



Your **Pregnancy** Guide



Department of Health

Foreword

It is important for pregnant women and your families to get adequate information about your pregnancy. The Family Health Service of the Department of Health has collated relevant information leaflets from different departments and organisations to produce this "Your Pregnancy Guide" for your easy reference.



'Pregnancy e-link' will deliver health messages related to fetal development, healthy eating during pregnancy and tips for infant care regularly to your e-mail box.

Subscribe at



<http://s.fhs.gov.hk/preg>



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Information on Antenatal Service



Something you need to know about your pregnancy journey

Hi Mum, are you excited when you know I am inside your womb? In the coming 9 months or so, I'll be growing inside quickly. We need to walk this journey together before I come out and meet you in the outside world.

Antenatal Care

Throughout this period, your body will undergo many changes. Most of these changes are beneficial for my growth, however, some may not go as expected. So it is important to detect any problems developed during the course, which could affect you or me. That is why going for antenatal care is essential. With the support of healthcare professionals, they can provide you with the health knowledge to take care of ourselves, regularly monitor my growth and development as well as offering tests and procedures for you to identify any risks that may affect both of us. Inadequate care during this time would likely affect the well being of both of us.

You can register for antenatal service at Hospital Authority (HA) Obstetric Service, Maternal and Child Health Centres (MCHC) or private healthcare sector to access the following care and support to ensure the health of you and me.

Healthy Eating

Eating a healthy and balanced diet, having regular physical activity, and maintaining a healthy weight gain are essential to allow me to develop and grow in an optimal nutritional environment. After I am born, provide me with prime nutrition and protection against infection with breastmilk. Breastfeeding benefits the long-term health of us.

Keep Track of Fetal Growth & Development

During the antenatal check-up, the doctor will keep track of my growth and development inside your womb. My growth is a good indicator of my health. Also the doctor will recommend ultrasound scans to determine my condition, size, and your womb environment, to make sure I am growing as expected..

Screening

Antenatal care also involves screening of potential conditions that can affect your pregnancy. For example, high blood pressure, diabetes and Group B Streptococcus infection, these conditions can complicate your pregnancy and may heighten the risk of premature birth, predispose you to pre-eclampsia and endanger my life. Besides, Prenatal screening test also helps to identify genetic diseases, e.g. Down Syndrome.

Immunisation

Getting the Pertussis vaccine, seasonal influenza vaccine, COVID-19 vaccine are safe and important during pregnancy. They are beneficial to both of us. Antibodies developed in you can pass through the placenta to protect me.

Antenatal Blood Investigations

Blood tests are crucial during pregnancy. Some of the conditions that can be diagnosed using laboratory tests including Blood Grouping, Rhesus (Rh) Factor, Haemoglobin & Mean Cell Volume, Rubella Antibody, Hepatitis B Antigen, Syphilis and Human Immunodeficiency Virus (HIV) Antibody Testing.

Health and Parenting Education

The antenatal period is the time for healthcare professionals to empower you to take care of yourself. They also prepare you on how to properly care for a newborn, the benefits and importance of breastfeeding, etc.

Counselling and Referral

Depending on your needs, healthcare professionals will provide appropriate support services, like emotional assessment, psychological counselling, interpretation service, case follow up and referral for specialist or social services.

Remember, there is no substitute for good antenatal care!

- MCHCs only accept registration of pregnant women who will deliver in the designated shared care hospitals under the HA. Pregnant women should provide residential address proof for verification
- As the procedure for registration of new cases is different among hospitals, please visit Hospital Authority website www.ha.org.hk or Family Health Service (FHS) website www.fhs.gov.hk for more information
- Non local expectant mothers must consult the Obstetric Department of hospitals under the Hospital Authority for their first antenatal service registration
- For opening hours / Address / Telephone number and fees and charges of MCHCs, please refer to the Family Health Service (FHS) website

Documents/Forms to bring along to MCHCs

1. Valid Hong Kong Identity Card ^{note 1 note 2}
2. Proof of address dated within the last 6 months
3. Result of pregnancy tests
4. Antenatal record (if available)
5. Completed "Antenatal Service - First Registration Form" (you can download the form from the FHS website at www.fhs.gov.hk or get a copy from any MCHC)
6. Urine sample ^{note 3}



Note 1: Proof of identity is required

Note 2: For non-local expectant mothers, please bring:

1. The Certificate on Confirmed Antenatal and Delivery Booking issued by the Hospital Authority
2. Valid travel document
3. Spouse's identity document (copy is acceptable)

Note 3: Point to note when collecting urine sample:

1. Collect your urine sample before breakfast (drinking plain water is okay).
2. Prepare a clean wide-mouth bottle for collecting the sample.
3. Do not collect the first void urine as it is not appropriate for the test.
4. Wash your hands with liquid soap and water thoroughly when you prepare the second void.

5. Use a wet cotton wool pad or toilet paper to clean the vulva and remove any vaginal discharge.
6. Position yourself over the toilet and begin to pass urine.
7. Do not collect the first and the last part of urine.
8. Midway through the urination process, collect a sample of the urine with the wide-mouth bottle.
9. Tightly screw the cap back onto the container and wash your hands thoroughly.
10. You can eat as usual afterwards.

Information on Attendance/ Sick Leave Certificate for Antenatal and Postnatal Clients

Reminder

Either a **“Certificate of Attendance”** or a **“Sick Leave Certificate”** can be issued for each antenatal visit or post confinement treatment visit ^{note 1}. **“Certificate of Attendance”** is issued by doctor or registered nurse whilst **“Sick Leave Certificate”** is issued by doctor. Some employers accept Certificate of Attendance whereas others only accept Sick Leave Certificate. Therefore, you need to discuss with your employer about their policy beforehand ^{note 2}.

Note:

1. **“Sick Leave Certificate” is not issued for routine postnatal check-up**, only Certificate of Attendance will be issued.
2. **An administrative fee of HK\$160 will be charged for every copy of “Certificate of Attendance” or “Sick Leave Certificate” requested after the day you received service** in Maternal and Child Health Centres of the Department of Health.

Please contact staff of the Maternal and Child Health Centre for further enquiry.

For more details of Maternity Protection and Paternity Leave, please refer to the Labour Department website at www.labour.gov.hk

Prevention of Infectious Diseases (Rubella, Chickenpox and Fifth Disease) During Pregnancy

Rubella, Chickenpox and Fifth Disease are viral diseases. They are transmitted primarily through droplets or direct contact with infected respiratory secretions. They can also be transmitted from the mother to foetus during pregnancy.

What you need to know about Rubella, Chickenpox and Fifth Disease

	Incubation Period	Symptoms	Period of Communicability	Effect on the Foetus
Rubella (German Measles)	12-23 days	Presents with diffuse rash, fever, headache, malaise, enlargement of lymph nodes, upper respiratory symptoms and conjunctivitis. The rash usually lasts for about 3 days, but some patients may not have rash at all.	From 1 week before to 1 week after onset of rash.	Whether symptomatic or not, infection during the first 3 months of pregnancy may result in congenital rubella syndrome, e.g. deafness, cataract, heart malformations and mental retardation, etc.
Chickenpox	10-21 days	Presents with fever and itchy skin rashes, rashes develop in crops over a period of 5 days and later as vesicles. The vesicles continue for 3-4 days, then dry up and form scabs.	1-2 days before rash appears and until all vesicles have dried up.	Infection during early pregnancy may be associated with congenital malformation of foetus. If the pregnant woman develops symptoms within 5 days prior to or 2 days after delivery, her baby is more likely to have severe illness which can be fatal.
Fifth Disease	4-20 days	Occurs mostly in children, with low-grade fever and tiredness. A typical facial rash with a "slapped cheek" appearance occurs in a few days. The rash usually resolves in 7-10 days. Symptoms are milder in adults and they may only have mild joint pain and swelling only.	Parvovirus B19 is transmitted primarily through direct contact with infected respiratory secretions.	It can be transmitted from mother to foetus during pregnancy, causing abortion or foetal death.

How to prevent Rubella, Chickenpox and Fifth Disease?

Women are immune from these infections if they have acquired them during childhood or have received relevant vaccinations (e.g. rubella and chickenpox).

Pregnant women who are non-immune should avoid contact with patients diagnosed to have these diseases, and stay away from crowded and under-ventilated public places to minimise the chance of infection.

Women who are non-immune to rubella or chickenpox should consider vaccination after delivery.



What if I suffer from or suspected to have Rubella, Chickenpox or Fifth Disease during pregnancy?

If you have the following conditions:

- Fever or rash
- History of contact with someone suffering from Rubella, Chickenpox, Fifth Disease or other infectious disease in recent 4 weeks
- Suspect that you are suffering from any of these diseases

1. You should attend a general out-patient clinic or a private clinic for management of the disease.
2. **DO NOT** attend obstetric clinic or Maternal & Child Health Centre (MCHC) for enquiry or antenatal check-up until you are considered non-infectious. This is to prevent spreading of the disease to other pregnant women.
3. Please call the obstetric clinic or MCHC you have registered with to make special arrangement for your antenatal check-up.



Single Dose Double Protection

Pregnant Women Receive Seasonal Influenza Vaccination

(Source of information provided by the Centre for Health Protection, the Department of Health)

Protect yourself. Protect your baby. Get vaccinated against seasonal influenza.

The Scientific Committee on Vaccine Preventable Diseases recommends pregnant women to be the top priority group to receive seasonal influenza vaccination so as to protect them from seasonal influenza and its complications. Vaccination is effective and safe to pregnant woman and her baby.

Influenza vaccination in pregnant women has shown benefits for both mother and child in terms of reduced acute respiratory infections. The World Health Organization considers inactivated seasonal influenza vaccine is safe in pregnancy and there is no evidence showing such vaccine can cause abnormality in foetus even if given during the first trimester. Recombinant influenza vaccine is not contraindicated in pregnancy. However, pregnant women should NOT receive live attenuated influenza vaccine because it contains live viruses. Pregnant women should consult obstetrics and gynaecology doctors for any queries.

To encourage pregnant women to receive seasonal influenza vaccination, the Government will provide free or subsidised seasonal influenza vaccination to the following eligible persons:

Pregnant women who are Hong Kong residents can receive subsidised influenza vaccination from private doctors enrolled in the Vaccination Subsidy Scheme.

Pregnant women who are Hong Kong residents receiving Comprehensive Social Security Assistance or holding valid Certificate for Waiver of Medical Charges issued by the Social Welfare Department can approach your Maternal and Child Health Centres or the Hospital Authority antenatal clinics for free vaccination during antenatal sessions. Please bring along the Certificate of Comprehensive Social Security Assistance Recipients (for Medical Waivers) or Certificate for Waiver of Medical Charges.

In Hong Kong, influenza is usually more common in periods from January to March/April and from July to August. It takes about two weeks after vaccination for antibodies to develop in the body. **Get vaccinated early to ensure protection.**

Centre for Health Protection website
www.chp.gov.hk

Programme Management and
Vaccination Division

Tel: 2125 2125

Hospital Authority
(Government Vaccination Programme)

Hotline: 2300 6555

Vaccination Schemes
(Pregnant Women)



一劑疫苗 兩份保護
孕婦接種季節性流感疫苗
Single dose Double protection
Pregnant women receive seasonal influenza vaccination

孕婦體內的抗體可透過胎盤傳給胎兒。
孕婦接種流感疫苗可保護自己以及胎兒和初生嬰兒，
免受感染流感所帶來的嚴重後果。

Vaccination in the mother's body can be transferred to the fetus through the placenta. Receiving influenza vaccination can provide protection for the expectant mother, their fetuses and newborn babies from the serious consequences of influenza infection.

請儘早接種流感疫苗
Please receive influenza vaccination early

在知情同意下，流感疫苗可與新冠疫苗同時接種。接種流感疫苗和新冠疫苗可減少住院的可能性及留院時間。
Informed consent can be given to administer with COVID-19 vaccine under informed consent.
Receiving influenza vaccination and COVID-19 vaccination may reduce the likelihood of hospitalisation and length of stay.

HP
衛生防護中心
Centre for Health Protection

疫苗接種計劃
(孕婦)
Vaccination Schemes
(Pregnant Women)

查詢
Enquiry | 2125 2125

衛生署
Department of Health

Pregnant women can receive COVID - 19 vaccine

Please refer to <https://www.chp.gov.hk/en/features/106934.html>

Protect Your Babies from Pertussis



Pertussis is a respiratory illness transmitted by droplets and may even lead to seizures and coma in severe cases



Vaccination is an effective way to prevent the disease



Babies aged under two months are not yet due for the first dose of pertussis-containing vaccination and thus are not protected



before
35
weeks

Women are recommended to receive one dose of pertussis-containing vaccine at any time in the second or third trimester, preferably before 35 weeks of gestation for each pregnancy

The antenatal clinics of Hospital Authority and Maternal and Child Health Centres of Department of Health will provide pertussis vaccination for pregnant women from 26 to 34 weeks of pregnancy.



Antibodies developed by the mother can then pass through the placenta to the foetus and protect the baby

Pertussis



FAQ

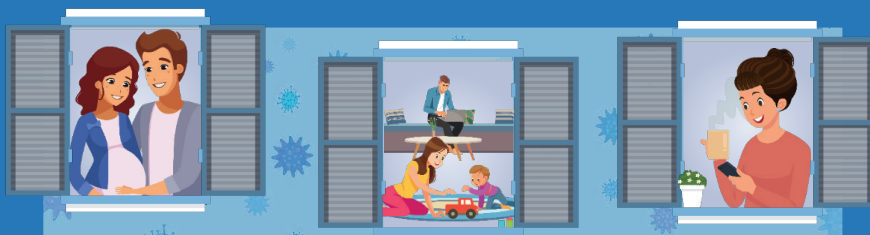


Coronavirus Disease (COVID-19)



COVID-19 is a pandemic

**New arrangements
of the services in
Maternal and Child Health Centres**



COVID-19 Resources for Your Family



Prevention of Vector-borne Diseases

Common vector-borne diseases in human include dengue fever, Japanese encephalitis, malaria, scrub typhus and spotted fever. Mosquitoes are responsible for transmitting dengue fever, Japanese encephalitis, malaria and zika virus while scrub typhus and spotted fever are transmitted by mites and ticks respectively.

To prevent vector-borne diseases, pregnant women need to protect themselves from stings/bites of mosquitoes, mites and ticks, and help prevent their proliferation.

Protect yourselves against stings/bites



To lower the risk of infections spread by mosquitoes, pregnant women should stay indoors during peak times of mosquito activity (usually dawn and dusk).

The vectors transmitting scrub typhus and spotted fever are mainly found in the vegetated areas. Therefore, preventive measures should be taken when visiting rural areas to avoid getting bitten by these vectors.

Wear protective clothing such as loose, light-coloured long-sleeved tops and trousers.

Avoid using perfume which may attract mosquitoes.

Pregnant women may use DEET (20-30%), Picaridin and IR3535 containing insect repellents. Please note the following points when using insect repellents:

- Apply insect repellents to clothing (long-sleeved tops and trousers) and exposed skin;
- Do not apply on wounds or irritated skin;
- Follow manufacturer's instruction, reapply insect repellent if necessary;
- Take a shower or wash your skin when you return to indoor area;
- Wash the clothing applied with DEET with soap and water.



For more information, please visit the Centre for Health Protection website “**Vector-borne Diseases**” and **Tips for using insect repellent**.

<https://www.chp.gov.hk/en/features/38927.html>

(Rev. Jan 2021)



Zika Virus Infection

Causative agent

Zika virus infection is a mosquito-borne disease caused by Zika virus.

Clinical features

Most people infected with Zika virus infection are asymptomatic. For patients with symptoms, they commonly present with rash, fever, conjunctivitis, muscle and joint pain, malaise and headache. These symptoms are generally mild and usually last for 2 – 7 days.

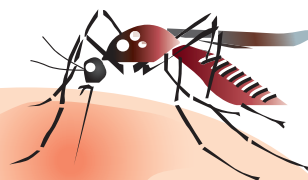
Zika virus infection during pregnancy is a cause of microcephaly and other congenital malformations in the infant. Congenital malformations can occur following both symptomatic and asymptomatic infection. Zika infection in pregnancy can also cause complications such as fetal loss, stillbirth and preterm birth.

Zika virus infection can also cause Guillain-Barré syndrome, neuropathy and myelitis.

Mode of transmission

Zika virus is primarily transmitted to humans through the bite of an infected *Aedes* mosquito. *Aedes aegypti*, which is currently not found in Hong Kong, is considered the most important vector. Other *Aedes* mosquito species such as *Aedes albopictus*, which is commonly found in Hong Kong, are also potential vectors.

Zika virus can also be transmitted from mother to fetus during pregnancy, as well as through sexual contact, transfusion of blood and blood products, and possibly through organ transplantation.



Incubation period

The incubation period of Zika virus infection ranges from 3 –14 days.

Management

There is no specific treatment for Zika virus infection. Symptomatic relief and prevention of dehydration is the mainstay of treatment. If symptoms worsen, patients should seek medical care and advice.

Prevention

At present, there is no vaccine available against Zika virus infection. The best preventive measure is to avoid mosquito bites and prevent mosquito proliferation. The public is also advised to take precautions to prevent sexual transmission of Zika virus.

Beware of Zika Virus Infection

**IMPORTANT
NOTICE**

Special notes for pregnant women and women preparing for pregnancy

- Pregnant women should pay close attention to the infection risk if they travel to areas with active transmission*.
- If going to areas of active Zika virus transmission, women planning to conceive or their male sexual partners, arrange a consultation with a doctor at least 6 weeks before the trip, and have extra preventive measures to avoid mosquito bite.
- Pregnant women are advised to use DEET-containing insect repellent during travel to areas with active transmission.
- Sexual partners of pregnant women living in or returning from areas of active transmission should practice safer sex or abstain from sexual activity throughout pregnancy.
- Pregnant women returning from areas with active transmission are advised to:
 - Attend antenatal follow up regularly and inform the attending doctor about recent travel history;
 - Observe for symptoms of Zika virus infection and seek medical advice as soon as possible if feeling unwell;
 - Apply insect repellent for at least 21 days after arrival in Hong Kong.

Prevention of sexual transmission

- All travellers should practice safer sex (including correct and consistent use of condoms) or abstain from sexual activity during travel to areas of active transmission.
 - Male and female travellers returning from areas of active transmission should practice safer sex or abstinence for at least 3 months and 2 months respectively upon return.
- * Please refer to CHP website for most updated information on Zika Virus Infection



Reminder

Notes on attending Maternal and Child Health Centres:

- Young children and pregnant women are at higher risk of having serious complications if they catch infectious diseases.
- You are advised to put on a mask when you attend MCHC.
- If anyone (including pregnant women, companions and children) has fever, rashes including vesicles, or has recently suffered from infectious diseases or been in contact with persons having infectious disease, please do not attend Maternal and Child Health Centres.
- You should phone the centre immediately for special arrangement.
- If you develop any of the above symptoms, you should attend general out-patient clinics or private clinics immediately for assessment.

Important Notice

DO NOT ENTER
Maternal & Child Health Centres please

If anyone (including Parents, Companions, Pregnant Women and Children)

- have **fever, rashes** including **vesicles** or
- recently have **infectious diseases** or contacted those with the diseases.



◆ Young children and pregnant women are at higher risk of having **serious complications** if they catch infectious diseases.

◆ Anyone with the above symptoms should attend general out-patient clinics or private clinics.

◆ Please **call** the Maternal and Child Health Centre for change of appointment or enquiry.

Travel in Pregnancy

If you decide to travel during pregnancy, you have to prepare and plan carefully. You may encounter disease or unexpected obstetric problems such as preterm delivery during travel. You may also experience other problems related to travel such as food safety, infectious disease or even traffic accidents.

You should consider the following questions before you make a decision to fly and travel.

1. Is your trip necessary?
2. Does your travel insurance cover pregnancy or pregnancy related complications?
3. Does your travel insurance cover the intensive care for a newborn baby in case of preterm delivery or other complications?
4. Have you discussed with your obstetrician about your concern or medical problems?
5. What will be your plan if any unexpected conditions during travel delay your original schedule to return home?



When to travel?

You may experience symptoms of vomiting or even threatened miscarriage in the first trimester. On the other hand, travelling in the third trimester can also be tiring and uncomfortable. Airlines will not allow you to travel in late pregnancy. Please check with your airline and insurance company before you fly.

Second trimester may be a better option for travelling. In general, your chance of going into labour is higher the further along you are in pregnancy.

Please be aware that you may not be able to access the appropriate management of preterm labour or other obstetric conditions during air travel or travel during pregnancy.

Avoid travel when you are waiting for laboratory results; otherwise you may miss the chance to receive management promptly.

What are the risks or problems during flying?

a. Deep Vein thrombosis (DVT)

DVT is a blood clot that forms in your leg or pelvis. It can be life threatening, especially if it goes to your lungs. There is a higher risk of developing DVT if you are pregnant and for up to six weeks after birth.

Pregnant women with higher risk of DVT

- Obesity
- Multiple pregnancy
- Inherited thrombophilic disorder
- Strong family history of DVT
- Medical condition which increases risk of DVT

b. Nasal congestion or problems with your ears

There is increased chance of having ear discomfort during flight. The changes in air pressure combined with blocked nose can cause you to experience discomfort in your ears.

c. Motion sickness

You may experience more motion sickness during air travel.

What are the Tips for air travel?

1. Try to get an aisle seat and take regular walks around the plane
2. Do in-seat exercises every 30 minutes
3. Wear loose and comfortable clothing and shoes
4. Drink plenty of water and cut down on drinks that contain alcohol or caffeine
5. Adjust your seatbelt so the strap lies below your bump
6. Wear graduated elastic compression stockings for any journey where the time seated is over 4 hours

Under what circumstances is flying not advised?

