

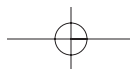
CHAPTER 7

Learning a pregnant woman's health history

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Learning a pregnant woman's health history

CHAPTER

7

To give good care to a pregnant woman, you should find out about her general health, her past health, and her past pregnancies and births. You also need to know what this pregnancy has been like so far. This is called a health history.

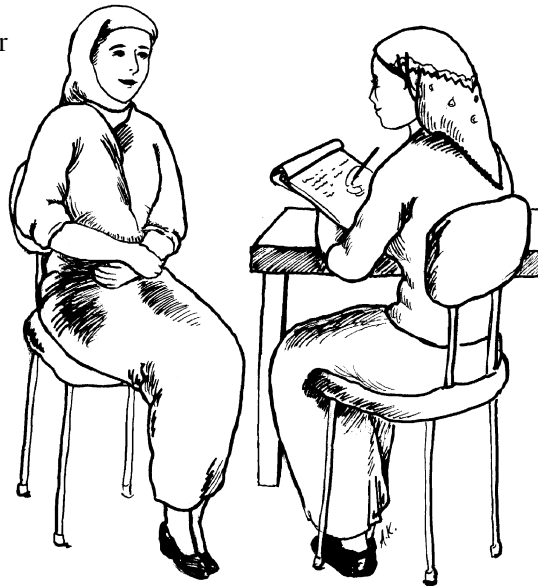
Learning a woman's health history will help you give advice to make this pregnancy and birth as safe as possible.

The best way to learn about a woman's history is to ask her. At first, she may not be comfortable talking with you. If she feels shy about her body or about sex, it may be difficult for her to tell you things that you need to know about her health. Try to help her feel comfortable by listening carefully, answering her questions, keeping what she tells you private, and treating her with respect.

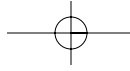
This chapter suggests questions to ask each woman so you can learn more about her. You probably have some questions of your own that you want to ask but that we do not include here. For example, if there is hepatitis B in your community, you may want to ask the woman if she has hepatitis B or tell her how to prevent it. Think about the information you need to know in order to give her good care. What questions do **you** usually ask a pregnant woman?

If you can, write down what you learn about each pregnant woman. This information may be needed later in the pregnancy, or during labor or birth.

After learning a woman's health history, and every time you meet with a pregnant woman, you should do a regular pregnancy checkup. The next chapter of this book, Chapter 8, explains how to do the regular pregnancy checkup.



pregnancy



Questions in a pregnancy health history

Does she have signs of pregnancy?

Some signs of pregnancy are sure signs — they mean the woman is definitely pregnant. Some signs are probable signs, meaning the woman is probably pregnant, but the sign could be caused by something else.

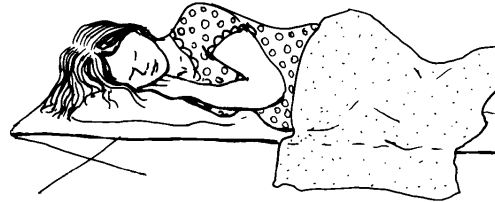
Probable signs of pregnancy

The woman's monthly bleeding stops. This is often the first sign of pregnancy. Other possible causes of this sign are poor nutrition, emotional troubles, or menopause (change of life).



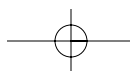
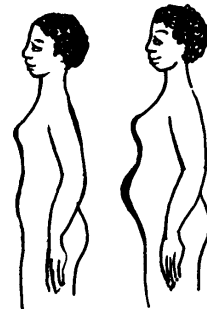
The woman has nausea or wants to vomit. Many pregnant women have nausea in the morning (which is why this feeling is often called "morning sickness"), but some women may feel this way all day. Nausea is common during the first 3 months of pregnancy. Other possible causes of this sign are illness or parasites.

The woman feels tired and sleepy during the day. This is common in the first 3 or 4 months of pregnancy. Other possible causes of this sign are anemia (see page 116), poor nutrition, emotional troubles, or too much work.

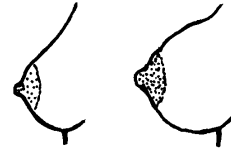


The woman needs to urinate often. This is most common during the first 3 months and the last 1 or 2 months of pregnancy. Other possible causes of this sign are stress, bladder infection (see page 128), or diabetes (blood sugar disease — see page 115).

The woman's belly grows. After 3 or 4 months, the pregnancy is usually big enough to be seen from the outside. Other possible causes of this sign are that the woman has a cancer or another growth in her belly or that she is just getting fatter.



