

Healthy Eating During Pregnancy and Breastfeeding



Online version



Department of Health

Eating a healthy and balanced diet, having regular physical activity and maintaining a healthy weight gain are essential to ensure your baby develop in the optimal nutritional environment. After delivery, provide your baby the prime nutrition and protection against infection with breastmilk. This also benefits the long term health of both you and your baby.

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Nutritional Needs During Pregnancy and Breastfeeding

During pregnancy and breastfeeding, you have a higher demand for nutrients. The extra demand can be met by choosing nutritious foods and taking a prenatal multiple micronutrient supplement (containing iodine, iron, folate, vitamin D, etc.) every day. It is important to limit eating foods with less fat and sugar to avoid gaining too much weight.

Key Points about Changes in Nutritional Needs

Stage	Key Points about Changes in Nutritional Needs
1st trimester of pregnancy (the first 13 weeks)	Demand for folate, vitamin A and iodine increases
2nd and 3rd trimester of pregnancy (14th to 40th weeks)	The requirement for energy and protein increases for the growing baby*. Apart from folate, vitamin A and iodine, there is a higher demand for iron, zinc and omega-3 fatty acids, and a mild increase in calcium requirement
Breastfeeding	The body needs a bit more calories than that before pregnancy.* Sufficient intake of protein, folate, iodine, zinc, vitamin A and DHA are required to ensure an adequate level of nutrients in your breastmilk

* Report of a Joint FAO/WHO/UNU Expert Consultation 2011 recommended an extra energy requirement of 285 kcal and 475 kcal per day during the second and third trimester respectively assuming the pre-pregnant physical activity level is maintained. An extra of 500kcal per day is needed during breastfeeding.

Folic acid

- Adequate intake of folic acid (folate) prevents the foetus from being affected by neural tube defect (malformations of the brain and spinal cord), as well as preventing you from developing anaemia
- You are advised to take a folic acid supplement of at least 400 micrograms (not more than 1000 micrograms) daily when you plan for pregnancy and during the first trimester of pregnancy
- During pregnancy and breastfeeding, you should consume foods that are rich in folate. You can also take supplement containing folic acid

Major food sources of folate

- Dark green vegetables, e.g. choy sum
- Legumes and beans
- Fruits, e.g. cantaloupe, oranges
- Liver
- Peanuts and nuts
- Folate-fortified breakfast cereals



Vitamin A

- Vitamin A is essential for growth, immune functions and vision
- Colourful fruits, oranges and dark green leafy vegetables, such as cherries, tomatoes, pumpkins, carrots and sweet potatoes, are rich in beta-carotene which can be turned into vitamin A in the body
- A diet containing colourful vegetables and fruits, eggs and milk provides adequate vitamin A for both of you and your baby



Avoid taking supplements containing large quantities of vitamin A

- Taking large amounts of vitamin A supplements, such as cod liver oil, for long period of time can damage the liver
- Excessive intake of vitamin A can cause birth defects

Talk with your doctor or pharmacist when you plan to take vitamin or mineral supplements

Iodine

- Iodine is necessary for the normal functions of the thyroid gland
- Iodine is essential for your baby's growth and brain development.
Iodine deficiency may cause serious health consequences for the baby
- Demand for iodine increases during pregnancy and breastfeeding. The World Health Organization recommends pregnant and lactating women should consume 250 micrograms iodine a day
- It is difficult to get enough iodine from diet alone during pregnancy and breastfeeding. To prevent iodine deficiency, you should take a prenatal multiple micronutrient supplement that contains at least 150 µg iodine every day

Food source of iodine

- Marine fish, seafoods (e.g. prawns, mussels, oysters, etc.), egg, milk and milk products, nori seaweed and kelp are foods with more iodine
- Seaweeds are rich in iodine content
- Kelp, in particular, contains a very high level of iodine. Consume kelp in moderation and no more than once a week. Overconsumption of kelp for a long time can have an adverse effect on the thyroid function

Food	Iodine content*(µg)	Food	Iodine content*(µg)
A chicken egg (63 g)	18	Seaweed snack 1 g	34
Skimmed milk 250 ml	20	Golden thread (fish) 100 g	36
Yoghurt 100 g	29	Horsehead (fish) 100 g	35
Prawn 100 g	44	Canned sardines 100 g	19
Mussels 100 g	140	Big Eyes (fish) 100 g	18

*Source: Risk Assessment Studies, Report No 45, Dietary Iodine Intake in Hong Kong Adults. July 2011. Centre for Food Safety, Department of Food & Environmental Hygiene, HKSARG.



How can I get adequate iodine?

