutes. Then grind the mix so that the bones are fully crushed.

Boil potato in water with skin. Peel and mash it when it is cooked. Wash all other vegetables and chop fine.

Mix all ingredients together.
Shape into chops and shallow fry both sides in pan with the oil till they are golden brown.

calories (kcal)	carbohydrates (G) 48.875
PROTEIN (G)	FAT (G)
10.08	10.93
IRON (MG)	VITAMIN A (IU)
2.762	660
CALCIUM (MG)	ZINC (MG)
133.9	0.976

Millet Patties

Ingredients

1/3 cup millet

1 cup water

1/4 cup onion, chopped

1/4 cup red bell pepper, chopped

1/4 cup carrots, chopped

1 garlic clove, sliced

2 tablespoons oil

1/2 teaspoon seasoning

1 egg, beaten

Method

Cook millet in water till soft; dry excess water, and fluff the millet with a fork.

Finely chop onions, bell pepper, carrots, and cloves.

Heat 2 teaspoons of oil in saucepan over medium heat and add the vegetables.

Stir fry for 3-4 minutes or until vegetables are soft.

Place the millet, vegetables and egg in a bowl and thoroughly combine. Take 2 tablespoons of mixture and form a patti or cutlet. Repeat till all the mixture is used up.

Heat the remaining oil in a pan, and fry the patties for 5 minutes on both sides they are golden brown.

calories (kcal) 635	carbohydrates (G) 40.6
PROTEIN (G)	FAT (G)
20.12	45.525
IRON (MG)	VITAMIN A (IU)
4.075	716.75
CALCIUM (MG)	ZINC (MG)
105.5	2 . 1

Finger Millet Biscuits

Inaredients

1/2 cup finger millet/ragi flour

1/2 cup wheat flour

1/2 cup powdered jaggery or sugar

1/2 cup butter (cold)

1 teaspoon baking powder 2 tablespoons milk

Method

Grease a tray with butter and keep it ready.

Pre heat the oven to 180 degrees C for 15 minutes.

Roast millet flour on low flame until fragrant. Leave it to cool.

Sieve together millet flour, wheat flour and baking powder.

Cut butter into small pieces and add

calories (KCal) 916.25	CARBOHYDRATES (G)
PROTEIN (G)	FAT (G)
53.05	4.025
IRON (MG)	VITAMIN A (IU)
3.995	1674
CALCIUM (MG)	ZINC (MG)
75.5	2.3





Millet Patties

to the sieved flour.

Mix well with your fingers until the mixture resembles breadcrumbs. Add powdered jaggery and mix it well.

Add milk little at a time and make a smooth dough.

Refrigerate the dough for 15-20 minutes.

Dust wheat flour and roll out the dough about 1/4 inch thick.

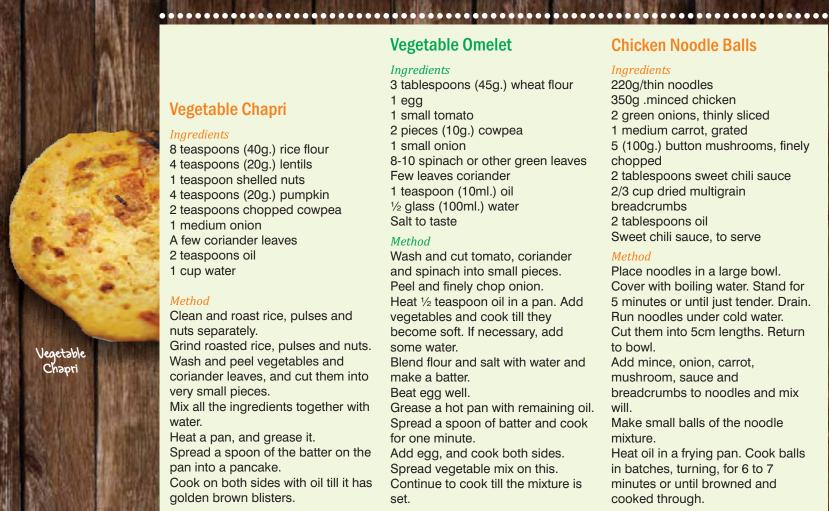
Using a cookie cutter or a lid of tin, cut into desired shapes. Or make small balls of the dough and press it into any shape you wish.