The woman's breasts get bigger. A pregnant woman's breasts get bigger to prepare to make milk for the baby. Another possible cause of this sign is that breasts often get bigger just before monthly bleeding.



The woman feels light baby movements inside. Most women start to feel their babies move between about 16 weeks and 20 weeks of pregnancy (at about 4 or 5 months). Another possible cause of this sign is gas in the belly.

Sure signs of pregnancy

The woman feels strong baby movements inside. Most women begin to feel the baby kicking by the time they are 5 months pregnant.



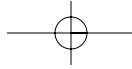
The baby can be felt inside the womb. By the 6th or 7th month, a skilled midwife can usually find the baby's head, neck, back, arms, bottom, and legs by feeling the mother's belly.

The baby's heartbeat can be heard. By the 5th or 6th month, the heartbeat can sometimes be heard with tools made for listening, like a stethoscope or fetoscope. By the 7th or 8th month, a skilled midwife can usually hear the baby's heartbeat when she puts her ear on the woman's belly (see page 139).



A medical pregnancy test says the woman is pregnant. This test can be done with a kit at home or in a laboratory with a little of the woman's urine or blood. This test can be expensive and is usually not necessary. But it can be useful, for example, if a woman needs to know if she is pregnant before taking a medicine that might harm a baby inside her.





How pregnant is she now? When is the baby due?

Find out how many months pregnant the woman is at the time of her first checkup. This will also tell you the date that she will probably give birth (the due date).

There are 3 ways to figure out how pregnant the woman is now and her due date:

- Use the date of her last monthly bleeding.
- Measure the size of her womb.
- Have the woman get an ultrasound at a medical center.

Note: It is normal and safe for the baby to be born as much as 3 weeks earlier or 2 weeks later than the due date.

Using the last monthly bleeding to predict the due date

If a woman bleeds regularly every 4 weeks, her pregnancy will start about 2 weeks after the first day of her last monthly bleeding. To find out if you can use this method to estimate her due date, you must first ask the mother 3 questions:

1. Has your monthly bleeding been mostly regular, once every 4 weeks (once every month)?
2. Was your last monthly bleeding normal for you (not unusually light or heavy)?
3. Do you remember the date of the first day of your last monthly bleeding?

If the woman answers “no” to any of these 3 questions, you cannot be certain this method will give you a correct due date.

If she answers “yes” to all 3 questions, you can figure out the due date and how pregnant the woman is at this visit.

Remember that a pregnancy lasts about 40 weeks or 280 days. This is about 9 calendar months or 10 lunar months from the last monthly bleeding.

Using a calendar

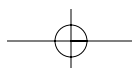
To figure out the due date, add 9 months and 7 days to the day that her last monthly bleeding began.

(You could also subtract 3 months and then add 7 days to get the same date.)

For a helpful tool to estimate the due date using the last monthly bleeding, see page 527.

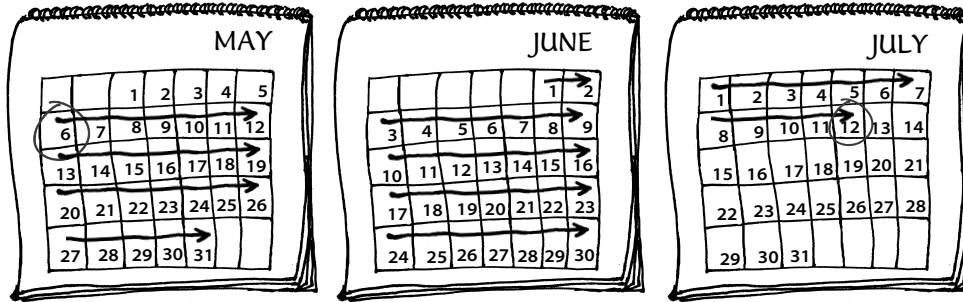
Her last monthly bleeding started May 6th.

If I add 9 months, that comes to February 10th. Then I add 7 days, which tells me her baby should be born around February 17th.



Questions in a pregnancy health history

To figure out how pregnant the woman is now, take the first day of the last monthly bleeding and count the number of weeks that have passed between that day and this visit.



Using the moon

If you do not use calendars, you can find the due date using the moon. If a woman's monthly bleeding is usually about one moon (4 weeks) apart, the baby is due 10 moons after the first day of her last monthly bleeding. If a woman's monthly bleeding started on a quarter moon, the baby is due 10 quarter moons later. If her bleeding started on a new moon, the baby is due 10 new moons later, and so on.