1. Increased risks of preterm labour
2. Severe anaemia
3. Recent vaginal bleeding
4. Recent abdominal surgeries or fracture
5. Serious health problems
6. Other conditions as advised by your doctors

Tips and consideration when you plan to travel

1. Choose the destination carefully
 - Avoid going to places with ongoing transmission of infectious disease (e.g. Zika virus, dengue fever)
 - Be aware of any medical facilities at your destination in case of any unexpected pregnancy-related or medical conditions
 - Discuss with your doctors for any need of vaccination or medication for the country you are travelling to

You can contact the “Travel Health Service, Department of Health” and visit their website for further information, <http://www.travelhealth.gov.hk/>

2. Beware of Vector-borne disease and food safety
(Please refer to P.16 and P.183 for details on “Vector-borne diseases” and “Food Safety and Personal Hygiene”)
3. Take with you
 - Medication you are taking
 - Pregnancy notes
 - Travel insurance documents

Is it safe to use hot springs in pregnancy?

Pregnant women are likely to feel warmer and faint due to hormonal changes during pregnancy. When you are in a hot spring or sauna, your body is unable to lose heat by sweating and your core temperature will rise. As more blood flows to your skin to help your body cool down and less blood flows to your brain, you could faint more often. It is therefore better to avoid using saunas, hot springs and steam rooms during pregnancy.

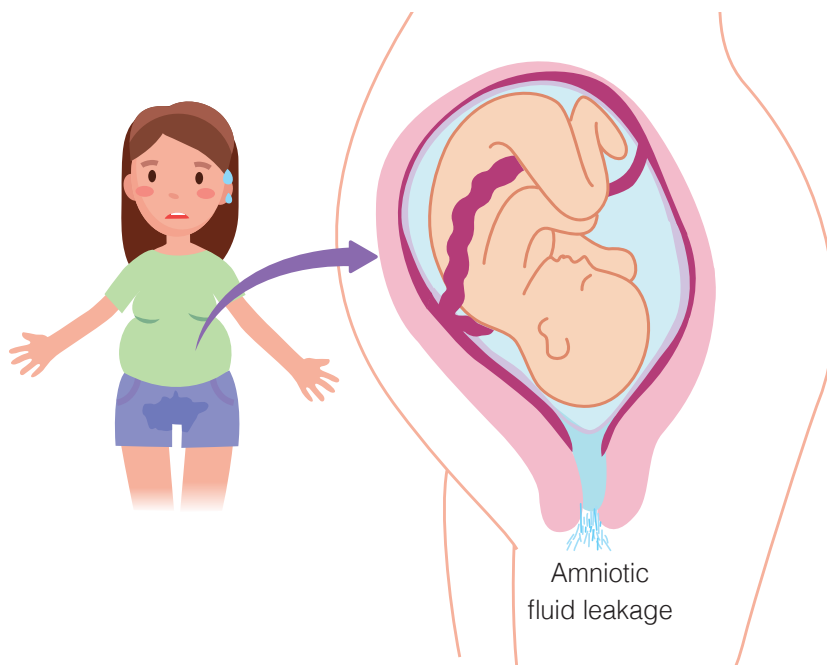
Warning Signs During Pregnancy

If any of the following conditions occur during your pregnancy, you should consult a doctor or attend a hospital Accident and Emergency Department immediately:

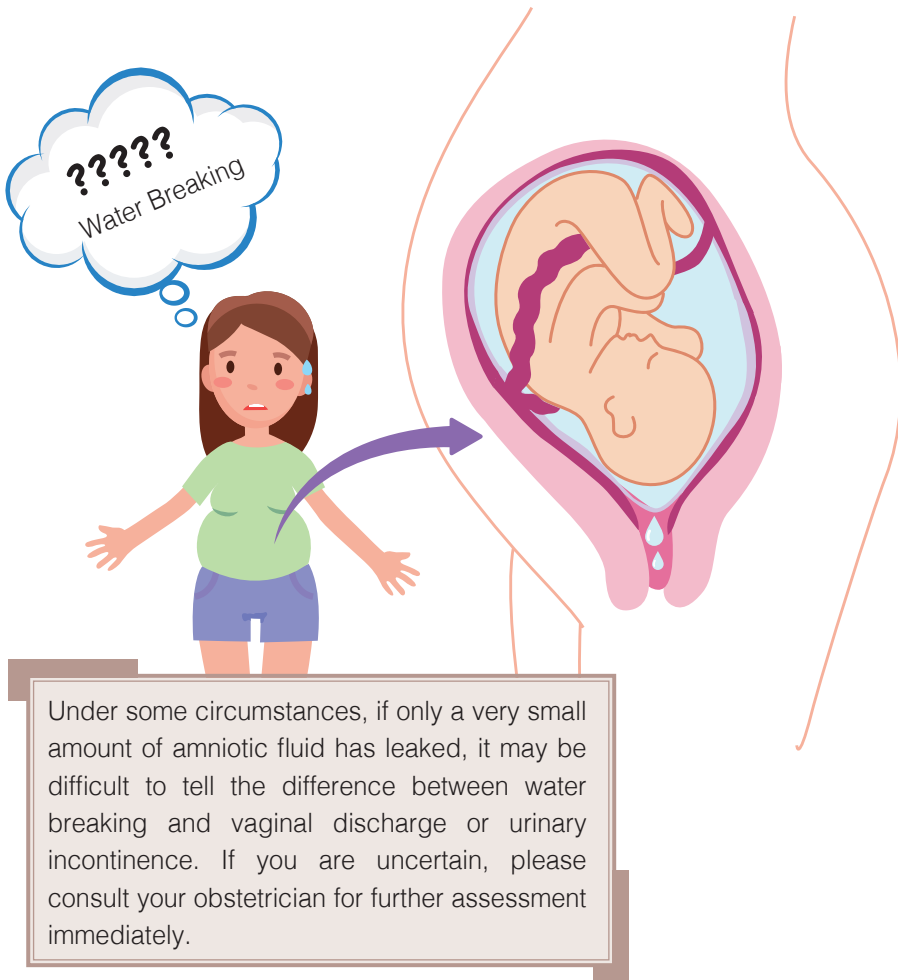
- water breaking or suspected water breaking
- vaginal bleeding
- persistent abdominal pain
- severe or rapidly worsening oedema (please refer p.94 “Pre-eclampsia” leaflet)
- severe headache (please refer p.94 “Pre-eclampsia” leaflet)
- significant decrease in baby’s movements (please refer p.95 “Baby’s Movements” leaflet)

Water breaking

During pregnancy, your baby is surrounded by a fluid-filled membranous sac called the amniotic sac. When the membrane of the amniotic sac ruptures, this is known as water breaking or leaking. Pregnant women may feel a gush of fluid or constant leaking of small amounts of watery fluid from the vagina.



Water breaking, or leaking, usually occurs shortly before or during labour. On the other hand, water breaking can also occur at any stage of pregnancy, or before labour starts. It is called “Pre-labour Rupture of Membranes”. Most pregnant women will go into spontaneous labour within 24 hours of the membranes rupturing. With increasing duration of time following rupture of the membrane, there is an increasing risk of infection of the womb and the baby. Hence, you should go to hospital immediately once water breaks for assessment by an obstetrician.



Early Pregnancy

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Points to Note

Antenatal check-up is important to safeguard the health of pregnant woman and her baby and to identify risk factors which may affect the pregnancy outcome.

First Antenatal Visit

Registration at the Counter



Receive the following services as appropriate

Body weight, height, blood pressure measurements and urine test

- ✓ These are health indexes of both the mother and the foetus.
- ✓ Types of clothes worn affect the accuracy of body weight measurement. Pregnant women are advised to wear clothes of comparable thickness in subsequent visits.
- ✓ It is difficult to measure the blood pressure accurately if the clothes are too thick or the sleeves are too tight.
- ✓ Urine sample is tested for the presence of sugar and protein during routine check-ups.



(Please refer to p.31 for the correct method of urine collection)



Nurse Interview

- ✓ Medical and obstetric histories
 - Past health, history related to previous pregnancies, family history of particular diseases and health status of current pregnancy can help staff work out an antenatal care plan for you.
 - The first day of the last menstrual period is used to estimate the expected date of confinement. (If private USG report is available, please bring along the document for reference)



Health Assessment, Doctor Consultation

- ✓ Physical check-up, including abdominal palpation and detection of foetal heart beat (if appropriate).



Blood Taking (New Case only)



What is Glucosuria?

Why sugar is found in the urine of some pregnant women?

- Due to hormonal changes during pregnancy, it is common to find small amounts of sugar in urine which is saved after meals. Hence, it is important to save urine properly for antenatal check-up.
- If your urine is positive for sugar, medical staff will reassess your health condition and advise you to have urine retested or blood test for gestational diabetes.



Gestational Diabetes

- Generally speaking, if a pregnant woman has the following risk factors, her chance of having gestational diabetes is higher.
 - Advanced maternal age (over 35 years)
 - History of polycystic ovary syndrome
 - History of gestational diabetes
 - Had delivered a baby with birth weight over 4 kg
 - Family history of diabetes in first degree relatives
 - Overweight
- Blood test is required for screening gestational diabetes for them.
- If a pregnant woman with gestational diabetes does not receive proper treatment, both she and her foetus can be seriously affected (e.g. the baby being large for its gestational age, premature birth, etc.), so follow dietitian and doctor advice on dietary control.

Appropriate physical activity can prevent gestational diabetes
For more details, please refer to page 184



Postnatal notes

- A previous diagnosis of gestational diabetes carries a higher risk of later developing type 2 diabetes.
- The majority of people with type 2 diabetes may not have any symptoms in the early stage, therefore those with history of gestational diabetes are advised to arrange regular checkups with their family doctor or enroll with our Woman Health Service (please visit <http://s.fhs.gov.hk/w2317> for more information).

What is Proteinuria?

What does it mean if protein is found in the urine of pregnant woman?

- There are many causes for protein in the urine. The commonest reasons during pregnancy are urinary tract infection and contamination of the urine sample by vaginal discharge.
- Hence, it is important to save urine properly for antenatal check-up.

Pre-eclampsia

- Another important cause for protein in the urine is pre-eclampsia. This is a condition whereby blood pressure is often raised and usually occurs in later half of the pregnancy. Serious consequences can result without prompt and proper management. (Please refer to “Pre-eclampsia” page 94)



The following is a correct method to collect urine:

1. Collect your urine sample before breakfast (drinking plain water is okay).
2. Prepare a clean wide-mouth bottle for collecting the sample.
3. Discard the first void urine as it is not appropriate for the test.
4. Wash your hands with liquid soap and water thoroughly when you prepare the second void.
5. Use a wet cotton wool pad or toilet paper to clean the vulva and remove any vaginal discharge.
6. Position yourself over the toilet and begin to pass urine.
7. Do not collect the first and the last part of urine.
8. Midway through the urination process, collect a sample of the urine with the wide-mouth bottle.
9. Tightly screw the cap back onto the container and wash your hands thoroughly.
10. You can eat as usual afterwards.



Antenatal Blood Investigations

During the first antenatal visit, the following blood tests are offered to pregnant women

1. Blood Grouping

It is important to know the blood group of the pregnant woman in case she needs a blood transfusion. The four main blood groups are O, A, B and AB.



2. Rhesus (Rh) Factor

Rh factor is an antigen found in red blood cells. Individuals who possess this factor are classified as 'Rh positive' and those without it as 'Rh negative'. Majority of the Chinese population are Rh positive. When a Rh negative mother is carrying a Rh positive foetus, problems can occur in the foetus such as haemolytic anaemia, oedema or even death. Regular blood test will then be needed.

3. Haemoglobin and Mean Cell Volume



These tests help to find out whether the pregnant mother has anaemia. Mean cell volume (MCV) is a simple and easy test which helps to find out who has a higher chance of carrying the thalassaemia genes or iron deficiency anaemia. Please refer to page 35-36 for details.

4. Rubella Antibody



A woman who has received Rubella vaccine or contracted Rubella before conception should have developed immunity, that is, having Rubella antibodies. This can protect her from contracting Rubella during pregnancy. Rubella infection may cause foetal abnormalities. If the woman does not have Rubella antibody, she should receive Rubella vaccine after delivery.

5. Hepatitis B Antigen

About eight percent (8%) of the local population are Hepatitis B Virus carriers. Most of these carriers show no signs or symptoms of the disease. If the blood test is positive for Hepatitis B antigen, then the mother is a carrier. A mother who is a Hepatitis B carrier may transmit the virus to the infant at or around the time of delivery. The newborn should receive Hepatitis B vaccine and Hepatitis B immunoglobulin after birth so as to protect him against Hepatitis B infection.



Post-vaccination Serologic Testing

(PVST) [for babies born to mothers infected with hepatitis B virus (HBV)]

Mother-to-child transmission is the major route of transmission of hepatitis B. 90% of neonates will develop chronic hepatitis B infection if they become infected.

Hepatitis B vaccination is effective in preventing HBV infection. About 90-95% of babies can produce adequate protective antibodies after a 3-dose regime hepatitis B vaccination. PVST can assess the immune response to vaccination and hepatitis B infection status.

If the test results show that baby has not developed adequate protective antibodies, a second 3-dose series of hepatitis B vaccine will be given in Maternal & Child Health Centre (MCHC), followed by another PVST to ascertain the immune response. Babies found to be infected with HBV will be referred for specialist management and follow-up.

Mothers infected with hepatitis B virus are advised to consult MCHCs/their family doctors to get their children tested.

For more information, please visit the website of the Viral Hepatitis Control Office of the Department of Health <https://www.hepatitis.gov.hk/english/index.html>

6. Syphilis

Untreated syphilis in pregnancy may result in miscarriage or cause foetal congenital defects such as blindness or deafness. Therefore, early detection and treatment are necessary.

7. Human Immunodeficiency Virus (HIV) Antibody Testing

HIV can cause AIDS (Acquired Immune Deficiency Syndrome). The routes of transmission include sexual intercourse, blood contact or from an infected mother to her baby during pregnancy, delivery or breastfeeding. The transmission rate from an infected mother to her baby is 15%-40%. The transmission rate can be reduced to 1-2% with effective treatment and prevention given in the course of pregnancy, during delivery and to the baby after birth.

Please contact medical staff if you have any queries concerning the above blood tests.

Mean Cell Volume & Thalassaemia

The blood test for mean cell volume (MCV) is a simple and easy test which helps to find out who has a higher chance of carrying the thalassaemia genes. This test is included in the routine blood tests done for pregnant women.

What is Thalassaemia?

Thalassaemia is a common hereditary blood disorder which is caused by gene defect, and presents in two forms – thalassaemia major and thalassaemia minor.

About 8% of the population have the genes of thalassaemia. Most have only inherited one abnormal thalassaemia gene – these people have thalassaemia minor and are known as “thalassaemia carriers”. They usually do not have any symptoms and only a small proportion may be mildly anaemic. They do not require any special treatment.

Thalassaemia major

A person who has inherited more than one of abnormal thalassaemia genes suffers from thalassaemia major, which is a severe form of anaemia. There are two main types – alpha-thalassaemia (α -thalassaemia) and beta-thalassaemia (β -thalassaemia).

- (i) α -thalassaemia major can lead to intrauterine or neonatal death.
- (ii) β -thalassaemia major sufferers, if without stem cells transplantation, generally have a shorter lifespan and require lifelong blood transfusion and special treatment.

Causes of Low Mean Cell Volume

If a pregnant woman is found to have MCV equals to or below 80 fl, she may be normal, suffering from thalassaemia or iron-deficiency anaemia. Therefore, father of pregnancy should receive the same blood test.

If MCV of the father of pregnancy is normal, it is unlikely that he is a thalassaemia carrier, and their foetus is also unlikely having thalassaemia major.

If both the couple have low MCV, they will be referred to the “Antenatal Specialist Clinic” or “Antenatal Diagnostic Clinic” for further blood tests.

If they are proven to be a thalassaemia carrier-couple, their child will have a 25% chance of suffering from thalassaemia major.

The doctor will make a confirmed diagnosis to guide subsequent discussion with the couple and management of the pregnancy.



Antenatal HIV Testing - the Concern of an Expectant Mother

The Aim of Antenatal Check-up

The aim of an antenatal check-up is to ensure optimal health of a pregnant woman throughout her pregnancy. Early detection and appropriate management of health problems help preserve the well-being of both the mother and the foetus. Antenatal check-up generally includes blood testing for blood group, hemoglobin level, mean red cell volume, Rhesus factor, rubella, hepatitis B, syphilis and Human Immunodeficiency Virus (HIV).



How does Universal Antenatal HIV Testing benefit the pregnant woman?

The transmission route of HIV include sexual intercourse, blood contact or mother-to-child transmission. After entering the human body, the virus replicates and destroys the lymph cells. It gradually lowers the body's resistance, leading to opportunistic infections or even cancer and ultimately death.

Among mother-to-child transmission, HIV can transmit from an infected mother to her baby during pregnancy, delivery or breastfeeding. Without intervention, the transmission rate from an infected mother to her baby is 15 to 40%. **The rate can be reduced to 1-2% with effective treatment and prevention given in the course of pregnancy, during delivery and to the baby after birth.**

Treatment and Prevention

- An infected pregnant woman should start antiretroviral therapy (ART) as soon as possible; intravenous ART may also be needed during delivery.
- Discuss the risks and benefits of caesarean section versus vaginal delivery with their doctors.
- Breastfeeding of the newborn should be avoided.

- The baby has to continue oral ART and to be followed up by the paediatrician after birth for the prevention and early detection of complications.
- Once confirmed to be infected, the baby will be given appropriate treatment, and follow-up care to improve his/her health.

The Interpretation of HIV Test Result

A conventional HIV test may take more than one week to process. The test result could be **negative (-ve)** or **positive (+ve)**. The following is the interpretation of the results:

Negative result (-ve)

- A negative result indicates that the pregnant woman is not infected by HIV at the time of HIV testing. However, one has to be aware of the 'window period'. Window period is the period between the moment a person gets infected with HIV and when the HIV test shows a positive result. The window period for HIV testing is 3 months. A negative result still cannot exclude infection if the user has recent exposure in the previous 3 months. Users must take note of this and repeat the test or consult a doctor whenever in doubt.
- A pregnant woman who has a negative HIV blood result should continue with preventive measures to protect herself and the foetus against transmission of HIV during the course of pregnancy and breastfeeding. This includes practising safer sex such as condom use, refraining from needle sharing and avoidance of any high risk behaviours.
- **Any pregnant woman who in doubt of her HIV status during the course of pregnancy should contact her doctor to perform the HIV test again.**

Positive result (+ve)

- A positive result means that the pregnant woman has got infected with HIV. There is a risk of transmitting the virus to the foetus and to her sexual partner through sexual intercourse.

HIV test result is strictly confidential.

Early Detection – How does it benefit the pregnant woman?

- The earlier the infection is detected, the better outcome it will be.
- Apart from quality antenatal care, health care providers work together to develop the best management plan to achieve holistic care in the infected person.
- The pregnant woman will be offered ART as soon as possible to control the HIV disease.
- Through counselling, the pregnant woman will understand her physical and psychological capacity to cope with the disease, and reach consensus about continuation with pregnancy.
- The pregnant woman may choose to disclose her HIV status to her sexual partner or family. The health care provider will offer her and her family support and counselling.
- The infected mother will continue drug treatment and follow-up of the disease after delivery to maintain her health and to prevent complications. She will learn how to take care of her baby and beware of the blood borne transmission.

The Aim of Rapid HIV test

It is important that a pregnant woman knows her HIV status before delivery. In Hong Kong, all pregnant women are routinely tested for HIV in the antenatal check-up. Therefore, for any woman who is about to deliver and who does not know her HIV status yet, a rapid HIV test that takes only minutes **SHOULD** be done immediately so that appropriate steps can be taken to protect the baby. Result of the test can be read after 20 minutes.

What is rapid test and how is it performed?

- This test shows whether a person is infected with HIV.
- The blood specimen is obtained by fingerprick. A small droplet of blood is taken from your finger and the test result can be read after 20 minutes.



(1) Fingerprick for blood taking



(2) Put the loop (with blood) into the test kit



(3) Test result

- The rapid HIV test result could be **negative (-ve)** or **positive (+ve)**. Any positive rapid test result should be followed by confirmatory test of venous blood conducted by a laboratory.

For the protection of both yourself and the baby, please consider antenatal HIV testing. Early diagnosis benefits both you and your baby.

Should you have further queries about HIV test and HIV infection, please talk to your doctor or nurse. You are also welcomed to contact our counsellor via the AIDS Hotline at 2780 2211.

Red Ribbon Centre – UNAIDS Collaborating Centre for Technical Support

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(Produced by Red Ribbon Centre — UNAIDS Collaborating Centre for Technical Support, Hong Kong)

PA/AO/19-16(B)/WOM-INF

What Do You Know about Prenatal Diagnosis?

Prenatal screening test can assess your risk (or chance) of having a baby with severe congenital condition and enable early management. In addition, the Hospital Authority offers prenatal screening for Down Syndrome according to the gestation of pregnancy.

What is prenatal diagnosis?

Prenatal diagnosis aims at detection and arrangement of appropriate management of severe diseases of the foetus. Management options may include:

- Direct treatment of the foetus inside the womb
- Preparations for optimal management after birth
- Termination of pregnancy

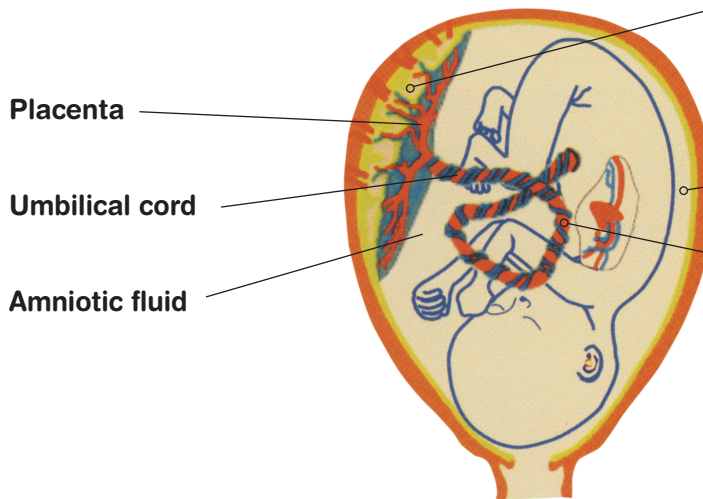


Prenatal diagnosis involves testing pregnant women who are at high risk of having babies with major congenital abnormalities or hereditary conditions. These include:

- Women who have given births to abnormal babies with congenital heart diseases, spinal defects, or other birth lesions.
- Women with family history of genetic diseases, such as haemophilia.
- Couples who are both thalassaemia carriers.
- Women who are considered to be at risk based on clinical assessment by their obstetricians.

