

Nutrition during pregnancy and breastfeeding (mother)

Good eating habits and proper nutrition before and during pregnancy help keep a woman healthy and allow the baby to grow and develop properly. Women's needs for energy and most nutrients increase during pregnancy and breastfeeding, so they need to have a healthy, balanced diet that meets these needs.

Nutrition before pregnancy

Good eating habits before pregnancy are important. The health of a woman affects her ability to get pregnant, as well as the health of the unborn baby.

A woman who wants to have a baby should be in good health and have a healthy body weight. The risk of pregnancy complications is higher for women who are too thin or too heavy.

High levels of folate are needed during pregnancy, especially in the early stages, for a healthy baby. Lack of sufficient folate early in pregnancy can lead to severe birth defects in the baby. It is recommended that all women who could become pregnant eat at least 5 servings a day of vegetables and fruits rich in folate, especially leafy green vegetables, bean, peas and other legumes, and liver. Women who are not able to meet their need for folate through their diet during this time are advised to eat foods fortified with folic acid or take folic acid supplements, in addition to eating folate-rich foods. A doctor or health professional should always be consulted for advice about vitamin and mineral supplements before or during pregnancy.

Nutrition during pregnancy

All pregnant women need to eat a good, balanced diet and gain additional weight to support a healthy pregnancy and childbirth. A diet that provides the increased energy (calories) and nutrients needed during pregnancy is necessary for the health of both mother and baby.

During pregnancy, the mother's own stores of nutrients may be reduced, putting her at increased risk of illness. A baby deprived of adequate nutrition before birth is likely to have poor development in childhood and health problems throughout life.



Pregnant women need to eat enough to supply the extra energy, protein, vitamins and minerals needed by the growing foetus (baby). However, it is not necessary to “eat for two” during pregnancy. A woman entering pregnancy with a healthy weight generally needs to eat about 280 extra calories a day.

Protein is especially important to create new tissues, blood, cells and bones.

Iron requirements are particularly high and supplements are often needed.

Iodine during pregnancy helps prevent serious birth defects, such as brain damage and mental retardation.

Folate is needed to prevent severe birth defects during the first few weeks of pregnancy.

Other nutrients that are important are **zinc, vitamins A and C**.

Daily meals

A pregnant woman should have the following foods every day:

- 4 glasses of milk or milk products
- 3 portions of meat, fish, eggs, beans
- 4 portions of fruit and vegetables
- 6 portions of bread and cereals
- Lots of liquid .

Women should avoid drinking alcohol and should have regular medical checks throughout their pregnancy.

Nutrition during breastfeeding

Breastfeeding requires additional nutrients and energy, as the mother needs to replace the nutrients and energy that are passed on to the baby through the milk. If the mother does not satisfy the needs of her baby, the baby will draw on, and reduce, the mother's own stores of nutrients. This puts the mother at risk of illness and can affect the baby's development.

The nutrients that are important for a good supply of breastmilk are the same as those that are important for a healthy pregnancy. These include protein, zinc, calcium, vitamins A and C, iron and folate. Additional servings of milk and high protein snacks between meals or an additional small meal every day are good ways to meet the additional needs of breastfeeding. A breastfeeding woman needs a varied and nutritious diet with staple foods, vegetables, legumes, meat and fish, and plenty of fruits. She should also drink plenty of water, milk and other fluids.

It may take two to three years after stopping breastfeeding for all of the mother's nutritional stores to be replaced, therefore good spacing between pregnancies is recommended for the health of the mother and her future babies.



Weight gain during pregnancy

All pregnant women need to gain weight during pregnancy, no matter what they weigh before pregnancy. This weight gain is needed for the proper development of the growing baby and for the added growth of the uterus, breasts, blood and other fluids and tissues needed to support the growing baby.

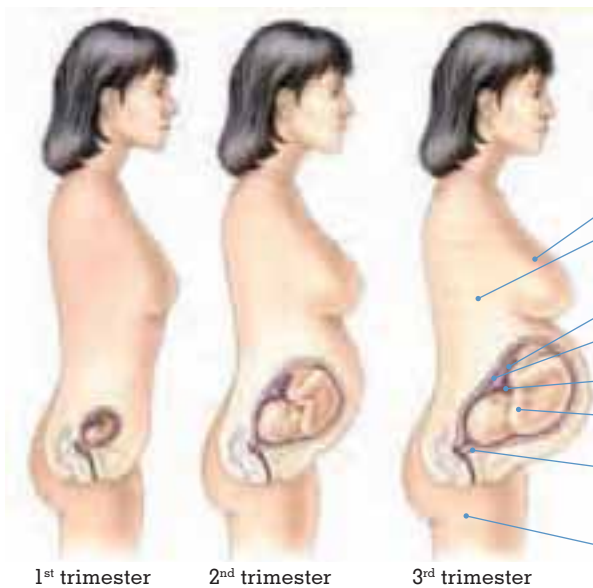
Women at a healthy weight should gain between 11.5 kg and 16 kg. (25–35 lbs.)