Place the biscuits on the greased tray and bake at 180 degree C for 15-20 minutes or until the biscuits start browning slightly.

Remove and cool on a wire rack. Once it cools it will become crisp. Store it in an airtight container.

Note • For vanilla flavor, add 1/4 teaspoon vanilla essence.

• For cardamom or cinnamon flavor, add 1/4 teaspoon cardamom or cinnamon powder



Vegetable Chapri

Ingredients

8 teaspoons (40g.) rice flour

4 teaspoons (20g.) lentils

1 teaspoon shelled nuts

4 teaspoons (20g.) pumpkin

2 teaspoons chopped cowpea

1 medium onion

A few coriander leaves

2 teaspoons oil

1 cup water

Method

Clean and roast rice, pulses and nuts separately.

Grind roasted rice, pulses and nuts. Wash and peel vegetables and coriander leaves, and cut them into very small pieces.

Mix all the ingredients together with water.

Heat a pan, and grease it. Spread a spoon of the batter on the pan into a pancake.

Cook on both sides with oil till it has golden brown blisters.

calories (KCAL) 615.78	carbohydrates (G) 57.18
PROTEIN (G) 12.68	FAT (G) 22.46
3 • 41	VITAMIN A (IU) 210.25
CALCIUM (MG)	ZINC (MG) 1 Q 5

Vegetable Omelet

Ingredients

3 tablespoons (45g.) wheat flour

1 small tomato

2 pieces (10g.) cowpea

1 small onion

8-10 spinach or other green leaves

Few leaves coriander

1 teaspoon (10ml.) oil

1/2 glass (100ml.) water

Salt to taste

Method

Wash and cut tomato, coriander and spinach into small pieces. Peel and finely chop onion.

Heat ½ teaspoon oil in a pan. Add vegetables and cook till they become soft. If necessary, add some water.

Blend flour and salt with water and make a batter.

Beat egg well.

CALORIES (KCAL)

406.48

PROTEIN (G)

16.04 IRON (MG)

5.21

CALCIUM (MG)

117.92

Grease a hot pan with remaining oil. Spread a spoon of batter and cook for one minute.

Add egg, and cook both sides. Spread vegetable mix on this. Continue to cook till the mixture is set.

CARBOHYDRATES (G)

45.32

FAT (G) 17.76

VITAMIN A (IU)

577.95

ZINC (MG)

1.6

Chicken Noodle Balls

Inaredients

220g/thin noodles 350g .minced chicken 2 green onions, thinly sliced 1 medium carrot, grated 5 (100g.) button mushrooms, finely chopped 2 tablespoons sweet chili sauce 2/3 cup dried multigrain breadcrumbs 2 tablespoons oil

Method

Place noodles in a large bowl. Cover with boiling water. Stand for 5 minutes or until just tender. Drain. Run noodles under cold water. Cut them into 5cm lengths. Return to bowl.

Sweet chili sauce, to serve

Add mince, onion, carrot, mushroom, sauce and breadcrumbs to noodles and mix will.

Make small balls of the noodle mixture.

Heat oil in a frying pan. Cook balls in batches, turning, for 6 to 7 minutes or until browned and cooked through.

calories (kcal) 1109.8	CARBOHYDRATES (G) 97.8
PROTEIN (G)	FAT (G)
101.35	33.35
1RON (MG)	VITAMIN A (IU)
6 . 8	737
CALCIUM (MG) 230.6	ZINC (MG)

Finger Millet and Oats Dhokla

Ingredients

1 cup finger millet flour

1 cup fine semolina

200g. oats

1 cup yogurt

1/2 teaspoon baking powder

Salt to taste

1 tablespoon oil

Method

Combine the millet flour, semolina, oats, yogurt and a little salt in a large mixing bowl. Add a little water at a time to make a thick batter. Allow the mixture to rest for 5 minutes.

Grease small containers.

Add baking powder to batter and mix well.

Pour the batter into the greased containers.

Steam on high heat for about 10 minutes until a tester inserted in the center comes out clean.

calories (kcal) 1173	carbohydrates (g) 213.4
PROTEIN (G)	FAT (G)
42.8	21.1
1RON (MG)	VITAMIN A (IU)
30.6	171.5
calcium (mg)	zinc (MG)
201	2 • 4

••••••••

Nəturəl drinks

Kamote Tops-Kalamansi Juice (10 portions)

Boil sweet potato leaves for 5-7 minutes.