Prenatal diagnostic tests have limitations and not all abnormalities and diseases can be detected by the current medical technology.

What do you know about prenatal diagnosis?



The method used is related to the type of abnormalities being considered. There are two main types of tests: (A) invasive tests to obtain foetal cells or foetal related cells for chromosomal and other analyses and (B) imaging to detect structural abnormalities.

(A) Invasive tests

For chromosomal abnormalities, direct culture of cell samples from the foetus by one of the following methods is performed at different gestational age: chorionic villus sampling, amniocentesis or cordocentesis.

Chorionic villus sampling –

It is performed between 10 to 13 weeks of gestation. A sample of placental tissue is obtained and the result of chromosomal analysis is usually available in 2-3 weeks.

Amniocentesis –

It is usually performed between 16 to 20 weeks of gestation. A sample of liquor surrounding the foetus is taken. Result of chromosomal analysis is usually available within 3 weeks.

Cordocentesis –

It is usually done after 20 weeks of gestation. A sample of foetal blood is taken from the umbilical cord. The result of chromosomal analysis is usually available in 5-7 days. *The test is particularly useful if an urgent result is desired.*

**How are these tests performed?**

All these procedures are performed under ultrasound guidance. A long needle is used to obtain the tissue sample inside uterus, which is subsequently cultured in the laboratory. Chromosomal abnormalities and some genetic or hereditary conditions such as thalassaemia major can then be diagnosed or excluded.

**Is the result reliable?**

Chromosomal analysis using the above methods is highly accurate. However, expert interpretation by specialist is mandatory because some chromosomal abnormalities are just normal variations and will not result in deficient physical or mental growth of the foetus.

Will these tests cause harms to the foetus?

Some invasive tests are associated with a definite but small risk of miscarriage of around 0.5% to 1.5% under the care of expert doctors, i.e. 1-3 out of 200 women receiving the invasive test will result in miscarriage.

If the result is normal, does it mean that the foetus is normal?

- **Not all genetic or hereditary diseases can be detected by these methods due to limitations in medical technology.**
- **Structural defects or functional defects not related to chromosomal abnormalities will not be detected.**

(B) Ultrasound examination

- The most useful test for detection of major structural abnormalities in the foetus is ultrasound examination.
- **The detection rate for major structural abnormalities by ultrasound examination done between 18 to 22 weeks gestation is around 30-70%.**
- Different abnormalities or organ systems concerned, experience of the doctor performing ultrasound as well as the resolution of the ultrasound machine affect the detection rate.
- If the abnormalities detected on ultrasound examination are suggestive of chromosomal disorders, further invasive test as mentioned above may be indicated.

If ultrasound examination is normal, does it mean that the foetus is normal?

- While a normal ultrasound examination implies that the chances of major structural defects in the foetus should be small, it does not exclude all possibilities of such defects.
- Some chromosomal abnormalities may not be readily detectable by ultrasound, so a normal ultrasound examination does not exclude these diseases.

How and where to get these prenatal diagnostic tests?

All pregnant women are encouraged to discuss with their doctors if they have genuine concerns that their foetus could be abnormal.

Prenatal diagnosis and counselling service is available at all major obstetric units under the Hospital Authority. Couples requesting prenatal diagnostic and counselling services should approach the Hospital Authority hospitals with obstetric services in their districts, or they can be referred to one of these clinics through their own doctors, Maternal and Child Health Centres, or other private clinics.

(This leaflet is prepared by the Department of Health and the Hospital Authority)

FHS-MH9A (Rev. Feb 2013)

Prenatal Screening for Down Syndrome

(Source of information provided by the Hospital Authority) (Dec 2019)

*This leaflet is intended to help you understand Down syndrome, the prenatal screening tests for Down syndrome offered by **Hospital Authority (HA)**, and to help you decide whether you want to have a screening test or not.*

What is Down syndrome?

Down syndrome is a genetic condition that typically causes some level of learning disability and certain physical characteristics. Some children with Down syndrome have additional health problems such as heart defects with varying severity. With specialist care and education, some children with Down syndrome can integrate into mainstream schools and lead semi-independent lives.

Down syndrome is caused by the presence of an extra copy of chromosome 21 in a baby's cells. It occurs by chance at conception and there is no evidence that anything done before or during pregnancy causes the syndrome. About 1 in 700 pregnancies will have the chance to carry a baby with Down syndrome and the probability increases with the pregnant woman's age. Antenatal screening for Down syndrome can help identify the condition before birth.

What is the purpose of knowing if my baby has Down syndrome before birth?

This would allow parents to be well-informed and be prepared to discuss with doctors about the options in the best interest of the family.

How can I tell whether my baby has Down syndrome before birth?

A logical approach is to undergo a screening test to assess your chance of having a baby with Down syndrome. The test does not harm you or your baby. It provides an estimated chance of your baby having Down syndrome, which is a more accurate estimate than that derived from your age alone.

The Hospital Authority provides 2 tier screening tests.

First tier screening would be done according to the duration of pregnancy:

First trimester screening -

If you are pregnant for less than 14 weeks, you will undergo an ultrasound examination for nuchal translucency from 11 to 13 weeks and 6 days of gestation. A blood test will be performed on the same day to measure your Pregnancy Associated Plasma Protein A (PAPP-A) and human chorionic gonadotropin (hCG) levels. The 1st trimester screening test detects up to 90% of Down syndrome pregnancies. Additionally, abnormally high nuchal translucency is known to be associated with other chromosomal and congenital birth defects.

Second trimester screening -

If you are pregnant for more than 14 weeks and less than 20 weeks, you will undergo the blood test from 16 to 19 weeks and 6 days for alpha-fetoprotein (AFP), human chorionic gonadotropin (hCG), estriol (E3) and inhibin-A. This 2nd trimester screening test detects around 80% of Down syndrome pregnancies.

About 5% of women will get a positive screening result, meaning the chance of having a baby with Down syndrome is high, while about 95% will get a negative result, meaning the chance of having a baby with Down syndrome is low.

The screening test result will be available within 2 weeks after the blood test. If your test result is negative, then your report will be filed in your medical notes until your next antenatal visit. If the test result is positive, you will be informed and contacted to make an appointment for further counseling for the second tier screening or diagnostic testing.

Second tier screening is “Non-invasive Prenatal Test” which is a blood test based on the identification and counting of DNA fragments in maternal plasma originating from the placenta. A “High Risk” or “non-reportable” test result would be counselled for diagnostic testing for confirmation study.

If my screening test result is positive, how can I confirm if my baby has Down syndrome before birth?

You can undergo a diagnostic test in the form of chorionic villus sampling or amniocentesis. A diagnostic test will tell you accurately whether the baby has Down syndrome or any other chromosomal abnormalities. This involves introducing a needle under ultrasound guidance into the uterus to draw placental tissue or amniotic fluid for chromosome study. Chorionic villus sampling is usually performed from 11 to 14 weeks and amniocentesis is usually performed between 16 to 20 weeks. There would be a slight increase in miscarriage risk after either procedure compared to 0.8% of pregnancies that did not have the procedures during the same gestational period.

What will happen if the foetus is confirmed to have a genetic condition?

The doctor will explain to you and your partner about the nature of the genetic condition, its effect on the foetus and the risk in future pregnancies. You can discuss with the doctor about available support from the hospitals and other organizations and be better prepared for the birth of your baby. With specialist care and education as well as the support from the community services, children with Down syndrome can live semi-independently. If the pregnancy is not more than 24 weeks of duration, you may also seek advice from your doctor about the possibility of termination of pregnancy under the laws in Hong Kong.

Does a negative screening test result guarantee a baby without a genetic condition?

No. A negative screening test result indicates that the chance of your baby having Down syndrome is low, but it does not guarantee a baby without a genetic condition. A foetal morphology scan is still advised as a screen negative result does not guarantee the absence of foetal or other pregnancy related problems which occur in $\approx 2\%$ of pregnancies. The availability of this foetal morphology scan is however limited in HA so you may need to approach private doctors or hospitals offering this service.

Can I ask for a diagnostic test for Down syndrome if the screening test result is negative or if I prefer not to be screened first?

In HA, a diagnostic test e.g. chorionic villus sampling or amniocentesis will only be offered to women with positive Down syndrome screening test results. Women with negative first tier screening test result or who prefer direct diagnostic test should approach private doctors or hospitals.

Points to note

- Down syndrome screening is voluntary.
- Down syndrome screening is only available in first trimester for multiple pregnancies.
- You are advised to join one screening program only.
- A positive Down syndrome screening test report does not indicate that your foetus has Down syndrome. A negative screening test report cannot guarantee that your foetus is completely free of Down syndrome or other genetic conditions.

Health Advice

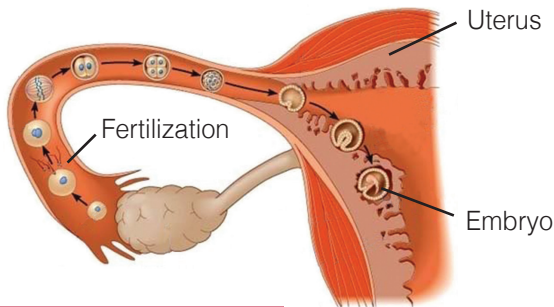
Foetal Development in Early Pregnancy

Early pregnancy

As a mother to be, it is important for you to take adequate nutrients, including folic acid and iodine, to give your growing baby a head start.



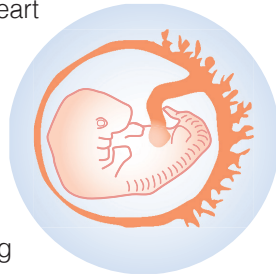
From ovulation, fertilisation to implantation



4-8 weeks of pregnancy

At around week 4-5, you probably just found out you are pregnant. After implantation, the embryo grows and develops within the lining of the womb. Your baby's brain, spinal cord and heart have begun to form.

The heartbeat can be detected on ultrasound at around 6-7 weeks of pregnancy. By the end of the eighth week, all major organs and body systems have begun to develop. Muscles of eyes, nose, and mouth are forming, with webbed fingers and toes developing from the hands and feet.



9-13 weeks of pregnancy

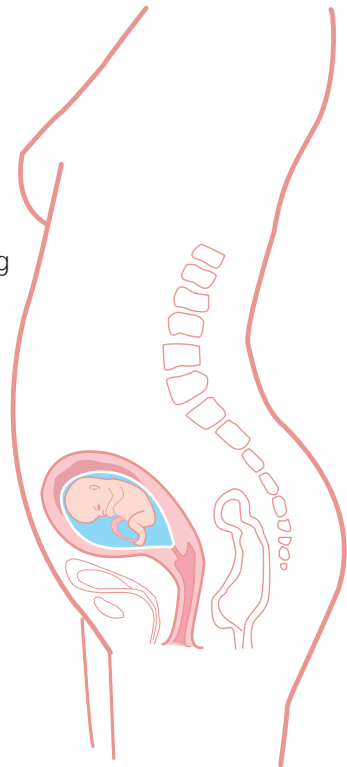
You may start to have nausea and vomiting, especially in the morning. Small frequent meal may help your symptoms. During this time your breasts will become bigger, so consider wearing a supportive bra.

At 9 weeks of pregnancy, the baby is about 22 mm long from head to bottom. Face is slowly forming at this stage. Eyelids have formed but remain closed. Mouth and tongue, with tiny taste buds, and intestines begin to form. Fingernails have formed.

At 10 weeks, the heart is now fully-formed. It beats 180 times a minute which is much faster than your own heart.



You may feel frequency of urine because the bladder being compressed by the uterus. Please refer to the “Tips for frequency of urine” on p.55. Should you have pain or find blood when passing urine, please consult your doctor as soon as possible.



Minor Ailments in Early Pregnancy and Their Management

During pregnancy, hormones including oestrogen, progesterone and prolactin rise rapidly. It turns the womb into a suitable environment for the baby's growth. And at the same time, it could cause discomfort to the mother. Most of these changes are normal.

- Most of the minor ailments in pregnancy will spontaneously subside after delivery. Therefore, you do not need to worry too much.
- Herbs and medicines should be avoided especially during early pregnancy because they can enter the foetal circulation through placenta. Some medications exert toxic or teratogenic effect on the foetus. One should always seek doctor's advice before taking any medications.
- Some essential oils for aromatherapy may not be safe during pregnancy. Please consult healthcare professionals before using aromatherapy.

Nausea and Morning Sickness

- Nausea is very common in the early weeks of pregnancy. Adjusting your dietary habits may help to ease the discomfort.
- Some pregnancy complications and medical diseases like multiple pregnancy, molar pregnancy and thyrotoxicosis can lead to severe vomiting.



- Severe vomiting may result in dehydration and electrolyte imbalance. Please seek medical attention immediately when you have the following symptoms:
 - Cannot eat any food in 24 hours
 - Weight loss
 - Concentrated urine or no urine output in 8 hours
 - Severe discomfort, weakness, dizziness, confusion or fits
 - Bad tummy pain, fever, vomiting blood

Tips

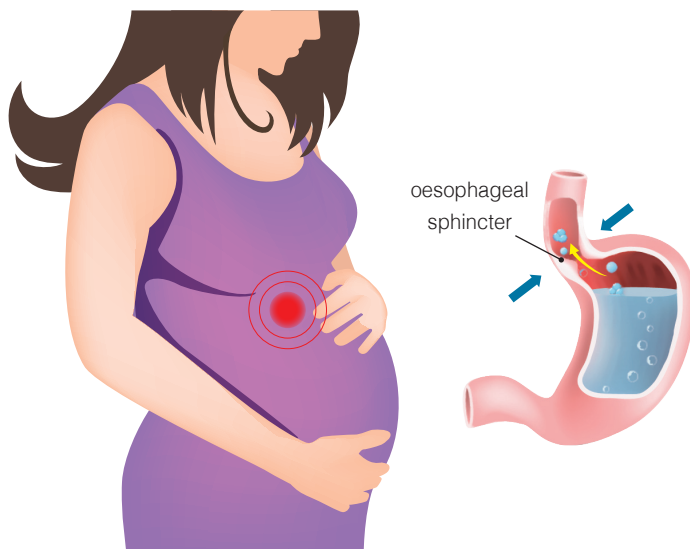
- If possible, eat some dry food like bread, biscuit, low-fat food, carbohydrate-rich food (e.g. rice, noodle, mashed potatoes) and try some sour drink (e.g. lemonade, plum juice). Avoid eating deep-fried or greasy food, garlic and other spices and avoid drinking coffee.
- If you feel sick first thing in the morning, give yourself time to get up slowly. Avoid brushing your teeth and tongue immediately after eating. Keep windows open for good ventilation. Get plenty of rest and sleep whenever you can. Feeling tired can make the sickness worse.
- Eat small amounts of food often rather than several large meals, say every 2-3 hours. Don't stop eating. Drink plenty of fluids in between meals to avoid stomach fullness.
- Quit smoking and ask family members to stop smoking as well.



Doctor may prescribe anti-emetic drugs if you have severe symptoms

Heartburn

- This is very common during pregnancy. The relaxation effect of progesterone on the oesophageal sphincter results in reflux of acidic fluid to the oesophagus, causing irritation and heartburns.
- Fatty diet worsens the condition because dietary fat lowers the oesophageal sphincter tone further.



Tips

- Eat small, low-fat meals frequently. Chew the food well and eat slowly.
- Avoid spicy food.
- Avoid lying down, bending and stooping after eating. Elevate the head of the bed. Wear loose-fitting clothing.
- Do not take any antacids without consulting a doctor.

Constipation

- This affects 10-40% of pregnant women. Progesterone lowers intestinal muscle tone and movement of colon. There is also an additive effect of increase in reabsorption of water from bowel mucosa.

Tips

- Drink at least 8-12 cups of fluid everyday in the form of water, milk, juice or soup. Warm or hot fluid is particularly helpful.
- Increase fibre intake by eating more whole grain breads and cereals, vegetables, fruits and legumes such as beans, split peas and lentils.
- Maintain an active lifestyle with regular exercise such as walking and swimming.
- Avoid all laxatives except those prescribed by doctors.



Frequent Urination

- This is the result of increase in blood flow to kidneys by 50% during pregnancy and the relaxation effect of progesterone on smooth muscle of the urinary tract.
- Besides, the urinary tract of the pregnant woman is more susceptible to infection. Urinary tract infection may lead to nephritis and preterm delivery if not treated properly. If you have frequent urination and pain while passing urine or you pass any blood, you should seek medical advice early.

Tips

- You should never restrict fluid intake because this may increase the chance of urinary tract infection.
- In case you have a urinary tract infection, you should take a course of antibiotics according to the doctor's instructions.
- If you have recurrent or persistent urinary tract infection, you should seek medical consultation early. This could be related to underlying anatomical problem of the urinary tract or kidneys.

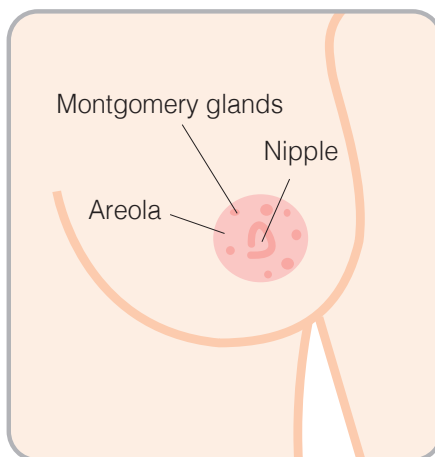
Breast Changes During Pregnancy

During pregnancy, hormones in your body are preparing your breasts for lactation. You may experience enlargement of the breasts, nipples and areolas. The breast tissue may extend up into the armpit, and some women may have additional breast tissue (accessory breast tissue) under the armpit.

You may find darkening of the nipples and areolas due to hormones that affect pigmentation of the skin.

You may also find veins along your breasts more noticeable due to increased blood supply to your breasts.

**Areola enlarged,
nipple more sensitive**



Small glands on the surface of the areolas called Montgomery's tubercles will become raised bumps.

Tips

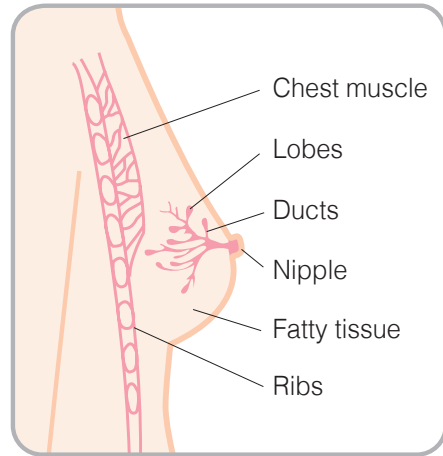
Your breasts will continue to grow throughout the pregnancy. This can cause discomfort and sometimes pain.

This can be helped by wearing a well-fitting bra.

You may need to change your bra to fit the growth of your breasts every trimester.

The milk ducts are growing and being stretched as they fill with milk early in pregnancy. All this causes your breasts to be more sensitive, particularly your nipples. This may cause you discomfort.

Anatomy of breast



Colostrum

Your breasts may start leaking a yellowish, thick substance known as colostrum. It can happen as early as 14 weeks into your pregnancy.

Women who do not experience colostrum secretion in pregnancy still produce milk for their baby after birth.

When should you seek medical care?

If you notice any of the following, it is advisable to seek medical advice:

- new lumps
- pain (especially if it locates at one place or gets worse)
- redness
- skin or nipple changes such as thickening, dimpling or ulcers
- any coloured substance (other than colostrum) from your nipple
- discrete lump in the armpit

(Please refer to the details of “Breast awareness” in FHS website at <http://s.fhs.gov.hk/7g38e>)

Create the Smoke-free Environment, the Starting Line of Healthy Life

Impact of Smoking on Foetus

Research shows that tobacco smoke contains more than 7000 chemicals. For instance, nicotine, carbon monoxide, cyanide, arsenic and carcinogens which can be transferred to the foetus via placenta. Apart from reducing oxygen supply to the foetus, smoking can further increase risk and complication of pregnancy.

Ectopic pregnancy

Miscarriage

Intrauterine death

Placental abruption

Orofacial clefts

Premature delivery

Lower birth weight

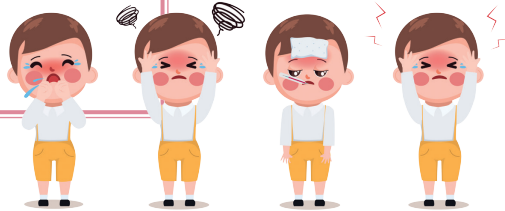


Harmful effects of Secondhand smoke on Infant and Children



Secondhand smoke can cause “Sudden Infant Death Syndrome” and increase middle ear disease, respiratory illness (e.g. cough, phlegm, respiratory infection, pneumonia, bronchitis) and severe asthma in infants and children. Besides, secondhand smoke also associates with higher risk of admission to hospital.

**Tobacco and Alcohol Control Office,
Department of Health
Information on Secondhand smoke**



Third-hand Smoke

A large amount of toxic substances can be found in Third-hand smoke. These toxic chemical substances can remain on the surface of household utensils and furniture of the indoor area, carpets, floors, walls, ceilings, etc. Most alkaline cleaners available in the market cannot remove these substances. Therefore, not smoking at all is the best way to protect your loved ones. Research suggests that children are more likely to develop tobacco addiction if their parents smoke. Please quit immediately.



**Tobacco and Alcohol Control Office,
Department of Health
Information on Third-hand smoke**



Create smoke-free environment

Parents can absolutely create smoke free environment for your children! Nicotine Replacement Therapy together with counsellings is the most effective means of smoking cessation. Call the Smoking Cessation hotline!



