

Growing Strong

FEEDING YOU AND YOUR BABY MANUAL

Copyright 2002
Queensland Health

ISBN 0 7345 2937 6
Version 2. Printed May 2003.



Queensland
Government
Queensland Health

Acknowledgments

Growing Strong – Feeding You and Your Baby was developed in response to the evaluation and feedback from the Nutrition for Indigenous Maternal and Child Health in-service workshops facilitated by the Nutrition Program of the University of Queensland and Queensland Health Public Health Nutritionists during 1998 and 1999. The aim was to produce a resource for health staff to use when talking with Indigenous families about mother and child nutrition.

The editor and production manager for the resource was Ros Gabriel, Public Health Nutritionist, Tropical Public Health Unit Network, Queensland Health.

The project working party also included:

Dawn Charteris
Nutrition Promotion Worker
Tropical Public Health Unit Network

Simone Lowson
Public Health Nutritionist
Southern Public Health Unit Network

Bobette Walong
Aboriginal Health Worker
Warwick Community Health Centre

Anita Groos
Public Health Nutritionist
Central Public Health Unit Network

Shirley Perkins and Chris Barry
Clinical Nurses
Ngua Gundi Program, Rockhampton

Joan Smith
Nutrition Health Worker
Central Public Health Unit Network.

The graphics, which are an integral part of this resource, were drawn by Julie Haysom. Graphic design by Di James.

Contributors to the first and second draft of the resource include:
Ros Gabriel, Dawn Charteris, Rebecca Parsons and Vivienne Salu.

Thanks to the many individuals across the state who provided invaluable feedback on the draft resources. Special thanks to those who trialed the resource in 2001:

- Warwick Community Health Centre
- Indigenous Health Program, Chermside Community Health Centre
- Ngua Gundi Program, Aboriginal and Islander Health Program, Rockhampton
- Woorabinda Community Health Centre
- Townsville Aboriginal and Islander Health Service
- Thursday Island Primary Health Care Centre.

Contents

For more information.....	3
How to use this manual	4
Helping mothers and babies to grow strong	5
How to use the Eating and Activity sheet.....	6
Eating and Activity Sheet	7
How much is in one serve?	8
Signs that a mum might need extra care	9
Keeping healthy	10
Keeping active	14
Keeping food safe.....	15
Eating more vegetables and fruit	17
Folate during pregnancy	18
Iron during pregnancy.....	20
Calcium during pregnancy	21
Vegetarian eating	22
Listeria infection	23
Morning sickness	25
Heartburn	27
Constipation	28
Haemorrhoids (Piles).....	29
Cravings and aversions.....	30
Diabetes in pregnancy	31
Weight gain during pregnancy	32
Choosing how to feed your baby	33
Getting ready to breastfeed	36
How breastfeeding works	38
Starting to breastfeed	40
Getting baby onto the breast	41
When baby gets enough breastmilk	43
How to make more breastmilk	44
Is the baby on right?	45
Sore nipples	47



Thrush	49
Blocked ducts	50
Mastitis	51
Engorgement.....	52
When breastmilk comes down too fast	53
Working and breastfeeding	54
Choosing an infant formula.....	56
When to start solids	57
How to start solids	59
Iron for babies and toddlers	60
Feeding toddlers	61
When baby is sick.....	62

For more information

This resource is part of the Growing Strong Package.
For more information about Growing Strong contact:

The Growing Strong Coordinator
Public Health Nutrition Team
Tropical Public Health Unit Network
Locked Bag 16
Aitkenvale QLD 4814
Ph 07 4750 4000
Fax 07 4750 4001

The Growing Strong Coordinator
Public Health Nutrition Team
Central Public Health Unit Network
PO Box 1507
Fortitude Valley QLD 4006
Ph 07 3250 8620
Fax 07 3250 8624

The Growing Strong Coordinator
Public Health Nutrition Team
Southern Public Health Unit Network
18 Wills Street
Charleville QLD 4470
Ph 07 4656 8100
Fax 07 4654 2615

How to use this manual

This manual is to be used with the Growing Strong book. The Growing Strong book is used to talk to mums, dads, other family members and people who look after small children about good food for mums and babies. It has lots of graphics and not too many words.

This manual contains two types of pages:

- 1 **Information and forms** which will help you know which information to give.
 - ***Helping mothers and babies to grow strong***
 - How to use the ***Eating and Activity*** sheet
 - The ***Eating and Activity*** sheet
 - ***How much is in one serve?*** sheet
 - ***Signs that a mum might need extra care*** sheet
 - ***Is the baby on right?*** sheet.
- 2 **Background information** and extra information you may find useful. This background information has been formatted as fact sheets that you can photocopy and give out to mums and other people who want more information than is in the Growing Strong book.

Helping mothers and babies to grow strong

Some of the techniques you may use to find out what information a mother needs and to help her make the best use of this information are listed below.

Listening

Listening well lets the mum explain the situation as she sees it. We need to pick up on what a mum is saying and how she is feeling. Sometimes mums will say they want to talk about one issue but only open up to what they really want to talk about after they feel comfortable with you so it is important not to rush. Body language and non verbal communication is also important.

Showing you understand

Use your own words to explain what you have heard. This lets you check with the mum that you have understood what she has said. It can also help her feel that you have heard what she is saying and understand her situation.

Asking about what has been tried already

Before you offer suggestions ask what the mum has already tried. This gives you a better picture of the situation and helps to identify what might work.

Asking about previous advice

Everyone seems to be an expert on pregnancy and babies. Mums can get very confused if they are being given

conflicting advice. It is important to know what the mum has been told before you offer your own information and suggestions. Be careful not to put down the advice given by anyone else.

Offering suggestions

It is our job to offer the mum ideas about what she could do. It is up to the mum to decide what will work best in her situation and what she is able to do.

Helping mums believe they can do it

It is important not only to give a mum information and make suggestions but also to help her gain the skills she needs. For example you may need to teach her how to hand express breastmilk or sanitise bottles.

Identifying support

Some mums will need more support than others. Talk to the mum about what support she would like and who could provide it. Give her referrals to other staff or agencies if appropriate.

Summarising

At the end of a session go over the main points of your discussion. Highlight the pages in Growing Strong or offer her information from this manual so she has something to take home with her.

How to use the Eating and Activity sheet*

- This sheet gives you an idea of what and how much a mum is eating. Use it with the **How much is in one serve?** sheet on page 8 to work out if there are foods the mum needs to eat more of or others she needs to have less of.
- Ask the mum to tell you what and how much she ate yesterday. Record her response on the sheet. If yesterday was an unusual day ask her what she usually eats.
- Ask about the usual meals in your community eg. breakfast, smoko, dinner, supper.
- It can help if you have a measuring cup or tea cup to help her estimate how much she ate of something eg. stew.
- These are questions you can ask to help the mum think about what she eats.
 - What was the first thing you ate yesterday?
 - Did you drink anything with that?
 - What did you eat for snacks?
 - Did you eat any fruit?
 - How much water did you drink?

- Use the **How much is in one serve?** sheet to work out how many serves of the different types of food the mum ate. Fill in a square beside the group for each serve she ate.
- Try not to use leading questions, eg. 'Did you eat stew yesterday?'.

The recommended serves for pregnant and breastfeeding women are:

Food	Pregnant	Breastfeeding
Bread/Cereals	4–6 serves	5–7 serves
Vegetables	5–6 serves	7 serves
Fruit	4 serves	5 serves
Milk Group	2 serves	2 serves
Meat Group	1½ serves	2 serves
Water	8 glasses	8+ glasses
Extras	0–2½ serves	0–2½ serves

- Ask the mum what physical activity she has done in the last week. Get her to estimate how long she did each activity.
- Refer to the **Keeping Active** sheet for information about physical activity during pregnancy.

*Based on *The Australian Guide to Healthy Eating*.

Eating and Activity Sheet

Name: Date:

What did you eat yesterday and was that a usual day?

How much and what kinds of physical activity did you do last week?

Breakfast

Monday

Lunch

Tuesday

Dinner

Wednesday

Thursday

Friday

Snacks

Saturday

Sunday

Number of Serves	
Bread/Cereals	<input type="checkbox"/>
Vegetables	<input type="checkbox"/>
Fruit	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Milk Group	<input type="checkbox"/> <input type="checkbox"/>
Meat Group	<input type="checkbox"/> <input type="checkbox"/>
Water	<input type="checkbox"/>
Extras	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

How much is in one serve?

Bread, cereals, rice, pasta & noodles

- 2 slices of bread
- 1 medium bread roll
- 1 cup cooked rice, pasta, noodles
- 1 cup porridge
- 1 cup breakfast cereal flakes
or $\frac{1}{2}$ cup muesli
- $\frac{1}{2}$ cup of flour



Milk, yoghurt, cheese

- 1 cup milk (all types)
- $\frac{1}{2}$ cup evaporated milk
- 40g cheese (2 slices)
- 200g yoghurt (1 small carton)
- 1 cup custard



Vegetables and legumes

- $\frac{1}{2}$ cup cooked vegetables
- 1 cup salad
- 1 potato
- $\frac{1}{2}$ cup of cooked dried beans,
peas or lentils



Meat, fish, poultry, eggs, nuts, legumes

- $\frac{1}{2}$ cup mince, 2 small chops,
or 2 slices roast meat
- $\frac{1}{2}$ cup cooked beans, lentils or
canned beans
- 80–120g cooked fish fillet
- 2 small eggs
- a cup peanuts or almonds
- $\frac{1}{4}$ cup sunflower seeds or
sesame seeds.



Fruit

- 1 medium piece eg. apple, banana,
orange
- 2 small pieces eg. apricots,
kiwi fruit, plums
- 1 cup diced or canned fruit
- $\frac{1}{2}$ cup 100% juice
- 1 $\frac{1}{2}$ tablespoons dried fruit



Signs that a mum might need extra care

Some mums are at higher risk of poor nutrition.

Young mums

Young mums are more likely to have low birth weight babies. This is because they are still growing themselves as well as having their baby grow inside them. They need support to eat foods that are rich in vitamins and minerals as well as energy while they are pregnant and after giving birth.

Young mums may also have problems with coping with a new baby. Some young mums choose formula feeding as a way to give them a break from the baby. See ***Choosing how to feed your baby*** page 33.

Older mums

Many women put on weight as they get older. Older mums are at higher risk of gestational diabetes especially if they are overweight or obese. See ***Diabetes in Pregnancy*** page 31.

Alcohol and drug use

Mums who are heavy drinkers or are using drugs are less likely to eat enough. The food they do eat is more likely to be high in fat and sugar and lower in the vitamins and minerals they and their baby need. See page 12 for information about how drugs and alcohol affect the developing baby.

Smoking

Smoking destroys some of the folate in our bodies. Smokers need to eat more folate-rich foods than non-smokers to get the same level of folate in their bodies.

Unfortunately, smokers tend to eat less vegetables and fruit than non-smokers so they need extra encouragement to eat folate rich foods. See page 18 ***Folate during Pregnancy***.

Smoking also restricts the flow of blood to the placenta so smokers are more likely to have a low birth weight baby.

Keeping healthy

Keeping healthy is very important for pregnant women. It helps the baby to develop properly and keeps the mother well so she is able to carry the baby to full term. Eating good healthy foods during pregnancy reduces the risk of:

- low birth weight or premature babies
- complications during pregnancy such as diabetes and high blood pressure
- excessive weight gain.