••••••••••••••

Strain and keep the liquid. (Mom can eat the leaves as cooked salad with lemon, sliced onions & tomatoes).

The broth of the boiled sweet potato leaves looked green in color. When cool, squeeze kalamansi (lemon) into the broth.

The kalamansi juice color is yellow but when mixed with the sweet potato leaves it turns pink. Add brown sugar or honey and stir well.



Kamias or Iba Juice (10 portions)

Squeeze fresh kamias or iba (bilimbi fruits or fruits of tree sorrel) using a fork.

Place a thin muslin cloth on the mouth of a pitcher, and pour the juice through the cloth.

Add cold water to fill the pitcher. Add honey or brown sugar to taste. Ice is optional.







Nutritious dry mixes*

*All nutritive values are approximate, calculated for dry ingredients; the values of stocks and soups are not included. Nutritive values of ingredients have been, taken from Nutritive Value of Indian Foods, by Gopalan et al (2007), National Institute of Nutrition, India.

All mixes should be stored in a clean airtight tins. Use a dry spoon to measure the mix.

While many of the mixes can be mixed in water or milk and given as a drink, some will need to be cooked. This will be mentioned in the recipe.

MALTING GRAINS

Malted grains are easier to digest. They are also more nutritious. They can be used instead of regular grains. If powdered, ½ to 1 teaspoon added to the infant's food will improve its energy content. As the infant grows older, more can be added.

Rice, wheat, millets and legumes can be easily malted. Two or three types of grains can be malted separately and the powders mixed. As malted grain does not keep very long, it is better to make small quantities at a time once every two weeks.

Method

Soak ½ cup of grain overnight.

Tie in muslin cloth in the morning and keep damp till the grain sprouts. This can take up to 48 hours (2 days).

Once sprouts appear, roast the grain in a pan till completely dry.

Grind to fine powder and store in airtight tins.

Wheat Mix

Ingredients

100g. whole wheat flour 30g. roasted and de-husked bengal gram 20g. roasted groundnut

Method

Roast wheat flour.
Remove the skin of groundnut.
Powder roasted bengal gram and groundnut.
Mix with wheat flour thoroughly.

calories (kcal) 565.7

CARBOHYDRATES (G) 92.14

PROTEIN (G) 23.94

FAT (G) 11.22

1RON (MG) 8.36

VITAMIN A (IU) 62.9

CALCIUM (MG)

ZINC (MG) 2.2

Wheat Food Mix

Ingredients

100g. wheat

30g. roasted bengal gram 20g. groundnut shelled

50g. sugar

Method

Clean and roast wheat and groundnut separately.
Powder bengal gram and groundnutand wheat separately to a fine powder.

Mix all the ingredients thoroughly and add powdered sugar.

CALORIES (KCAL)

CARBOHYDRATES (G)

PROTEIN (G) 23.99

FAT (G) 11.22

1RON (MG) 8.43

VITAMIN A (IU) 62.9

CALCIUM (MG) 86.8

ZINC (MG) 2.2

Wheat and Green Gram Mix

Ingredients

25g. whole wheat 10g. whole green gram

Method

Clean wheat and green gram properly.

Roast wheat and green gram separately.

Grind these individually, and mix together.

CALORIES (KCAL)
121.3

CARBOHYDRATES (G) 23.79

PROTEIN (G) 5.4

FAT (G) 0.495

IRON (MG) 1.715 VITAMIN A (IU)

20.9 CALCIUM (MG)

17.75

ZINC (MG) 0.955

Malted Food Mix

Ingredients

100g. dried sprouted wheat 50g. dried sprouted green gram

Method

Roast sprouted wheat and green gram on slow fire separately. Grind wheat and green gram to a fine powder separately. Mix the two powders.

CALORIES (KCAL) 520

CARBOHYDRATES (G) 101.2

> PROTEIN (G) 24.04

> > FAT (G) 2.1

IRON (MG) 7.25

VITAMIN A (IU) 88.5

CALCIUM (MG) 78.5

ZINC (MG) 3.6

Wheat Soya Mix

Inaredients

80a. whole wheat 20g. whole soyabean

Method

Clean whole wheat and soyabean separately.