Quit Smoking Mobile App



Tobacco and Alcohol Control office, Department of Health Website on quit smoking



Smoking Cessation Hotlines:

Integrated Smoking Cessation Hotline of
the Department of Health

1833 183

Smoking Counselling & Cessation Centres of
the Hospital Authority

2300 7272

Oral Health for the Expectant Mother

(Source of information provided by the Oral Health Education Division
Department of Health) (L010)

1) When is the appropriate time for dental check-up?

a. Prior to a planned pregnancy



Expectant mother can arrange a pre-pregnancy dental check-up and have all the dental problems treated before she is planning to pregnant. This can avoid comprehensive dental treatment during pregnancy and dentist can provide her with oral health care message during pregnancy.

b. 4th to 6th month of pregnancy



During pregnancy, expectant mother still needs to have dental check-up. The best timing is 4th to 6th month of pregnancy because the foetus is most stable at this stage. She should inform the dentist that she is pregnant during the dental check-up, so that the dentist can take necessary precautions during dental treatment.

2) Will X-ray examination affect the foetus?

Dental clinics have adequate precautions for taking radiographs like putting on lead apron for the patient and using fast speed film, etc., such that the foetus can be safeguarded. Should expectant mother feel worried, she can discuss with her dentist and see if the treatment can be postponed until she has given birth.



3) Can the expectant mother receive complicated dental treatment?

If the expectant mother has a tooth that really need complicated dental treatment like root canal treatment, extraction of impacted wisdom tooth, etc., the treatment should be arranged to carry out after she has given birth. This could avoid discomfort during lengthy treatment procedures.



4) What are the changes in the oral health condition of the expectant mother and how to take care of her oral health?

a. Hormonal changes

If pregnant woman does not clean her oral cavity thoroughly, the hormonal change during pregnancy may exaggerate the response of the gum tissues to the plaque bacterial toxins, resulting in red, swollen and bleeding gums. This is called "Pregnancy Gingivitis". Therefore, to prevent and control "Pregnancy Gingivitis", expectant mother should pay attention to oral hygiene when brushing her teeth and using floss and interdental brush to remove the plaque thoroughly.



b. Craving for sweet and sour food

Pregnant woman may often crave for sweet and sour food due to dietary change. Food and drink intake may also become more frequent. Therefore, the chance of getting tooth decay may increase. During pregnancy, an expectant mother may crave for acidic food or vomit easily. These acidic food and vomit will erode the outer layer of the teeth (enamel) and expose the inner layer (dentine), resulting in tooth sensitivity.



In order to protect the teeth, the expectant mother should use fluoride toothpaste for toothbrushing. It is because fluoride can:

1. help repair the early tooth decay
2. strengthen the enamel, making it more resistant to acid attack
3. inhibit the bacterial activities in dental plaque, reduce acid production.

If the expectant mother vomits or needs to eat more frequently, she may use fluoride mouthwash to get additional protection against tooth decay. However, she should seek advice from dentist before using it.



5) Will tetracycline affect the foetus?

From the 5th to 6th week of pregnancy, teeth begin to develop in the foetus. If the expectant mother takes tetracycline during pregnancy, the teeth of the foetus may be affected and become discoloured. Hence she has to tell the doctor that she is pregnant, so that the doctor will take care in prescribing the appropriate medication if necessary.



Miscarriage

Miscarriage refers to the situation where an early pregnancy ends unexpectedly. It is a very common complication in early pregnancy. Some women may not even notice that they have ever been pregnant.

Twenty to twenty-five out of 100 pregnant women may experience slight vaginal bleeding in early pregnancy. A proportion of them will be diagnosed as miscarriage but the rest may progress to term.

Don't worry, a history of vaginal bleeding in early pregnancy, or which we call threatened miscarriage, will not affect the growth and development of the foetus and will not increase the chance of congenital abnormalities.

How can a woman know she has a miscarriage?

- Most of the miscarriage occurs from 6 to 12 weeks of pregnancy or earlier.
- Some women may experience some bleeding from the vagina and there may be some pain in the tummy.
- In other women, the content of the uterus may be expelled spontaneously; they may experience more bleeding and pain.
- There are also women who have no symptoms at all and the condition is picked up during check-up.

Is it common? Why does it happen?

Miscarriage is a very common condition.

- Most miscarriage occurs when the foetus is abnormal or the uterine environment is hostile for the growth of the foetus.
- Some herbs or drugs may affect pregnancy but it is hard to say whether miscarriage is directly caused by these medications since it is a very common phenomenon. Therefore it is important to avoid taking any unnecessary medications or herbs once a woman is aware she is pregnant.
- Miscarriage is not caused by physical activities like swimming, dancing, working out in gymnasium or practising yoga.
- Unless food is contaminated by bacteria, women seldom have miscarriage due to specific food intake.
- Normal sexual activities such as caressing and intercourse are not harmful and will not increase the chance of miscarriage.

Recurrent Miscarriage

Generally speaking, one miscarriage should not predispose a woman to another.

- Recurrent miscarriage is defined as loss of 3 or more consecutive pregnancies.
- Approximately 1 in 100 women has the problem of recurrent miscarriage.
- A proportion of these women will have a persistent underlying cause for their recurrent pregnancy loss.
- Some of these causes are treatable. Please consult your obstetrician for details.

(This leaflet is prepared by the Department of Health and the Hospital Authority)

FHS-MH7A (Rev. Feb 2013)

Management of Miscarriage

If a pregnant woman feels pain in the tummy, or notice vaginal bleeding, she should seek medical consultation without delay.

- She can go to her family doctor, private obstetricians, gynecologists or emergency departments of hospitals for assessment.
- Ultrasound scan will be used to assess the foetus' condition and this causes no harm. Diagnosis of miscarriage is confirmed if the **foetal heart is not beating** or if the **foetus does not grow**. Therefore, several scans for foetal growth monitoring may sometimes be necessary before the doctor can confirm a diagnosis.

What can be done before a miscarriage is confirmed?

X Medical Treatment

No medical evidence has shown that medication including hormones of any type is effective.

X Bed Rest

Staying in bed cannot prevent spontaneous miscarriage. However, bed rest is still advisable when a pregnant woman bleeds heavily.

What should be done if miscarriage has been confirmed?

✓ Admission

If miscarriage is confirmed, evacuation of the uterus is usually suggested to remove the non-viable foetus in order to stop bleeding and to avoid infection.

Evacuation of Uterus

- A narrow suction cannula is inserted into the womb to suck the tissues out.
- It can be performed under local or general anaesthesia.
- Variable degrees of pain may be experienced after the operation, in which case painkillers can help.

Physical Recovery after Miscarriage

- It is normal to have some vaginal bleeding in **the first few days** after complete miscarriage or evacuation of uterus.
- Normal daily activities and physical activities can be resumed once the woman feels physically recovered, that is, usually a week or two after the miscarriage.
- Sexual intercourse can be resumed after bleeding has stopped completely.

Reminder after Operation

If there is heavy bleeding, prolonged vaginal bleeding lasting for more than two weeks, fever, or pain in the tummy after operation for miscarriage, immediate medical attention should be sought.

Psychological Recovery after Miscarriage

- People often have different feelings after a miscarriage. Many women experience mood disturbances like shock, sadness, depression, anxiety, sense of failure and loss of self-esteem after miscarriage. Their partners may also feel sad, helpless and frustrated.
- While it is common for people to want to know why the miscarriage happened, a clear cause often could not be identified. It is crucial to understand that no one, including the woman herself, is to be blamed.
- A lady with a miscarriage is encouraged to share her feelings with someone she can trust, e.g. partner, relatives, good friends or medical and paramedical staff to help her recovering from her grief. She may also acknowledge the loss of her baby in a way she finds appropriate, and take the time she needs to grieve before eventually resuming former lives.

Planning for Next Pregnancy

It may be better to wait for two or three months before trying to get pregnant again. This gives time for the woman to recover to her best possible shape for the next pregnancy, both physically and emotionally.

Local Resources (listed in arbitrary order)

If you find the pregnant woman or your family member is experiencing significant distress in need of professional support, you may approach the following community resources:

- Bereavement counselling teams in the Obstetrics and Gynaecology departments of the Hospital Authority
- Social Welfare Department Hotline: 2343 2255
- Integrated Family Service Centres and the two Integrated Services Centres
https://www.swd.gov.hk/en/pubsvc/family/cat_family/ifs/
- Wings of Love, Hospice & Bereavement, Service Division S.K.H. Holy Carpenter Church DECC: 2362 0268
- Society for the Promotion of Hospice Care: 2331 7000 / 2725 7693
<https://www.hospicecare.org.hk/service-detail.php?id=26&lang=en>
- Comfort Care Concern: 2361 6606
<https://www.cccg.org.hk/service/details/1/>
- Jockey Club Perinatal Bereavement Care Project:
 - Hong Kong YWCA Family Wellness Centre: 3443 1601
 - Grace Port – Caritas Miscarriage Support Centre: 2154 1313

Middle Pregnancy

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Points to Note

MCHCs provide regular routine antenatal check-ups for pregnant women under shared care with HA. The service covers the following aspects:

Urine test for protein and sugar

Body weight and blood pressure measurement

Abdominal palpation to monitor the growth and position of foetus

Detection of foetal heart beat

Assessment of oedema

Antenatal Check-up Schedule in MCHCs / HA:

Gestational weeks	Routine check-up	Other examination (weeks)
10-24 weeks	Every 6 weeks	▲ Antenatal blood investigations * Prenatal Screening for Down syndrome (11-19 weeks)
24-28 weeks	Every 4 weeks	▲ Oral Glucose Tolerance Test (if necessary)
28-36 weeks	Every 2-4 weeks	▲ Pertussis vaccination (26-34 weeks) ▲ Group B Streptococcus screening test (35- 37 weeks) (if necessary)
36-40 weeks	Every 2 weeks	
41 weeks		*Past term assessment

* Service provided by Obstetrics Department of the Hospital Authority

▲ Service provided by Obstetrics Department of the Hospital Authority or MCHC

Note: 1. This timetable serves as reference only. Health professionals may arrange alternative schedule according to your clinical condition.
2. Obstetrics Department of the Hospital Authority may offer structural ultrasound or prenatal screening according to the individual condition of the pregnant woman.

1. Attend online public talk 「懷孕及哺乳媽媽「適」飲「適」食」



<http://s.fhs.gov.hk/q0rv3>

2. Attend the 「貼心照顧及餵養寶寶」 discussion at hospitals/MCHCs

3. If you haven't attended the 「貼心照顧及餵養寶寶」 discussion at hospitals/MCHCs, please attend the online public talk:

「貼心照顧及餵養寶寶《1》」 and 「貼心照顧及餵養寶寶《2》」

OR

watch the recordings:

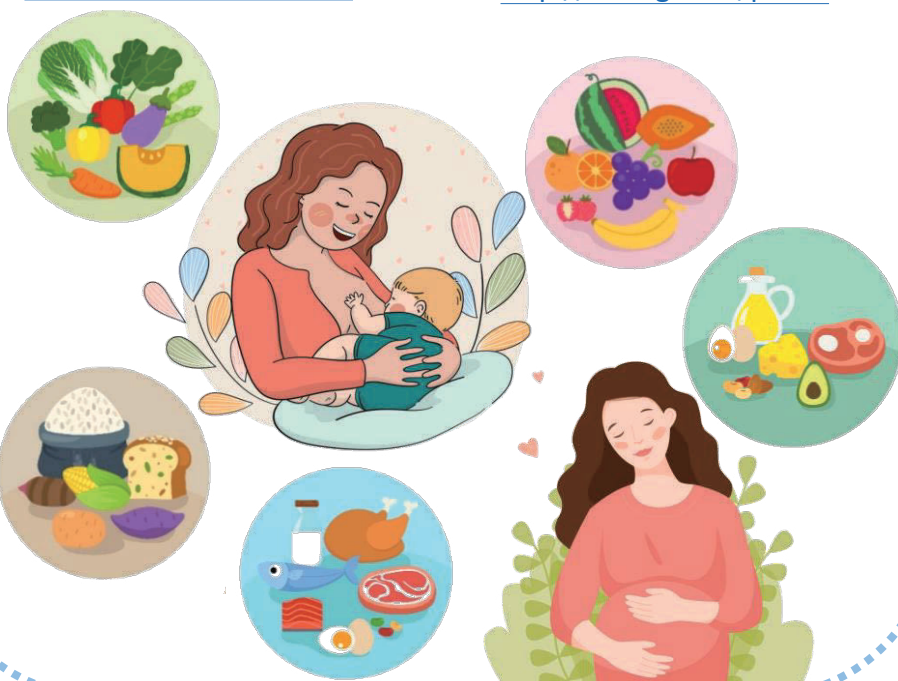
「貼心照顧及餵養寶寶《1》」 and 「貼心照顧及餵養寶寶《2》」



<http://s.fhs.gov.hk/wy8oj>



<http://s.fhs.gov.hk/peh1z>



Health Advice

Foetal Development in Middle Pregnancy

Middle pregnancy

Your tummy will be more obvious at this stage and you may develop a dark line down the middle of your tummy, which is normal skin pigmentation. Common minor problems can include backache, indigestion and piles.



14-17 weeks of pregnancy

At 14 weeks, the baby is about 85mm from head to bottom. The baby can swallow bits of amniotic fluid, which is passed out as urine by kidney.

They start to hear and become sensitive to light at 15 weeks even though their eyes are closed.

At 16 weeks, the nervous system continues to develop. Limb movements are more co-ordinated by this time. The hands can reach each other or form a fist.



18–24 weeks of pregnancy

From 18 weeks onwards, the baby is more active, and you may start to feel first movements, which is like soft fluttering sensation. Your baby may also respond to sound from the outside world, such as music. The sucking reflex develops, and the foetus may suck his or her thumb.



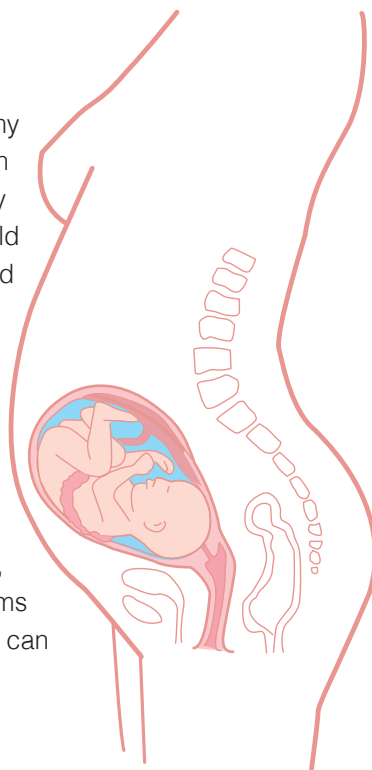
At 21 weeks, your baby weighs around 350 grams. More fat is forming under the skin. The brain is rapidly developing. The eyes begin to open. The lungs are fully formed but not yet functioning.

25–28 weeks of pregnancy

Stretch marks may develop as your tummy becomes big quickly. These stretch marks can also develop on breast and thigh. You may feel more easily hungry than before. You should maintain a sensible, balanced diet and avoid excessive weight gain.

Indigestion or heartburn are common at this stage, so frequent small meals can be helpful. You may also become tired easily and experience some swelling in your face, hands or feet.

Your baby weighs around 1 kg at 28 weeks, and his or her brain, lungs and digestive systems are formed but not fully mature. Your baby can respond to touch and sound.



Minor Ailments in Middle Pregnancy and Their Management

During pregnancy, the rapidly rising hormones, like oestrogen, progesterone and prolactin, change the maternal body into a suitable environment for the foetus. Most of these bodily changes are normal.

- Most of the minor ailments in pregnancy will spontaneously subside after delivery. Therefore, pregnant women do not need to worry.
- Herbs and medicines should be avoided especially during early pregnancy because they can enter the foetal circulation through the placenta. Some medications exert toxic or teratogenic effect on the foetus. One should always seek doctor's advice before taking any medications.
- Some essential oils for aromatherapy may not be safe during pregnancy.
Please consult healthcare professionals before using aromatherapy.
- Increase in progesterone during pregnancy causes dilation of blood vessels, thereby accumulating blood in the lower limbs.
- Meanwhile, the growing foetus increases pressure on abdomen and affects circulation. This results in varicose veins, swelling in the lower limbs and leg cramp.

Leg Cramps

- This usually occurs at rest and therefore can affect sleep. It usually results from muscle tension.
- Sometimes severe vomiting can lead to low level of calcium and potassium in blood, resulting in cramps.
- If severe vomiting presents at the same time, hospitalisation for electrolyte replacement may be necessary.

Stretching the calf muscles regularly or before going to bed can help expectant mother to reduce leg cramps.

Exercises that can reduce leg cramp

1. Stand in front of a wall with an arm distance or about 60 centimeters. Place your hands on the wall.
2. Step your left foot forward. Bend your left knee slightly. Keep your right leg straight. Hold for 10 seconds. Then relax.
3. Repeat on the other leg. Repeat the whole set 3 times.



1. Sit on a chair
2. Straighten right leg. Pull sole towards yourself with a towel. Hold for 10 seconds, then relax.
3. Repeat on the other leg. Repeat the whole set 3 times.



Tips

- Slightly stretch your calf muscles in case of leg cramps



- If you are standing, stretch the cramped leg by keeping it straightened
- Massage or apply a hot pad to the calf if leg cramp persists



Varicose Veins

Varicose veins are swollen veins that bulge near the surface of the skin, usually in legs, sometimes in vulva during pregnancy.

Tips

- Avoid standing for long periods of time
- Avoid sitting with your legs crossed
- Wear flat shoes instead of high heel as your calf muscles move better and foster healthy circulation
- Sit with your legs up as often as you can, to ease the discomfort
- Sleep with your legs higher than the rest of your body – use pillows under your ankles or put books under your feet
- Do foot exercises and other antenatal exercises, walking and swimming, which will help your circulation
- To prevent blood from pooling in your legs, put the stockings on before getting out of bed in the morning, while you are still lying down. It makes it easier for blood to flow up towards your heart



If you have varicose veins or need to stand for a long period of time, you should consult healthcare professionals about wearing compression stockings

Exercise can strengthen calf muscles and improve circulation in the lower limbs.

1. Stand with hands holding on a chair. Then slowly raise up heels and stand on the toes. Hold 5 seconds, then relax. Repeat 5 to 10 times as a set. Perform several sets a day.



2. You can perform the second exercise when sitting on a chair. Turn the foot upwards and downwards.



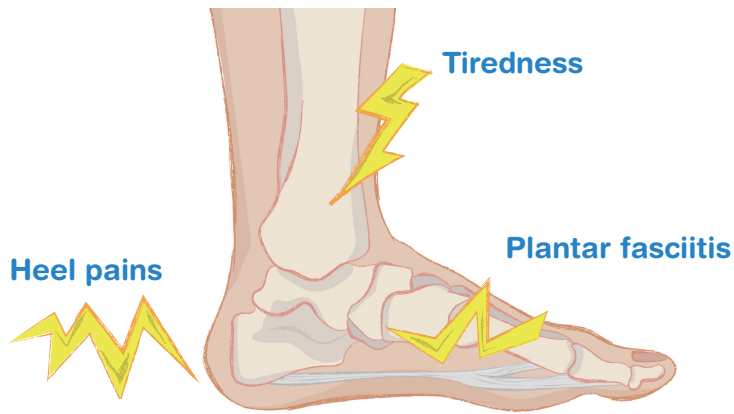
3. Rotate the foot clockwise or anti-clockwise.



Foot pain

Weight gain and change in centre of gravity during pregnancy affect the way you walk. The leg muscles get tired easily.

The plantar fascia ligament is under additional strain leading to heel pain, foot pain and plantar fasciitis.



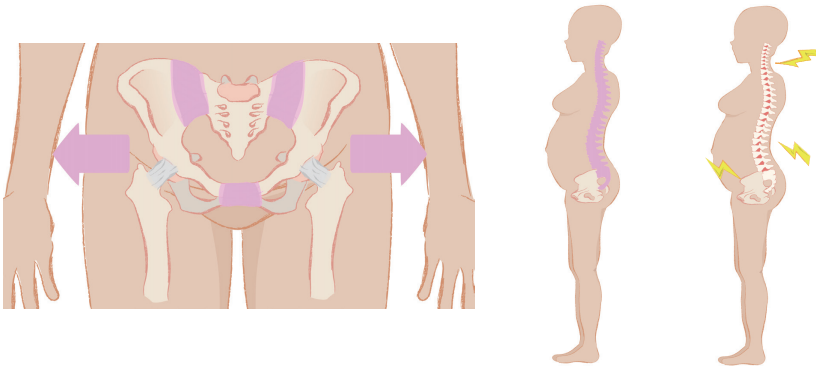
Choose comfortable footwear with enough space and good arch and ankle support. Shoes with wide heel and moderate height help disperse the stress on the sole of the foot.

Neck, Shoulder and Back Pain

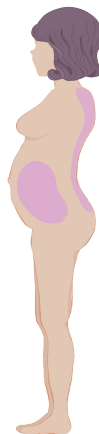
Neck, shoulder and back pain are common during pregnancy

Causes

1. The hormonal changes cause ligaments to become stretchy. The spinal joint, pelvic and pubic joints become loosen, resulting in neck, back and pubic pain.



2. As the foetus grows, mother's centre of gravity shifts forward. This adds burden on the abdominal and back muscle.



Good body postures, regular physical activities and stretching exercises, can relieve muscle pain.