Remember that your baby is affected by everything you do, eat, drink or smoke.

Eat regularly through the day

This makes it easier to digest your food to give you and your baby the nutrients you both need. Some mums find six small meals a day easier than three large ones.

Eat plenty of healthy foods every day

Breads, cereals, rice, pasta & noodles

These foods are good sources of energy, protein, fibre and B group vitamins.

Vegetables and legumes

Legumes include baked beans, three bean mix, lentils, kidney beans, chick peas.

Vegetables and legumes:

- provide fibre
- give vitamins and minerals to help baby grow properly.

Fruit:

- gives vitamins (eg. folate) and minerals to make the baby healthy and provides protection against disease.
- Fresh fruit is the best to eat, but tinned or dried fruit is good too.

Milk, yoghurt and cheese:

- help the baby's bones and teeth to grow by providing calcium
- help make the mother's bones strong.

Meat, fish, poultry, eggs, nuts, legumes:

- give iron and protein to help the developing baby make strong healthy blood and muscles
- keep the mother's blood healthy so she will not develop iron deficiency anaemia and get tired and run down.

Drink lots of water

You need to drink at least eight glasses of water a day and more when it is hot or if you are breastfeeding.



Don't have too much soft drink, tea and coffee, cakes and biscuits, takeaway and fatty foods.



These foods and drinks fill mum and baby up so there is no room to fit in the healthier foods. They contain less of the vitamins and minerals that are necessary for growth and too much fat, sugar and salt.

The caffeine in tea and coffee is a

stimulant. It can cause heartburn, reflux, and nausea. Tannin in tea can make the iron in food harder to absorb. It is best to avoid drinking tea and coffee with your main meals. Have no more than three cups a day.

No alcohol, smoking or other drugs

Drinking alcohol is not recommended in pregnancy or breastfeeding. Alcohol is a poison and will damage both mother and baby. When a pregnant woman drinks alcohol it passes through the placenta and enters the baby's blood stream. Growth and development of the baby is affected by alcohol. Heavy drinking and binge drinking during pregnancy can result in birth defects and Foetal Alcohol Syndrome. This damage from alcohol cannot be fixed.

When you smoke, you breathe in over 4000 chemicals (poisons) and many of these pass into your baby's body. Smoking hurts your unborn baby. Babies of smokers are often born smaller than normal and born too early. These babies are more likely to get sick with chest infections. After your baby is born, smoking around him

increases the risk of cot death or Sudden Infant Death Syndrome (SIDS). Ask people to smoke outside your house and away from you and your baby. If you smoke talk to your health professional about quitting.

If you smoke marijuana (yarndi, gunja) it passes into your breastmilk. This can make your baby weak and very sleepy. Baby will also have problems breastfeeding as he is too sleepy to suck. Marijuana affects the way baby's brain grows.

Keep active

Physical activity is relaxing. It provides the mother and baby with more oxygen for health and growth. Mothers who exercise during their pregnancy regain their usual shape sooner after the birth of their baby. Try any activity that you enjoy. Try walking, pushing a pram, swimming, riding a bike or exercise classes for pregnant women. Avoid jerky or bouncy movements and getting too hot.

Eat bush foods

Bush foods usually have lots of what mother and baby need to be strong and healthy. Make sure meat is well cooked so it is safe to eat. In some cultures pregnant women are not allowed to eat certain traditional foods. Eat the ones you can when you get the chance.



Look after your teeth and gums

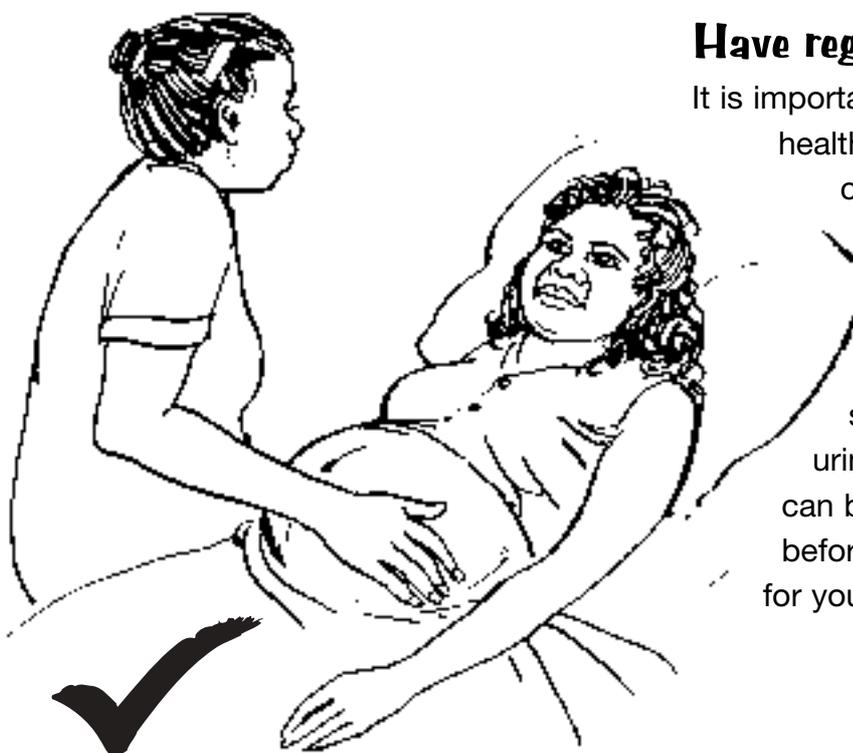
Pregnancy is a special time to take extra care of your teeth and gums. During pregnancy, hormones in your body change. These hormones can cause your gums to become red and bleed. Your dentist will help you keep your teeth and gums healthy. Fixing problems early can save you a lot of pain. While you are pregnant you should avoid dental x-rays.

Brush and floss your teeth daily. Use a soft toothbrush and small amount of fluoride toothpaste to brush your teeth twice each day. Use dental floss to remove the plaque from between your teeth.



Have regular antenatal checkups

It is important that you visit your local health centre or doctor for regular checkups. This is important for both mother and baby. Having regular checkups lets you know that your baby is growing well. Any problems, such as high blood pressure, urinary tract infections or diabetes, can be picked up early and treated before they become a big problem for you or your baby.



Keeping active

The National Physical Activity Guidelines for Australians tell us the minimum levels of physical activity required for good health for all Australians. They are:

- 1 Think of movement as an opportunity, not an inconvenience.
- 2 Be active every day in as many ways as you can.
- 3 Put together at least 30 minutes of moderate-intensity physical activity on most, preferably all, days.
- 4 If you can, also enjoy some regular vigorous exercise for extra health and fitness.

It is recommended that normally healthy pregnant women continue an already-established exercise program. Those who do not already exercise should see a health professional for a medical check and advice before they start.

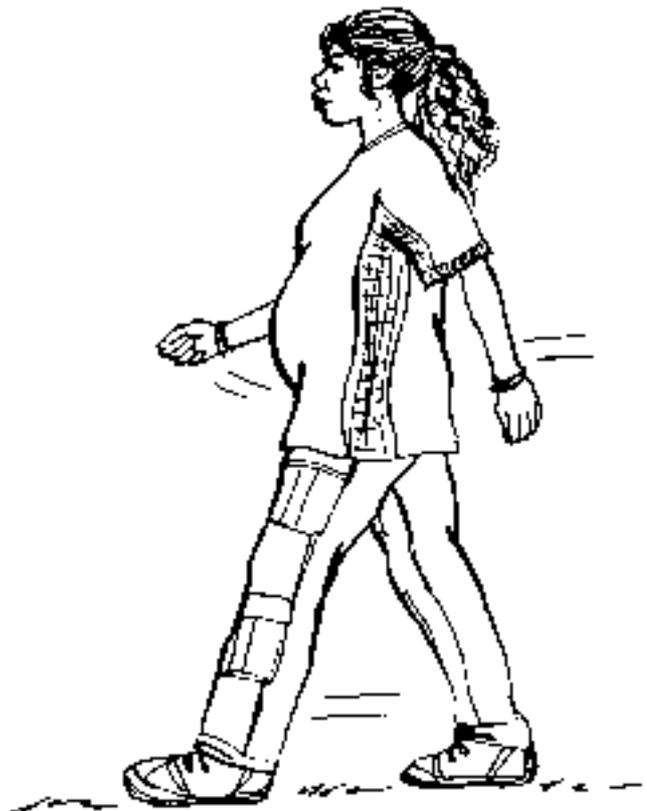
It is important that pregnant women avoid getting too hot when exercising. So:

- drink lots of water before, during and after activity
- wear loose fitting clothing
- be active often so your body is used to it
- be active in the cooler parts of the day or in air conditioning.

Warning signs

Vaginal bleeding, membrane rupture, persistent pain or excessive tiredness after activity are warning signs. Get checked by your health professional.

Breastfeeding mums can do moderate physical activity without affecting their breastmilk. Some mums find their baby feeds better if they wash the sweat off their breasts before feeding after being active.



Keeping food safe

Most people have eaten food that has made them sick. This is called a food borne illness (food poisoning) and some of the symptoms may include:

- stomach pains
- diarrhoea
- vomiting
- feeling weak
- fever or chills.

Most food borne illnesses are caused by bacteria. It is important to look after your food and store and cook it properly so the bacteria can't grow.



Ways to avoid food borne illnesses in your home

1 Personal Hygiene

Always wash your hands with soap and water:

- before touching any food, especially raw food
- after going to the toilet
- after smoking
- after blowing your nose
- after coughing or sneezing into your hands
- after handling rubbish
- after changing baby's nappy
- after touching animals.

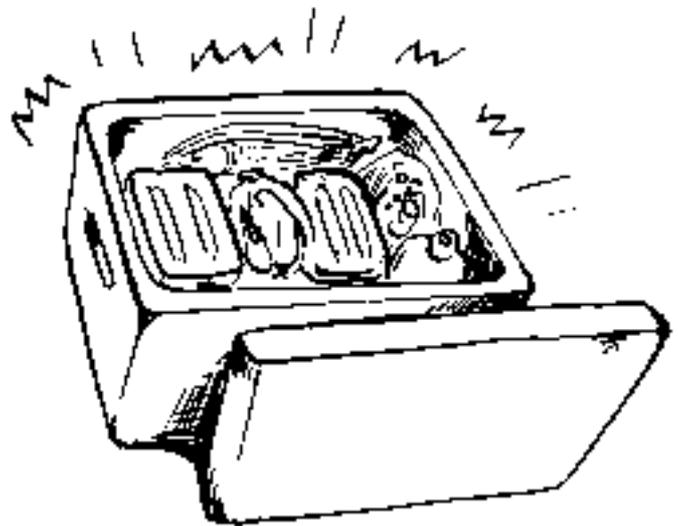


2 Protection from contamination

- Always keep food covered and protected from dust, flies and other insects.
- Always use a clean cloth to cover food, not a used tea towel. Do not re-use or recycle plastic or aluminium wrap to keep food covered.
- Always use tongs, forks, spoons or other kitchen utensils when preparing food.
- Always keep cats and dogs away from food and food preparation areas because they can spread disease.
- Use a clean cutting board for meat, fish or chicken and wash the board and knife before you cut anything else. Raw animal flesh can carry germs that are killed by cooking. Some of these germs can be left on the knife and cutting board. If you then use the knife or board for other foods the germs can make you sick. Washing with detergent and hot water kills the germs.
- Wash fruit and vegetables before eating.
- Wrap disposable nappies before putting in the bin.