Roast wheat and soyabean separately.

Grind these separately and mix together.

CALORIES (KCAL)
363.2
CARBOHYDRATES (G)
61.14
DDOTEIN (O)

PROTEIN (G) 18.08

FAT (G) 51.1

IRON (MG) 6.32

VITAMIN A (IU) 136.4

CALCIUM (MG) 80.8

ZINC (MG) 3.04

Rice Mix

Ingredients

150g. raw rice 50g. roasted bengal gram

Method

Wash and soak raw rice in water. Drain water and dry under sun. Grind to a fine powder. Grind roasted bengal gram. Mix the two powdered ingredients.

Note: This powder will need to be cooked with milk or water before feeding.

CALORIES (KCAL) 702

CARBOHYDRATES (G) 146

> PROTEIN (G) 21.12

> > FAT (G) 3.35

IRON (MG) 4.73

VITAMIN A (IU) 56.5

CALCIUM (MG) 36.5

ZINC (MG) 2.1





Puffed Rice Food Mix

Ingredients

100g. puffed rice 30g. roasted bengal gram 20g. roasted groundnuts 50g. sugar

Method

Powder puffed rice after slightly roasting it. Powder roasted gram and groundnut separately. Mix all the ingredients and add powdered sugar.

748.7
CARBOHYDRATES (G)
PROTEIN (G) 19.39
FAT (G) 9 . 62
IRON (MG) 10.13
VITAMIN A (IU) 33.9
calcium (mg) 61.8
ZINC (MG)

Sattu Mix 1

Ingredients

20g. wheat 20g. bengal gram 20g. green gram 10g. groundnuts 30g. jaggery

Method

Roast wheat for 9 minutes. Roast bengal gram for 8 minutes. Roast greengram for 5 minutes. Roast groundnuts for 6 minutes. Powder the ingredients. Mix thoroughly.

403.2
CARBOHYDRATES (G) 74.33
PROTEIN (G) 16.64
FAT (G) 5 . 81
IRON (MG) 5 • 522
VITAMIN A (IU) 43.7
CALCIUM (MG) 73.7
ZINC (MG) 0.96

Rice Soya Mix

Ingredients

30q. rice 20g. soyabean 50g. sugar

Method

Roast rice and soyabean separately. Grind rice and soyabean and mix together.

Add powdered sugar and mix well.

CALORIES (KCAL)	
carbohydrates (G)
PROTEIN (G) 10.68	
FAT (G) 4 . 0 4	
IRON (MG) 2.35	
VITAMIN A (IU) 21.3	
CALCIUM (MG) 57	
ZINC (MG) 1.1	

Sattu Mix 2

Ingredients

30g. wheat 15g. bengal gram 25g. soyabeans 30g. jaggery

Method

Roast wheat for 9 minutes. Roast bengal gram for 8 minutes. Roast soyabeans for 10 minutes. Powder the ingredients and mix well. Prepare drink or porridge.

342.15
carbohydrates (G) 69.91
PROTEIN (G) 12.015
FAT (G) 1.56
IRON (MG) 4 . 462
VITAMIN A (IU) 35.45
calcium (mg) 62.1
ZINC (MG) 1.22

CALORIES (KCAL)

Finger Millet Infant Food

Ingredients

45 g. ragi (dehusked, roasted)

10g. bengal gram

30g. sugar 10g. skimmed milk powder, if available

Method

Powder the ingredients separately. Mix well.

Store in airtight container. Mix about 3 tablespoons with hot water and feed infant.

CALORI	ES	(KCA	AL)
31	6	. 9	

CARBOHYDRATES (G) 52.7

PROTEIN (G) 7.26

FAT (G) 1.52

IRON (MG) 9.97

VITAMIN A (IU) 11.3

CALCIUM (MG) 11.2

> ZINC (MG) \cap

CVI OBIES (KCVI)

Sorghum Food Mix

Ingredients

100g. sorghum 50g. split green gram 25a. sesame seeds

Method

Clean and roast sorghum, green gram and sesame seeds separately. Grind all the three to a fine powder separately and mix thoroughly.