- Take a prenatal multiple micronutrient supplement that contains at least 150 µg iodine every day. You should consult your healthcare professional to choose a suitable supplement. You should read the product label and check its iodine content when choosing one yourself
- **Use iodised salt in place of ordinary table salt for cooking**, keeping total salt intake below 5g (1 teaspoon) per day. Store the salt in a tight and coloured container and add it just before serving
- **Consume foods rich in iodine**, including marine fish, seafood, eggs, milk, dairy products, seaweed, kelp
- You can choose **seaweed snacks** with lower sodium and fat content. Kelp (or its soup) should only be consumed *occasionally*



Women having an active-thyroid problem also require more iodine during pregnancy and breastfeeding. Since increase in iodine intake may affect the thyroid functions, you should inform your attending doctor. You may need a close monitoring of the thyroid function as well.



You may refer to "Do you have adequate iodine?"
pamphlet for common questions about iodine intake

Iron

- Adequate iron intake ensures normal foetal growth and brain development and prevents anaemia during pregnancy and after delivery
- You need more iron in the third trimester to build up the iron reserve for the growth of the baby in the first few months of his life
- Foods rich in iron are usually also rich in zinc. Zinc is important for your immune functions and foetal development. It also helps wound healing
- Consume a variety of iron rich foods. Dark green leafy vegetables, dried beans, and nuts also provide folate, calcium and dietary fibre which is good for your gut
- Tea and coffee affect iron absorption in body. Try to avoid drinking them with meals

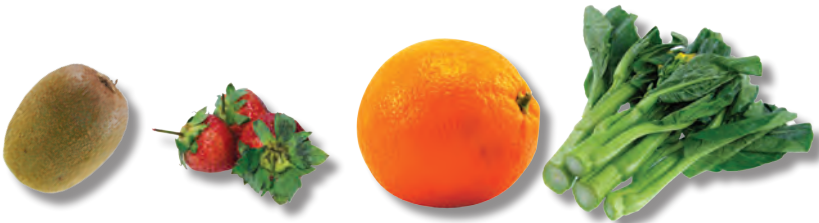
Food sources of iron

- Iron in fish, poultry, seafood, egg, red meat (beef, pork, lamb) is more readily absorbed. Consume red meat in moderation. Limit intake of liver because it is high in vitamin A
- Green vegetables such as choy sum, bok choy, spinach
- Dried beans such as lentils, red kidney beans, chickpeas, etc
- Nuts such as almond, cashew nuts, etc
- Iron fortified low sugar breakfast cereals



Vitamin C

- Vitamin C helps your body absorb iron from foods. Include a source in your diet such as fresh vegetables and fruits, e.g. oranges, kiwi fruits and strawberries



Calcium

- Calcium is the building block for bones and teeth
- Pregnant and breastfeeding women require 800 to 1000 mg of calcium daily[#]
- Inadequate calcium intake during pregnancy may increase the risk of preterm labour and gestational hypertension
- You can get adequate calcium from diet by consuming 2 glasses of milk or calcium-fortified soy milk each day and choosing calcium-rich foods such as dark green leafy vegetables and tofu

[#]With reference to the recommendations of the World Health Organisation and the Chinese Nutrition Society

Food sources of calcium

- Milk, cheese and yoghurt. Choose low fat varieties
- Calcium-fortified soy milk, tofu which is made traditionally with calcium salt
- Dark green vegetables, such as choy sum, kale, bok choi, mustard green, broccoli
- Sesame seeds and nuts
- Dried shrimps, small dried fish and fish eaten with bones (such as sardines)



Foods provide 300 mg calcium

1 cup of milk	1 bowl of tofu dessert
2 slices of cheese	200 g kale, bok choi
150 g of yoghurt	3 pieces of sardines
300 g choy sum	3 tablespoons of sesame
1 cup of calcium-fortified soy milk	
1/2 block of tofu set with calcium salt	

Calcium content of other foods*

2 slices of whole wheat bread	100 mg
15 g of almond	40 mg
An orange	60 mg
10 g of dried anchovies	59 mg
10 g of dried small shrimps	55 mg

*Source of data : website of the Centre for Food Safety

Vitamin D

- Vitamin D helps the body absorb calcium and is essential for bone health and bone growth in babies
- Most of vitamin D we need is produced by our body when the skin is exposed to sunlight. A small amount of vitamin D is obtained from foods
- When there is little sun exposure, women need to obtain 400 to 600 IU of vitamin D from diet and supplement every day. The requirement is the same during pregnancy and breastfeeding
- If pregnant women do not have adequate vitamin D, they have a high chance of developing preeclampsia and gestational diabetes, and their babies may have abnormal bone development (rickets) and may have low calcium level in blood soon after birth



How to maintain adequate vitamin D level during pregnancy?