Women who are underweight should gain between 12.5 kg and 18 kg. (27–40 lbs.)

Women who are overweight should gain between 7 kg and 11.5 kg (15-25 lbs.)

Women who are obese should gain between 5 kg and 9 kg (11-20 lbs.)

Where does the weight go?



Weight Gain

	lbs.	kg
■ Increase in breast size	2	0.9
■ Increase in fluid volume	4	1.8
■ Placenta	1.5	0.7
■ Increase in blood supply to the placenta	4	1.8
■ Amniotic fluid	2	0.9
■ Baby at birth	7.5	3.4
■ Increase in size of uterus and supporting muscles	2	0.9
■ Mother's fat stores	7	3.1
	30	13.5



Maternal health

Do you know some important facts about pregnancy? See if you can correctly match the beginning of each sentence on the left with its correct ending on the right.

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. All pregnant women need to... 2. The weight gain during pregnancy is needed for... 3. Pregnant women who have a healthy weight should gain... 4. Pregnant women who are underweight should gain... 5. Pregnant women who are obese should gain... 6. Pregnant women need to eat... 7. Breastfeeding mothers require... 8. Low birthweight babies are those who weigh... 9. Babies born to underweight or obese mothers are... 10. Nearly 70,000 girls and young women die every year because... 11. One woman dies every minute... 12. Women who have finished secondary school... | <ol style="list-style-type: none"> A. less than 2.5 kg at birth. B. between 7 and 11.5 kg. C. at greater risk of health problems. D. between 12.5 and 18 kg. E. gain weight during pregnancy. F. have higher chances of surviving childbirth. G. the development of the baby and for the growth of uterus, breasts, tissues and fluids. H. an additional 450 calories a day. I. between 11.5 and 16 kg. J. their bodies are not ready for motherhood. K. from pregnancy and childbirth complications. L. about 280 extra calories a day. |
|--|--|



Answer key: 1E, 2G, 3I, 4D, 5B, 6C, 7J, 8A, 9C, 10J, 11K, 12F.

Good foods to eat during pregnancy

Do you know which nutrients are especially important for pregnant women and unborn babies?

Fill in the work sheet with the names of locally available foods and traditional dishes that are rich in each nutrient.

Nutrients	Good food sources
Protein	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
Iron	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
Iodine	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
Zinc	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Continued



Nutrients	Good food sources
Folate	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
Vitamin A	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
Vitamin C	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

★ **Look for more information on food sources in these fact sheets: Vitamins, their Functions and Good Food Sources and Minerals, their Functions and Good Food Sources**

★ **See Fact sheet Nutrition during pregnancy and breastfeeding** for more information on good nutrition, eating habits and weight gain before and during pregnancy.





Eating well during pregnancy

Read about Sara, Fatima and Elena and help them choose the best foods for themselves and their babies.

Sara is normal weight and expecting her first child. She is 5-weeks pregnant and her blood report shows that she has a low level of iron. What would be a good diet for Sara? What food in particular does she need to eat more often? Can she get everything she needs from food?

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Fatima is 2-months pregnant. She is overweight. What would be a good diet for Fatima?

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Elena is 10-weeks pregnant and lives in a mountainous area where the soil is poor in iodine. She is very thin. What would be a good diet for Elena? What food in particular does she need to eat more often? Can she get everything she needs from food?

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Breastfeeding babies (0-6 months)

Breastmilk:

- contains all the nutrients needed for the baby to grow and develop properly.
- provides the baby with protection against certain diseases.
- is safe and comes prepared and at the right temperature.
- is free and does not require bottles and expensive formula.