CALORIES (KCAL) 666.05

CARBOHYDRATES (G) 108.35

> PROTEIN (G) 27.14

FAT (G) 15

IRON (MG) 26.3

VITAMIN A (IU) 71.42

CALCIUM (MG) 86.75

ZINC (MG)

Malted Finger Millet Mix

Inaredients

100 a. malted millet flour 40g. roasted bengal gram 25g. roasted groundnuts

Method

Remove the outer skin of groundnut. Grind to make a fine powder. Grind separately bengal gram. Mix together all the ingredients.

Note: This powder must be cooked in milk or water before feeding.

C	621.1
CAF	RBOHYDRATES (G)
	PROTEIN (G) 27.85
	FAT (G) 16.33
	IRON (MG) 7 - 355

VITAMIN A (IU) 77.2 CALCIUM (MG) 73.45

> ZINC (MG) 2.4

Pearl Millet Food Mix

Ingredients

50g. pearl millet

20g. split mung or green gram

10g. sesame seeds

20g. sugar

Method

Clean and dehusk pearl millet. Roast and powder millet, green gram and sesame seeds separately. Mix all the powders together adding powdered sugar.

calories (kcal) 372
carbohydrates (g) 68.76
PROTEIN (G) 12.87
FAT (G) 7 . 39
IRON (MG) 10.301
VITAMIN A (IU) 25.8
calcium (mg) 42.6
zinc (mg) 1.76

RECIPES • 75



Mixed Millet Food

Ingredients

2 tablespoons little millet 2 tablespoons kodo millet

2 tablespoons foxtail millet

2 tablespoons broken whole wheat grains

2 tablespoons rice

2 tablespoons whole green gram

Method

Roast each kind of grain separately till fragrant.

Cool the grains.

Grind the millets together till they resemble semolina or suji. Grind rice and green gram till fine.

Mix the powders thoroughly.

Note: This mix needs to be cooked in milk or water before feeding.

CALORIES	(KCAL)
641	. 2

CARBOHYDRATES (G) 131.88

PROTEIN (G) 25.16

> FAT (G) 5.32

IRON (MG) 5.54

VITAMIN A (IU) 55.4 CALCIUM (MG)

69.4 ZINC (MG)

4.3

High Protein Wheat Infant Food

Ingredients

45g. whole wheat

20g. green gram or bengal gram

10g. groundnuts 30g. jaggery

10g. skimmed milk powder, if available

Method

Roast wheat, green gram and groundnuts separately. Grind separately and mix the powders.

Store in airtight containers. Mix 3 tablespoons with hot water and feed infant.

CALORIES (KCAL) 399.15

CARBOHYDRATES (G) 74.01

> PROTEIN (G) 12.67

FAT (G) 5.815

IRON (MG) 5.197

VITAMIN A (IU) 35.65

CALCIUM (MG) 64.9

> ZINC (MG) 0.99

Lito Mix

Ingredients

20g. chickpea 15g. soyabean 25g. wheat 5g. almonds 5g. cashew

Method

Dry roast wheat, soyabean and chickpea separately. Mix and grind to a powder. Add cashew and almond. Grind to a fine flour. Mix with water or milk and stir it before feeding.

CALORIES (KCAL)
CARBOHYDRATES (G. 35.19

PROTEIN (G) 18.14

FAT (G) 10.415

IRON (MG) 5.825

VITAMIN A (IU) 138.3

CALCIUM (MG) 69.85

ZINC (MG) 2.025

High Energy High Protein Sorghum Mix

Ingredients

100g. jowar 50g. green gram 25g. sesame seeds

Method

Clean and roast Jowar, green gram and sesame separately. Grind all the three to a fine powder and mix thoroughly.

CALORIES (KCAL) 666.05

CARBOHYDRATES (G) 108.35

> PROTEIN (G) 27.14

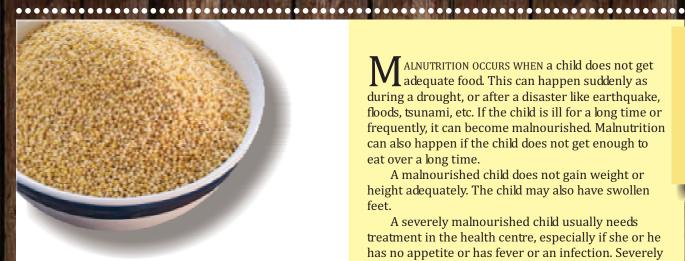
> > FAT (G) 15

IRON (MG) 26.3

VITAMIN A (IU) 71.42

CALCIUM (MG) 86.75

ZINC (MG)



High Protein Pearl Millet Infant Food

Ingredients

45g. bajra (pearl millet) dehusked and roasted

20g. roasted green gram or any other lentil

10g. roasted groundnuts

5g. roasted decorticated sesame seeds

30g sugar 10g. skimmed milk

Method

The ingredients are powdered, mixed well and stored in airtight containers.