Ways to improve your postures

1. When standing

- Bear weight on both feet evenly. Relax shoulders and pull them slightly backwards. Keep back straight
- Keep the head up straight. The earlobes are in line with shoulders to keep neutral neck position



- Tighten the abdominal and pelvic floor muscles



If you need to stand for some time, shift the weight bearing to different side from time to time

2. When sitting

- When working at a desk, adjust the height of the seat, to keep the neck in neutral position



- Adjust the seat height or use a foot rest so that both feet should rest on the floor and the knees are at right angle
- The back should be well supported by back of the chair. Use cushions or pillows for support if necessary



Avoid sitting in the same position for a long time
Change posture after a while

Gently tighten abdominal and pelvic floor muscles to
support the back when you move

3. When standing up from sitting position

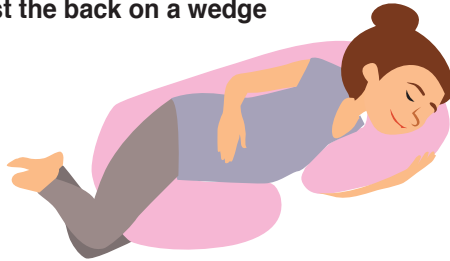
- Tighten abdominal and pelvic floor muscles
- Place your hands on the thighs or arm rest of the chair as support
- Then lean the body forward to stand up

4. To get out of bed

- Keep legs together and bend the knees. Roll onto one side

- Tighten abdominal and pelvic floor muscles. Push up the body with both hands and sit at bedside
- Place the hands on thighs as support. Lean forward, then stand up
- Avoid getting up like doing sit up

5. Sleep by lying sideways and rest the back on a wedge to support the lower back



Lifting a heavy object

1. When lifting a heavy object, stand close to it.



2. Bend the knees. Straighten the legs to lift.



3. Remember to tighten the abdominal muscles and keep the back straight when you lift.



4. When carrying heavy objects, use both hands or use a cart.
5. Avoid supporting a child with abdomen. Use both sides of the waist as support if you need to hold the child.



Ask for
assistance if
needed

Stretching exercises that can relieve shoulder, neck and back pain

1. Neck stretching exercises

- i. To stretch the neck muscles, sit on chair with the back straight



- ii. Tuck in the chin. Pull the head slightly backwards. Hold for 5 seconds, then relax



- iii. Repeat 10 times

2. Shoulder stretching exercise

- Gently roll the shoulders upwards, then backwards and downwards

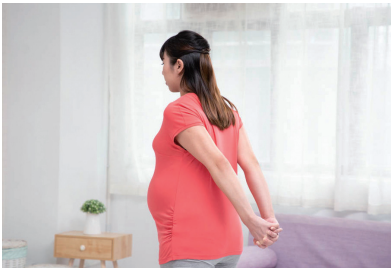


3. Upper limb stretching exercise

- You can do it either sitting or standing
 - i. Keep back straight. Interlace fingers with palms facing out. Then lift arms above the head till the upper back and arms are slightly stretched. Hold for 5 seconds, then relax. Repeat 10 times



- ii. Both hands touch each other behind the back. Interlace finger with thumbs pointing downwards. Then raise arms till the chest and arms are slightly stretched. Hold for 5 seconds, then relax. Repeat 10 times



- iii. Keep back straight. Interlace fingers with palm facing out. Straighten the arms and reach forward till the upper back are slightly stretched. Hold 5 seconds, then relax. Repeat 10 times

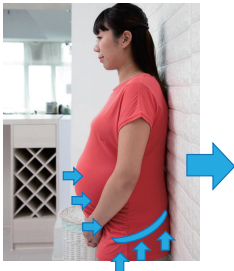


4. Lower back stretches

- i. Stand with the back and buttocks against a wall. Keep the feet shoulder's width apart
- ii. Lean your back and buttocks against a wall



- iii. Breathe naturally. Tighten abdomen to press the lower back against the wall



- iv. Hold for 5 seconds and relax
- v. Repeat 10 times

Pregnant women should stop the exercise if feeling unwell

Wear maternity belt and physiotherapy can reduce lower back pain, seek medical advice if condition get worse

(The information is prepared by the Department of Health and the physiotherapy department of Hospital Authority)

Haemorrhoid (Piles)

- As the uterus grows larger in later pregnancy, pelvic pressure increases and haemorrhoid may result.
- Pelvic pressure is even higher during vaginal delivery and the haemorrhoid may become bigger.
- Very often, the haemorrhoid will subside spontaneously a few months after delivery.

Tips

- Drink adequate fluid every day and consume a high fibre diet to avoid constipation.
- Apply local application to soothe the pain.
- Consult doctor if there is large amount of bleeding while opening the bowel.



Skin Problems

Itchy Rash

During pregnancy, the skin becomes more sensitive and sometimes itchy because of the hormonal changes. You may notice some tiny, slightly raised, red spots or slightly bigger wheals especially over your tummy, legs and buttock. In most cases, there is nothing to worry about and it would go away several weeks after delivery.

Tips

- Try not to scratch as this could worsen the itchiness and might cause skin infection
- Avoid showering with hot, steamy water, rubbing the towel against your skin and using excessive soap
- Wear loose, cotton clothing
- Apply adequate amount of moisturizers

If you have the following symptoms, you should seek medical advice immediately. It could be related to obstetric cholestasis or pregnancy complications.

- Vesicles
- Severe and persistent itching which might have affected sleep
- Fever, jaundice (yellowing of the whites of the eyes and skin), the colour of your urine darken, joint pain

Acne

You may have exacerbation of acne when you are pregnant due to the hormonal changes.

Tips

- Keep your skin clean
- Avoid eating hot and spicy food
- You should consult a doctor instead of using over-the-counter medications for worsening acne. Some acne medications could lead to malformation of your baby

Stretch Marks (Striae)

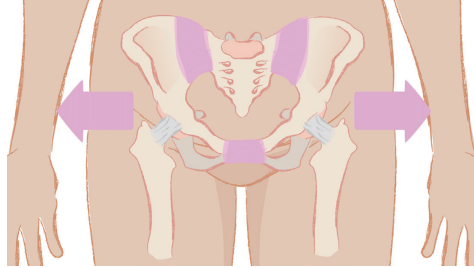
- Stretch marks are often the result of the rapid stretching of the skin. Many pregnant women develop striae during the second half of pregnancy, especially those bearing heavier baby or with multiple pregnancy.
- It commonly appears on the skin of tummy, thighs and breasts. Initially, it appears as pink; as the baby growth, it turns purple. After delivery, it gradually turns white. Yet, it might never disappear completely.



Tips

- Up till now, no cream is found to be effective in preventing striae completely.
- Keeping the skin well moisturised by applying lotion or olive oil helps to decrease the severity of striae.
- Striae will gradually fade after delivery. Postnatal exercise can help to tighten the skin in abdomen. (Please refer to “Postnatal Exercise” page 142-150)

Care for Pelvic Girdle Pain



Back pain and pelvic girdle pain are common in later stage of pregnancy.

Movements that will increase pelvic and pubic joint pain

Getting up from the seat	Rolling on the bed
walking	Walking up or downstairs
Standing on one leg	Squatting

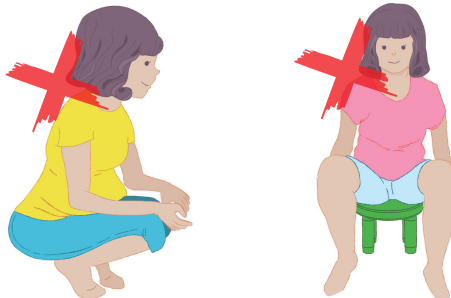
The pain is usually more severe during later stage of pregnancy and may persist after delivery

Causes

The hormonal changes cause the ligaments becoming stretchy. This makes sacroiliac joints (where the lower spine and pelvis connect) and pubic joint become loosen.

To reduce the pain, you should keep good postures and pay attention to your movements

1. Avoid separating your legs too far, such as squatting or sitting on a low stool



2. Avoid standing on one leg. Sit down when getting dressed, for example putting on shoes, socks and pants



3. Bearing weight on two legs unevenly, such as going up and downstairs or walking upslope, makes the pelvic pain worse

- To reduce the pain when going up and downstairs, take one step at a time and hold onto the handrails



- When going downstairs, first bend the knees. The more painful leg leads then the other leg follows to land on the same step



- To go upstairs, the less painful leg leads and then the other follows



4. Avoid lifting heavy objects if you have pelvic pain. Ask for assistance
(For more information about "Lifting a heavy object", please refer to p.84).

5. When turning in bed

- i. Keep legs together and bend knees



- ii. Rolling to side



- iii. To get out of bed, push yourself up with your arms to sitting position



- iv. When standing up, keep feet shoulder's width apart, put your hands on the thighs and lean forward



Practise pelvic floor muscles exercise and deep abdominal muscles exercises regularly. This helps to stabilize the pelvic joint and reduce pelvic and pubic bone pain

(The information is prepared by the Department of Health and the physiotherapy department of Hospital Authority)

Pre-eclampsia

This is an uncommon but serious complication that occurs during the second half of pregnancy or soon after baby is delivered.

Risk factor for developing Pre-eclampsia:

- Medical history of diabetes, hypertension or systemic lupus erythematosus
- Obstetric history of pre-eclampsia
- Family history of this condition
- Advanced maternal age
- Having been at least 10 years since your last pregnancy
- Multiple pregnancy
- Overweight



Apart from **oedema**, the pregnant woman may have **high blood pressure** (above 140/90mmHg) and **protein in urine**.

Other symptoms include:

- Bad headaches
- Vision problems such as blurred vision or lights flashing before the eyes
- Bad pain just below the ribs or vomiting

If you have the above symptoms and signs, you should seek urgent medical consultation for monitoring and treatment. It could lead to fits, liver, kidney and respiratory failure and bleeding problems. It is life-threatening if left untreated.

Prevention

- Adequate calcium intake and physical activity can prevent gestational hypertension (For more information about on calcium and physical activity, please refer to P.169 & P.184)
- However, if you have any signs or symptoms of pre-eclampsia, you should have bed rest instead of exercise!



Baby's Movements

Generally speaking, pregnant woman can feel her baby's movements starting about 18 to 24 weeks. For woman who has given birth before, she can feel this even earlier. As the baby grows, the movements will become more obvious and regular.



Pregnant woman won't feel small movements of her baby, such as thumb sucking or stretching of fingers and toes. She will feel kicking, rolling movements and perhaps hiccups (small rhythmic twitches) during the last trimester (after 28 weeks) of the pregnancy. All these movements are most obvious in the last months of pregnancy and should be felt up to the time she goes into labour. Some women may not feel their babies move as much as or as strong as other mothers do, even though their babies are doing well.

Should pregnant woman record kick counts?

Being aware of the baby's movements each day is a very good habit. However, there is no need to keep a written record of the baby's movements routinely. Before birth, babies have sleep and wake cycles similar to those of a newborn baby. All healthy babies will be quiet or asleep for short periods of time which usually last less than 90 minutes. You will feel movements best when you relax while lying or sitting. You will feel your baby's movements least while standing, walking or if you are busy with other things.



Points to Note

If you cannot feel the baby's movements by 24 weeks of gestation, you should consult a medical professional. Moreover, if you feel a decrease in the normal daily activity of your baby's movements during pregnancy, you should find a quiet place, lie on your side and concentrate on baby's movements. If you feel less than 10 baby's movements in two hours, you should consult your doctor or birthing hospital for further assessment immediately.

How to Deal With Painful or Itchy Vulva?

Genital skin is very sensitive and it is important to prevent it from getting irritated by chemicals or physical means. Consult a doctor as soon as possible if you feel itchy or burning pain over the vulval area. Do not use over-the-counter medications without seeing a doctor.

Vaginal Discharge

Almost all women have more vaginal discharge in pregnancy. It should be clear and white and should not smell unpleasant.

You should consult a doctor if you have the followings. You might have a vaginal infection.

- The discharge is coloured or with blood
- The discharge smells strange
- You feel itchy or sore



Hygiene

- Do not wash genitals excessively. Treat the skin of the genital areas very gently.
- Do not use douches.
- Do not use bubblebath or any perfumed creams, soaps or feminine hygiene products.
- Avoid getting shampoo on the vulval area.
- Plain water / saline can be used for cleaning and soothing the symptoms.
- Urinate before the bladder is full. After using the toilet, wipe from the vulva to the back. This may help to prevent the bacteria that normally live in your rectum from getting into your vagina. Rinse the vulva with water after urination.
- Use soft, white, unscented toilet paper.
- Use 100% cotton menstrual pads and tampons.

Clothing and Laundry

- Wear cotton underwear and loose fitting pants or skirts.
- Do not wear pantyhose (wear thigh or knee high stockings instead).
- Ensure the underwear and any clothing that come into contact with vulva is rinsed well.
- Do not use fabric softener on undergarments because the chemicals will stay in the fabric, causing irritation to the vulval skin.



Sexual Intercourse

- When the vulva is itchy, do not use lubricants or petroleum jelly.
- Avoid intercourse when there is pain in the genitals.
- Gently apply ice or frozen gel pack wrapped in a towel onto the vulval skin to relieve burning sensation, if any, after intercourse.
- Urinate to prevent infection and rinse the vulva with cool water immediately after intercourse.

Physical Activities

- Avoid exercise that put direct pressure on the vulva e.g. cycling.
- Gently apply a frozen gel pack wrapped in a towel onto the vulval skin to relieve symptoms after exercise.
- Don't swim in highly chlorinated swimming pools and avoid the use of hot tubs.
- Remove wet bathing suits and sports clothes promptly.

Everyday Living

- Use a foam rubber ring for long periods of sitting.
- Try to intersperse different positions with periods of standing.
- The sensation of genital area can be affected by emotion. Symptoms can appear worse at time of stress. Adequate rest, listening to soft music and performing stretching exercise can help to lessen the severity of vulval discomfort.

What is Vaginal Candidiasis Infection?

- Genital Candidiasis is common in women of childbearing age and it is caused by the overgrowth of a naturally occurring yeast-like fungus called *Candida albicans* in the genital area.
- Under normal conditions, small amount of *Candida* is always present in the vagina. If there is a change in the acidic environment of the vagina, there will be overgrowth of *Candida*, women may have a higher chance of getting vaginal candidiasis infection.
- Changes in the levels of female hormones during pregnancy, such as oestrogen, increase your chances of developing thrush.
- Factors other than pregnancy that can cause overgrowth of the *Candida* include:
 - You are using antibiotics.
 - You are suffering from diabetes mellitus.
 - Your immune system is weakened by an immunosuppressive condition, such as infection of Human Immunodeficiency Virus.

Is treatment necessary for Vaginal Candidiasis?

- Some women have vaginitis symptoms such as increase yellowish or cheesy vaginal discharge with vulva itchiness, vaginal soreness, or discomfort during sexual intercourse. In severe cases, the vulva, perineum and groin areas may have inflammation and lesions, accompanied by acute pain.
- If you have signs and symptoms of vaginal *Candida* infection, please seek advice from a General Outpatient Clinic or private doctor. After consultation, please follow your doctor's instructions for the appropriate medication such as vaginal pessaries, topical cream or oral medication.
- It can recur after treatment.
- Please refer to "How to deal with painful or itchy vulva" for the suggestions to prevent vaginal candidiasis.

Does my partner need any treatment?

- There is no evidence to support treatment of asymptomatic partners.
- If your partner becomes symptomatic at the same time, you should both undergo treatment in order to prevent cross infection.

Antenatal and Postnatal Mental Health

Importance of antenatal and postnatal mental health

Emotional problems during the antenatal or postnatal period would affect mothers' mental state, daily functioning, work performance, marital relationship and baby's development.

During pregnancy, mothers suffering from depression could have a higher risk of miscarriage and premature delivery. Research findings suggested that when mothers had depressive or anxiety symptoms during their pregnancy, they would have a much higher risk of having postnatal depression. Their infants tend to show more emotional and behavioral problems too.



After delivery, because of the hormonal changes, role change, challenges in baby care and family problems, mothers could have a higher risk of suffering from mood disorders. Postnatal depression could affect mothers' ability in taking care of their baby and have impact on infants' physical health, cognitive development as well as emotional and behavioural development. The partners of mothers with postnatal depression may also have a higher risk of emotional disturbance. Thus, it is very important to take care of the mental health of women during the antenatal and postnatal periods.



Emotional disturbances can happen in antenatal period

Getting pregnant brings a lot of excitement to the family. However, pregnant women experience a lot of physical changes and discomfort. Their lifestyle may have to be adjusted. Some pregnant women may have a lot of worries about the foetal development, the pain during childbirth or the childcare arrangement



after delivery, all of which may affect the mood of the mothers. Therefore, different emotions during pregnancy, which include anxiety, helplessness and irritability, etc. could not be overlooked.

Research findings suggested that some factors were related to antenatal anxiety and depression, such as self-esteem of the mother, her marital relationship, in-law relationship and social support.

Major risk factors of postnatal depression

The exact causes of postnatal depression are unknown. Research findings indicated that the factors listed in the table below correlated with an increasing risk of postnatal depression:

Clinical Factors	Psychosocial Factors	Obstetric- and baby-related factors
<ul style="list-style-type: none"> • Previous psychiatric conditions which include depressive and anxiety disorders • Antenatal depression or anxiety 	<ul style="list-style-type: none"> • Anxiety-prone personality • Lack of social support • Poor marital / in-law relationship • Domestic violence • Financial difficulties • Stressful life events 	<ul style="list-style-type: none"> • Previous miscarriage / difficulties in conception • Unplanned pregnancy • Antenatal and postnatal complications • Emergency caesarean section • Baby born with congenital diseases/ premature birth

Postnatal mood problems

There are three main categories of postnatal mood problems: (1) postnatal blues, (2) postnatal depression and (3) postnatal psychosis, each of which differs in its prevalence, clinical presentation, level of severity and management.

(1) Postnatal Blues

- It affects about 40% - 80% of postnatal women
- It is a transient state characterized by mood swings, tearfulness, troubled sleeping and irritability etc. The symptoms usually occur around day 3 to day 5 after childbirth
- The symptoms are relatively mild and often can be settled spontaneously within days

(2) Postnatal Depression

- It affects about 13% - 19% of postnatal women
- Symptoms are similar to a depressive disorder. The onset is usually within 6 weeks but can also occur anytime within first year after childbirth
- Most of the mothers with postnatal depression will recover if they are identified early with appropriate treatment and support from the family

(3) Postnatal Psychosis

- It affects about 0.1% - 0.5% of postnatal women
- Prominent features include hearing non-existing voices, bizarre thoughts of being harmed by others and ideas of harming self or baby. Symptoms usually occur within 14 days after childbirth
- This is a psychiatric emergency. Urgent referral to a psychiatrist or attending Accident and Emergency Department of hospital is necessary

Early identification of postnatal depression

Major symptoms of postnatal depression include:

- Persistent low mood, such as feeling depressed and sad, crying without reason or in deep sorrow
- Loss of interest in almost all activities (even lose interest in her child)
- Disturbance in appetite
- Sleep problems like difficulty to fall asleep or early awakening
- Fatigue or loss of energy for most of the time
- Difficult to concentrate or make decision
- Feeling guilty, worthless and hopeless
- Excessive worries and irritability



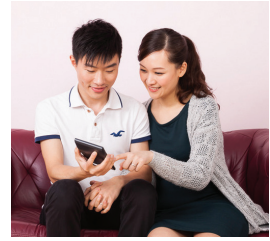
Should the above symptoms persist for 2 weeks or more and significantly affect the woman's daily functioning, seek professional help as soon as possible.



Tips on prevention

- Adequate preparation and arrangements before pregnancy, including financial and psychological aspects etc.
- Minimize major life changes, such as job changing or moving to a new home; if they are inevitable, prioritize accordingly.
- Accept limitations in physical condition or ability, and avoid worn out.
- Have realistic expectations for parenthood to help adjustment to life after delivery.
- Learn more about pregnancy, childbirth and childcare through various means, e.g. joining childcare and parenting workshops and participating in relevant talks arranged by organizations in the communities.
- Cultivate effective communication with the partner and other family members to improve understanding and support. Continue to show your love, respect and support despite disagreement; be open during negotiation to come up with mutually acceptable solution.
- Have more experience sharing with other parents and acquire more social support.
- Get enough rest and sleep, e.g. arranging appropriate person to help with household and childcare after childbirth.
- Spare some time for leisure and relaxing activities, e.g. going for a walk, doing relaxation exercise or calling friends, based on your preference.
- Maintain a healthy diet. Do not smoke and avoid beverages containing alcohol.
- Appreciate yourself, particularly your effort paid.

(You may refer to leaflet "How Postpartum Mothers Cope with Stress?" on P.159 for more information)



Ways to seek help

- ✓ Consult a family doctor or an obstetrician for preliminary assessment and management, and if necessary, referral to specialist services.
- ✓ See a psychiatrist or clinical psychologist in private sectors for professional assessment and treatment.
- ✓ See a social worker or counselor for assessment and referral.
- ✓ Should mothers suffer from postnatal mood problems, they could contact the Maternal and Child Health Centre in their residential area to make appointment with nurses for initial assessment and referral to suitable services.

Counseling services / hotlines

24 hour Hospital Authority Psychiatric Hotline	2466 7350
Social Welfare Department 24-Hour Hotline	2343 2255
Suicide Prevention Services	2382 0000
The Samaritan Befrienders Hong Kong	2389 2222

Others

Department of Health:	
Family Health Service 24-Hour Information Hotline	2112 9900
Family Health Service Breastfeeding Hotline	3618 7450
Health Education Infoline	2833 0111
Family Health Service Website	www.fhs.gov.hk
Primary Care Directory	www.pcdirectory.gov.hk
(You can find a family doctor that suits your needs using the Directory)	

Healthy Sex Life Before & After Childbirth

Can sex life go on during pregnancy? Will the foetus be affected?

- Being affected by nausea and/or vomiting during early pregnancy, the growing belly and the misconception that sexual activities affect the foetus, sex desire of the expectant mother may be suppressed.
- Unless signs of miscarriage show up in the first trimester or placenta praevia (means placenta lying in the lower part of the uterus) is diagnosed in the mid or late trimesters, sexual intercourse will not increase the chance of miscarriage. An expectant mother can continue with her sex life. The process of intercourse does not affect the foetus if overly vigorous gestures and pressure on the abdomen are avoided.
- Distending pain in the lower abdomen, vaginal bleeding or leakage of amniotic fluid are abnormal signs during sexual intercourse. If any of these occur, sexual activities have to be stopped immediately and medical consultation should be sought as soon as possible.
- From 36th week of pregnancy onwards, vaginal intercourse is undesirable due to the risk of premature rupture of membrane.

What postures can be used for sex life during pregnancy?

- During early pregnancy, all postures can be adopted (see diagrams).
- When an expectant mother reaches her second trimester, with a growing and protruding belly, she should pay attention not to have her abdomen under pressure or gestures that are too vigorous. Postures suitable to use include face side-by-side, kneeling back as well as face-to-face sit-up.
- In late gestation, rear entry can be adopted and partner should show his care and affection as support.
- Apart from lovemaking, the couple can attain sexual satisfaction and physical pleasure by other means such as cuddling, caressing and kissing.
- Use of condom during intercourse can reduce the chance of contracting sexually transmitted diseases.