- Take a prenatal multiple micronutrient supplement daily. Most of the prenatal supplements contain 400 IU vitamin D. You could consult your doctor or pharmacist regarding the vitamin D content of the supplement that you consume
- Consume foods rich in vitamin D, such as oily fish (such as salmon, sardine, etc.), and eggs. Choose cow's milk and dairy products added with vitamin D, calcium added soymilk fortified with vitamin D, and other vitamin D added drinks. You can read on the nutrition label to know if the milk or food products are added with vitamin D
- Having regular physical activities are important when you are pregnant. Expose your skin to sunlight during outdoor physical activities. Pay attention to sun safety tips, such as using sunscreen when the sunlight is strong. Research shows that using sunscreen does not reduce the vitamin D production in the body

Omega-3 fatty acids

- Omega-3 fatty acids include DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid). DHA is important for the development of the brain and the eyes of your baby
- Oily fish, such as salmon, sardine, mackerel, eel and yellow croaker etc. are rich in omega-3 fatty acids. Some fish that are available in the local markets, like golden thread, Pacific saury and pomfret, also contain a moderate level of omega-3 fatty acids. Consuming fish 2 to 3 times a week can provide sufficient DHA you need
- Flaxseeds, walnuts and canola oil contain alpha linolenic acid (ALA) which can be converted into DHA in our body, yet, there is an individual variation
- If you do not consume fish, you can consider taking DHA supplement of 200mg* to meet your need. Please consult your doctor and pharmacist / dietitians



*Source: Food and Agriculture Organization of the United Nations. 2010. Fats and Fatty Acids in Human Nutrition---Report of an expert consultation.

Choose fish with low mercury level

- Fish is the major source of methylmercury in our diet. High level of methylmercury may damage the developing brain of foetus, infant and young child
- Consume fish in moderation and eat from a variety of fish can reduce the risk
- Choose fish that are low in methylmercury, such as: salmon, sardine, Japanese jack mackerel, Chub mackerel, golden thread, Pacific saury, pomfret, grass carp, mud carp, grey mullet, horse head, big eyes, etc
- Fish of smaller size (less than 600 g or one catty), farmed fish and freshwater fish generally have lower level of methylmercury

Avoid eating large predatory fish and fish with high levels of methylmercury, including:

Shark, swordfish, marlin, king mackerel, bluefin tuna, bigeye tuna, albacore tuna, yellowfin tuna, splendid alfonsino, orange roughy, yellowback seabream and dash-and-dot goatfish, etc.

Q: Can I eat canned tuna?

In general, mercury levels in canned tuna are lower than in fresh tuna, mainly due to different fish species or smaller fish being used. Previous studies conducted by the Centre of Food Safety showed that the relevant health based guidance value may be exceeded only if a pregnant woman eats 4 to 5 cans (about 140 g/can) of skipjack tuna a week. However, for albacore tuna, 3 cans per week will reach the health-based guidance value. Since the species of tuna used in canned foods and their mercury levels vary from one product to another, it is prudent for women planning for pregnancy, expectant and breastfeeding mothers to avoid eating too much canned tuna.

[#]Reference:

Centre of Food Safety. Pamphlet "Mercury in Fish – for women planning for pregnancy, expectant and lactating mothers." (2024).

Healthy Eating During Pregnancy

- Consume a variety of foods
- Eat grains, vegetables, fruits, meat, fish, eggs, milk products (or the alternatives of milk products) every day
- Choose nutritious foods
- Avoid foods and drinks with added fats and sugar but low nutrient content e.g. soft drinks, sweetened drinks, cakes, cookies, pastries, ice-cream, processed foods like sausages and instant noodles



Taste buds emerge at 3 months of gestation. Your baby tastes the food you eat. Your food choice has an effect on his food preference.

How should I eat to meet the demand of pregnancy?

- In the first trimester (the first 13 weeks), your body needs slightly more calories. You do not need to eat more than taking an extra piece of whole-meal bread, or a cup of low sugar calcium-fortified soy milk or low-fat milk per day. You should take a prenatal multiple micronutrient supplement containing iodine and folic acid.
- In the second and third trimester (14th to 40th week), your body requires more calories and nutrients. While eating a bit more, it is important to improve the quality of diet by eating a variety of foods. Refer to the suggestion on the next page.

Meal Plan for a Balanced Diet

The meal plan food of a pregnant woman, having a normal BMI and of a weight 45 to 60 kg before pregnancy, who maintains light physical activity is outlined in the following table.