Mix about 3 tablespoons with hot water and feed infant

CALORIES (KCAL) 452.25

CARBOHYDRATES (G) 77.99

> PROTEIN (G) 14.88

> > FAT (G) 11.15

IRON (MG) 10.496

VITAMIN A (IU) 24.2

CALCIUM (MG) 49.95

ZINC (MG) 1.64

ALNUTRITION OCCURS WHEN a child does not get adequate food. This can happen suddenly as during a drought, or after a disaster like earthquake, floods, tsunami, etc. If the child is ill for a long time or frequently, it can become malnourished. Malnutrition can also happen if the child does not get enough to eat over a long time.

A malnourished child does not gain weight or height adequately. The child may also have swollen feet.

A severely malnourished child usually needs treatment in the health centre, especially if she or he has no appetite or has fever or an infection. Severely malnourished children are especially prone to infections and need immediate and special treatment. Once the child is treated at the centre, he or she can return home. However, the child needs to continue to eat well of high energy foods, so as to gain weight quickly.

If there is one malnourished child in the family, it is quite possible that the other members of the family, especially children, are also malnourished. They need extra food to regain lost weight. Children especially need several small but high nutritious and energy dense meals everyday.

The following recipes have been especially developed for feeding malnourished children.



High energy foods for malnourished children*

*All nutritive values are approximate, calculated for dry ingredients; the values of stocks and soups are not included. Nutritive values of ingredients have been, taken from Nutritive Value of Indian Foods, by Gopalan et al (2007), National Institute of Nutrition, India

Children especially need several small but high nutritious and energy dense meals everyday



Khicheri

Ingredients

120g. rice 60a. lentil 70ml, oil 100g. potatoes 100g. pumpkin 80g. green leafy vegetables 50g. onions 50a. garlic 1000ml, water Salt to taste

Method

Clean and wash rice and lentils. Wash, peel and chop potatoes. Dice pumpkin and onion. Clean and wash green leafy vegetables.

Cook rice, lentils and potatoes with half the water and oil for 25-30 minutes.

Keep adding water as needed. Add pumpkin and onion and cook for 15 minute.

Add garlic and green leafy vegetables and cook for 10 minutes. Use within 24 hours.

Liver Chop

Ingredients

5 teaspoons (25g.) rice flour 2 tablespoons (30g.) chicken liver 4 teaspoons (20g.) pumpkin 2 teaspoons (10g.) peas 10 tablespoons (150g.) potato 4 teaspoons (20g.) onion 1 teaspoon ginger garlic paste 1 teaspoon (5g.) coriander leaves 2 teaspoons (10ml.) oil 3/4 glass (170ml.) water Salt and spices to taste

Method

Wash, peel and finely dice pumpkin. Boil potatoes with their skin till soft. Peel and mash.

Chop onions into small pieces. Clean, wash and mince liver. Mix potato, rice flour and ½ the chopped onion.

Heat oil in a large frying pan.Add the remaining onion and stir fry. Add salt and spices, and fry for one minute.

Add minced liver and cook 5 minutes.

Add water, chopped pumpkin and coriander leaves and continue to cook till the mixture is drv. Remove from heat and leave to cool. Take a handful of the mashed potato mixture, make a hollow, and put a ball of mince mixture inside it. Cover the mince with the potato. and flatten the ball into a cutlet or chop shape.