Safe posture for gestation

Posture for early gestation

Normal position:
Man supports his body with
his arms



Stretching position:
Avoid deep penetration and
pressure on woman's belly

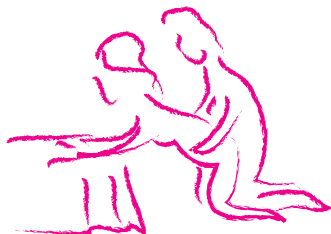


Posture for mid gestation

Face side-by-side
position:
Shallow penetration,
no pressure on
woman's belly



Kneeling back position:
No pressure on
woman's belly, man can
control the depth of
penetration



Face-to-face sit-up
position:
Woman can control the
depth of penetration



Posture for late gestation

Back side-by-side
position:
Shallow penetration, no
pressure on woman's belly



Caressing the head
& neck



Massaging man's
genitalia



When can sex life be resumed after delivery?


- After giving birth, the body needs some time to revert back to pre-pregnancy state. This period, called puerperium, generally lasts for 6 weeks.
- When puerperium is over, lochia will clear, uterus will return to its natural size, uterine lining will recover, cervix will close, vaginal membrane will return to normal and wound on abdomen or perineum will be healed. At this time, sex life can be resumed if the mother is emotionally and physically ready.

What should be noted in resuming sexual intercourse?

- When resuming sexual intercourse after delivery, the mother will sometimes experience dryness in her vagina as well as mild pain or strange feeling at the perineum. The reasons are mostly psychological. She can get use to it gradually after a few times of intercourse and these discomforts will fade away naturally.
- Overly vigorous gestures and deep penetration at the early resumption of sex life should be avoided. Priority should be given to what feels good for the mother.
- Medical examination should be sought if there is bleeding, pain or difficulties during intercourse.

Will the wound be ripped apart by sexual activities after delivery?

- Generally speaking, the perineal wound will be healed after the puerperium. Therefore sexual intercourse will not result in wound gaping.

- 
- Obstetric departments of HA run regular antenatal exercise classes; pregnant women may contact MCHC or HA for details
 - Some obstetric departments of HA offer accompany labour, please contact your obstetric hospital for arrangement

Late Pregnancy

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Points to Note

Prevention of Neonatal Group B Streptococcus Infection

What is Group B Streptococcus?

Group B Streptococcus (GBS) is a type of bacteria which normally lives in the intestine, urinary and reproductive tracts of men and women. It can be found in 10-30% of pregnant women's vagina or rectum. Most pregnant women who are colonised with GBS have no symptoms or health effects. A small number may develop urinary tract infection caused by GBS. It is not a sexually transmitted disease.

How does GBS infection affect the baby?

The most serious health effect of GBS is that a woman colonised with GBS late in her pregnancy can pass it to her baby. It is the commonest cause of severe early onset infection in newborn infants with high rate of illness and death (5-10%). In Hong Kong, the incidence of early onset GBS infection in newborn is around 1.0 per 1000 births. Baby may have early or late-onset of GBS infection.

For early-onset GBS infection, the signs and symptoms usually occur within hours of delivery. These include:

- Breathing problems, heart and blood pressure instability
- Gastrointestinal and kidney's problems
- Lung infection, blood infection and meningitis are the most common

For late-onset GBS infection, the signs and symptoms occur within a week or a few months of delivery. Meningitis is the most common symptom. However, late-onset GBS is not as common as early-onset.

How can I find out if I have GBS?

The Hospital Authority antenatal clinic and Maternal and Child Health Centre of the Department of Health will provide GBS screening for all eligible and pregnant women. This screening is done between 35 and 37 week of pregnancy. **The test involves a swab of both the vagina and the rectum.** The procedure is quick and should not be painful. The sample is then taken to the laboratory where a culture is analysed for any presence of GBS. A woman may test positive at certain times and not at others as the bacteria can be present in your body on and off. Therefore it is preferred to perform the test between 35 to 37 weeks, which is the time closest to your delivery.

Non-eligible pregnant women can undergo screening either in a HA clinic (with extra charge), in private sector or in Mainland China.

What if I test positive for GBS? How can my baby be protected from infection?

Not every baby who is born to a mother with a positive test for GBS will become ill. Around one of every 100 to 200 babies whose mothers carry GBS will have signs and symptoms of infection.

If you are test positive for GBS, we recommend giving you intravenous injection of antibiotics during delivery which can greatly reduce the chance of your baby becoming sick.

For GBS carriers, taking antibiotics before labour starts is not an effective way to get rid of the bacteria. As they naturally live in the intestine, the bacteria can come back after the antibiotic treatment. The most effective way to prevent baby's infection is to give the antibiotic during labour.

Is GBS screening recommended for every pregnant woman?

In certain conditions, the baby would have a higher risk of infection. These include:

- Previous baby affected by GBS infection
- Mother has urinary tract infection due to GBS during pregnancy
- GBS colonisation before 35 weeks

Under these conditions, we recommend injection of antibiotic during labour and screening is not necessary.

Is there any other condition that I need antibiotic injection for prevention of GBS infection in my baby?

In case your GBS status is unknown and if any of the following condition is present, we recommend you to have antibiotic during labour. The conditions include:

- Gestation less than 37 weeks
- Maternal fever with temperature equal to or higher than 38°C
- Water broken for more than 18 hours

Would the antibiotic injection cause any side effect for me?

We would check against your allergic history before giving you the appropriate antibiotic. You are reminded to report any signs of allergy such as skin rash, swelling or difficulty in breathing. The chance of severe allergic reaction causing life-threatening situation is very low.

Can my baby's infection be totally prevented if I receive antibiotic during labour?

Although antibiotic treatment during labour helps to prevent early-onset GBS infection, it is not 100% and does not always prevent late-onset GBS infection. Babies may pick up GBS from people they come in contact with or through other means.

Does my baby need treatment after birth if I am a GBS carrier?

Your baby will be under the paediatrician's care after birth. Whether the baby needs any antibiotic treatment depends on a number of factors, including:

- Any sign of infection of the baby?
- Is the baby born at term?
- How much antibiotics you have received before birth of the baby?

Paediatrician will decide individually base on the investigations or treatment that the baby needs.

(This leaflet is prepared by the Department of Health and the Hospital Authority)

FHS-MH125A (Rev. Feb 2013)

Foetal Development in Late Pregnancy

Late pregnancy

29–36 weeks of pregnancy

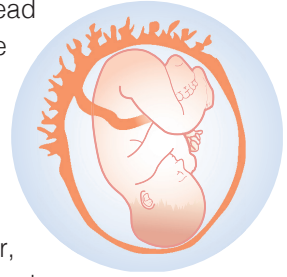
As your baby grows, there is less space for your lungs and you may feel breathless. Leg cramps at night are common, and you may find it difficult to sleep. You may also note you need to pass urine a lot. You will feel more backache as the foetus grew and compressed on your spine and pelvis.

Your baby continues to be very active with stretching and kicking movements and they may have hiccup. She/he gains weight very quickly. The different regions of the brain are forming.

Your baby's bone continue to be harden, but the skull remains soft and flexible for delivery. Taste buds develop, and the foetus can taste sweet and sour. They can open and close their eyes and sense changes in light.



By 35 weeks, the baby is usually lying with his/her head downwards, in preparation for birth. The lungs are maturing and getting ready to function outside the uterus at 36 weeks.

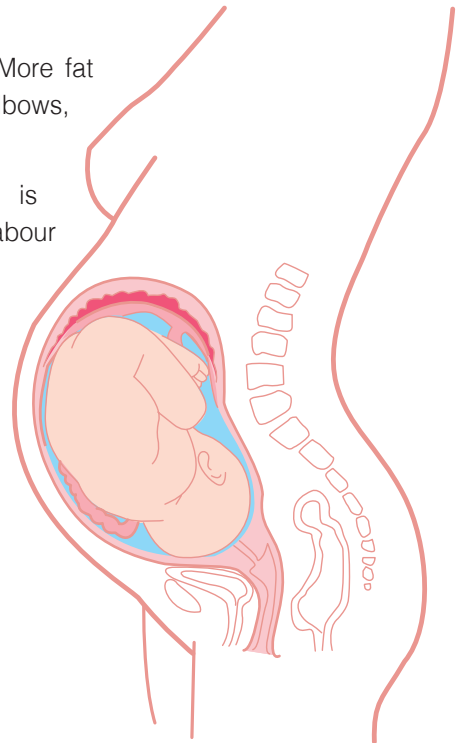


You may feel irregular tightening over your womb—known as Braxton-Hicks contraction, which is normal part of pregnancy. However, if you feel more frequent, regular, painful contractions or other associated signs of labour (such as show or leaking), you should consult your doctor or go to the hospital.

37–40 weeks of pregnancy

The foetus drops lower into the pelvis. More fat accumulates, especially around the elbows, knees, and shoulders.

From 37 weeks onwards, your baby is considered fully matured (full term) and labour contractions can begin at any time.



Minor Ailments in Late Pregnancy and Their Management

Oedema

- The rapidly rising oestrogen level during pregnancy causes water retention. As a result of gravity, most of the water accumulates in the legs. About 80% of the pregnant women have ankle swelling (oedema).
- After delivery, oestrogen level returns to normal, the accumulated water would be excreted from the body.
- If you develop ankle, hand or facial swelling suddenly or the swelling worsen rapidly, say within a few days, this might be a sign of pre-eclampsia (please refer to P.94). You should see a doctor immediately.

Tips

- Wear comfortable shoes of a slightly bigger size than that before pregnancy.
- Elevate the legs comfortably on a footstool or pillows while resting.
- Avoid taking diuretics because these medications will lower your blood pressure. The placental blood flow will be decreased and the oxygen and nutrient supply to the foetus will be impaired.



Frequent Urination

- This is the result of increase in blood flow to kidneys by 50% during pregnancy and the relaxation effect of progesterone on smooth muscle of the urinary tract.
- Besides, the urinary tract of the pregnant woman is more susceptible to infection. Urinary tract infection may lead to nephritis and preterm delivery if not treated properly. If you have frequent urination and pain while passing urine or you pass any blood, you should seek medical advice early.
- As uterus becomes larger in late pregnancy, the urinary bladder will be under pressure and causes frequency in urination.



Tips

- You should never restrict fluid intake because this might increase the chance of urinary tract infection.
- In case you have a urinary tract infection, you should take a course of antibiotics according to the doctor's instructions.
- If you have recurrent or persistent urinary tract infection, you should seek medical consultation early. This could be related to underlying anatomical problem of the urinary tract or kidneys.

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Preparation for Parenthood

1) Preparation for Parenthood

Your baby will be arriving soon. As an expectant parent, you are probably busy getting baby items ready, such as a crib, baby clothing and a bath tub. Meanwhile, it is also important to be psychologically prepared. Have you taken time to think about all the upcoming changes?

Some people believe that they will know how to be a parent when they have children. Some want to be a perfect parent but do not know where to start. In fact, most parents nowadays have to cater both work and child-caring. Our society also expects our children to be able to pursue academics and other talents at the same time. It is never easy to fulfil the roles of parents nowadays and support our children in developing their potentials in this diverse society. This leaflet helps you understand the challenges ahead and get prepared for your new role as a parent.



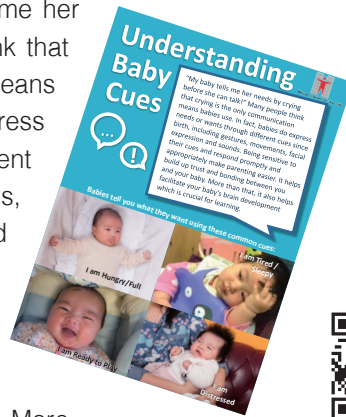
2) Responsive Care - Bonding with Your Baby

Both parents and caregivers play an important role in baby's growth and development. Caregivers learn to observe baby's cues and respond promptly as early as possible in order to bond with the baby and build a close parent-child relationship. Besides, pay attention to tips for parents on childcare arrangements to foster the baby's sense of security. For details please refer to "Responsive Care Bonding with Your Baby" <http://s.fhs.gov.hk/3sicq>



3) Understanding Baby Cues

“Before she can talk, my baby tells me her needs by crying!” Many people think that crying is the only communication means babies use. In fact, babies do express needs or wants through different cues since birth, including gestures, movements, facial expression and sounds. Being sensitive to their cues and respond promptly and appropriately make parenting easier. It helps develop trust and bonding between you and your baby. More than that, it also helps facilitate your baby’s brain development which is crucial for learning. Please refer to the leaflet “Understanding Baby Cues” for details.



Prepare the Bag for Delivery

When the due date is approaching, you are recommended to pack everything you need for delivery in a bag in case you need to go to the labour room in a hurry.

What to put in the bag:

For the mother: a cup, toiletries, slippers, maternity pads, mesh pants, absorptive underpad, nursing bra and antenatal record

For the baby: new-born diapers and cotton wool



Remember to bring



Breastfeeding

Breastmilk is the natural food for your baby. The longer the babies are fed on breastmilk, the greater the health benefits for mothers and babies. According to the World Health Organization's (WHO's) recommendation, babies should be breastfed exclusively in the first six months and continue to have breastmilk together with solid food in their diet up to 2 years old or beyond.



The Benefits of Breastfeeding

- Breastmilk provides all the essential nutrients that the baby's needs in the first 6 months of life
- Breastmilk contains many antibodies and immune cells, which help to enhance the immunity of the baby, and reduce the chance of having allergic conditions and infections
- During breastfeeding, the close and intimate contact between the mother and baby greatly enhances the baby's brain development and mother-infant bonding
- Breastfeeding is more hygienic, convenient, economical and environmentally friendly than formula milk feeding

How to Start

1) Preparation During Pregnancy

- Learn more about breastfeeding from various means
- Discuss with medical staff and family members about your decision to feed your baby
- Participate in antenatal discussion and online talks on “**Feeding and Caring for Your Baby**” conducted by Maternal and Child Health Centre and antenatal breastfeeding talk/workshop conducted by your hospital
- Learn about community breastfeeding support services, such as the Breastfeeding Peer Support Scheme, the website of the “Baby Friendly Hospital Initiative Hong Kong Association”, etc

2) Grasp the “Golden Hour” of Skin-to-skin Contact

- Put your baby to your chest after drying his body with a towel immediately after birth. This allows direct skin-to-skin contact and facilitates him to find your breasts and enjoy the first taste of the colostrum
- Skin-to-skin contact provides the baby with warmth and beneficial flora, and stabilises the heartbeat and breathing. It also enhances the close relationship between you and your baby

3) Start effective breastfeeding as early as possible

- Offer your breast according to the baby needs, this allows both you and baby to learn effective “direct breastfeeding” before milk “comes-in”
- Approach health professionals in postnatal ward and Maternal & Child Health Centre for breastfeeding coaching

Tips of Success

1) Rooming In

- Keep your baby close in a cot day and night by the side of your bed, so you can observe and respond to his needs readily

2) Feed Responsively

- Feed your baby when she shows early hunger cues, and ensure she passes abundant urine and stools

3) Family Support

- Research shows that 8.5 times more mothers are able to continue breastfeeding for six weeks, with support from their partners and families than those who do not

4) Seek Help

- Seek help from health professionals and community breastfeeding support services when you are in doubt

When you consider feeding your baby with formula milk, you should be aware of the following:

- Formula milk does not provide babies with any antibodies. Powdered infant formula is not a sterile product. Inappropriate preparation and handling may put the baby's health at risk
- Infant formula is costly. Parents need to spend a considerable sum on the milk powder
- Your body will make less breastmilk once you start to feed your baby with formula milk. You may find it difficult to switch back to breastfeeding

Please read “Love♥Starts from breastfeeding” booklet or contact health professionals for more information.

Preparation for Your Newborn

It is understandable that first-time parents can feel anxious on taking up a new role. Do allow more time to prepare for the new arrival. You may want to consult experienced relatives or health professionals who can help you adjust to your new role as parent.

I. Get Ready Before the Due Date

1) Baby's Clothing

- Clothes made of 100% cotton can prevent skin allergy.
- Woollen underwear is better worn between cotton clothes.
- Clothes in simple style with loose collars and sleeves are preferable.
- Shoes are not necessary and socks are good enough to keep the baby warm.
- Have several large towels ready for wrapping the baby after bath and during sleep.
- Have cloth nappies or disposable nappies ready.



2) Baby Crib

- Choose a crib that meets safety standard:
 - The distance between the bars should be less than 6 cm;
 - The mattress should fit snugly within the crib;
 - Top of the crib rail should be at least 60 cm from the top of the mattress;
 - The crib should be finished with unleaded paint;
 - The boards should be solid and smooth with no cutouts.
- Babies do not need pillows. Do not place fluffy comforters, heavy blankets, stuffed toys in the crib with an infant. These can cause smothering.
- Never leave your baby unattended in the crib with the side-rail lowered. Make sure the side-rail is locked and cannot be accidentally released before you leave.

3) Baby Stroller

- Be sure that the stroller has brakes.
- Do not hang bags on the handles of the stroller.
- Use seat belt and harness to strap the baby in the stroller properly.



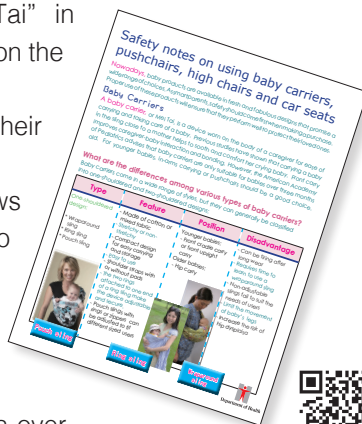
4) Baby Car Seat

- Use a baby car seat that meets safety standard when driving with your baby. Follow the manufacturer's instructions carefully when installing a car seat. Once the baby is in the harness, adjust the straps so that they fit snugly.



5) Baby Carrier

- Baby carrier, also called “Mei Tai” in Cantonese, is used to carry a child on the body of caregiver.
- Babies who were held more by their caregivers, they cried less.
- By carrying the children in front allows the caregivers and the children to communicate interactively and increases their bonding.
- The American Academy of Pediatrics advises that front carriers are only suitable for babies over three months old.
- For younger babies, parents can hold them, use the newborn baby carrier or strollers when going out.



II. Learn About General Baby Care

1) Feeding

- When the baby cries, or sucks hastily, air will be swallowed and gathered in the stomach. Small amount of milk may spit up with air from the stomach after feeding.
- To decrease spitting up, you can try to:
 - increase the frequency of burping;
 - hold the baby upright for 10 to 20 minutes before putting her down on bed;
 - avoid feeding the baby when she is too hungry or overfeeding her.
- Hiccup is normal and common and will be gone after a while. Burping helps. Let the baby feed on the breast for a longer while or feed the baby (if on bottle feeding) with small amounts of water may stop the hiccup.

2) Pees and Poos

- Stool passed out in the first few days of life is dark green in colour and is called meconium.
- Breastfed babies pass loose yellow stool more frequently than formula-fed babies, sometimes after every feed. As they get older, they may pass stool on alternate days or once every few days. It is normal as long as the stool is soft and wet.
- Formula-fed babies pass soft green, yellow or greenish yellow stool more regularly and in larger amount than breastfed babies.
- When the baby has diarrhoea, she will pass frequent and watery stool. There may be blood or mucus in the stool. Keep the nappy and bring the baby to the doctor as soon as possible.
- When the baby has constipation, the stool will look dry and hard. Check if the milk is prepared with correct proportion of water and powder; or if the baby is too hot and sweating too much. If the condition persists, bring the baby to the doctor. Do not use medication of any kind without consulting the doctor.

3) Cleaning

Baby bath time

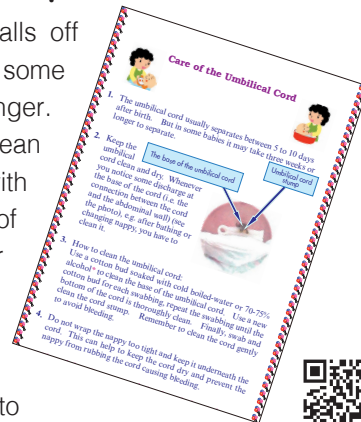
Bathing baby is a basic task for every parent. To better prepare you for the task and to make the bath time easier, you can view the video “Baby bath time”. Remember it is important to support your baby’s head and neck during bath time.

Cleaning baby’s face

Clean your baby’s face with water only because baby’s skin is very sensitive. You can start by cleaning the eyes first. Dip a cotton ball in cool boiled water and squeeze out the excessive water. Gently wipe from the inner to the outer corner of your baby’s eye. Use a new cotton ball for each wipe. For details, you can view the video “How to clean your baby’s eyes”. To clean your baby’s nose, you can wipe gently around the nostrils. Wipe the outer ear surface and behind the ears. Do not put anything inside your baby’s nostrils or ear canals because it may cause damage to them. Lastly, you can gently clean the rest of your baby’s face. Do not miss out cleaning the skin folds of his neck and chin.

Cleaning the umbilical cord stump

The umbilical cord stump usually falls off between 5 to 10 days after birth. In some babies it may take 3 weeks or longer. Parents need to keep the stump clean and dry. Use a cotton bud soaked with cool boiled water to clean the base of the umbilical cord stump. Remember to clean it gently to avoid bleeding. Do not use any dressing to cover the umbilicus (belly button) or apply any medication. Please refer to the leaflet “Care of the Umbilical Cord” for details.



Preventing Nappy Rash

Clean the buttocks with wet soft cloth every time you change the nappy. Keep the buttocks dry. Applying a thin layer of petroleum jelly may help prevent nappy rash. In case there is nappy rash, exposing the buttocks in air as long as possible (10-15 minutes) before wrapping the nappy can help the skin heal. If condition becomes severe, consult the doctor.