3 Storage

- Store chilled food in a refrigerator or esky with cold blocks or ice.
- Minimise the time food is left at room temperature.
- Store cooked food in a refrigerator or esky with cold blocks of ice.
- Keep the fridge door shut and the lid on the esky as much as you can.



4 Handling food

- When cooking or reheating food always make sure the food is very hot throughout.
- Make sure your cold groceries get home to the fridge quickly.
- Thaw foods in the fridge or microwave.
- Only reheat food once.

Eating more vegetables and fruit

Vegetables and fruit are full of vitamins and minerals which are important to keep you and your baby healthy.

Vegetables and fruit also provide dietary fibre, which is needed to prevent constipation.

Adults need at least five serves of vegetables and two serves of fruit each day. When you are pregnant or breastfeeding you need even more. Have lots of variety each day.

Some tips to help you eat more vegetables:

- Have vegetables for a snack – carrots, corn on the cob etc.
- Have plenty of vegetables in stews, stir fries, lasagne, fried rice, pasta sauces and curries, eg. carrot, spinach, peas, celery.
- Make patties from leftover vegies. Add grated raw vegies to rissoles.
- Have baked beans or creamed corn on toast.
- Bake jacket potatoes in the oven or microwave.
- Make a pizza on plain muffins, pita bread or damper with tomato paste and vegies such as tomato, zucchini and broccoli.
- Put plenty of vegies in soups, sandwiches, salads and stews.
- Add vegies in cake and muffin recipes eg. carrot, zucchini.
- Eat bush vegetables and fruit if you can get them.

Some tips to help you eat more fruit:

- Have fruit at breakfast eg. sliced banana or sultanas on cereal.
- Have a platter of fresh fruit or fruit salad in the fridge for snacks.
- Try fruit smoothies (blend fruit, reduced fat milk, low fat yoghurt or ice-cream)
- Add fruit in cake recipes, eg. banana, apple, mixed fruits.
- Have fruit for dessert.
- Try fruit with main dishes eg. chicken with tinned apricots.
- Add fruit to salads and sandwiches (eg. banana, chopped apple or sultanas).



Folate during pregnancy

Folate is important for everybody. It is needed to make healthy cells in our body. Folate is particularly important during times of rapid growth, such as during pregnancy, in babies and young children. In pregnancy your body needs even more folate than normal because you have a growing baby that is making new cells. If there is not enough folate, your baby may be born with a neural tube defect, which often results in serious physical disabilities. One example is spina bifida.

Eating enough folate-rich foods can reduce the risk of your baby having a neural tube defect. Folate is found in a wide variety of foods. It is recommended that all women

planning to become pregnant also take a folate supplement of 0.5mg per day (500µg) and increase their intake of folate rich foods, at least one month before falling pregnant.

Some foods like breakfast cereals, fruit drinks and bread may have folate added. Liver and green leafy vegetables such as spinach and broccoli are good sources of folate.

Cook vegetables for as short a time as possible by steaming, microwaving or stir frying as folate is lost during cooking.



Good food sources of folate

- Dark green leafy vegetables
- Liver
- Fortified breakfast cereals
- Vegemite/marmite/bonox
- Avocado
- Chick peas
- Soya beans
- Oranges and orange juice
- Green beans
- Wholegrain bread
- Broccoli/ Cauliflower
- Rolled oats
- Parsley, Peas, Parsnips, Leeks
- Bananas
- Potato
- Tomatoes
- Cabbage
- Beetroot
- Salmon (canned)
- Nuts: almonds, cashews, walnuts, hazelnuts, peanuts
- Strawberries



Iron during pregnancy

Iron is needed by our bodies to produce healthy red blood cells. These carry oxygen around the body. During pregnancy, more iron is needed to help make the baby's red blood cells. When someone does not have enough iron, it is called iron deficiency. Iron deficiency means the body is less able to carry oxygen around the body and is less able to fight infections.

Signs of iron deficiency

- Tiredness and lack of energy
- Anaemia
- Regular illness and infections such as coughs and colds
- Irritable
- Pale
- Breathless

Dietary iron

There are two types of dietary iron:

- **Haem iron** is found in muscles of animals such as beef, lamb, chicken, fish and pork.
- **Nonhaem iron** is found in foods such as breads and cereals, fruits and vegetables, eggs and milk.

Haem iron is very well absorbed by our bodies, whereas nonhaem iron doesn't get absorbed as well and is sometimes wasted. You can reduce the amount of 'wasted' iron by eating foods that help iron absorption, and by avoiding foods that decrease the absorption of nonhaem iron.

How to increase your iron intake

- Eat some red meat at least four times a week. Beef and liver have the highest iron content. Eating meat will also increase the absorption of iron from other foods.
- Include fruit and vegetables with each meal. Green leafy vegetables such as broccoli and silverbeet are high in nonhaem iron, while yellow vegetables and citrus fruits contain vitamin C, which will help absorb the iron in the food.
- Tea and coffee make it hard to absorb iron. It is best to avoid drinking tea or coffee with your main meals and have no more than three cups a day.
- Your doctor may prescribe iron tablets. These tablets can make some people constipated, give others the runs or cause nausea. They also can make stools much darker in colour than normal. These tablets should not be given to babies or children as they are too strong and can poison them.
- The iron tablets contain nonhaem iron so don't take them with tea or coffee. Use water or orange juice to wash them down.



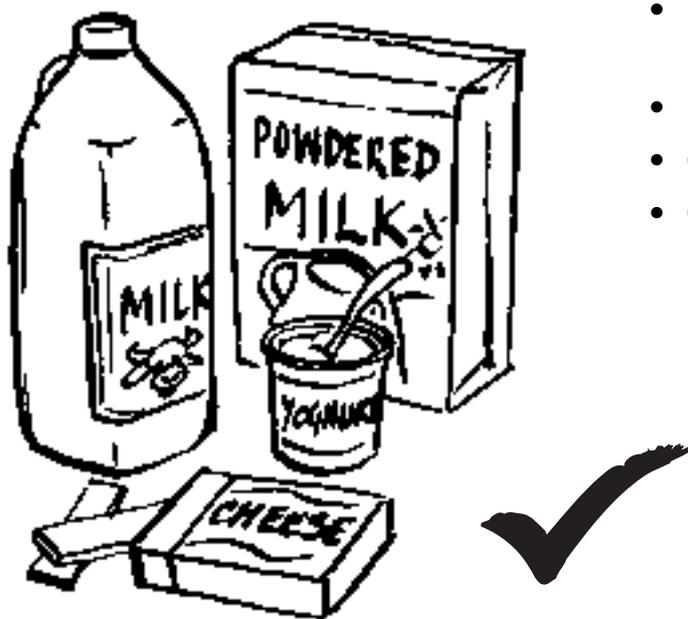
Calcium during pregnancy

When you are about four months pregnant, your baby's teeth and bones start to grow. Calcium is needed to make their teeth and bones strong.

When you are seven to nine months pregnant, your baby needs even more calcium. If you are a teenager you also need extra calcium for your bones to grow.

Dairy foods such as milk, yoghurt and cheese, are very good sources of calcium. One serve is equal to 250mls milk, a 200g tub of yoghurt or two slices of cheese. Aim for two serves of dairy food a day.

If you drink soy milk, make sure that it is fortified with calcium and has more than 100mg calcium per 100mls of soy milk. Choose low fat or reduced fat dairy or soy products.



Good sources of calcium

- Skim milk
- Regular milk
- Low fat fruit yoghurt
- Regular yoghurt
- Soy milk fortified with calcium
- Cheddar cheese
- Canned salmon
- Canned mackerel
- Canned sardines or herrings
- Skim milk powder
- Custard.

Why not try

- A tub of yoghurt and fresh fruit as a snack.
- Fruit smoothie (milk, fruit and yoghurt whipped together).
- Fish stew/soup cooked with the bones in.
- Frozen yoghurt.
- Custard, creamed rice, junket.
- Coleslaw with yoghurt dressing.

Vegetarian eating

If you choose to be a vegetarian, it is important to follow a healthy eating plan to meet you and your baby's needs, especially for protein, iron and calcium.

Protein

Meeting your protein needs should be fairly easy, as long as you are eating sufficient amounts of a variety of foods.

Vegetarian foods that are high in protein include legumes, soy products (eg. tofu, Textured Vegetable Protein and soy milk), eggs and milk products.

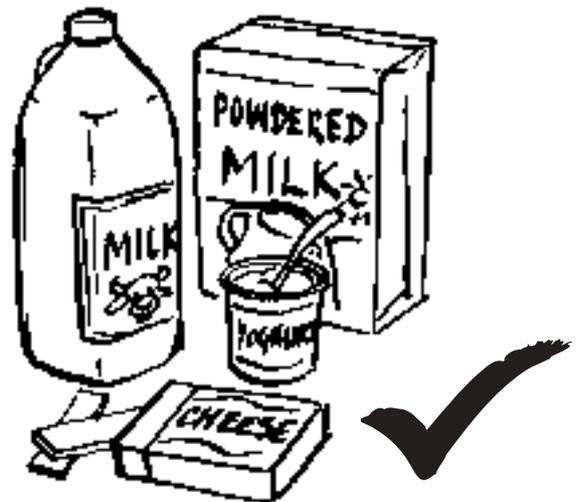
Moderate amounts of protein are also found in cereals, nuts and seeds.



Iron

The best vegetarian sources of iron are lentils, dried peas, beans, soy products, nuts, dried apricots, green vegetables, iron fortified breakfast cereals and wholegrain products.

Eating foods that are high in vitamin C will help increase the absorption of iron. Foods



such as oranges, orange juice, strawberries, tomato, capsicum, broccoli and pineapple are high in vitamin C.

Drinking tea, coffee and milk can interfere with the absorption of iron. It is best not to drink them with main meals. Drink no more than three cups per day.

Calcium

If you have a regular intake of dairy products or calcium-fortified soy products, you should be getting enough calcium.

Other sources of calcium include legumes, almonds, tahini and dark green leafy vegetables.

If you do not have a regular intake of any of these foods, you may need a calcium supplement – talk to your health worker about this.

Vitamin B12

Vitamin B12 is found in animal foods.

Vitamin B12 is needed in very small amounts by the body and takes many years to become depleted.

Get your Vitamin B12 levels checked before or shortly after becoming pregnant.

Listeria infection

Listeria infection or listeriosis is caused by the listeria bacteria. Listeria infection is not common, but if you get the infection while you are pregnant, there is a high risk of passing it on to your unborn baby. This can lead to miscarriage, still birth, premature birth or make the baby sick.

The listeria bacteria is often found on the surface of raw vegetables and foods such as undercooked chicken, processed meats and soft cheeses.

Try to eat freshly cooked or freshly prepared food only. It is important that you do not eat food where there is any doubt about its safe preparation and/or storage.