Colostrum (first milk) is important for newborn babies

The newborn baby should be breastfed as soon as possible after birth (within 30 minutes) because:

- The first milk that comes right after birth for 2-3 days, called colostrum, helps protect newborns from infections and disease and is rich in Vitamin A.
- It encourages the baby to suck, which stimulates the flow and production of breastmilk.
- Breastfeeding right after birth is also good for the mother. It helps the uterus to shrink and to stop bleeding after birth.

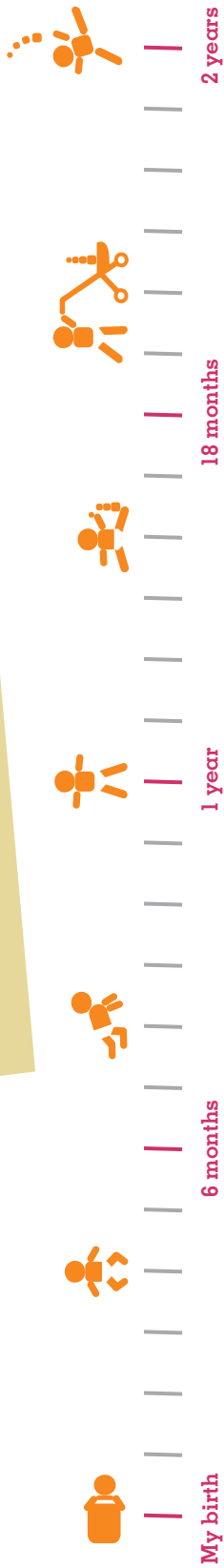
Breastmilk is ideal for babies

- Babies should be given only breastmilk from birth to 6 months of age. A baby's stomach is too small and weak to digest solid foods in the first 6 months. Giving the baby other foods, liquids or water too early can introduce bacteria and increase the risk of infections and illness.
- Babies who are breastfed exclusively for the first six months and who continue partial breastfeeding for up to two years have lower rates of illness and death.
- If the baby is fed often, or the milk is expressed for feeding, this meets the baby's needs and will help make sure that the mother has a good supply of milk.
- Expressed breastmilk can be stored in a clean container in the fridge or in a sufficiently cool place for 24 hours.



Personal childhood timeline

How much do you know about your diet and health as a child?
Talk to your mother or other people in your family to learn about what you ate and how healthy you were during the first two years of your life.
Get as much information as you can, including illnesses, vaccinations growth and weight gain, and record your findings on the work sheet.



My diet	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
My health	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

★ See Fact sheet *Nutrition of children 6 months to 2 years* for more information on healthy first foods and feeding practices.



Community interview

Identify three women in your family or community who have babies under one year old to interview about breastfeeding. Record each interview separately, using this questionnaire or your own questions. Compare your findings to the experts' recommendations.

1. Are you breastfeeding your baby? Yes No
2. If no, what replacement are you giving the baby?
.....
.....
3. When did you stop breastfeeding? Age in months Never breastfed
4. How often do you feed the baby?
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.....
5. Do you give only breastmilk to the baby? Yes No
6. If no, what else do you give the baby?
.....
.....
7. When did you start to give the baby other liquids or foods?
.....
.....
8. How do you prepare the additional foods you give the baby?
.....
.....
9. What do you eat to meet your baby's and your own nutritional needs?
.....
.....
10. Do you think your baby is growing and developing well? Yes No
Why?
.....
.....
11. Do you have your baby weighed regularly to check weight gain? Yes No
If no, why?
.....
.....



Nutrition of children 6 months – 2 years

Feeding young children frequently

with appropriate foods, in addition to breastmilk, will help ensure that they get the energy and nutrients they need to grow normally and stay healthy.

Introducing first foods

As the baby grows older, breastmilk is still very important but it is not enough on its own to meet the nutritional needs of older babies. Babies and young children 6-24 months old have very high energy and nutrient needs for their body size and are often at risk of being malnourished. Breastfeeding should continue even until the age of 2, if possible, while the baby starts to eat other foods.

- At about 6 months, the baby should be introduced gradually to other foods that supplement breastmilk. Feeding of solid foods should start with one small meal a day and increase to 2 or 3 meals a day by the age of 7 months. Different foods are usually introduced one at a time to give the baby a chance to get used to eating and digesting that food.
- By the age of one year, if a child is breastfed, it should have 3 meals a day, and nutritious snacks in between meals. If the child is not breastfed, it should be fed 5 meals a day.
- By the age of one year most children can eat finely mashed family meals and snacks. Meals should be increased to 5 a day. If the child is not breastfed, give two extra small meals.