Food Group	Servings per day		Example(s) of a serving
	Before Pregnancy & 1 st Trimester	2 nd & 3 rd Trimester	
Grains	3 to 4	3 1/2 to 5	a bowl = 250 – 300 ml 1 cup = 240 ml <ul style="list-style-type: none"> - 1 bowl of rice - 1 bowl of rice noodles - 1 1/4 bowls of noodles - 1 1/2 bowls of spaghetti/ macaroni - 2 slices of bread (8 slices per pound)
Vegetables	3 or more	4 to 5	<ul style="list-style-type: none"> - 1/2 bowl of cooked vegetables - 1 bowl of uncooked vegetables
Fruits	2 or more	2 to 3	<ul style="list-style-type: none"> - 1 medium size fruit (e.g. apple/pear/orange of size of a lady's fist) - 2 plums/kiwi fruits - 1/2 cup of diced fruit
Meat, fish, eggs and alternatives	5 to 6	5 to 7	<ul style="list-style-type: none"> - 40 g raw meat (including fish) - 30 g cooked meat (size of a table tennis ball) - 1 chicken egg - 1/4 block of firm tofu - 4 tablespoons of cooked soybeans, 6 to 8 tablespoons of other cooked beans

If you are expecting more than one baby or have gestational diabetes, you should discuss what and how much to eat with your dietitian.

What are the better choices

- Choose brown rice and whole-meal bread instead of white rice and white bread
- Whole-grain foods are rich in vitamins and dietary fibre. It provides a longer satiety effect and prevents constipation



- Go for vegetables and fruits of different colors every day. They contain various nutrients and phytochemicals
- Dark green vegetables contain more iron, calcium and beta-carotene



- Remove the skin and trim the fat from meat or poultry
- Fish contains omega-3 fatty acids. Choose fish of lower methylmercury level (refer to page 11)
- Dried beans, soybean and its products are healthy choices and rich in dietary fibre
- Choose non-fried and low-salt soy products
- Avoid choosing preserved or processed foods



Food Group	Servings per day		Example(s) of a serving and better food choices
	Before Pregnancy & 1 st Trimester	2 nd & 3 rd Trimester	
Milk and alternatives	1 to 2	2	<p>One serving provides 300 mg calcium</p> <p>Milk products: choose products that are low-fat or fat-free</p> <ul style="list-style-type: none"> - 1 cup of milk - 2 slices of processed cheese - 1 carton (150 g) of yoghurt <p>Other calcium rich foods:</p> <ul style="list-style-type: none"> - 1 cup of calcium-fortified soy milk - 1/2 block of firm tofu (set with calcium salt) - 1 bowl of tofu pudding - 3 sardines with bones - 3 tablespoons of sesame - Dark green leafy vegetables: 200 g: kale, bok choy 300 g: choy sum
Oil, fat, sugar, salt	in moderation	in moderation	<ul style="list-style-type: none"> - Use iodised salt. Limit salt intake to no more than 5 g (1 teaspoon) a day - Vegetable oils are recommended for cooking. Limit to 2 teaspoons* a meal
Fluid	6 to 8 cups	8 cups	<ul style="list-style-type: none"> - Adjust according to the weather and exercise level - Includes water, thin soup

Vegetarian Eating during Pregnancy and Breastfeeding

- Vegetarian diet including a variety of foods can meet the nutritional needs. You should take an iodine-containing supplement during pregnancy and breastfeeding. Plant foods do not provide vitamin B12. If you do not consume eggs or milk, vitamin B12 supplement is needed.
- Eat a variety from the following:

Protein	- Eggs, milk, cheese, yoghurt, tofu, soy products, different kinds of dried beans, nuts and seeds
Iron	- Eggs, nuts, seeds and beans - Breakfast cereals fortified with iron - Dark green leafy vegetables, such as spinach, Chinese spinach, bok choy, choy sum and kale, etc. - Include vitamin C-rich fruits and vegetables in meals to increase iron absorption
Calcium	- Milk, cheese, yoghurt - Soy products e.g. calcium fortified soy milk, tofu, etc. - Nuts, seeds e.g. almond, sesame, etc. - Dark green leafy vegetables
Vitamin B12	- Milk, cheese, yoghurt, eggs and foods fortified with vitamin B12 (such as breakfast cereal, soy milk or nut beverages)
Omega-3 fatty acids	- Nuts, flaxseed, sesame (refer to page 11)

Vegetarian mothers are advised to discuss with the healthcare professionals about the needs for vitamin and mineral supplements