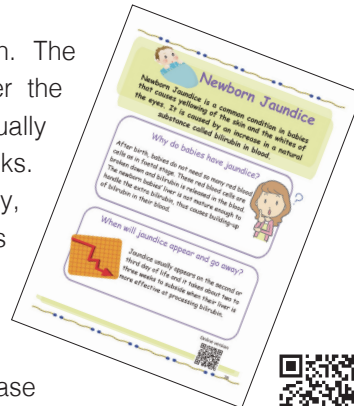


4) Home Environment

- Keep windows open and maintain a comfortable room temperature.
- Keep your home clean. Avoid using carpet.

5) Neonatal Jaundice

This is a normal physiological condition. The baby's skin looks lemony yellow after the first few days of life. This condition usually resolves without treatment in 1-2 weeks. If the bilirubin level rises persistently, treatment will be required. Parents should bring their babies to the Maternal and Child Health Centre or family doctor for assessment soon after discharged from hospital. Please refer to the leaflet "Newborn Jaundice" for details.



6) Safe Sleep Sweet Dreams

We all wish our baby could sleep tight. It is essential to keep sleep safety in mind and create a safe sleeping environment for her, so that you both can share a sound sleep. Taking appropriate precautions can reduce sleep-related accidents and the risk of SIDS. Please refer to the leaflet “Safe Sleep Sweet Dreams” for details.



7) Prevention of Infection

- Keep the living environment clean and avoid going to crowded area.
- Bathe the baby everyday and clean the umbilical cord.
- Wash hands before and after touching the baby.
- Bring the baby to the Maternal and Child Health Centre or family doctor for vaccination according to the recommended immunisation schedule.

8) Others

- Newborns' neck muscles have not fully developed yet. Always remember to support the baby's neck with your arm or palm when holding the baby.
- Babies have different sleeping patterns. Her sleeping pattern will become more regular with time.
- The baby expresses her needs by crying. You should observe the reason for her crying and respond immediately. When the baby feels safe and enjoys the tender loving care, bonding between she and you can be established.

If you want to learn more about child care and parenting. Please refer to the “Happy Parenting” series distributed by Maternal and Child Health Centres.

Providing a Safe Environment for Your Baby

While you are busy preparing for your baby's arrival or taking care of your newborn, have you ever thought of your baby's safety? Here are some simple but important tips to help you set up a safe home environment for your baby.

Sleep

1. Place your baby on her back to sleep
2. It would be best for your baby to sleep in a cot
3. If you need to share bed with your baby, place him in a basket and give him a separate blanket
4. Adults should not take alcohol or drug if they share bed with the baby
5. Do not sleep with your baby on sofa
6. Put your baby to sleep in light and comfortable wear
7. Baby's face and arms should not be covered by blanket
8. Do not put any items (other than beddings) in your baby's bed
9. Do not place your baby to sleep on soft and fluffy objects like quilt, soft pillow, sheepskin or bean bag
10. Keep baby's sleeping area well-ventilated with a comfortable temperature
11. Provide a smoke-free environment to your baby
12. The distance between the vertical bars of the baby cot should be less than 6 cm (2.5 inches)
13. The mattress should be well fitted with the baby cot without any gaps
14. Never leave your baby alone on the bed or sofa without guards
15. Buckle the safety straps and keep the wheels locked when you put your baby in a stroller
16. Front baby carriers are not recommended for babies under 3 months

Bathing

1. Use a baby bath basin for bathing your baby
2. Put cold water in before hot water and test the water temperature with your elbow when preparing to bathe your baby

Feeding

1. Breastfeeding is known to protect against sudden infant death syndrome
2. If formula milk is used, only infant formula is suitable for babies younger than 6 months
3. All feeding equipment (including feeding bottles, teats, tongs) are sterilised before use
4. It is best to make up a fresh feed each time
5. Do not reheat milk in a microwave oven
6. Check the milk temperature before feeding the baby (including formula milk or warmed breastmilk)
7. Never pop up the bottle or leave your baby alone during feeding
8. Keep your baby away from hot water at all times

To know more about Home Safety information, please visit the “Child Health Home Safety” webpage <http://s.fhs.gov.hk/74rnt>

Online Version



Watch Video



Post Delivery

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Health Advice

Postnatal Care and Family Planning

After giving birth, the body system of women will revert to the pre-pregnant state. This period usually lasts for 6 weeks and is called puerperium. Proper care is important during this period. A postnatal check up should be carried out after the puerperium to ensure complete recovery. Moreover, this is now high time for a couple to discuss the method of contraception for family planning in order to achieve a good foundation for the future family life.

What is lochia?

Uterus will revert back to pre-pregnant size after delivery. The wasted tissue passes out from the vagina is called lochia.

- In the first few days to 1 week, lochia amount is heavy and appears as reddish colour.
- The colour of lochia will turn to pink colour and last for another week.
- Finally it will turn to a whitish discharge and gradually subside.
- Usually it takes 2 to 6 weeks to clear from lochia.
- Breastfeeding can stimulate the brain to secrete more hormone that helps the uterus to contract and revert back to normal size. The period of lochia passing will be shortened. However, for those who breastfeed their babies just briefly, after they stop breastfeeding, the lochia may change from pink or white back to red colour before it gradually subsides.



When should one consult a doctor?

If the amount of lochia increases and with foul smelling, or there is fever and lower abdominal pain, then a doctor should be consulted for proper examination and management.

When will menses return?

- It will usually return in 4-6 weeks for mothers not breastfeeding. For mothers who breastfeed their babies, menses will return later.
- Even when menses has not yet returned, the couple should practise reliable contraception when they resume sexual intercourse.



Why do I have frequent urination and burning pain during urination?

Frequent urination or burning / scalding pain during urination can be symptoms of urinary tract infection, which is not uncommon among postnatal women. Please consult a doctor if you have any of these symptoms.

Why is there excessive hair loss?

- During pregnancy, much scalp hair is in the growing phase. After delivery, the condition changes and the hair will revert into resting phase. Thus apparently much hair is lost.
- This condition lasts for 4 to 20 weeks after delivery. It will recover completely within 6 months of delivery without any treatment. Therefore no need to worry.
- Hair loss will be less marked with successive pregnancies.

What is the dietary advice after delivery?

- One should keep a balanced diet and choose food from the five basic food groups namely milk and alternatives, meat, fish, eggs and alternatives (including beans), vegetables, fruits and grains (rice, noodles and bread). Adequate portions from these five basic food groups will allow the mothers to recover from delivery and prepare her for lactation.
- Since the liver function of the newborn babies may be immature, breastfeeding mothers should avoid consuming any medication without doctors' advice.



How to take care of the perineal wound?

- Clean the wound every time after urination and bowel opening with shower.
- Frequent change of napkin and maintenance of personal hygiene can speed up the recovery of the wound.
- If the wound opens up or there are signs of infection, consult the doctor.

How to take care of the abdominal wound?

- If there is no sign of gaping or infection after the stitches are removed, then one can bathe and shower as usual.
- If the wound is red, swollen, hot, aches, or has fluid oozing out, one should consult the doctor for proper examination and management without delay.



When can sex life be resumed after delivery?

- After giving birth, the body needs some time to revert back to pre-pregnancy state. This period, called puerperium, generally lasts for 6 weeks.
- When puerperium is over, lochia will clear, uterus will return to its natural size, uterine lining will recover, cervix will close, vaginal membrane will return to normal and wound on abdomen or perineum will be healed. At this time, sex life can be resumed if the mother is emotionally and physically ready.

What should be noted in resuming sexual intercourse?

- When resuming sexual intercourse after delivery, the mother will sometimes experience dryness in her vagina as well as mild pain or strange feeling at the perineum. The reasons are mostly psychological. She can get used to it gradually after a few times of intercourse and these discomforts will fade away naturally.
- Overly vigorous gestures and deep penetration at the early resumption of sex life should be avoided. Priority should be given to what feels good for the mother.
- Medical examination should be sought if there is bleeding, pain or difficulties during intercourse.



Will the wound be ripped apart by sexual activities after delivery?

Generally speaking, the perineal wound will be healed after the puerperium. Therefore sexual intercourse will not result in wound gaping.

When should contraception be used?

Although ovulation usually will not occur in the first 4 weeks after delivery, in order to avoid pregnancy, couple should use reliable contraception once they resume sexual intercourse. Maternal & Child Health Centres provide professional contraceptive advice to women.

Contraceptive Knowledge Everybody Should Know

Hormonal Methods:

Hormonal methods are suitable for most women to use. Clients should consult a health care professional before commencing any of these methods.

Pills

How it works

- Contain hormones, act by suppressing ovulation
- There are 2 main types:-
 - (i) combined type contains both estrogen and progestogen
 - (ii) progestogen only



How you use it

- Take the pills at the same time every day

Helpful Tips

- Contraceptive effectiveness: Effective to very effective (93 - 99.7%)*
- Common side effects: May have nausea, breast tenderness and change of your periods, i.e. irregular, increase or decrease in menses

Injectable

How it works

- Contain hormones, act by suppressing ovulation
- There are 2 main types:-
 - (i) combined type contains both estrogen and progestogen
 - (ii) progestogen only



How you use it

- For combined injectable, you need to have a shot every 1 month
- For progestogen only injectable, you need to get a shot every 13 weeks

Helpful Tips

- Contraceptive effectiveness: Effective to very effective (94 - 99.8%)*
- Common side effects: May have nausea, breast tenderness and change of your periods, i.e. irregular, increase or decrease in menses

Patch

How it works

- Contains estrogen and progestogen, act by suppressing ovulation

How you use it

- 4 weeks as 1 cycle
- Change the patch on the same day of the week for 3 weeks and then stop for 1 week



Helpful Tips

- Contraceptive effectiveness: Effective to very effective (93 - 99.7%)*
- Common side effects: May have nausea, breast tenderness and change of your periods, i.e. irregular, increase or decrease in menses

IUD:

Intrauterine device (IUD)

How it works

- By prevent fertilisation and implantation of the fertilised egg in the womb
- There are 2 main types:
 - (i) Copper bearing IUD
 - (ii) IUD that contain hormone

How you use it

- Put in woman's uterus by a trained health professional and regular follow-up is required
- Depend on the model of IUD, it can use for contraception for 5 - 10 years



Helpful Tips

- Contraceptive effectiveness: Very effective (>99%)*
- Common side effects: May have pain during menses and increase menstrual flow after insertion of IUD

Barrier Methods:

Condoms for Men / Women

Use of condoms can reduce the risk of sexually transmitted disease including Human Immunodeficiency Virus (HIV)

How it works

- Prevent sperms from entering the womb

How you use it

- Man put a new condom on the erected penis every time before he has sex
- Woman put a new condom in her vagina every time before she has sex



Helpful Tips

- Contraceptive effectiveness:
 - For male condoms: Moderately effective to effective (87 - 98%)*
 - For female condoms: Moderately effective to effective (79 - 95%)*
- Majority of the condoms are made of latex. People with latex allergy can use condoms made of polyurethane
- Please consult your doctor for emergency contraception as soon as possible if condom ruptures or slips during sex

Others:

Spermicide

How it works

- Inactivate and kill sperms

How you use it

- Women put the spermicide in her vagina every time before she has sex
- Avoid vaginal douching 6 hours after having sex



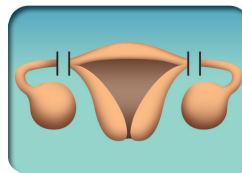
Helpful Tips

- Contraceptive effectiveness: Moderately effective (79 - 84%)*
- There are different forms: tablet, vaginal film, vaginal sponge, etc
- Some spermicide cannot use together with condom, please consult health care professionals for details

Permanent Methods:

Sterilisation for Women

- Female sterilisation is a minor operation by tying or cutting the fallopian tubes
- It is a permanent form of contraception

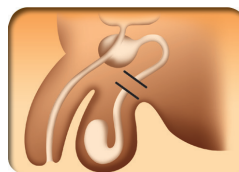


Helpful Tips

- Contraceptive effectiveness: Very effective (= 99.5%)*

Sterilisation for Men (Vasectomy)

- Vasectomy is a minor operation by cutting the vas deferens
- It is a permanent form of contraception



Helpful Tips

- Contraceptive effectiveness: Very effective (> 99.8%)*

Emergency Contraception (EC):

- Include emergency contraceptive pills and copper bearing intrauterine device
- Can be used in the following situations
 - Having unprotected sexual intercourse
 - Slipped or broken condom during sex
 - Delay in receiving injectable contraception
 - Missed your oral pills
 - Your IUD loosened or slipped out

Emergency Contraceptive pills (EC pills)

How it works

- By stop or delay the release of egg from ovary
- Should be taken as soon as possible after the index sexual activity
- The earlier the intake of EC pills, the higher the efficacy



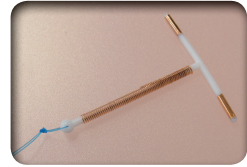
Helpful Tips

- Failure rate: 1 - 3%
- Cannot be used as a regular contraceptive method

Copper bearing intrauterine device (Use as EC)

How it works

- Should be inserted within 5 days after the index sexual intercourse in suitable clients after assessment by health care professional
- In suitable clients, it is more effective when compared with EC pills
- Can be used as ongoing contraception



Helpful Tips

- Failure rate: Less than 1%

Family Planning Service

- Most Maternal and Child Health Centres (MCHCs) provide consultation and appropriate contraceptive methods to women of childbearing age to enable them to decide freely and responsibly the number and spacing of the children.
- MCHCs provide appropriate and effective regular contraceptive methods and emergency contraceptive service according to individual needs and the availability of such contraceptive methods. Please contact our staff for more information.
- MCHCs do not provide contraceptive patches, female condom services and hormonal intrauterine device.
- MCHCs only provide referral services for sterilisation.

***Contraceptive Efficacy:** The percentages show how well each methods for most users who use the method for a year. Some methods work well only when the users use them the right way.

Source: Contraceptive technology: 21st edition, by Hatcher RA. Sep 2018

Postnatal Exercise

During pregnancy, mothers gain weight, ligaments and joints are loosen, abdominal muscles are stretched. After delivery, it takes some time for the body returning to normal.

Postnatal exercises help you tone up the lax abdominal muscle and prevent low back pain.

Mothers can start doing postnatal exercise 24 hours after a normal delivery. Mothers having a caesarean section should consult physiotherapist or doctor before starting exercise.

When you exercise, keep normal breathing. Start with gentle exercise and step up the exercise level gradually.

Exercises for lower back

- First lie on your back with knees bent and feet flat



- Roll both knees to left close to the mattress. Hold for a few seconds. Then roll the knees to right

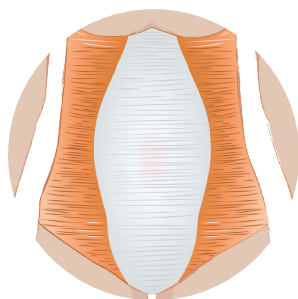


- Repeat several times

Exercises to tone up abdominal muscles

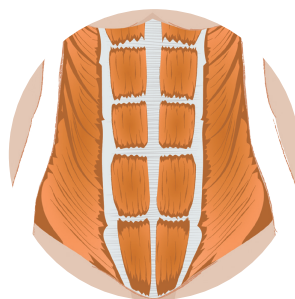
- Abdominal muscles have two main groups; the deep or transverse abdominal muscles, and outer abdominal muscles
- It is important to strengthen the deep group of muscles first as this reduces the strain on the back
- Once these muscles are strong, you can tone up the outer abdominal muscles

Strengthen First



Deep abdominal muscles

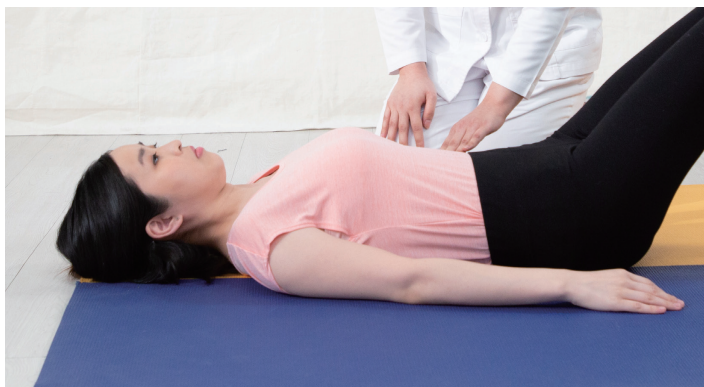
Then strengthen



Outer abdominal muscles

After delivery, you can carry out these exercise while sitting or lying down once you feel well.

- First, breathe normally



- When breathing out, gently draw in your lower abdominal muscles
- Meanwhile tighten the pelvic floor muscles



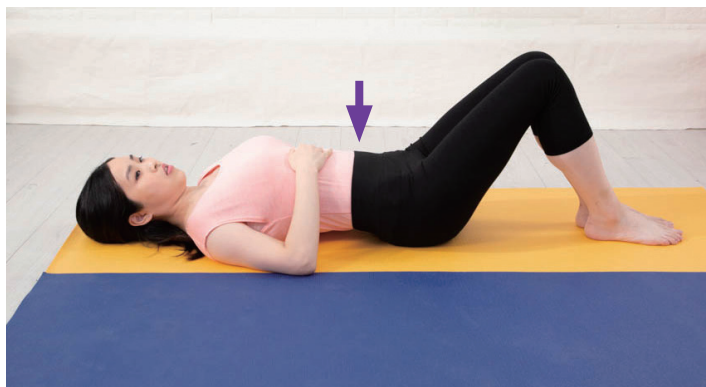
- Do not hold your breath while you exercise. Keep breathing normally



- Hold for a few seconds then relax
- Repeat several times, with a few seconds interval
- Then increase the muscle tone gradually. Hold the muscles in for a maximum of 10 seconds and repeat up to 10 times

Once getting used to doing the exercise lying down, you can do it while sitting and try the next exercise.

- First, lie on the back with knees bent and draw in the abdominal muscles
- Then gently tighten pelvic floor and hip muscles, tilt the pelvis back so that the back is flat on the mattress



- Hold this position for a maximum of ten seconds, then relax
- Repeat 10 times as a set. Perform 2 sets a day
- Breathe normally. Do not hold your breath

When you can complete the set of movements smoothly, you can try to raise your head as you tighten the abdominal muscles.



- Hold this position up to 5 seconds then relax
- Repeat 10 times as a set. Perform 2 sets a day

Beware if your abdomen bulges when you raise up your head.
This means that the muscle is still not suitable for doing this exercise. Persist doing the exercise without raising the head.

Tone up both sides of your abdomen alternately

- Tone up the abdominal muscle on both sides alternately



- Lift your head and shoulder. Bring the right shoulder pointing towards the left knee
- Then both hands touch left knee. Hold for 5 seconds, then relax



- Then repeat the exercise with your hands touching the right knee



- Repeat 10 times as a set. Perform 2 sets a day

Tighten the abdominal and pelvic floor muscles

Whenever you lift up your child, carry objects or do housework, tighten the abdominal and the pelvic floor muscles to reduce the strain on your back.



Resume physical activities

Start with a gentle activity like walking for 10 minutes. Then, increase the length and intensity of the activity gradually.

Once your abdominal and back muscles become stronger, you can try more strenuous exercise, like running or jumping.

Listen to your body when you work out and follow your own pace.

Mothers can join postnatal exercise classes organised by the Department of Physiotherapy in Hospital Authority.

If you have problems with abdominal or back muscle, you should consult healthcare professionals.

Pay attention to postures and care of lower back

Shortly after delivery, abdominal muscles are still weak, joints and tendons at the back are still lax. Apart from doing postnatal exercises, mothers should also pay attention to their postures.

Avoid bending your back

- When lifting an object, avoid bending your back
- To lift objects, bend knees, then straighten the legs to rise

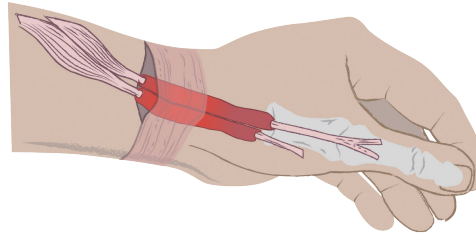


(The information is prepared by the Department of Health and the physiotherapy department of Hospital Authority)

FHS-MH12A (Rev. Jan 2022)

Wrist and Hand Pain

De Quervain's Tenosynovitis is a common condition among pregnant women and postnatal mothers. The tendons from the thumb to the wrist become inflamed, and this causes persistent pain at the wrist. It is known as Mother's wrist or Mother's thumb.

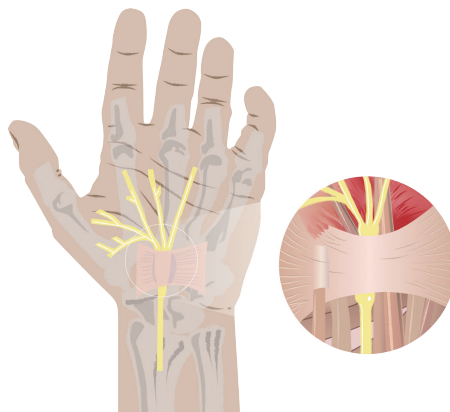


Causes

- Hormonal changes during pregnancy
- Overuse of the thumb and repeated wrist motions
- Repeated use of thumb and wrist during breastfeeding or expression of breastmilk may lead to Mother's Hand. Improper gestures, eg. lifting up a baby with the L-shaped thumb and finger position may aggravate the wrist pain

Carpal tunnel syndrome

Hormonal changes during pregnancy increases oedema in the carpal tunnel, causing compression on the nerve. This causes pain and numbness in the hands.



Ways to prevent or reduce wrist pain

- i. Keep wrist and fingers in a neutral position. Avoid excessive flexion of wrist and thumb



- ii. Avoid lifting the baby under the arms with L-shaped thumb and index finger position



- iii. Support the baby's buttocks, neck and head with palms



- When cradle the baby, support his body and buttocks with forearm. The hand should be in line with the forearm



- Avoid L-shaped thumb and finger position. Don't overstrain the thumb
- Use left and right hand alternately. Rest the wrists and thumbs regularly

iv. Do more stretching exercise

Set 1

- i. With palm inward, wrap thumb with the other fingers and form a fist



- ii. Bend your wrist down until you feel a slight stretch. Hold for 5 to 10 seconds



- iii. Repeat 5 to 10 times as one set. Perform 1 set every hour

Set 2

- i. Raise the straighten arm with wrist pain. With palm facing down. Pull the finger up with the other hand. Hold for 5 to 10 seconds



- ii. Repeat 5 to 10 times as one set. Perform 1 set every hour

Consult a family doctor if the hand pain persists.