Healthy first foods

- Starchy foods alone are not the best first foods for babies because they do not provide enough protein, calories and other nutrients to meet the needs of the rapidly growing baby. Foods from all food groups – meats, dairy, fruits, vegetables, breads, grains, cereals – should be included in the baby's diet. Starchy staple foods that are part of the local diet can be enriched to make good first foods by adding small amounts of shredded, chopped or pounded foods from other food groups and a small amount of oil.
- Babies' first foods require special preparation to make sure they are clean, soft and easy to eat and digest. They should be mashed and diluted to prevent



choking. When the baby is accustomed to liquid and soft foods, and as teeth appear, semi-solid and then solid foods can be added to the diet. Foods should be prepared without added salt, as babies cannot yet process it.

- Some examples of good first foods are:
 - Porridge or cereal with milk, fruit juice, a little oil, fat or butter, finely chopped nuts or sugar
 - Mashed yellow and green vegetables and yellow fruits (spinach, potatoes, yams, carrots, papayas, pumpkin, cooked breadfruit, maize, bananas, mangoes, guavas)
 - Mashed vegetables with a little soup, sauce or gravy from meat dishes
 - Soft, finely chopped or shredded meat, chicken, egg yolk, fish or liver
 - Very finely chopped or mashed nuts, legumes or seeds (groundnuts, chickpeas, sunflower seeds)

How to encourage small children to eat

Children eat more when their parents, family and others around them actively encourage them to eat. Here are some suggestions:

- Sit with children and talk to them about how good the food is.
- Feed young children with the rest of the family but give them their own plates and spoons to make sure they eat their share.
- If the child wants to hold food, give it to him and tell him not to worry about messy eating. Make sure all of it gets into the child's mouth.
- Mix foods together if the child picks out only favourite foods.
- Do not hurry children. They may eat a bit, play a bit, and then eat again.
- Feed young children frequently, as soon as they are hungry. Do not wait for them to start crying for food.
- Do not feed when children are tired or sleepy.
- Make mealtimes happy and interesting, for example, by teaching the names of foods, playing games.
- Give more attention when the child eats well and less when the child is trying to gain attention by refusing food.
- Avoid force-feeding – this increases stress and decreases appetite even more.





Start the day right

A good breakfast is especially important for growing children.
Think of the foods in your area that are good for children to eat in the morning.
Write these foods in the work sheet, overlapping one letter of each food word with one letter of the word "Breakfast".

B
R
E
A
K
F
A
S
T

This is an example for you!

BEANS
YOGHURT
EGGS
APPLE JUICE
MILK
FRESH AND DRY FRUIT
CEREALS
SLICE OF CHEESE
TOASTED BREAD WITH JAM





Colourful lunch bags

Did you know that eating a “rainbow” of different coloured foods will help make sure that you are eating a good variety of foods?

Think of locally available foods that are nutritious and healthy and can be easily taken to school for a snack or lunch.

List as many foods as you can think of for each colour.

Red foods	Orange and yellow foods	Green foods	White foods	Purple, brown, black foods
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●



★ See Fact sheet **Nutrition for school-age children** for more information.

Nutrition of school-age children

School-age children are growing rapidly and have particularly high energy and nutrient needs. A varied and balanced diet is important for protecting their health and for promoting their physical and mental development. A good diet and good eating habits can help children improve their concentration and educational performance in school and can reduce some health risks such as vitamin A deficiency, anaemia and other micronutrient deficiencies. A good diet in childhood may also help to minimize illness and chronic disease later in life.

What can happen if school-age children do not eat well?

Schoolchildren who are hungry or have poor diets usually grow more slowly than well-nourished children. They often have too little energy to play, study or learn properly. They may become ill more frequently. They are likely to have difficulty concentrating at school and may not do as well as well-fed children. As a result, their educational achievements may be poor and they may leave school early before finishing. The combination of poor education and poor health can seriously affect their ability to lead full, active, productive lives.

What is a healthy diet for school-age children?

Both girls and boys of this age grow at approximately the same rate and need the same amount of food. A healthy diet for children five years and older should provide every day sufficient quantity and variety of foods to meet their needs for proper growth and development. Parents, teachers and other caregivers should make sure that children have plenty of foods rich in energy, protein, vitamin A, calcium, iron, iodine.