Shallow fry with oil on both sides until golden brown.

calories (KCAL) 1413.8	carbohydrates (G) 164.14
PROTEIN (G)	FAT (G)
28.06	71.57
1RON (MG)	VITAMIN A (IU)
6.98	3436.98
CALCIUM (MG)	ZINC (MG)
123.9	4.31

calories (KCAL) 249.6	carbohydrates (G) 27.96
PROTEIN (G)	FAT (G)
11.06	10.368
1RON (MG)	VITAMIN A (IU)
0.63	99.9
calcium (MG)	zinc (mg)
22.25	0 . 4795

Liver Kichuri

Ingredients

1 fistful (30g.) rice

1/3 fistful (10g.) lentil

1 small piece (20g.) chicken liver

½ (20g.) medium potato

1 small piece (15g.) pumpkin

1 medium (20g.) onion

1 teaspoon ginger garlic paste

Pinch of turmeric powder

2 teaspoon (10ml.) oil

1 1/5th glass (270ml.) water

Method

Clean and wash rice and pulse and soak for 10 minutes in water, then drain and keep aside.

Finely chop onion.

Mince liver.

Wash and cut vegetables into small pieces.

Heat oil in a frying pan.

Add onions, ginger garlic paste and frv for one minute.

Add rice, lentils and turmeric powder, and fry for a minute.

Add water and bring to a boil. Cover and cook till rice and lentils are almost done.

Add liver and all the vegetables, and continue to cook till fully done.

calories (KCAL) 478.55	CARBOHYDRATES (G) 82.4
PROTEIN (G)	FAT (G)
13.79	10.6
IRON (MG)	VITAMIN A (IU)
2.234	119.28
CALCIUM (MG)	zinc (mg)
45.15	1.916

Egg Kichuri

Ingredients

11/2 tablespoons rice

1 tablespoon lentils I small (25g.) potato

½ egg

1 small piece (10g) pumpkin

6-7 spinach leaves, or other dark green leaves

 $1\!\!/_{\!\!2}$ teaspoon ginger-garlic paste

1 small finely chopped onion

1 pinch turmeric powder

2 ½ glasses water

2 teaspoon oil

Method

Clean and wash rice and lentils. Soak in water for 10 minutes then drain and keep aside.

Grind ginger and garlic to make

calories (kcal) 296.2	CARBOHYDRATES (G) 34.11
PROTEIN (G)	FAT (G)
12.89	12.14
IRON (MG)	VITAMIN A (IU)
2.639	62.37
CALCIUM (MG) 54.85	ZINC (MG) 0 . 8 0 5

paste. Keep $\frac{1}{2}$ teaspoon aside. Wash and finely chop vegetables. Wash and heat a utensil, and add oil.

Add onion and ginger garlic paste and stir for 1-2 minutes.

Add washed and drained rice and pulses and stir for 1-2 minutes.

Add water, and let it cook till it is half cooked.

Add finely chopped vegetables and continue to cook till it is very soft and thick.

Add egg and stir till well mixed and fully cooked.

The egg khichuri should be about half a bowl in quantity.



RECIPES • 79





Cooked Tempeh with Rice Flour

Cooked Tempeh with Rice Flour

Ingredients

4 tablespoons of red rice 2 eggs 50g. spinach, cut small 600ml. drinking water 4 chicken feet 100ml. thick coconut milk

Method

Boil the chicken feet to make the stock.

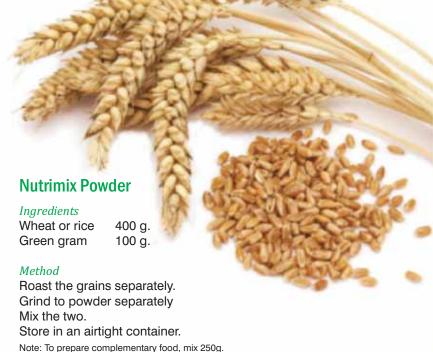
Add rice and coconut milk to the stalk and cook.

hen done, turn the heat off and pour in the eggs and stir.

Add the spinach and cook for 5 minutes.

Note: This recipe makes 2 portions

calories (kcal) 873	carbohydrates (G) 21.2
PROTEIN (G) 81.7	FAT (G) 52.7
13.96	VITAMIN A (IU) 3990
CALCIUM (MG) 207.5	ZINC (MG) 0.13



of Nutrimix Powder with 50g. sugar, 50g. vegetable oil, 700ml. of water and 20ml. of electrolyte mineral solution.