Ways to reduce the risk of listeria infection:

- Always wash your hands before handling food.
 - Prepare and keep raw and cooked foods separate.
 - Clean vegetables thoroughly.
 - Eat freshly prepared foods.
 - Do not eat food that has been prepared and then stored in a refrigerator for more than 12 hours.
- Avoid foods that have not been fully cooked, such as undercooked poultry and meat.
 - Avoid 'risky' foods, such as
 - Soft cheese such as brie, camembert and ricotta cheese. These are safe if cooked and served hot
 - Takeaway cooked diced chicken, the type that is used in chicken sandwiches
 - Processed and cold meats such as devon, chicken loaf
 - Paté
 - Pre-prepared or stored salads such as coleslaw
 - Raw seafood such as oysters and sashimi
 - Smoked seafood such as smoked salmon, smoked oysters. Canned are safe.

A guide to foods which are safe from Listeria and those to avoid

Food Type	How Safe?	Precautions
CANNED MEAT & FISH	Safe	Store in fridge after opening and use within 12 hours
CHEESE		
<ul style="list-style-type: none"> • Soft cheese such as brie, camembert and ricotta 	Avoid	
<ul style="list-style-type: none"> • Spreads and processed cheese 	Safe	Ensure packaging is intact
<ul style="list-style-type: none"> • Hard yellow cheese 	Safe	Store in refrigerator
COLD MEATS (ROAST OR BOILED)		
<ul style="list-style-type: none"> • Ready cooked (from supermarket, sandwich bars etc) 	Avoid	
<ul style="list-style-type: none"> • Home cooked 	Safe	Use within 12 hours of cooking or freeze. Unused portions can then be thawed in the fridge. Use immediately.
CHICKEN		
<ul style="list-style-type: none"> • Home cooked 	Safe	Cook thoroughly. Use immediately or store in a fridge and use within 12 hours.
<ul style="list-style-type: none"> • Hot takeaway chicken 	Safe	Make sure it's steaming hot when you buy it. Use immediately or store in a fridge and use within 12 hours.
<ul style="list-style-type: none"> • Ready cooked, cold (whole or sliced) 	Avoid	
PATE		
<ul style="list-style-type: none"> • Ready made (packaged or loose) 	Avoid	
SALADS		
<ul style="list-style-type: none"> • Ready made (from salad bars, packaged etc) 	Avoid	
<ul style="list-style-type: none"> • Home made 	Safe	Wash all vegetables thoroughly. When prepared, store in fridge and use within 12 hours.
SALAD DRESSINGS	Safe	Store opened containers in the fridge.
SEAFOOD		
<ul style="list-style-type: none"> • Raw (eg.. oysters, sashimi or sushi) 	Avoid	
<ul style="list-style-type: none"> • Smoked (chilled or frozen) 	Avoid	

Morning sickness

The increase in maternal hormones during pregnancy can cause nausea and vomiting (morning sickness). This usually happens around the 6th to the 16th week of pregnancy and can happen at any time, day or night. The symptoms are worst up to 10 weeks and usually ease off after this. Vomiting can cause dehydration. Nausea or feeling sick can cause weight and energy loss.

Signs of morning sickness

- Nausea and feeling sick
- Vomiting
- Dehydration – dark yellow pee
- Weight loss
- Low energy levels



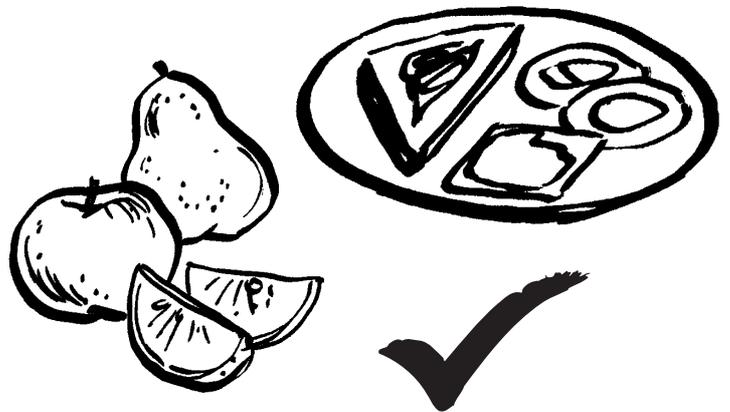
How to reduce morning sickness

- Avoid large meals and spicy or fatty foods.
- If morning sickness is happening first thing in the morning, try a dry biscuit or dry toast before getting out of bed.
- Eat small nutritious meals often (6–8 a day), even if it is just a dry biscuit or a piece of fruit. Have some in the fridge ready to eat.
- Nibble on cheese and crackers, vegemite and toast or fruit through the day.
- Get plenty of sleep and rest.
- Relax before meal times.
- Eat slowly.
- Ginger may help with nausea.
- Sip on flat dry ginger ale.
- Sometimes salty foods (eg. salted biscuits, soup and crackers) or sour foods (eg. pickles, grapefruit and yoghurt) may help nausea.
- Cold foods are often better tolerated than hot. Try cold meat and salad, fresh chicken sandwich, cheese and biscuits, fruit salad, cold pudding, yoghurt.

It is important to remember

- If vomiting regularly be sure to replace fluids – sip water, diluted juice, cordial or lemonade through the day. Try to have one cup of a sweet drink every 2–3 hours and water in between.
- Avoid tea, coffee or cola drinks as they increase the production of acid in the stomach and worsen dehydration.
- After vomiting do not brush your teeth as the acid from your stomach can damage them. Rub a smear of toothpaste over your teeth and rinse your mouth with water.
- Smoking cigarettes makes morning sickness worse.

Contact your health professional if you are unable to keep down fluids due to vomiting and nausea.



Heartburn

Some pregnant women get a burning pain in their chest. This is called heartburn and is a result of stomach acid refluxing into the oesophagus (food pipe). Heartburn usually occurs in the later stages of pregnancy. It is most likely caused by hormones which increase stomach acidity. The pressure of the growing baby on the stomach causes acid to be pushed up into the oesophagus. Heartburn can occur at any time of the day or night.



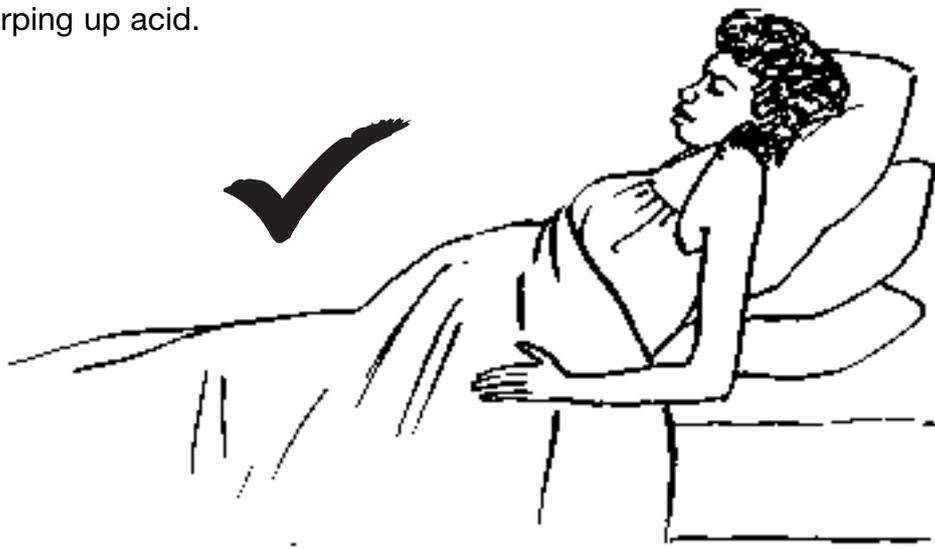
Signs of heartburn

- A burning or painful feeling in the chest
- Belching or burping up acid.

How to reduce heartburn

- Avoid tea, coffee, alcohol, or cola drinks as these make the stomach produce more acid.
- Avoid large meals. Try to have six small meals.
- Avoid fatty or spicy foods.
- Eat slowly.
- Avoid bending down or lying down for 1–2 hours after meals. When you do lie down, sleep propped up with a pillow.
- Only use an antacid prescribed by your doctor – some contain large amounts of minerals that may affect how your body absorbs other nutrients.

In late pregnancy if the burning pain is accompanied by headaches, spots before the eyes, feeling fluey or swelling of the feet, see your doctor straight away as this could be a sign of pre-eclampsia. This is an uncommon but very serious condition that can lead to convulsions and death. Patients have high blood pressure, oedema, and protein in their urine.



Constipation

During pregnancy many women suffer from constipation. Constipation is the infrequent passing of stools (poos) which are harder and drier than normal.

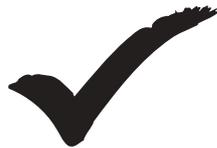
There are a number of reasons for becoming constipated during pregnancy. These include taking iron tablets, hormonal changes and because the baby is pressing down on your bowel.

Signs of Constipation

- Going to the toilet less often than you normally do
- Very hard small stools (poos)
- Straining on the toilet
- Bloating
- Sluggishness
- Tummy pain and cramps.

How to reduce Constipation

- Eat plenty of fibre every day. Dietary fibre helps to keep your stools (poo) soft by keeping more water in the bowel.
- Fibre is found in wholegrain breads and cereals, fruit, vegetables and legumes. Try to eat some of these foods at each meal and snack.
- Drinking water through the day keeps your stools (poo) soft. Have at least eight glasses a day and more on hot days.
- Regular physical activity, like walking and swimming helps to move the food through your gut and reduces constipation.



Haemorrhoids (piles)

Piles are a fairly common complaint during the later part of pregnancy.

These are enlarged veins in the anus, often caused by the increased weight of the baby and the downwards pressure on the bowel. You are more likely to get piles if you are constipated.

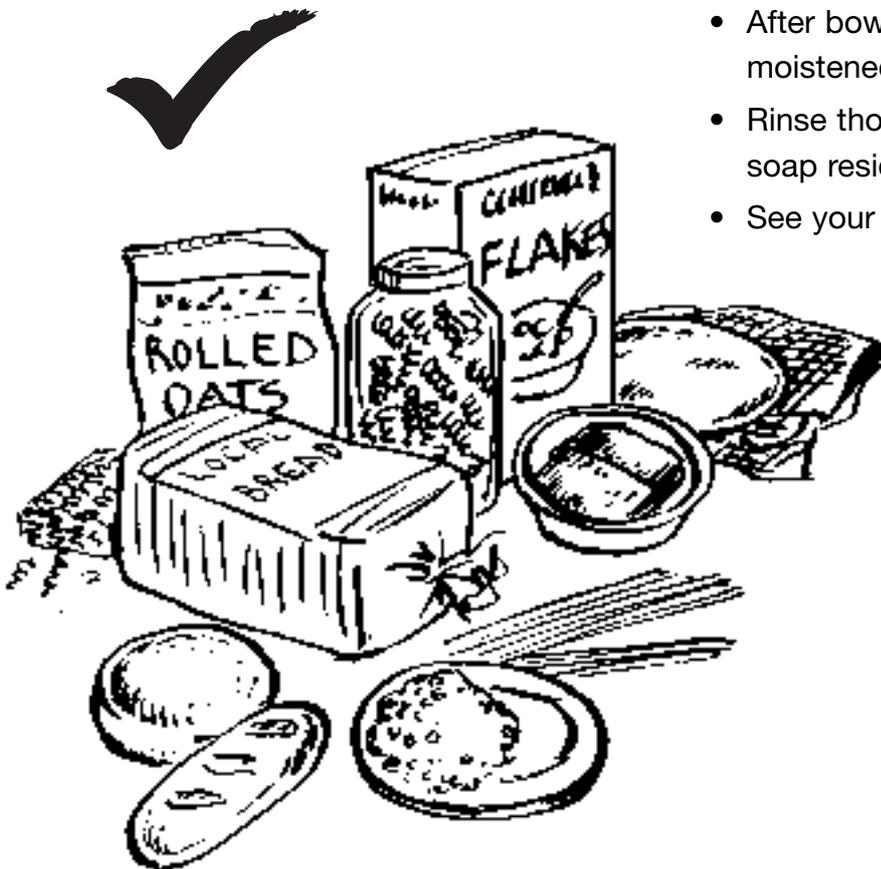


Signs of Piles

- Burning
- Bleeding
- Pain
- Itching.