A healthy diet for children this age should have:

- plenty of fibre-rich starchy foods (such as rice, maize, cassava, bread, noodles and yams)
- plenty of different coloured vegetables (especially dark leafy greens and orange-coloured vegetables)
- plenty of different fruits (fresh or dried)
- beans, peas and small amounts of meat and fish
- some dairy products (milk, yoghurt, cheese) and eggs
- a little fat (added to other dishes)
- plenty of clean, fresh drinking water.



How many meals should schoolchildren have?

Children this age need to have, **every day**, three meals, plus nutritious snacks in between meals.

Breakfast is always important, but especially so if a child has to walk a long way to school and does not eat much at midday. Schoolchildren should start every day with a nutritious meal before going to school.

An example of a good breakfast would be a starchy food, such as bread, porridge, cereals, cassava, sweet potato, with milk, yoghurt, peanut butter, cooked beans, fruit or fresh fruit juice.

Mid-morning snacks keep up the child's energy for play and study. Some examples of good snacks, especially when more than one food is eaten, are: fresh or dried fruits; cheese; nuts or seeds; eggs (easy to carry if hard boiled), bean cakes; rice cakes; bread with cheese, groundnut paste/peanut butter or other spreads; boiled or roasted maize cobs; boiled or fried cassava, plantain, yam, sweet potatoes and other potatoes; dried meats or small fish.

Lunch (midday meal) should contain a variety of foods and should provide sufficient energy. If meals are provided by the school, they should be as nutrient-rich as possible. If school meals are not provided, children will need to take food from home to eat at school.

Mid-afternoon snacks are important if the midday meal is not sufficient or if the child has to walk a long distance back home.




Dinner (evening meal) may be the biggest meal of the day for many children, so it should be a good, varied meal. It is very important to include many different foods in children's meals in order to meet all of their nutritional needs.





My food diary

Use this work sheet to record everything you eat and drink each day for three days. List all foods that you eat at each meal and all snacks you eat in between meals.

	Day 1	Day 2	Day 3
Morning meal (breakfast) 
Snack
Midday meal (lunch) 
Snack
Evening meal (dinner) 



How good is your diet?

How do you rate your diet and eating habits?
Use your completed 3-day food diary to analyse your diet.

- 1. Do you think you are eating the right amount of foods? Yes No
- 2. Are you eating at least 3 times a day? Yes No
- 3. Do you eat breakfast? Yes No
- 4. Do you eat the same type of food every day? Yes No
- 5. Do you eat a good variety of different foods? Yes No
- 6. Do you drink enough water? Yes No
- 7. In these three days what protein-rich foods did you eat?
.....
- 8. What foods provided you with carbohydrates?
.....
- 9. How many high-fat foods did you eat every day? Which ones?
.....
- 10. How much sugar or how many sugary foods (sweets) did you eat each day?
.....
- 11. How many portions of foods rich in vitamins and minerals did you eat?
Which ones?
.....
- 12. What vitamins and minerals do each of these foods contain?
.....



How good is your diet? (cont.)

13. Are you eating fruits and vegetables every day? Yes No

14. How many fruits and vegetables did you eat?

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15. What iron-containing foods did you eat?

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16. Do you think your diet provides enough iron? Yes No

17. What calcium-containing foods did you eat?

.....

18. Do you think your diet provides enough calcium? Yes No

19. What iodine-containing foods did you eat?

.....

20. Do you think your diet provides enough iodine? Yes No

21. Are there any foods and nutrients you are low in?

.....

22. What problems can arise if you don't eat enough of these foods?

.....