Nutrimix complementary food using 250g. of rice-based Nutrimix powder (excluding electrolyte mineral solution)

Nutrimix complementary food using 250g.of wheat-based Nutrimix powder (excluding electrolyte mineral solution)

calories (kcal) 1506	CARBOHYDRATES (G) 234.4	calories (kcal) 1498	CARBOHYDRATES (G) 216.8
PROTEIN (G)	FAT (G)	PROTEIN (G)	FAT (G)
25.6	51.65	36.2	51.62
1RON (MG)	VITAMIN A (IU)	12.07	VITAMIN A (IU)
3 • 67	386.75		401.2
CALCIUM (MG)	ZINC (MG)	CALCIUM (MG)	zinc (mg)
88	4.3	164	5 • 9

CAROTENE (VITAMIN A) RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Carotene (μg)
Drumstick leaves	42000
Curry leaves	21000
Amaranth(tender)	20160
Mint	18950
Colocasia leaves green	15700
Radish leaves	13000
Fenugreek leaves	11800
Spinach	9440
Turnip green	9396
Carrot	8840
Coriander leaves	6918
Cowpea leaves	6072
Pumpkin	2100
-	

VITAMIN B12 RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Vitamin B12 (g)
Skimmed milk powder	0.83
Buffalo milk	0.14
Cow milk	0.14
Curd (cow milk)	0.13
Curd (buffalo milk)	0.10
Goat milk	0.05
Human milk	0.02

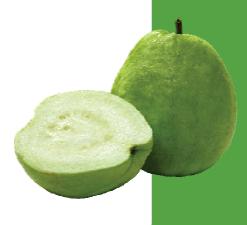
VITAMIN 'C' RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Vitamin C (mg)
Gooseberry	600
Guava	212
Turnip greens	180
Coriander leaves	135
Drumstick leaves	120
Chilies green	110
Amaranth (tender)	99
Bitter gourd	88
Radish leaves	81
Carrot	79
Beet greens	70
Lime	63
Sweet lime	54
Orange	30
-	

Rich sources of micronutrients

The following tables have been taken from the booklet Dietary tips for better health, published by the Ministry of Women and Child Development, Government of India.



IRON RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Iron (mg)
Coconut dry	69.4
Turmeric	67.8
Lotus stem dry	60.6
Niger seeds (Black sesame)	56.7
Raw mango powder	45.2
Cauliflower greens	40.0
Turnip greens	28.4
Bengal gram leaves	23.8
Cowpea leaves	20.1
Radish leaves	18.0
Turnip greens	17.0
Mustard leaves	16.3
Beet greens	16.2
Mint	15.6
Cumin seeds	11.7
Soyabean	10.4
Colocasia leaves (green)	10.0
Moth beans	9.5
Bengal gram roasted	9.5
Sesameseeds	9.3
Cowpea	8.6
Lentil	7.5



CALCIUM RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Calcium (mg)
Jaggery, coconut palm	1638
Sesame seeds	1450
Skimmed milk powder made	1370
from cow's milk	
Cumin seeds	1086
Whole milk powder made from	950
cow's milk	
Curry leaves	830
Cheese	790
Turnip greens	710
Cauliflower greens	626
Mustard seeds	490
Colocasia leaves	460
Moringa leaves	440
Coconut dry	400
Amaranth tender	397
Finger millet	344
Carrot leaves	340
Fenugreek leaves	395
Bengal gram leaves	340
Radish leaves	310
Kidney beans	260
Soyabean	240
Buffalo milk	210



FOLIC ACID RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Folic Acid (g)
Bengal gram	186
Amaranth tender	149
Green gram	140
Cowpea	133
Black gram dal	132
Ladyfinger (okra)	105
Sesame seeds	134
Mint	114
Red gram	103
Spinach	123
Soyabean	100
Curry leaves	94
Fenugreek leaves	84
Colocasia	54
French beans	45
Wheat whole	36
Tomato ripe	30
_	



ZINC RICH FOODS

(all the values are per 100 g. of edible portion)

Name of food stuff	Zinc (mg)
Common millet	3.7
Green gram (whole)	3.0
Cow pea	4.6
Bengal gram (whole)	6.1
Wheat whole	2.7
Rice	1.4
Kidney beans	4.5
Soyabean whole	3.4
Almond	3.57
Cashew nut	5.99
Coconut dry	5.00
Sesame seeds	12.20
Mustard seeds	4.80
Groundnut	3.90





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