How to reduce or prevent piles

- Eat regular meals.
- Drink plenty of water.
- Exercise daily.
- Respond to the urge to move your bowels.
- Avoid straining when you go to the toilet.
- Have plenty of fibre in your diet.
- After bowel movements, use toilet paper moistened with warm water.
- Rinse thoroughly after bathing to remove soap residue.
- See your doctor if you are concerned.



Cravings and aversions

There is no logical reason for food cravings or aversions (the dislike of certain foods or smells such as cooking meat). However, these are relatively common during pregnancy. If a variety of good healthy foods are eaten and weight gain is normal there is no need for concern.

The most commonly craved foods include sweets and dairy products. However, cravings are not limited to any one

particular food or food group. If you are craving sweet foods, try to minimise your intake of these foods as they may lead to too much weight gain and dental decay. They may also replace more nutritious foods such as fruit and vegetables.

Some women crave unusual things like dirt and washing powder. If this happens to you talk to your health professional.



Diabetes in pregnancy

Some women will have diabetes before they fall pregnant, others develop diabetes during their pregnancy. This is called gestational diabetes.

Women with diabetes during pregnancy need to look after their blood sugar very carefully to protect the growing baby. Keeping your blood sugar in the healthy range helps the baby to be born healthy and grow to be a healthy adult.

High blood sugar during pregnancy can make your baby sick at birth and might cause problems later. If blood sugar remains high your baby can grow too big and make giving birth difficult and a Caesarean may be necessary. To stop high blood sugar you need to exercise and eat good foods. Some women may need insulin injections as well.

Women with diabetes need extra care during their pregnancy. This means more visits to the antenatal clinic and extra tests

to check you and baby are well. Talk to your health carer about what you can do to keep yourself and your baby healthy.

Gestational diabetes usually goes away when the baby is born. It is important to have this checked at your 6-8 week check-up after giving birth. If you had gestational diabetes during one pregnancy, make sure you get a check-up early in your next pregnancy.

Gestational diabetes is an early warning sign for the mother, because many women who have had gestational diabetes get diabetes later in life. Losing weight by eating good foods and doing regular physical activity after the birth may help delay or stop the diabetes from coming back.

Breastfeeding helps to prevent the baby from getting diabetes later in life. So breastfeeding is even more important for these babies. Breastfeeding will also help mum to stay at a healthy weight.



Weight gain during pregnancy

Mothers will need to eat more food during the pregnancy, but there is no need to eat for two. Eating too much food may lead to you gaining too much weight.

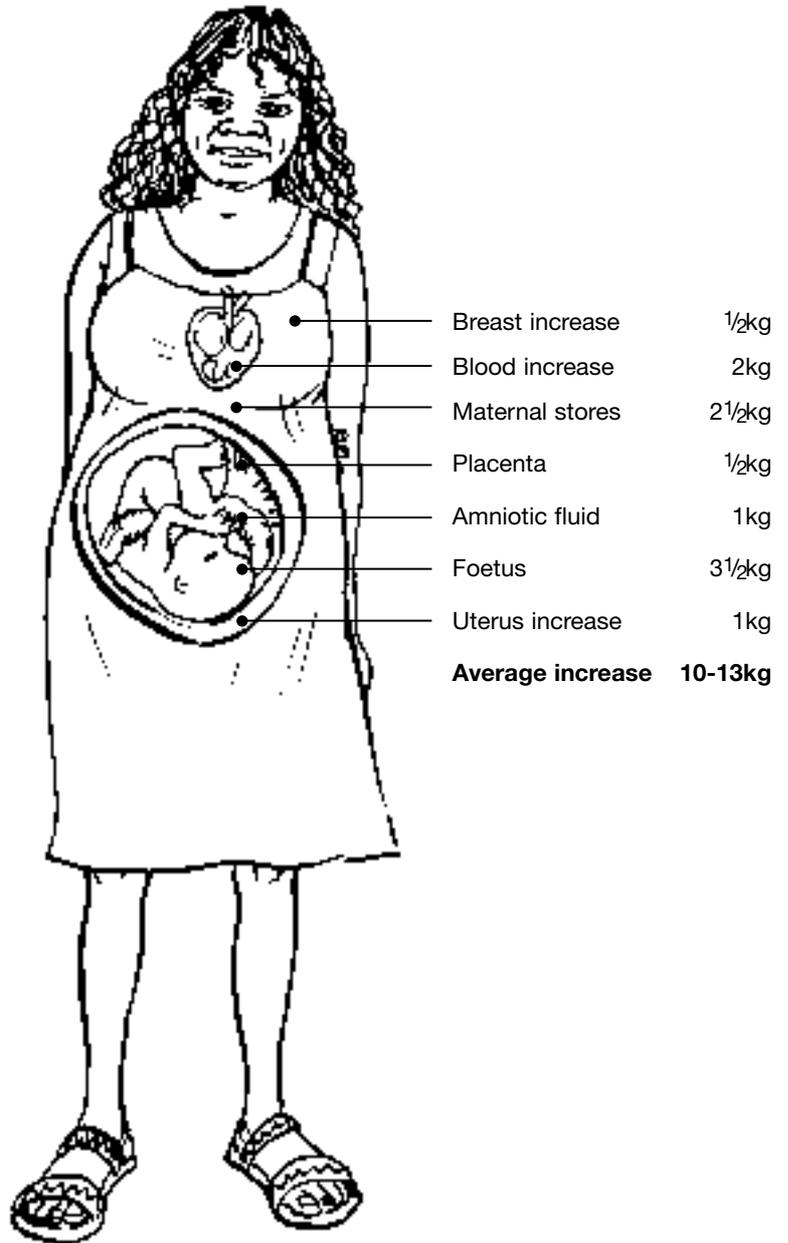
Not gaining enough weight is associated with the increased risk of complications including preterm deliveries and low birth weight babies.

A healthy weight gain in pregnancy depends on the mother's pre-pregnancy weight. The average weight gain during pregnancy for women who are a healthy weight is 10–13kg.

A rough guide for healthy weight gain is 3kg over the first 20 weeks followed by 0.5kg per week until term. A weight gain widely different from these guidelines should be reported to the doctor. Weight gain in pregnancy may not be as even as expected; some weeks you gain more weight than others.

It is important to remember that these are only guidelines and in most cases individual variations will not be cause for concern.

Normal weight gain in pregnancy



Choosing how to feed your baby

Breastmilk gives babies all the food and drink they need for about the first six months of life.

- Babies who are breastfed 'to need' do not require extra water, food, or other fluids until they are about six months old.
- Breastmilk is very easy to digest and absorb. That's why breastfed babies usually want to feed more often than formula fed babies.
- Breastmilk changes as the baby grows.

Breastmilk helps babies stay well. So you spend less money on medicine.

- Breastmilk contains many special factors which help the baby's body develop and grow strong. This is very important for babies born small as it helps them to grow and catch up. The milk of mothers who have premature babies contains more of these factors.



- Breastmilk contains antibodies to help the baby fight off infections, even when the mother is sick. This protective effect lasts for some time after breastfeeding stops.
- Breastmilk is important for babies of women who had diabetes in pregnancy. Studies have shown that if these babies are breastfed they are less likely to get diabetes when they grow up.
- Until he is ready for solids, give baby only breastmilk to keep him strong and healthy.
- When baby is eating solids, breastmilk is still an important part of his diet.
- As long as baby continues to breastfeed, it will help keep him healthy, even when he is an active toddler.

Breastmilk is always ready for your baby.

- When you are breastfeeding your breasts are always making breastmilk. The more the baby drinks the more the breast will make. The less milk left in a breast the faster it makes new breastmilk.
- Breastmilk is at the perfect temperature for the baby.

Breastfeeding helps mums get back in shape.

- Women who breastfeed lose fat from their hips and thighs and usually lose weight faster than women who don't breastfeed.
- Breastfeeding helps the uterus (womb) return to its non-pregnant size and reduces the risk of bleeding.
- Some women feel this as 'after-birth' pains during the early days of breastfeeding.

Breastfeeding helps mums stay well.

- Women who have breastfed have a lower risk of ovarian and pre-menopausal breast cancer. The longer a woman has breastfed the lower the risk.
- Women who breastfeed often don't get their periods until their baby is about six months old, sometimes much later. This helps them save iron to use in breastmilk.



Breastfeeding is cheap and doesn't need any packaging. Mum's body is all the equipment you need.

- You don't need lots of extra equipment to breastfeed.
- There is no rubbish (tins, old bottles etc) to leave lying around.
- Formula, bottles and sterilising equipment are expensive. They will cost you at least \$1000 for the first year.
- Formula takes time to prepare, warm and clean up properly.

Formula fed babies are more likely to get sick with attacks of the runs, nose and chest problems and allergies.

- Because they miss out on the antibodies and other protective factors, formula fed babies are more likely than breastfed babies to get diarrhoea, constipation, otitis media (glue ear) and chest infections.
- Even one breastfeed a day lowers the risk.
- It is very important to keep bottles and teats very clean to cut down the risk of infections. Not smoking around baby will also help.

Some formula fed babies can have problems with their weight.

- Formula fed babies who get sick a lot sometimes can't get all the nutrients they need from formula. This means they can stop growing fast enough and develop failure to thrive.

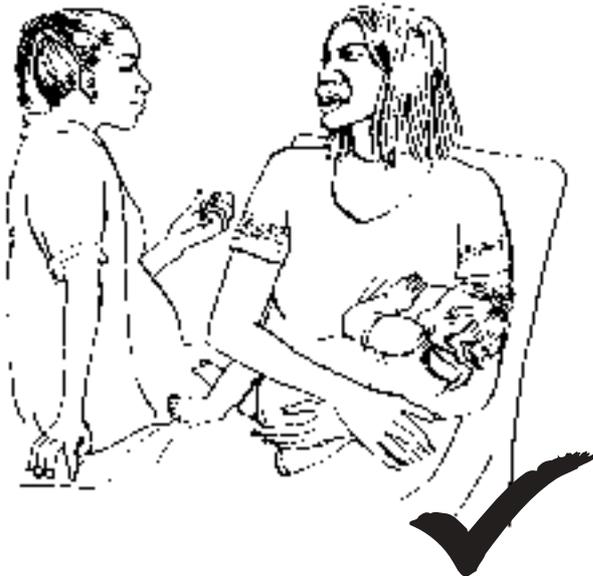
- When feeding a baby with a bottle we often make the baby finish the bottle even if he has had enough before the end. This can confuse the baby's appetite control (knowing when they have had enough) so that when they grow up they tend to overeat and become overweight.
- A formula fed baby tends to have more fat and less muscle tissue than a breastfed baby of the same weight.