23. What foods can you add or replace to improve your diet?

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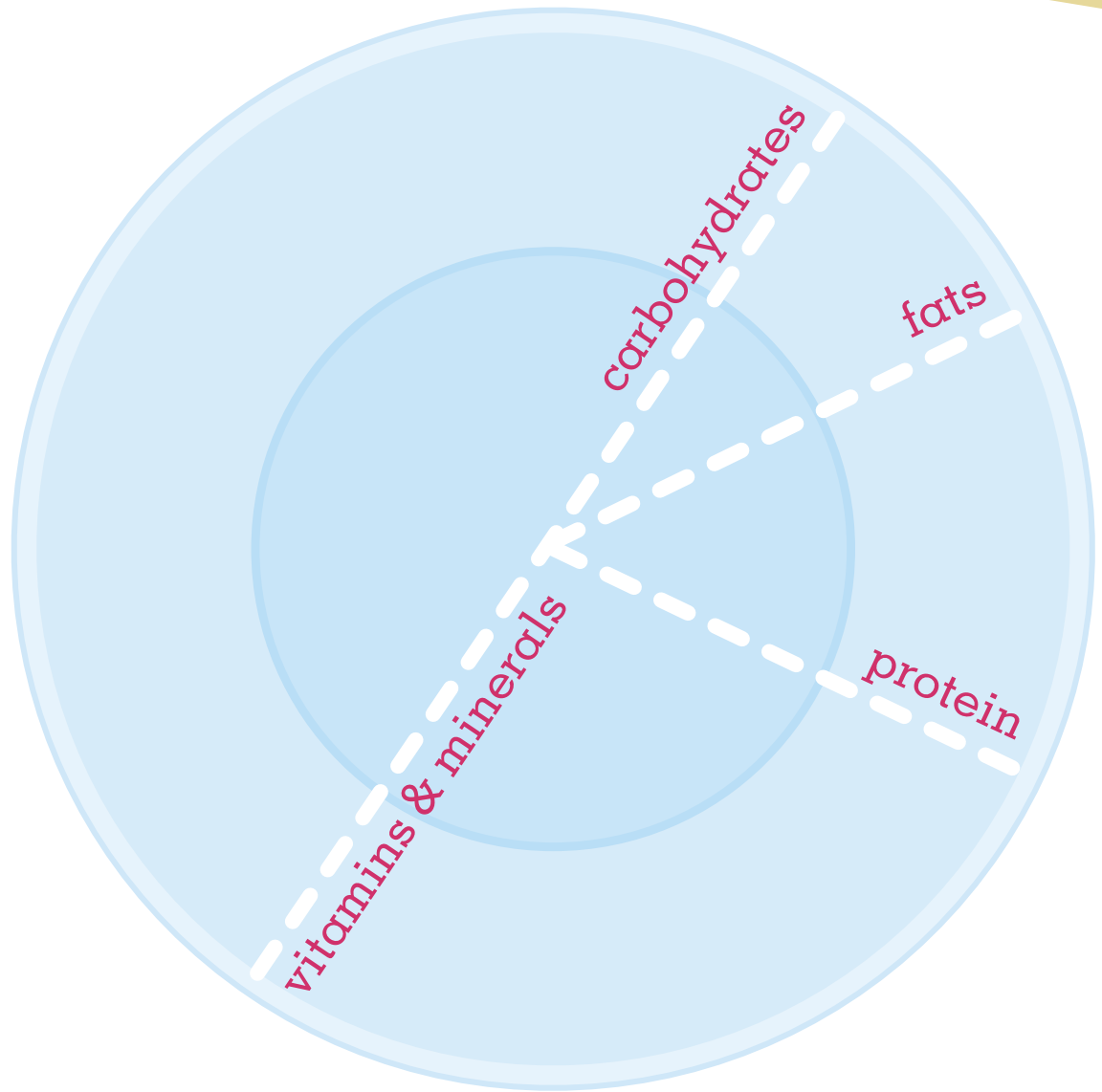


★ You need to complete the
Work sheet **My food diary** before you can complete
this work sheet.



My meal analysis

Choose one typical midday or evening meal to analyse in detail.
List all of the foods and all of the ingredients in each dish in the meal and write them in the correct group.



★ Is the meal healthy and varied?
Which different nutrients did you get from this meal?
Does it provide a variety of fruit and vegetables?
Are there too many foods rich in carbohydrates? Protein? Fats?
Are there too few foods rich in carbohydrates? Protein? Fats?





Help Andrew pack his lunch

Is Andrew eating a good lunch?
Think about Andrew's nutritional needs and plan a different, healthy lunch that he can prepare at home and take to eat at school. Fill in his lunch for each day of the week.

Andrew is 15 and has a very busy schedule and a long day.

In the morning he has some milk and toast for breakfast and rides his bike to school.

At lunch time he plays ball with his friends and usually grabs something sweet to eat quickly for energy with a soft drink.

Three days a week he stays late for after school activities and sports.

The other two days after classes end he rushes off on his bike to play drums in a band with other boys.

He returns home at around 6 p.m., helps with family chores, does his homework and has dinner.