Healthy Snacks

- Some pregnant women need frequent but smaller meals
- If you need a small snack in between main meals, here are some ideas for nutritious and convenient snacks

Quick and nutritious snack ideas:

- A piece of fresh fruit, e.g. one small banana or an apple
- 30 g of dried fruits, e.g. no added sugar raisins, apricots, prunes
- A tablespoon of roasted nuts, e.g. walnuts, almonds, peanuts
- A small tomato and cheese sandwich (1 slice of whole-meal bread + 1 slice of processed cheese + 2 slices of tomato)
- A small box (about half bowl) of low sugar breakfast cereal
- A boiled egg
- A carton (250 ml) of low sugar calcium-fortified soy milk
- A tub of low-fat yoghurt
- A carton (250 ml) of low-fat or skimmed milk

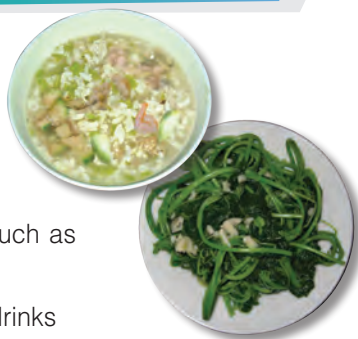


A heaped
tablespoon of nuts (15 g)
provides about 90 kcal, which
is the same amount of energy as
from 3 pieces (20 g) of soda crackers.
However, the 15 g nuts contain more
vitamin E, zinc, iron.

To prevent gaining weight excessively, avoid foods and drinks containing empty calories, such as chips and crisps, French fries, soft drinks, cookies and cream cakes, instant or fast foods, etc. These foods are high in sugar or fat but lacking other nutrients

Practise Healthy Eating When Dining out

- Choose main dishes with vegetables, or order a side dish of vegetables
- Order steamed, boiled or grilled dishes, instead of those that are fried or sautéed in sauces or gravy to cut down the intake of fat
- Avoid preserved foods or processed meats, such as sausages
- For beverages, ask for water or unsweetened drinks
- Eat slowly to avoid overeating



Q: Can I drink coffee or caffeine-containing drinks during pregnancy?

- Coffee and tea contain caffeine. Too much caffeine may increase the risk of low birth weight and miscarriage
- Caffeine level of some brewed coffee and Hong Kong-style milk tea in local restaurants is high. One may get too much caffeine by drinking a cup. You are advised to limit coffee and strong tea drinking and consider the decaffeinated options
- You should also limit the intake of other foods and drinks containing caffeine, e.g. soft drinks, chocolates or tea. To reduce the risk of too much caffeine, you should also avoid energy drinks

Reference: Centre for Food Safety. Caffeine Content in Coffee and Milk Tea Prepared in Local Food Premises.

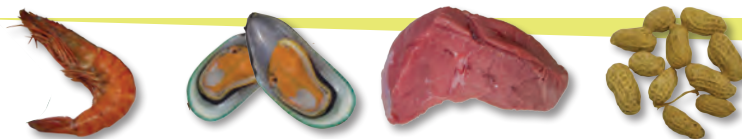
Q: Do I need formula milk designed for pregnant women?

- A balanced diet with a variety of foods can meet the nutritional requirements of pregnancy. You need to top up for iron, iodine or other micronutrients, you can consider taking prenatal multiple micronutrient supplements
- Maternal milk formulae have higher calorie content than low fat milk. Extra calories may cause excessive weight gain. Consider taking milk formula only when you have difficulty in taking other foods

Myths of Food Restriction During Pregnancy

Q: Is it true that avoidance of seafood and beef during pregnancy and breastfeeding can prevent my baby from developing eczema?

- Current scientific researches show that avoidance of milk, beef, peanuts, seafood and other potential “food allergens” **does not** protect the babies from developing atopic dermatitis (eczema) or other allergic diseases
- On the contrary, dietary restriction may lead to poor maternal weight gain and increase the risk of nutritional deficiency in mothers and babies
- Therefore, unless you are allergic to beef and seafood etc., avoidance is unnecessary during pregnancy or breastfeeding



Q. Does restricting water intake and limiting salt in diet help relieve leg and hand swelling in late pregnancy?

- The limbs swell up because of water retention which happens as a result of the increase in female sex hormones level after mid pregnancy. It is **not** related to how much water you drink or salt you take
- A healthy pregnant woman does not need to restrict water intake
- However, you should limit the daily salt intake to **no more than 5 g** (i.e. a teaspoon) irrespective of whether you have leg or hand swelling. Since most foods contain some quantity of salt, you should use less salt or condiment when cooking