Getting ready to breastfeed

Talk to mums who have breastfed

- Learn as much as you can from women who have already breastfed, especially from those who enjoyed it and are positive about breastfeeding.
- Ask what was good about breastfeeding for them.
- Talk about how they coped with any difficulties they had.



Watch videos about breastfeeding

- Videos can be very useful. Your ABA group, Child Health Clinic or Community Health Centre may have videos you can borrow or check out the local library.

Talk to your partner and family about breastfeeding your baby

- Having the support of those close to you can really help, especially in those early weeks after giving birth.
- Talk about how they feel about breastfeeding.
- Let them know how they can support you.

Watch babies breastfeeding

- Watching babies being breastfed will let you observe things that their mothers might find hard to put into words.
- Australian Breastfeeding Association (ABA) groups hold meetings at which there are usually lots of breastfeeding babies. If there is a group in your area it will be listed in the telephone book under Australian Breastfeeding Association.

Eat healthy food

- When you are breastfeeding your breasts will draw on your stores of nutrients and use them to make breastmilk. It is important to lay down stores while you are pregnant so there is plenty for both you and baby when you are breastfeeding.
- Eating well can help keep you strong and healthy.

Talk to your employer about working and breastfeeding

- If you are planning to go back to work, talk to your employer about ways to combine breastfeeding and work.
- See pages 47 & 48 on working and breastfeeding in this book.

Treat your breasts gently

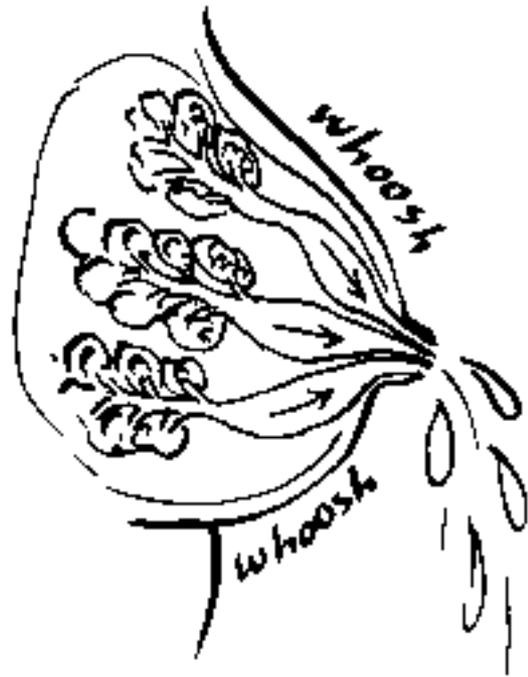
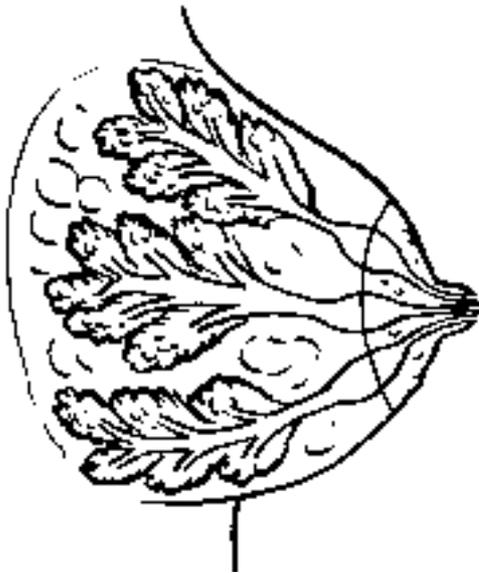
- Years ago women were told they had to toughen their nipples to breastfeed. We now know this isn't true.
- Your breasts make oils to keep your nipples clean and soft. Washing your nipples with soap removes these oils and can make your nipples sore, so just use water to wash your breasts.



How breastfeeding works

Structure of the breast when making breastmilk

- When a woman is breastfeeding the inside of her breast is shaped a bit like bunches of broccoli.
- Breastmilk is made in little sacs called alveoli (like broccoli flowers).
- The breastmilk flows down ducts into the milk sinuses (storage area).
- The baby sucks the breastmilk from these sinuses when breastfeeding.



The letdown reflex

- When breastmilk is made the fatty part of the milk tends to stay up in the alveoli.
- The breastmilk waiting in the sinuses has more water than fat in it.
- When the baby attaches to the breast and starts to feed, a message is sent to the mother's brain by nerves in her nipple.
- This message makes the brain release two hormones. One hormone helps the breasts make more milk. The other makes the little muscles that surround the alveoli contract.
- This forces the high fat breastmilk down the duct into the sinuses. This is known as the letdown reflex. (The same thing happens if a mother is expressing her breastmilk).

- Some mums feel a tingling in their breasts, others say it hurts and some mothers won't feel anything at all, but it is still happening.
- The best way to check if the letdown reflex has happened is to watch the baby feed. When a baby first starts to feed they suck with short fast sucks. When the letdown reflex happens they change to slower, stronger sucks.
- If the baby is not attached properly the message may not be sent and the let down reflex won't happen. This means

the baby only gets part of the milk in the breast and misses out on the extra fat and so doesn't put on weight fast enough. This is fixed by helping the mother to learn how to properly attach her baby to the breast.

- Sometimes the letdown reflex happens when a mother thinks about her baby or hears her baby cry.
- If a mum is nervous, tense, very tired, in pain or embarrassed the letdown reflex may not happen.



Starting to breastfeed

In the first few weeks most babies will feed at least eight times each day. Some babies will feed twenty times or more each day. Watch your baby to see if she is hungry. Don't worry about how long it has been since her last feed. Mums were breastfeeding long before clocks were invented.

Put baby to the breast when she first shows signs of hunger. It is much easier to get a calm, alert baby onto the breast than a baby who is crying and distressed. When a baby cries their tongue moves up and back in their mouth. To breastfeed a baby needs to have their tongue forward and down. So catch babies first signs of hunger and offer the breast.

Signs that baby is hungry

Early signs of hunger:

- Baby moves head from side to side as if looking for the breast
- Baby sucks on fist, fingers or thumbs
- Baby turns face into breast.

Late signs of hunger

- Crying – once baby is crying it can be hard to get her to feed properly.



Getting baby onto the breast

The secret to getting baby onto the breast well is to get your nipple as far back in baby's mouth as you can. This stops you from getting sore nipples and makes it easy for baby to get the breastmilk out of your breast. To get well attached baby needs to take as big a mouthful of nipple and breast as she can. Below are some suggestions to help baby feed well.

- In the early days it can take a long time to feed a baby so you need to be comfortable before you start.
- Move clothing away from your breast. Once baby has learned how to get onto the breast easily you will be able to feed with just your nipple and around it uncovered. While you and baby are learning how to breastfeed it is easier to have as few clothes in the way as possible.



- Unwrap baby so she is free to move.
- Hold baby so that all of her is close to you.
- Support baby's head and shoulders but do not push on the back of her head. New born babies have a reflex that makes them push back if anything pushes their head forward.
- Baby's head will be tilted back a little. Support baby so she is free to move her head.
- Hold baby so she is facing your nipple, her chest and tummy facing you and her feet and legs in close to your body.
- Baby's mouth should be level with your nipple. If you have to move your nipple to get it into baby's mouth it may pull out again when you let go.
- Some babies move fast to the breast, others take more time. Drugs used during labour can make some babies sleepy and not interested in breastfeeding.



- Let baby lick and smell the breast if she wants to. Give her time to get to know you.
- Expressing a few drops of colostrum can encourage baby to feed. Baby may lick these off the nipple or you can express into baby's mouth.
- When baby's mouth is open wide bring her to the breast.
- Bring baby to the breast, don't stretch the breast to reach baby.
- If baby will not open her mouth wide, point your nipple at her nose and rub her bottom lip with your breast.
- Some mums use their fingers to shape their breast to make it easier for baby to attach. Make sure that you are shaping your breast to fit baby's mouth by having your fingers in the same direction as baby's lips.
- Hold baby close so her chin touches your breast and her nose is free to breathe. If her nose is into your breast tuck her feet closer into you and see if that helps. If not you may need to start again.
- If it hurts when baby sucks put your finger in her mouth to break the suction and try again. If you leave baby to suck you will get sore nipples.
- Let baby feed as long as she wants to. Some babies will have a rest at the breast and then start sucking again, so let baby decide when to come off the breast.

When baby gets enough breastmilk

Many breastfeeding mothers worry that they don't have enough breastmilk. Unlike a bottlefed baby you can't tell how much a breastfed baby has had at each feed. Breastmilk is very easy to digest and doesn't stay in a baby's stomach for long, so breastfed babies want to feed lots. This can make a mum think that she doesn't have enough breastmilk to feed her baby.

When baby is born your body signals to your breasts to start making lots of breastmilk. When baby starts feeding your body sends extra blood and fluid to your breasts. Most mums have large, full breasts in the early days of breastfeeding. This is when some mums get engorged. (See p51) As your breast get used to making breastmilk they don't need the extra blood and fluid. When baby is about six weeks old your breasts will have become smaller and softer. At about this age many babies are growing fast and

want to feed often. This can make mums think that they have lost their breastmilk and need to start giving baby formula.

All breastfeeding mums should be told how to know that their baby is getting enough breastmilk. After baby is about a week old you will see:

- lots of pale coloured pee
- six or more very wet cloth nappies or five heavy disposable nappies every day
- baby will have bright eyes, a moist mouth and tongue
- baby will gain some weight over the month
- baby will usually be content- even if there are some unsettled times.



How to make more breastmilk

As babies grow they need more breastmilk. The more baby drinks the more breastmilk your breasts will make. So as baby grows there will be times when he seems to want to feed all the time. This is his way of making your breast make more breastmilk.

If you are worried that you don't have enough breastmilk here are some suggestions you can try.

- Check baby is attached properly. In the early days some babies find it difficult to get a big mouthful of breast and nipple. This can make it hard for them to get the breastmilk out of your breast as it is the action of your baby's tongue on the breast that draws the milk out of the breast. If baby has only the nipple and a little of your breast in his mouth he can not draw the breastmilk out.
- Breastfeed more often. The more breastmilk baby takes out of the breast the more your breasts will make. Offer baby a feed as often as you can, you can't make a baby breastfeed if he doesn't want to, he will let you know if he doesn't want it.
- Let baby finish the first breast before offering the second. Some babies like to suck, then have a rest while still on the breast and then suck again. Let baby decide when he has had enough and come off the breast by himself.
- Some babies are sleepy babies and fall asleep soon after they start feeding. If your baby does this you could try swapping breasts whenever he falls asleep. Swapping breasts can wake him enough to suck again.
- If you use a dummy, baby will need to suck less at your breast. Let baby suck on your breast for comfort rather than use a dummy. Even when comfort sucking, baby will be getting some breastmilk to help him grow.
- Stroking the breast towards the nipple as baby feeds can help him get the breastmilk out of the breast. Try this if your baby is little and gets tired very easily.
- **Remember the more breastmilk your baby takes the more your breasts will make.**



Is the baby on right?

- One of the two main reasons that women give up breastfeeding is that they have sore nipples. (The other is thinking they don't have enough breastmilk for their baby).
- Getting positioning and attachment right helps the letdown reflex and protects mum's nipples.
- Remember if the mother and baby are happy (no sore nipples and good growth) then do not change anything.