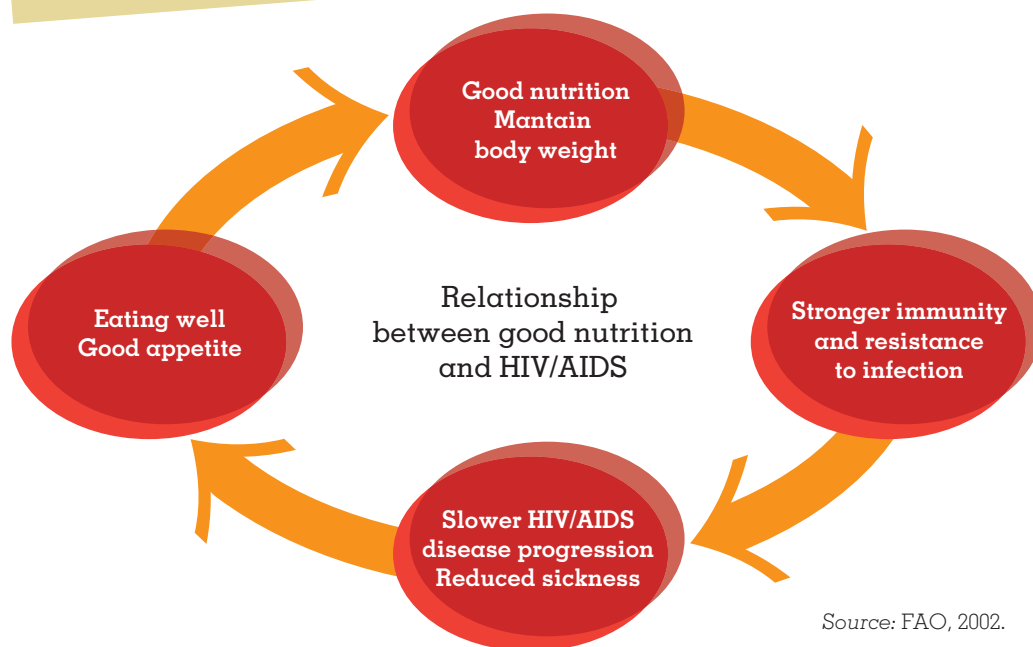
Andrew's packed lunches

Monday	Tuesday	Wednesday	Thursday	Friday
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Good nutrition and HIV/AIDS

Good nutritional status can make a big difference in the well-being and quality of life of a person living with HIV/AIDS. Good nutrition cannot cure AIDS or prevent HIV infection, but it can help to maintain and improve the nutritional status of a person suffering from HIV/AIDS.



HIV/AIDS and nutrition

Poor nutrition can be a serious danger for people living with HIV/AIDS. Even at the early stages of HIV infection when very few symptoms appear, HIV makes demands on the body's nutritional status. And during the course of the HIV infection, the risk of malnutrition in the form of undernutrition and lack of micronutrients increases significantly.

The HIV virus attacks and damages the body's immune system, which increases the risk of other infections. These infections can lower food intake because they reduce appetite and interfere with the body's ability to digest and absorb food. As a result, the person becomes malnourished, loses weight and is weakened. Eating well helps to maintain and improve the performance of the immune system - the body's protection against infection - and therefore helps a person to stay healthy.

One of the possible signs of the onset of clinical AIDS is a weight loss of about 6-7 kg for an average adult. When a person is already underweight, a further weight



loss can have serious effects. A healthy and balanced diet, early treatment of infection and proper nutritional recovery after the infection can reduce this weight loss and reduce the impact of future infection.

Many of the symptoms of the conditions associated with HIV/AIDS - diarrhoea, weight loss, sore mouth and throat, nausea or vomiting - are manageable with appropriate nutrition. Good nutrition will also complement and reinforce the effect of any treatment or medicines taken.

Healthy diet is important for people with HIV/AIDS

A person who is infected with HIV/AIDS and is not showing signs of illness does not need a specific "HIV diet". However, people infected with HIV should make every effort to adopt healthy and balanced eating habits in order to meet their increased protein and energy needs and maintain their nutritional status.

Once people with HIV/AIDS become ill, they have special needs. As the body works harder to fight against infections, energy and nutrient needs increase. Further infection and fever also increase the body's demand for food. Once people are infected with HIV they have to eat more to meet their extra energy and nutrient needs.

A healthy and balanced diet should be one of the goals of counselling and care for people at all stages of HIV infection. An effective programme of nutritional care and support will improve the quality of life of people living with HIV/AIDS by:

- maintaining body weight and strength;
- replacing lost vitamins and minerals;
- improving the function of the immune system and the body's ability to fight infection;
- extending the period from infection to the development of the AIDS disease;
- improving response to treatment; reducing time and money spent on health care;
- keeping HIV-infected people active, allowing them to take care of themselves, their family and children; and
- keeping HIV-infected people productive, able to work, grow food and contribute to the income of their families.