Foods to Avoid When Pregnant or Trying to Get Pregnant

1. Alcoholic beverages

- These include beers, wines, spirits and liqueurs
- Exposure to alcohol can seriously affect your baby's development

2. Fish that contains high levels of methylmercury (refer to page 12)

- Examples include shark, marlin, swordfish, alfoncino, king mackerel, some species of tuna and other large predatory fish
- Methylmercury can adversely affect a baby's growing brain and nervous system

3. Raw or undercooked meat, seafood and eggs

- All foods should be cooked thoroughly
- When eating out, make sure the food is actually hot when served

Ensure foods are cooked thoroughly:

- For meat and poultry: the juice should be clear, not red; blood should not be visible when you cut the cooked meat
- Egg yolks are not runny
- Bring soups and stews to a boil for at least 1 minute before serving

Q: Can I eat ice-cream during pregnancy?

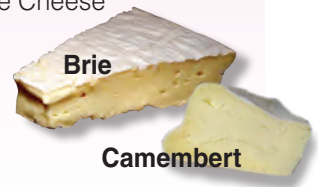
You should avoid eating soft serve ice-cream to protect yourself from listeria infection. Other ice-cream can be contaminated by germs when it is not handled or stored properly. You should be cautious.

4. Chilled ready-to-eat and refrigerated foods

- These foods may be contaminated by listeria bacteria. **Listeria infection during pregnancy may result in miscarriage, early death of the infant, preterm labour or the baby may suffer severe health problems**
- When infected by listeria, the pregnant women may show flu-like symptoms, chills, fever, headache, back pain and sore throat. Even though some may be asymptomatic, the infection can still severely affect the baby
- **To reduce the risk of listeria infection, you should cook foods thoroughly and to avoid high risk food that may contain *Listeria monocytogenes***

Avoid high risk food that may contain *Listeria monocytogenes*

- Chilled ready-to-eat seafoods & cold meat
 - Raw seafoods (such as sashimi and oysters)
 - Smoked seafoods (such as smoked salmon)
 - Pates
 - Deli meats
- Refrigerated ready-to-eat salads (from salad bars, supermarkets or delicatessens), and sushi with salad
- Soft ice-cream
- Soft cheeses, such as Feta, Brie, Camembert, Blue Cheese
- Unpasteurized milk and foods made from unpasteurized milk
- Prepackaged refrigerated foods that have passed their shelf life



Q: Is it safe to eat sliced cheese, cheese spread, or hard cheeses?

If refrigerated and stored under suitable temperatures, they can be safely consumed.

Food Safety and Personal Hygiene

1. Wash your hands and utensils thoroughly before handling foods

- Prevention of toxoplasma infection

The faeces of pets (such as cats) or soil may contain toxoplasma gondii. If the pregnant woman is infected with toxoplasma gondii, the foetal brain and growth can be affected. You should keep pets out of the kitchen, wear gloves when gardening or handling the faeces of pets, and wash your hands thoroughly afterwards

2. Separate the raw from the cooked food

- Use separate utensils (such as knives and chopping boards) to handle raw and ready-to-eat or cooked food. Store them separately

3. Cook foods thoroughly (please refer to page 21)

4. Store food under safe temperatures

- Food should be refrigerated at 4 degree Celsius or below, or held hot at 60 degree Celsius or above
- Do not leave cooked food and left-over foods at room temperature for more than 2 hours. Keep them refrigerated
- Reheat leftovers thoroughly until it is steaming hot before consumption

Q: Can I eat homemade vegetable salads?

Yes. You should make sure that the vegetables and fruits are washed thoroughly, and consume the freshly made salad immediately.

Q: What precautions should I take when eating take-away cooked chicken?

You should make sure that it is steaming hot when you buy it and consume it immediately. If it is not eaten immediately, refrigerate it within 2 hours. Reheat it thoroughly before eating and finish it within the same day.

Visit the [Centre of Food Safety website](#) for more food safety information

Staying Physically Active During Pregnancy

Benefits of exercise

- Reduces fatigue, backaches, swelling and varicose veins. Improves posture and muscle strength
- Alleviates insomnia, mental stress, anxiety and depression
- Helps prepare your body for labour and childbirth

Consequences of lack of physical activity

- Decline in muscular and cardiorespiratory fitness
- Excessive weight gain
- Higher risks of pre-eclampsia and gestational diabetes mellitus
- More varicose veins
- Low back pain

Have at least 30 minutes of physical exercise daily. It can be accumulated from separate sessions. Outdoor exercise helps boost the level of vitamin D in the body.