Checklist to use when assessing the position and attachment of a baby at the breast

ASSESSMENT	YES/NO	COMMENTS
Mother is comfortable.		
Baby is unwrapped.		
Baby is held as close to mother as possible.		
Mother's hands and baby's arms are out of the way.		
Baby's head and body are facing the mother.		
Baby's head is free to move and tilted back slightly.		
Baby's chin is touching the breast.		
Baby's nose is clear of the breast in most cases.		
Baby has a good mouthful of breast – jaws wide apart.		
Baby's cheeks rounded out.		
Baby's lips are flanged outwards making a seal against the breast.		
Baby's tongue is forward covering the lower gum- this can be checked by carefully turning down the lower lip.		
Breast is not distorted or stretched.		
It does not hurt.		
Nipple shows no signs of trauma (blanching, red areas, flattened or compressed, blistering) when removed from the mouth.		
Baby is swallowing at the end of most sucks.		

Sore nipples

A woman's nipples are more sensitive than usual in the first few days after giving birth. Many women experience discomfort when breastfeeding in the early days. If this discomfort turns to pain a mother will need help to deal with the pain and fix what is causing it.



Nipple pain can be caused by:

- incorrect attachment and positioning – this is often made worse if the breast is engorged
- incorrect sucking action
- nipple problems – thrush, eczema, dermatitis etc.

How to reduce or prevent nipple pain

- Check positioning and attachment and make any necessary changes. This is very important for women who have flat or inverted nipples. If a baby learns how to attach properly on a soft breast before the milk comes in it will be much more successful when the breast becomes full.
- Use a breast pump to draw out the nipple and then quickly attach the baby.
- If baby is having difficulty attaching to a full breast express enough breastmilk to soften the breast around the nipple.
- Try different feeding positions. Baby may be able to attach better in a different position.



Changing positions means the stress isn't always in the same place on the nipple and baby may find it easier to attach.

- Express a little breastmilk at the end of a feed. Gently rub this over the nipple and allow to air dry. Breastmilk contains lots of things to help the nipple heal and you don't have to wash it off before you feed the baby. Nipple creams can contain pesticides and often have to be washed off before a feed so are not recommended.

- If you are using nipple pads, change them often so the nipple isn't always soggy. Nipple pads with plastic backs keep the moisture near the nipples so don't use them if your nipples are sore.
- Allow your nipples to dry before you put them back under your clothes.



Thrush

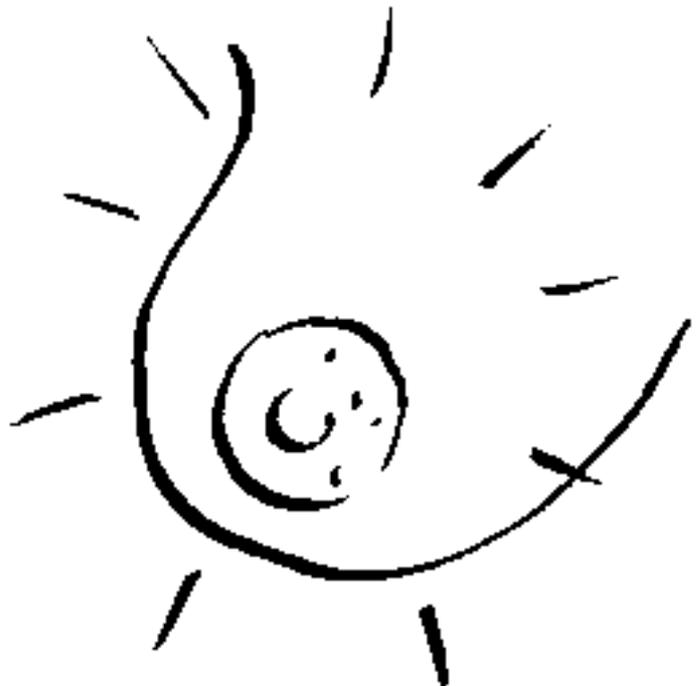
Thrush is a fungal infection. Mums are more likely to get thrush just after they have had a course of antibiotics. This is because antibiotics kill bacteria but don't kill fungi. Babies who have thrush in their mouths/bottoms can pass it on to their mothers. Your sexual partner can also pass on thrush.

Signs of thrush

- Severe burning nipple pain that is often worse after a feed.
- Pain is not relieved by fixing any positioning and attachment problems.
- Very tender nipples – even touching clothing can be too painful.
- Pain can seem to be deep in the breast.
- Nipples sometimes have red or purple patches but often look normal.
- White spots on tongue and inside baby's mouth.

How to treat thrush

- Anti fungal creams can be bought at a pharmacy without a prescription. Talk to the pharmacist about which one is best for you.
- It is important to treat the baby's mouth as well even if thrush is not obvious in the baby.
- If a mum has vaginal thrush that should be treated at the same time.
- It may be necessary to treat mums sexual partner as well.
- Symptoms disappear before all the thrush is killed so continue treatment for at least seven days after the symptoms have gone.



Blocked ducts

Signs of blocked ducts

- A tender bead like lump in the breast. A blockage in a milk duct can cause breastmilk to bank up behind the lump.
- Breast may be red around the lump.

Causes of blocked ducts

- Missing feeds – baby sleeps for longer than normal. Mum is away from baby and can't express her breastmilk.
- Pressure on the breast – a bra or other clothes that are too tight and press into the breast and block a duct.
- Trauma to the breast – a knock to the breast, being kicked in the breast by your baby.
- Being run down – some mums find they are more likely to get blocked ducts when they are over-tired and feeling run down.



Treatment

- Breastfeed baby often. This is not the time to wean.
- Check positioning and attachment.
- Feed on the sore side first.
- Try to feed in a position where gravity helps the lump to move eg. the nipple is lower than the lump.
- Have a warm shower or use a warm washer to warm around the lump before a feed. This helps open up the milk duct and move the lump. A cold washer used after a feed can help ease the pain.
- Massage from the lump towards the nipple while breastfeeding or expressing.
- Expressing under a warm shower can help.
- Get as much rest as you can.

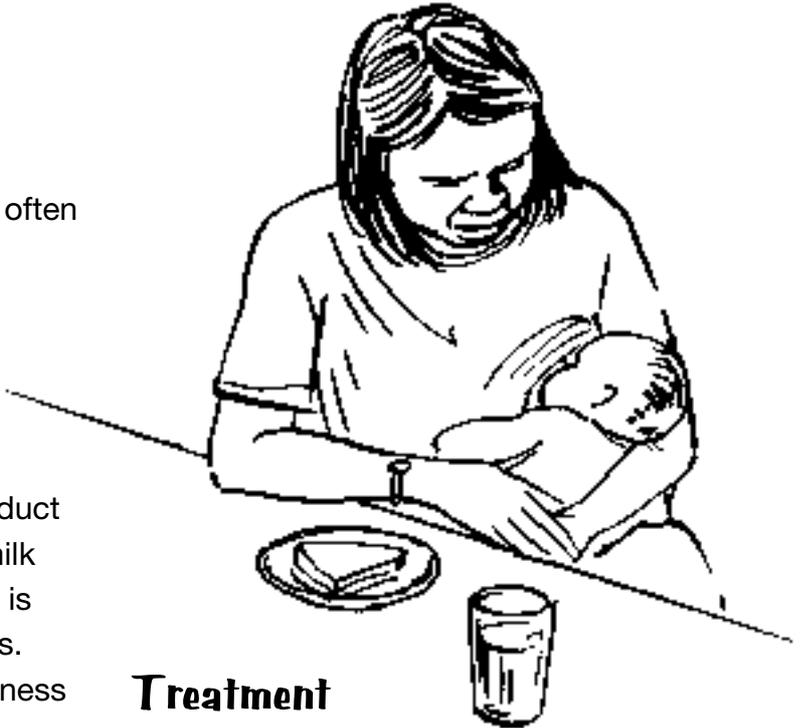
Mastitis

Signs of Mastitis

- Red, hot tender area on the breast often associated with a lump
- Fever
- Flu-like symptoms.

Causes

- Mastitis can result from a blocked duct that has not been cleared. Breastmilk banks up behind the blockage and is pushed into the surrounding tissues. This causes inflammation – the redness and heat.
- Mastitis can also be caused by an infection. Infections can enter the breast when the nipples are damaged or can come from the mum's blood.
- Some mums get mastitis when they are stressed and run down.



Treatment

- Feed as frequently as possible. Babies can drink the breastmilk from an affected breast. Some people will have been told to wean but this is not good for the mum and will make the mastitis worse. When a mum has mastitis her breastmilk contains extra antibodies and cells to fight off the infection. Some babies will refuse to feed if the breastmilk tastes different. If baby won't feed enough express to drain the breast as often as possible.
- Get as much rest as possible. Ask for help from anyone you can, especially if you have other children to look after. Take the baby with you and go to bed for a couple of days if you can.
- If the mastitis is infective, antibiotics are needed. Ask your health professional to check that they are okay for breastfeeding mums to take.
- Use the treatments suggested for blocked ducts.
- Untreated mastitis can progress to a breast abscess so it is important to start treatment quickly.



Engorgement

Engorgement is most often experienced in the first days after birth. The main causes of engorgement are ineffective removal of milk from the breast due to incorrect attachment and restricted breastfeeding. Improved hospital policies have greatly reduced the number of women who become engorged. Engorgement can also occur when baby starts sleeping longer at night or is beginning to wean.

How to treat engorgement

- Allow unrestricted sucking.
- Correct attachment and positioning – may need to express before feeds to get baby attached.



- Expressing under a warm (not hot) shower.
- Simple pain relief (eg. paracetamol).
- Massage breast gently towards the nipple while feeding.
- Use cold packs after a feed to relieve discomfort.
- Avoid giving baby any fluids other than breastmilk, unless medically indicated.
- Check that bras are not too tight.
- If none of this works you can use an electric pump to remove as much breastmilk as possible from both breasts. This should only be done once.

When breastmilk comes down too fast

- Sometimes the letdown reflex is very strong and the milk comes down very quickly. When this happens the baby seems to choke and pulls away from the breast. If this continues some babies will refuse to feed from the breast.
- If this happens, a mum can express before she feeds the baby. This means that when the baby goes to the breast the flow is not as fast and he can feed happily.
- Some mums allow the baby to suck until the milk comes down and then take them off the breast. Breastmilk often

sprays from the nipple and this can be caught in a sanitised container and stored or you can mop it up in a nappy or towel. Once the breastmilk stops spraying the baby can be put back to the breast comfortably.



Working and breastfeeding

Talk to your employer before you go on maternity leave. Ask about a breastfeeding policy. If there isn't one suggest that they might like to write one.

There are lots of different ways you can combine working and breastfeeding. Some things to think about are:

- **How old your baby will be when you go back to work.** As babies get older they can go longer between breastfeeds. Once they are about six months old and have started solids this can help them last between feeds.
- **Working from home.** If you can do your work from home, you can feed your baby when she needs it.



- **Working Part time.** Working part time can help you juggle the pressure of working and family. It also means you don't have to be away from baby for so long.
- **Have someone bring your baby to you when she needs a breastfeed.** This way your baby is still breast fed when she needs it. You don't have to spend time expressing your breastmilk for her and you get to see her during the day.