★ For more information on
living well with HIV/AIDS:
www.fao.org/docrep/005/y4168e/y4168e00.HTM

Feeding sick people

1. A sick person should...
2. A diet for a sick person should...
3. A sick person should drink plenty of liquids...
4. People with diarrhoea, fever or vomiting should drink...
5. A sick breastfed baby should...
6. If a person has to stay in bed, water and food should...
7. A caregiver should...
8. Good nutrition cannot cure AIDS, but it can...
9. Children with HIV/AIDS may need...

Do you know some important facts about eating during illness? See if you can correctly match the beginning of each sentence on the left with its correct ending on the right.

- A. ...be kept nearby.
- B. ...extra liquids frequently.
- C. ...wash his/her hands before and after feeding sick people.
- D. ...50–100 percent more energy than non-infected children.
- E. ...eat well to help the body recover, fight the illness and prevents weight loss.
- F. ...such as boiled water, fruit juices, soups, broths, watery porridges.
- G. ...be breastfed more often.
- H. ...contain small, frequent meals with a variety of foods, rich in micronutrients and protein.
- I. ...help to improve the nutritional status of people with HIV/AIDS.

Answer key: 1E; 2H; 3F; 4B; 5G; 6A; 7C; 8D.

For more information on the importance of healthy diets for people with HIV/AIDS, see Fact sheet **Good nutrition and HIV/AIDS**.



Keeping healthy in older age

Read about Grandma Susan, Grandma Ana and Grandpa Jacob.

What advice can you give them to help them be as healthy as they can be?

Grandma Susan maintains a healthy body weight and enjoys good health for her age. Because of this, she is able to live on her own and be active at home and in her community. She volunteers at the local public library three days a week and baby-sits some afternoons for her three small grandchildren. She enjoys walking and gardening. **What dietary or other recommendations do you have for Grandma Susan?**

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Grandma Ana suffers from osteoporosis and she has fallen a few times and fractured some bones. She has difficulty moving around and she is often in pain. She lives with her son and his family and spends most of her time at home, doing small activities while sitting down, like sewing and knitting, talking with her family, listening to the radio or watching TV. She enjoys eating but is worried that she is gaining too much weight. **What dietary or other recommendations do you have for Grandma Ana?**

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Grandpa Jacob does not suffer from any serious physical problems, but he has lost many of his teeth. He has so much difficulty chewing that it is not easy for him to find foods that he can easily eat and so he is losing interest in eating. He continues to be active with friends and family, but he is losing weight and getting thin. **What dietary or other recommendations do you have for Grandpa Jacob?**

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★ You can check your recommendations with the Answer work sheet **Keeping healthy in older age**



Keeping healthy in older age

Grandma Susan is maintaining a healthy body weight so she seems to be eating the right amount of food for her activity level. **She should continue to do this, being sure to eat a variety of foods** rich in protein, calcium, iron, fibre and vitamins C and D. Her diet should include grains, fruits, vegetables, legumes and milk products. She should try to be as physically active as she can, doing the things she likes to do, such as walking, gardening and playing with her grandchildren.

Grandma Ana is not very active; she is in pain and is afraid of falling again and breaking bones. Her osteoporosis is a result of a lack of calcium, which has made her bones weak and brittle. If she becomes overweight, this will add to her health problems and make it even more difficult for her to move. **She will need to try to decrease the amount of food she eats, but make sure she gets enough calcium-rich foods:** milk, yoghurt, cheese, leafy greens, small fish (with bones). She should be helped and encouraged to move a little bit every day, doing simple activities and light household chores, and to get some sunshine for vitamin D.

Grandpa Jacob is not eating enough to maintain a healthy body weight. **He needs to increase the amount of food he eats or** he will be at risk of becoming too thin, which will make it difficult for him to be healthy and active. **He needs to choose soft foods and recipes that are rich in macro- and micronutrients** and do not require much chewing, such as: yoghurt, soft cheeses and milk; meat and vegetable broths and soups; cooked and mashed vegetables; fish; cooked and mashed fruits; fruit juices.

★ Use this Answer work sheet to check your advice and recommendations on Work sheet *Keeping healthy in older age*