Suitable exercise for pregnant women

Do not exert yourself. The appropriate intensity level is that you should be able to carry out conversation while exercising. For example:

- Brisk walking
- Swimming
- Cycling on a stationary bike
- Doing housework



Take the following precautions when you exercise:

- Make sure the weather and the environmental conditions are suitable
- Have a companion when you swim or having outdoor exercise
- Reduce the intensity of exercise when approaching the due date
- Avoid sudden and vigorous exercise if you have had no regular exercise before pregnancy. You should consult your doctor concerning your fitness
- Avoid exercise that require lying flat on your back after 16 weeks of pregnancy. The enlarged uterus compresses onto the great vein which will interfere with blood circulation
- Terminate the exercise if you notice any discomfort. Consult a doctor if the condition persists
- Pregnant women with heart or respiratory disease, having risk of preterm labour or any complications should consult their doctors regarding their fitness for exercise



Weight Gain During Pregnancy

During pregnancy, you should consume a balanced diet, have regular physical exercise, and maintain an appropriate and gradual weight gain.

- In the first trimester (up to 13 weeks), there is little weight gain. The **total** weight gain ranges from 0.5 to 2.0 kg
- In the second and third trimester (14th to 40th week), the average **weekly** weight gain ranges from 0.4 to 0.5 kg

How much weight should I put on?

The recommended weight gain during pregnancy is related to your BMI just before pregnancy. Your pre-pregnant BMI is calculated by:

Your weight before pregnancy (kg) ÷ Height (m) ÷ Height (m)

BMI before pregnancy	Weight gain during pregnancy* (applicable to Chinese women)
Below 19.0	13 to 16.7 kg
19.0 to 23.5	11 to 16.4 kg
Above 23.5	7.1 to 14.4 kg

*Source: Wong W, et al. J Am Diet Assoc. 2000;100; 791-796. It applies to women expecting one baby.



Example:

A woman weighed 59.0 kg before pregnancy and with a height of 1.58 m

Her BMI before pregnancy = $59.0 \text{ kg} \div 1.58 \text{ m} \div 1.58 \text{ m}$

Her BMI was 23.6

Her recommended weight gain ranges from 7.1 to 14.4 kg

Excessive Weight Gain During Pregnancy

Excessive weight gain may have the following consequences:

Mother

- Gestational diabetes
- Pregnancy-induced hypertension
- Difficult delivery and increase in chances requiring Caesarean section
- Difficulty in returning to pre-pregnant body weight, running a higher risk of developing diabetes, hypertension, heart disease later on if one is persistently overweight

Baby

- Abnormally large babies and related complications
- Increase in risks of obesity, diabetes mellitus, high cholesterol, high blood pressure, cardio- and cerebro-vascular diseases in adulthood

Q: What do I do if I put on weight too quickly?

Cut down on intake of food high in fats and sugars to reduce calorie intake; you should have physical exercise for at least 30 minutes a day

- Drink water instead of sweetened drinks
- Cut back on cakes, pastries, crisps, cookies, chocolate, candies, ice-cream and other desserts
- Limit deep-fried foods including French fries, potato chips and instant noodles
- Opt for low-fat/skimmed dairy products
- Trim the fat on meat and remove skin from poultry
- Use low fat cooking methods: steaming, boiling, baking, grilling, light stir-frying



eat
mindfully

Poor Weight Gain During Pregnancy

Poor weight gain during pregnancy may result in poor foetal growth, low birth weight and increase the health risk in the child's later life.

Q: What do I do if my weight gain is slow?

During the first trimester, it is normal that there is little weight gain. Some may have a mild weight loss due to a poor appetite and morning sickness. To ensure adequate intake, one can eat smaller meals and have regular snacks. Choose nutritious foods for snacks. e.g. a sandwich of whole-meal bread, dried fruits or nuts. Maintain adequate fluid intake. Appetite and weight gain will be generally improved in the second trimester.

Poor weight gain in the later half of pregnancy may indicate that the foetus is not growing normally. In depth assessment is necessary.

I was already overweight before pregnancy. What can I do?

You should not try to lose weight during pregnancy. This brings harm to yourself and your foetus. Changing some of the habits is helpful:

- Eat regularly and adopt a balanced diet (refer to page 14-16). Include grains, vegetables, fruits, meat and alternatives, and milk products in your meals
- Consume whole grain foods and eat more vegetables
- Reduce intake of empty calories, including junk snacks, soft drinks or other foods high in fats or sugars
- Exercise for at least 30 minutes a day, such as engaging in brisk walk, swimming, etc. This helps control your weight



Choose fruit in place of pastry or other dessert

Eating Well for Lactating Mothers

By choosing breastfeeding, you are already providing your baby the natural nourishment for the growth and health. Your dietary intake of iodine, folate, omega-3 fatty acids is closely related to the levels of these nutrients in your milk. Here are some nutrition tips to help you meeting the demand for nutrients during breastfeeding.