(The information is prepared by the Department of Health and the physiotherapy department of Hospital Authority)

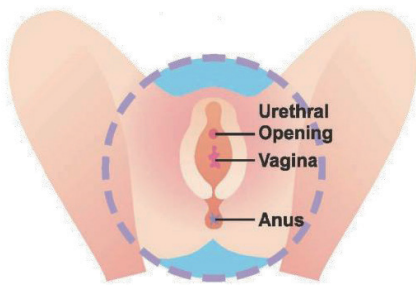
Pelvic Floor Exercise

Purpose

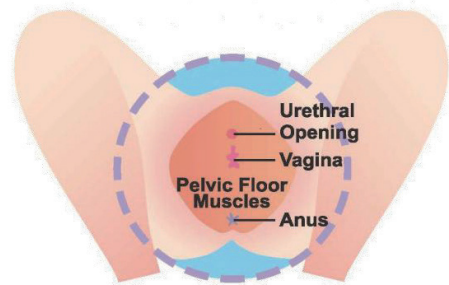
- Strengthen pelvic floor muscles for better bladder and bowel control
- Prevent or correct prolapse (drooping) of bladder, uterus or bowel due to weakening pelvic floor muscles
- Prevent urine leakage when you cough, sneeze or jump
- Improve muscle tone, especially during pregnancy and postnatal period so as to prevent stress incontinence after delivery
- Increase vaginal tone that may help to improve sex life

What are pelvic floor muscles?

The pelvic floor is made of layers of muscles stretching from the pubic bone in the front to the base of spine at the back. It consists of 3 groups of muscles surrounding the urethra, vagina and rectum.



External view of female genital area



Internal view to show location of the Pelvic Floor Muscles

What causes pelvic floor muscle weakness?

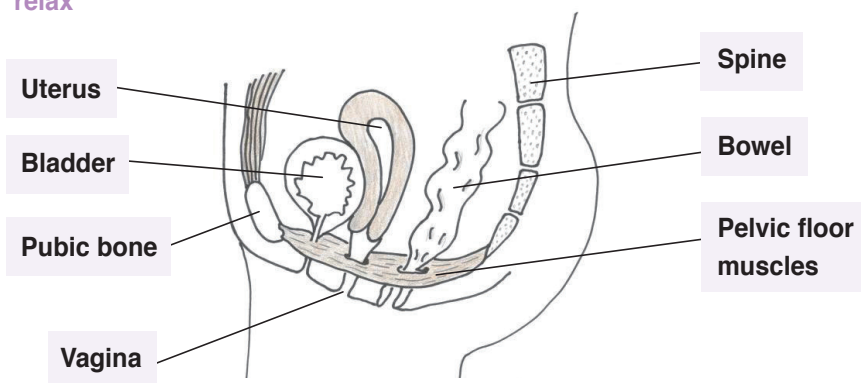
- Multiple childbirth
- Being overweight or obese
- Chronic constipation
- Persistent heavy lifting
- Chronic coughing
- Changes in hormonal levels at menopause
- Normal ageing

Becoming familiar with your pelvic floor muscles

- While you are passing urine, try to stop your urine flow midway. **Hold for 3 seconds and then relax.** If you are able to control the urine flow, it means you can master this skill successfully

***Remember!** This only helps you to become familiar with your pelvic floor muscle. You **should NOT** do it very often as it may cause problems with correct bladder emptying

- While you are concentrating on tightening the muscles around your vagina, you should have a **'tightening and lifting inward'** feeling. You may be unable to feel this at the beginning if your pelvic muscles are weak
- To know the muscles that control your anal sphincter, tighten the muscles around your anus as if you are holding flatus. **Hold for 3 seconds and then relax**



- Once you are able to identify the above muscle groups, you may start practising the following pelvic floor exercise

How to perform pelvic floor exercise?

- Lie, sit or stand with your knees slightly apart
- First relax your thighs, buttocks and abdomen
- Concentrate and use all 3 different groups of pelvic floor muscles together, i.e. the urethral, vaginal and anal muscles
- Tightening this group of muscles slowly as if you are trying to withhold passing urine or flatus. You should have a **'tightening and lifting inward'** feeling

'Long Squeezes' or 'Slow Contractions'

When you have tightened your muscles to your limit, hold the contraction for 10 seconds, release gradually, rest for 10 seconds and then repeat the above steps. These are called **'long squeezes'** or **'slow contractions'**, which help to build up the endurance of the muscle group.

'Short Squeezes' or 'Quick Contractions'

You can also do the same exercise quickly and hold the contraction for a second or two and then relax. These are called **'short squeezes'** or **'quick contractions'**, which helps your muscles react quickly to sudden pressure (from coughing, sneezing or jumping) on the bladder.

Start with 3 cycles every day; for each cycle, you may combine 'slow contractions' and 'quick contractions'.

For **'slow contractions'**, contract, hold and release the muscles up to **10 to 30 times**; for **'quick contractions'**, contract, hold and release the muscles up to **5 to 10 times**.

When to perform the exercise?

For beginners, do it while you are lying down on the bed; when you are getting used to it later, you can do it while you are sitting or standing during your daily living, e.g. doing housework.

Important Notes

- You should squeeze and lift the pelvic floor muscle (do not push as if you are passing faeces)
- Don't practise the pelvic floor exercise during urination
- Don't hold your breath or stop breathing while doing the pelvic floor exercise
- Don't squeeze other muscles at the same time as you squeeze your pelvic muscles, for example, the back muscles or the buttocks
- Don't give up! Sometimes it takes 2 to 6 months to notice the improvement
- Incontinence can have many causes. Seek advice from your health care providers if you have any queries

How Postpartum Mothers Cope with Stress?

Mothers have various sources of stress following delivery, such as wound and musculoskeletal pain, sleep deprivation caused by round-the-clock baby care, and adjustment to changes in family life, etc., all of which may cause exhaustion. If there are additional stressors like work challenges, financial difficulties, issues on family acceptance and conflicts on child care, their emotion may be affected. Persistent negative emotions without appropriate management may lead to emotional disturbance.

Managing stress effectively not only alleviates emotional distress, but also enhances our ability in facing different life circumstances. In addition, confidence in dealing with future stressors can be built up. To provide a stable family for their children to grow up healthily and happily, mothers may refer to the following tips for better stress coping:

Self-Help Tips

Try to recognise and manage your stress

- Understand the source of your stress, e.g., physiological and psychological adjustment following delivery, baby's health, parenting skills, finance, family relationship, etc.
- If the stress is temporary, you can encourage yourself that it won't last long
- If the stress is more persistent, you may adjust your expectations so that you may feel more relaxed
- Brainstorm and try different ways to handle the problem, which include seeking professional assistance where appropriate (e.g. consult the healthcare staff of Maternal and Child Health Centre (MCHC) for breastfeeding advice)

Cultivate effective communication

- Tell your partner and family members how you feel and what you need so that they can offer help and support
- Understand each other's views and needs; continue to show your love, respect and support despite disagreement
- Be open during negotiation to come up with mutually acceptable solutions

Strengthen social support networks, connect with other parents, and share with friends you trust

Take care of your own basic needs

- Maintain a balanced diet, get enough rest and sleep;
- Ask for help from other family members for household chores and childcare when necessary

Spare some time for leisure activities, either alone or with your partner

Practice relaxation exercise, e.g.



progressive muscle relaxation



diaphragmatic breathing
(only available in Cantonese)



guided imagery
(only available in Cantonese)

Warning Signs of Significant Distress

In general, it is natural to have emotions when facing life changes. However, if the mother's mood does not improve over time or significantly interferes with daily life, e.g. absent-minded, making frequent mistakes etc., professional help is warranted (for major symptoms of postnatal depression, see the leaflet "Antenatal and Postnatal Mental Health" on p.99-104). You can consult your family doctor, obstetrician, social worker, counsellor or healthcare staff of Maternal and Child Health Centre in your residential area for timely referral to appropriate specialist or community services. You can also approach a psychiatrist or clinical psychologist for assessment.

Healthy Eating During Pregnancy and Breastfeeding

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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Online version



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 & 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 & 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 multivitamin/multimineral supplement containing iodine. Consult healthcare professionals for guidance

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



Nutrients that Are Important for You and Your Baby

During pregnancy and breastfeeding, your body has a higher demand for nutrients. The extra demand can be met by making smart food choices.

However, you do not need to eat for two. Overeating can make you put on too much weight and puts you at risk of gestational diabetes and other complications.

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 an extra of 500 kcal energy a day. 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.

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 multivitamin/multimineral 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 multivitamin/multimineral 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

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 lactating women require 1000 mg of calcium daily
- Inadequate calcium intake during pregnancy may increase the risk of preterm labour and gestational hypertension
- During pregnancy and breastfeeding, you are advised to consume 2 glasses of milk or calcium-fortified soy milk each day and choose calcium-rich foods such as dark green leafy vegetables and tofu

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 choy, mustard green, broccoli
- Sesame seeds and nuts
- Dried shrimps, small dried fish and fish eaten with bones (such as sardines)

Calcium in the dark green leafy vegetables is better absorbed than that of milk. Most of the calcium is found in the leaves rather than the stalks.



Foods provide 300 mg calcium

1 cup of milk	1 bowl of tofu dessert
2 slices of cheese	200 g kale, bok choy
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 calcium absorption and is essential for bone health and development
- Expose to sunlight regularly and consume vitamin D rich foods when you are pregnant. This helps you get enough vitamin D such that your baby gets strong bones
- Inadequate intake during pregnancy puts your baby at risk of getting vitamin D deficiency



How can I get adequate Vitamin D

- Most of the vitamin D you need is made in your skin when you are exposed in sunlight
- Window glass, sunscreen and skin pigments block UV rays of the sunlight and reduce vitamin D production
- For most people, 5 to 15 minutes of sun exposure of hands, face and arms, about 2 to 3 times a week during the summer months is sufficient to keep vitamin D level high. People with darker skin need longer sun exposure
- In winter, you may need longer sun exposure because the sunlight is generally less strong
- You can obtain some vitamin D by eating fatty fish (such as salmon, sardines, eel), eggs, liver, milk and milk products added with vitamin D. However, diet alone is usually not sufficient to meet your need

Pregnant women who have too little sunlight exposure should seek medical advice about vitamin D supplements.

They are:

- Women in clothes covering the arms and face most of the time
- Women staying indoors mostly
- Women who have a darker skin tone and limited exposure to sunlight

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
- Vegetarians and others who avoid fish can consume foods rich in alpha linolenic acid (ALA), such as flaxseeds, walnuts and canola oil. Our body can convert ALA into DHA, yet, there is an individual variation
- You can consider taking DHA supplement if you do not eat fish. Talk with your doctor, nurse, dietitian or pharmacist



Issue of methylmercury in fish

- 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.

* Data source: The First Hong Kong Total Diet Study: Metallic Contaminants, and Advice for Pregnant Women, Women Planning Pregnancy and Young Children on Fish Consumption. January 2013. Centre for Food Safety, Department of Food & Environmental Hygiene, HKSARG.

Q: Can I eat canned tuna?

Methylmercury levels in canned tuna are lower than in fresh tuna, largely due to the species or the smaller-sized of fish used. Skipjack tuna, a variety that is often canned, tends to contain lower levels of methylmercury. Consuming 4 or 5 cans of skipjack tuna within one week may exceed the tolerable weekly intake of methylmercury. Species with higher level of methylmercury, such as albacore tuna, may also be canned. Therefore, it is important to read the label carefully before purchasing and limit the intake.



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 multivitamin/multimineral 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	3½ 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 - 1¼ bowls of noodles - 1½ 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"> - ½ 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 - ½ 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 - ¼ 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 171)
- 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



...continued

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

*Fat content of 1 tablespoon of salad dressing, ½ tablespoon of peanut butter or sesame paste is equal to 1 teaspoon of oil

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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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 171)

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



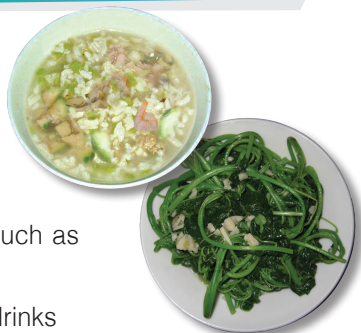
A heaped tablespoon of nuts (15 g) provides about 90kcal, which is the same amount of energy as from 3 pieces (20 g) of soda crackers. However, the 15 g nuts contains more vitamin E, zinc, iron.



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 multivitamin/multimineral 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
- Alcohol is a toxic substance and can cause cancer
- Exposure to alcohol can seriously affect your baby's development

2. Fish that contains high levels of methylmercury (refer to page 172)

- Examples include shark, marlin, swordfish, alfonsino, 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?

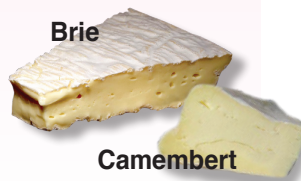
You should avoid eating soft serve ice-cream to protect yourself from listeria infection. Other ice-cream can be contaminated by germs when it is not handled or stored properly. You should be cautious.

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 181)

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 interferes 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	Baby
<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - 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 174-176). 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 166-167). This helps your baby to get adequate iodine from your milk. **Take a prenatal multivitamin/multimineral 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?

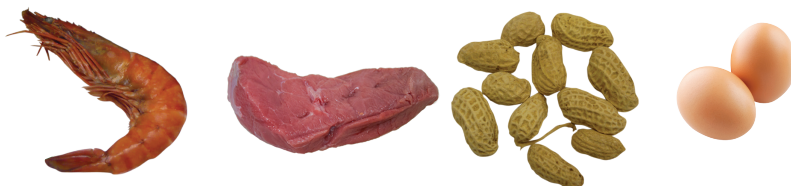
Food Group	Servings per day	Examples of a serving*
Grains	4 to 5	1 bowl of rice or rice noodles; 1½ bowls of macaroni/spaghetti; 1¼ bowls of noodles
Vegetables	4 to 5	½ bowl of cooked vegetables; 1 bowl of uncooked vegetables
Fruits	3	An apple or orange of size a lady's fist; 2 kiwi fruits; ½ cup of 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 = 250-300ml; 1 cup = 240ml



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.

Audio-visual Resources

■ Antenatal Care, Healthy Eating for Pregnant Women	193
■ Antenatal and Postnatal Exercises	194
■ Child Care	196
■ Breastfeeding	199

Audio-visual Resources

Two dimensional quick response code (QR code) is now available for access to Family Health Service website. You can install QR Code scanning software to get the latest antenatal care, healthy eating for pregnant women, antenatal and postnatal exercises, child care and breastfeeding audio-visual resources.

Antenatal Care

Information on antenatal care
for pregnant women



<http://s.fhs.gov.hk/o5e6l>

Antenatal Care



<http://s.fhs.gov.hk/ibsz2>

Healthy Eating for Pregnant Women

Healthy Eating for
Pregnant Mothers



<http://s.fhs.gov.hk/59oux>

How can we get adequate
calcium in our diet?



<http://s.fhs.gov.hk/k33lx>

Parents-to-be
must view



Antenatal and Postnatal Exercises

Exercises and care for shoulder, neck and back pains



<http://s.fhs.gov.hk/u1opb>

Care for pelvic girdle pain



<http://s.fhs.gov.hk/sowiy>

Prevent and relieve lower limb discomfort



<http://s.fhs.gov.hk/menlz>

Pelvic floor muscle exercise



<http://s.fhs.gov.hk/lxnhe>

Prevention of wrist pains



<http://s.fhs.gov.hk/vjmcr>

Relaxation exercise



<http://s.fhs.gov.hk/9m6i5>

Postnatal exercise



<http://s.fhs.gov.hk/rxy5w>

Proper postures in baby care



<http://s.fhs.gov.hk/f1yds>

Child Care

Ways to carry a baby



<http://s.fhs.gov.hk/n7s29>

How to clean your baby's eyes



<http://s.fhs.gov.hk/oxqjj>

Cleaning Umbilical Cord for Newborn



<http://s.fhs.gov.hk/fxr8h>

Changing Nappy for Baby



<http://s.fhs.gov.hk/qa1in>

Skills in burping

(Cantonese version only)



<http://s.fhs.gov.hk/zhu63>

Trimming baby's nails



<http://s.fhs.gov.hk/y5b7r>

Baby bath time

<http://s.fhs.gov.hk/e2qs0>

Cleaning your baby's mouth

<http://s.fhs.gov.hk/6sjin>

How to soothe a crying baby

<http://s.fhs.gov.hk/dstpm>

Clothing for your baby

<http://s.fhs.gov.hk/1ec22>

**Baby's safe sleeping position
and environment
You are the one to care**

<http://s.fhs.gov.hk/9uun7>

**Development from birth to
1 Month**

(Cantonese version with English subtitle only)



<http://s.fhs.gov.hk/x2b8d>

**Physical contact
(0 to 1 Month)**



<http://s.fhs.gov.hk/jowej>

**Visual communication
(0 to 1 Month)**



<http://s.fhs.gov.hk/kydez>

**Vocal communication
(0 to 1 Month)**



<http://s.fhs.gov.hk/kmcpy>

Breastfeeding

Breastfeeding



<http://s.fhs.gov.hk/ambt7>

Sharing from a breastfeeding mother



<http://s.fhs.gov.hk/kw75c>

Breastfeeding: benefits



<http://s.fhs.gov.hk/ithmd>

Is breastfeeding easy?



<http://s.fhs.gov.hk/eawh4>

Is my milk enough?



<http://s.fhs.gov.hk/51d9v>

But my nipples are flat...



<http://s.fhs.gov.hk/st76x>

But I have Caesarean Section



<http://s.fhs.gov.hk/mg5kd>

What to prepare



<http://s.fhs.gov.hk/29khr>

Baby's first hour



<http://s.fhs.gov.hk/o5uoj>

Skin-to-skin contact



<http://s.fhs.gov.hk/d92u0>

Colostrum



<http://s.fhs.gov.hk/48vyr>

Newborn baby's feeding needs



<http://s.fhs.gov.hk/eyu8x>

Hunger cues

<http://s.fhs.gov.hk/rheg0>

Is supplementation needed?

<http://s.fhs.gov.hk/81wbl>

Skill outline

<http://s.fhs.gov.hk/xvxu6>

Mother and baby's nursing position

<http://s.fhs.gov.hk/abwuu>

Bring the baby to the breast

<http://s.fhs.gov.hk/104so>

Good attachment

<http://s.fhs.gov.hk/m2ypj>

Effective suckling



<http://s.fhs.gov.hk/u8gt0>

Is the baby getting enough milk?



<http://s.fhs.gov.hk/tane8>

Expressing breastmilk



<http://s.fhs.gov.hk/ubvqq>

Family support



<http://s.fhs.gov.hk/xmrf3>

Other supports



<http://s.fhs.gov.hk/3hbbg>

Healthy Eating for Breastfeeding Mothers



<http://s.fhs.gov.hk/65x0n>

Family Health Service - Public Talks

■ Family Health Service - Public Talks

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Family Health Service- Public Talks

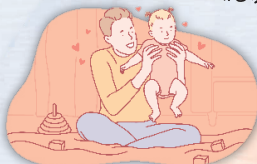
(Conducted in Cantonese Only)

親職及兒童發展

<<孩子哭鬧怎回應？
情緒教育從小開始>>



<<贏在起跑線？
兒童自尊感與情緒健康>>



<<培育社交小達人>>

<<寶寶睡眠知多點>>



嬰幼兒飲食

<<為孩子選對小食>>

<<引進固體食物，
如何開始？>>



<<如何照顧一歲孩子的飲食營養？>>

<<幫助幼童「開金口」>>



<<正音我有計>>

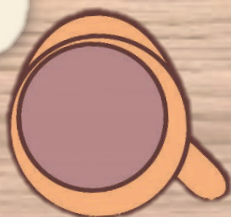
<<培養愛閱讀孩子，別錯過黃金關鍵期>>

產前及產後、婦女健康

<<懷孕及哺乳媽媽
「適」飲「適」食>>



<<貼心照顧及餵養寶寶>>



家庭健康服務定期為公眾舉行線上或現場講座，部分線上講座亦會提供錄影重溫。講座涵蓋不同主題，要了解詳情，立即掃一掃以下二維條碼！



<http://s.fhs.gov.hk/b8gu2>



Family Health Service

Only)

Useful Websites and Telephone Numbers

■ Useful Websites and Telephone Numbers

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食物,
??

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Useful Websites and Telephone Numbers

Health Information

Family Health Services, Department of Health	www.fhs.gov.hk
Primary Care Directory	www.pcdirectory.gov.hk
Centre for Health Protection, Department of Health	www.chp.gov.hk
Oral Health Education Division, Department of Health	www.toothclub.gov.hk
Tobacco and Alcohol Control Office, Department of Health	www.taco.gov.hk
Food and Environmental Hygiene Department	www.fehd.gov.hk
La Leche League Hong Kong	www.lll-hk.org
Hong Kong Breastfeeding Mothers' Association	www.breastfeeding.org.hk
Hospital Authority	www.ha.org.hk

Community Resource

Social Welfare Department	www.swd.gov.hk
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Birth Registration

GovHK	www.gov.hk
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Hotlines of the Department of Health

Health Education Infoline	2833 0111
Family Health Service Breastfeeding Hotline	3618 7450
Family Health Service 24-hour Information Hotline	2112 9900

Counselling Services or Hotlines for Mood Problems

Social Welfare Department 24-Hour Hotline	2343 2255
24 hour Hospital Authority Psychiatric Hotline	2466 7350
The Samaritan Befrienders Hong Kong	2389 2222
Suicide Prevention Services	2382 0000
Primary Care Directory (You can find a family doctor that suits your needs using the Directory)	www.pcdirectory.gov.hk

Reminder

If any of the following conditions occur, one should consult the doctor or attend Accident and Emergency Department of hospital immediately:

- water breaking
- vaginal bleeding
- persistent abdominal pain
- severe oedema that accumulates within short time
- severe headache
- significant decrease in baby's movements

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