- **Use a child carer close to your work.** You can go to your baby and feed her during your meal breaks.
- **Express breastmilk at work.** You will need a private room to express, somewhere to store your equipment, a fridge or freezer to store the expressed breastmilk (or an esky with ice), containers to store your breastmilk and something to keep it cold on the way home from work.
- **Use formula when you are at work and breastfeed when you are home.** Some mums find that it is not possible for them to express enough breastmilk to feed their baby while they are away. These mums breastfeed their babies when they are at home and have the carer give them formula when mum is at work.

- **When you are home from work.** Breastfed babies often want lots of feeds when their mums are home. Some mums give their baby a breastfeed at the carers before going home so baby is happy during the trip home. Babies may also want to feed more often at night.
- **Looking after yourself.** Juggling work and a baby takes lots of energy. Get all the help you can. With house work decide what is important to you and leave the rest. Use quick and easy recipes. If you have a freezer cook extra food, freeze it and use when you need it. Get as much rest as you can.

YOU DON'T HAVE TO STOP BREASTFEEDING WHEN YOU GO BACK TO WORK.



Choosing an infant formula

There are many different types of infant formula for sale. When choosing a formula you need:

- A special infant formula. Cow's milk, Sunshine milk and goat's milk are not suitable for human babies and can make them very sick. Do not use these until baby is one year old.



- A formula that you can easily buy. Some communities have a limited range for sale in the store.
- A formula to suit your baby. Most babies do not need special formulas, eg. soy formula or low lactose formula. These are more expensive and should only be used if recommended by health staff.

If you think the formula you are using is not suiting your baby, talk to your health professional before you change formulas because:

- Many babies who are sensitive to cow's milk based formula are also sensitive to soy based formula.
- Babies who become sensitive to lactose after having diarrhoea may only need a low lactose formula for a short time until their gut heals.
- Instructions for making up the bottles, eg. how many scoops to put in each bottle, change for different formulas. Always check the tin for directions or ask your health professional, so you know the right amount for your baby.
- Many babies go through stages of being unsettled. Changing formula doesn't usually help. Talk to your health professional about settling techniques you can try.



When to start solids

In our mothers' time it was recommended that babies start solids at a very young age. It is now recommended that solids are not introduced until the baby is older and more mature.

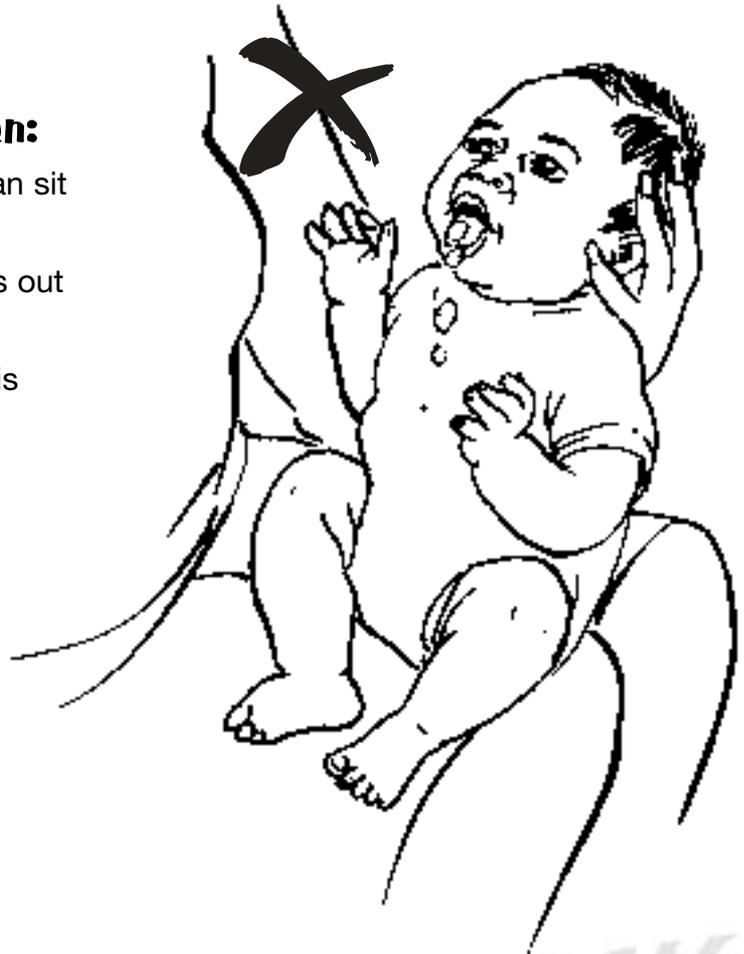


Baby is ready for solids when:

- he can hold his head steady and can sit up on your lap
- he is interested in food and reaches out for food when you are eating
- he does not push the food out of his mouth with his tongue
- he is about six months old.

Starting solids too early can harm a baby

- Babies are more likely to choke as they cannot control the muscles of their mouth and tongue properly.
- Filling up on solids can cause a baby to suck less at the breast. This can lead to a drop in breastmilk supply. Breastmilk is a very concentrated source of nutrients for the baby; most solids have less nutritional value.
- Many solids contain more sodium (salt) than breastmilk so they put extra strain on immature kidneys and can cause dehydration.



- The enzymes to digest starch are not normally present until three months of age and are not fully functional until six months of age.
- Some solids can interfere with the absorption of iron from breastmilk.
- In infants with a family history of allergy, early introduction of solids can increase the risk of allergy developing.
- Some babies who are started on solids too early will become fussy eaters and difficult to feed.



Starting solids too late can also harm baby

- Babies are born with stores of minerals eg. iron and zinc, in their bodies. By about six months of age these stores are getting low and breastmilk alone is not enough to meet baby's needs. If solids are started too late these babies can become sick because they cannot fight off infections well. They also may not put on weight fast enough.
- A baby who has been born prematurely, is small for gestational age or whose mother had low levels of these minerals in her blood during pregnancy will have less stores at birth.
- Babies learn to chew at about nine months of age. If they are not given solids to practice on, it can be very difficult to teach them to chew when they are older.
- Learning to chew is an important step in learning to speak.
- Some babies who start solids late will be very fussy eaters and will often reject foods with different tastes or textures.

How to start solids

Babies' sense of taste is very sensitive. They use their mouths to find out about the size, shape and texture of things. This is why babies seem to put everything they pick up into their mouths.

Starting solids is a new experience for baby. Up until now he has put things in his mouth and taken them back out again. He needs to learn to swallow things that are thicker than breastmilk or formula. It is important to make the food very sloppy the first few times you try.

It is important to choose a time when baby is happy and not too tired. Take your time and do not rush. Let baby get used to the feeling in his mouth. He may also want to feel it with his fingers. Stay with baby while he has any food in his mouth.

Preparation of first foods

- Add breastmilk or formula to make sloppy and smooth.
- Increase lumpiness as baby develops.
- No added salt or sugar.



Best foods

- Mashed fresh banana, paw paw.
- Stewed and mashed apple or pear.
- Baby cereal – iron fortified.
- Not adult cereals like weetbix as they are too hard to digest.
- Cook a meat stew without stock cubes or salt and mash for baby.
- Soft fish (check for bones), rice and vegetables.
- Mashed potato.
- Minced meat and mashed vegetables.

Amount

- Offer 1 to 2 teaspoons at each meal **after** milk feeds. Breastmilk or formula is a baby's most important food until they are twelve months of age.
- Increase to 1–2 tablespoons of solids 2–3 times a day and eventually 1/2 cup 3 times a day.
- Introduce new foods one at a time. Wait a few days before trying another new food. Some babies will have allergies or intolerances to some foods.
- If baby refuses a food – offer it again in a few days. It can take some babies up to eight tries before they will eat a new food.

Clean baby's teeth after each solid feed by wiping with a soft cloth or brush gently with a small soft toothbrush.

Iron for babies and toddlers

- Babies and toddlers need lots of iron-rich foods to help them grow.
- It is very easy for babies to get the iron out of breastmilk, so breastfeed for at least 12 months.



- If your baby is under 12 months old and you are not breastfeeding, use an iron-fortified infant formula.
- When your baby is old enough to eat solids, offer iron-rich foods each day.
- Toddlers have small stomachs, about as big as their fist. Offer them small meals through the day. Too many drinks, other than water, can fill them up.

Babies

- Breastfeed for as long as possible.
- Use a high iron formula if bottle feeding.
- Offer iron fortified cereal at around 6 months.
- Offer red meat at 6 months – stewed or minced.
- Include some fruit and vegetables with all meals.
- No cows milk to drink before 1 year old – a little on cereal or in yoghurt and custard are fine.



Toddlers

- Children do not need more than 600ml milk or more than 1/2 cup of juice a day.
- All other fluid should be water or breastmilk.
- Too much milk and juice will take away a child's appetite for solid food that is higher in iron.
- Offer a little meat, chicken or fish daily.
- Include fruit, salad or cooked vegetables at all meals.

Tea should not be given to babies or toddlers. Tea binds up the iron in their food so they can't absorb it.



Feeding toddlers

A baby grows fast in the first year of life. By the time a baby is one year old her growth has started to slow down. As her growth slows her appetite decreases. This can cause problems if a carer expects a toddler to keep eating more and more food.

Toddlers' stomachs are still only small so it is important to offer them small amounts of food often. This is also important because toddlers are often very interested in the rest of the world and do not want to stop for long to eat.

Toddlers are becoming aware that they are individuals with a will of their own. It is important that meal times do not become a battleground between carer and toddler over what is eaten.



To make meal times easier

- Allow enough time for your toddler to eat.
- Offer food before your toddler becomes too tired.
- Offer healthy food choices and save treats for special occasions.
- Give your toddler a choice of what they would like to eat.
- Let them help prepare some part of the meal eg. can they sprinkle the cheese on top of the spaghetti sauce.
- Allow your toddler to decide how much to eat.
- Let them feed themselves and make a bit of a mess. Playing with food can teach them about different textures.
- Don't stress if they don't want to eat a new food, keep offering a little and they will get used to the idea.
- Remember that likes and dislikes can change.
- Don't expect them to eat everything on their plate.
- Don't let them fill up on drinks so that they don't want to eat.
- Limit distractions – put animals outside, turn off the TV, get other children to sit down too.
- Eat together as a family.

When baby is sick

When babies and toddlers are sick they often don't feel like eating but they will drink.

Breastfed babies may want to feed more often if they are feeling miserable. This is fine – the breastmilk will help them fight the infection. Bottle fed babies should be offered formula as usual but if they refuse make sure you give them other fluids (eg. cooled boiled water, 100% fruit juice diluted with water) instead.

As they get better, it is important to offer them food many times each day. Sick children often don't ask for food but will eat if it is offered.

After an infection a child may be extra hungry. When they are better they will want to eat more. Extra healthy food and drinks will help the child recover.

Feeding during diarrhoea

- Your baby may need special fluids during diarrhoea to replace the fluid lost in runny poos. Talk to your health professional about rehydration drinks for your baby. Dehydration can be very dangerous for small children.
- Continue to breastfeed.
- If your baby is on formula, check with your health carer about the type and strength of formula to give.

- Continue giving healthy food as soon as your baby is ready to eat. The goodness from the food is still absorbed during diarrhoea. Eating healthy food will help your baby fight the infection and recover more quickly.
- Eating might make your baby poo more. But eating will not make diarrhoea last longer, it will help fix it.

After an infection your baby may be extra hungry. If baby has started solids plenty of healthy food as well as breastmilk or formula will help baby recover completely.