Online Version



Nutrition tips for lactating mothers:

- Have a balanced diet with variety of foods. Include meat, fish, eggs and dairy every day.
- Ensure adequate iodine intake (refer to page 6-7). This helps your baby to get adequate iodine from your milk. **Take a prenatal multiple micronutrient supplement that contains at least 150 µg iodine every day.** Use iodised salt in place of table salt for cooking (total salt intake below 5g (1 teaspoon) per day). Consume foods with iodine, including seafood, marine fish, eggs, milk and milk products. Choose **seaweed** snacks with lower sodium and fat content. If you consume kelp, limit to no more than once a week to prevent excessive iodine intake.
- Fish is a good source of omega-3 fatty acids. Consume fish in moderation. Choose from a variety. **Avoid eating large predatory fish and those with high levels of methylmercury.**
- Choose more whole-grain foods, e.g. brown rice, oats, whole-meal bread, etc.
- Eat more vegetables and fruits.
- Limit eating foods of high fat, trans fat and sugar foods. Trim off skin and fat from foods in cooking and remove the oils in soup.
- **Avoid alcohol and alcoholic drinks.** Alcohol interferes the breastmilk flow. It also passes through breastmilk and impairs your child's development.
- Consult a registered Chinese medicine practitioner before taking traditional herbal medicine or health tonics.
- **Have at least 30 minutes of physical exercise every day. Go outdoors often,** expose your skin to sunlight to boost the level of vitamin D in your body as diet alone is usually not sufficient to meet your needs for vitamin D. For more information about vitamin D for you and your baby, please refer to "Parent information: Vitamin D".



"Parent Information: Vitamin D" pamphlet



How much should a lactating mother eat in a day?

Food group	Servings per day	Examples of a serving*
Grains	4 to 5	1 bowl of rice or rice noodles; 1½ bowls of macaroni/ spaghetti; 1¼ bowls of noodles
Vegetables	4 to 5	½ bowl of cooked vegetables; 1 bowl of uncooked vegetables
Fruits	3	An apple or orange of size a lady's fist; 2 kiwi fruits; ½ cup of diced fruit
Meat and alternatives	6 to 7	40 g raw meat/fish/chicken ; 1 egg; ¼ block of firm tofu; 6 to 8 tablespoons of cooked beans
Milk and alternatives	2	1 cup of low fat or skimmed milk or calcium-fortified soy milk; 2 slices of processed cheese; 1 carton (150g) of yoghurt
Oil, fat, sugar, salt	in moderation	
Fluid	10	1 cup of water or 1 bowl of thin soup

*1 bowl = 250-300 ml; 1 cup = 240 ml



Should I avoid certain foods to reduce my baby's risk of developing allergy?

- There is no need to avoid specific food during breastfeeding unless you or your baby is allergic to a particular food. If you are in doubt your baby is allergic to the foods you ingested, consult your doctor for advice.



Can I drink coffee?

- Too much caffeine can affect babies' central nervous system and may keep them awake. Lactating mothers should limit caffeine containing drinks. Try the decaffeinated coffee or tea as alternatives.



Must I avoid alcohol?

- **You should avoid alcohol** because of its adverse effect to health e.g. affect judgment. Alcohol decreases milk production. It passes through breastmilk and may impair your baby's development.

10 Key Points for Healthy Eating During Pregnancy and Breastfeeding

1. Eat a variety of foods, avoid picky eating
2. Choose more whole-grain foods; eat more vegetables and fruits
3. Consume a moderate amount of meat, fish and milk and alternatives
4. Choose more fish that are rich in omega-3 fatty acids but low in methylmercury
5. Consume foods that are rich in iodine, folate, calcium and iron
6. Reduce consuming foods of high fat content, and food and drinks with added sugar
7. Pay attention to food safety
8. Have at least 30 minutes of physical activities everyday
9. Have sun exposure to obtain enough vitamin D
10. Take a prenatal multiple micronutrient supplement containing at least 150 micrograms iodine. Consult healthcare professionals for guidance. Take a folic acid supplement of at least 400 micrograms during the first trimester of pregnancy

Breastfeed Straight After Birth for the Benefit of You and Your Baby

Booklet content will be updated from time to time. For the latest information, please refer to the website of the Family Health Service of the Department of Health.