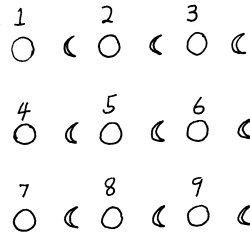
For example:



If her bleeding started on the full moon,



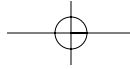
she probably got pregnant on the new moon.



The baby is due 10 lunar months after the first day of her last monthly bleeding —



in this case, 10 **full moons** after the first day of her last monthly bleeding.

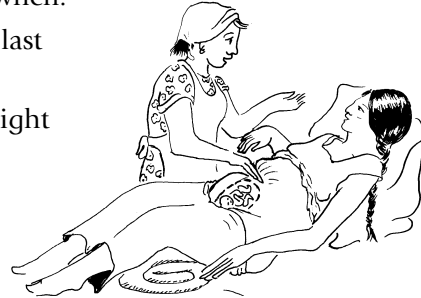


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Measuring the womb

With practice, a midwife can feel the size of the woman's womb to know how long a woman has been pregnant. Use this method when:

- the woman does not remember when her last monthly bleeding started.
- the last monthly bleeding was unusually light or heavy.
- her monthly bleeding is not regular.
- the woman was breastfeeding and not bleeding regularly when she got pregnant.



There are two ways to measure the womb. During the first 12 weeks (3 months) of pregnancy you can do a bimanual exam to feel the womb from inside the vagina (see page 384). After 3 months you can measure the womb from the outside (see page 130).

Using a sonogram

A sonogram (or ultrasound) machine takes a picture of the baby inside the womb by using sound waves (see page 434). A sonogram done in the first 3 months of pregnancy is usually an accurate tool for showing how far along the pregnancy is. Sonograms are probably not dangerous for the baby, but they are expensive, and they are rarely necessary.

How old is she?

Pregnancy can cause problems for women of any age. But very young women and much older women tend to have more problems.

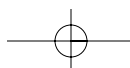
Girls who become pregnant before they are 17 years old may not have finished growing themselves. A girl's pelvis might not be grown enough to give birth normally. Girls are more likely to have other problems too — like pre-eclampsia, long labors, and babies born too early. Girls who get pregnant when they are very young can be wonderful and caring mothers, but many of them will need extra advice and support.



Older mothers also may have more problems in pregnancy and birth. It may be safer for older women and very young women to give birth in a well-equipped medical center rather than at home.

How many children has she had?

Women who have had 1 or 2 babies and whose children were born alive and healthy usually have the fewest problems giving birth.



Other women may have more problems. First births are often more difficult than later births. It may be safer for a woman giving birth for the first time to give birth near a medical center. Watch carefully for risk signs and have transportation available for emergencies.

A woman who has given birth to 5 or more babies is more likely to have some of the following problems:

- a long labor
- a torn womb (after a long, hard labor)
- a fallen womb (prolapsed uterus)
- a baby in a difficult position for birth
- heavy bleeding after birth

For these reasons, it may be safer for a woman who has had 5 or more births to give birth in or near a medical center.

I have already had one normal birth. My birth will probably be safe.



Has she had any miscarriages or abortions?

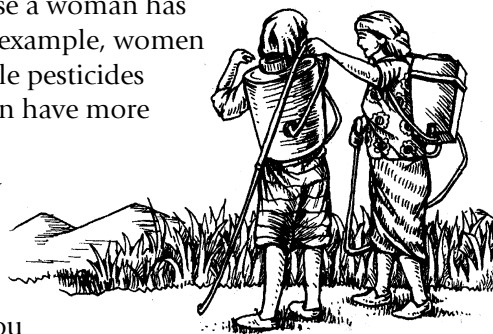
Miscarriage

A miscarriage (spontaneous abortion) is when a pregnancy ends before the woman is 6 months pregnant, while the baby is still too small to live outside the mother. This is common and often happens before the woman even knows she is pregnant.

It is usually difficult to know why a miscarriage happens, but some causes of miscarriage are preventable. Malaria, sexually transmitted infections, injury, violence, and stress can all cause a pregnancy to end.

Sometimes miscarriages happen because a woman has been near poisons or toxic chemicals. For example, women who work on farms often breathe or handle pesticides which can cause miscarriage. These women have more miscarriages than other women.

Some miscarriages can be prevented by treating women for illness and infection and by helping them avoid chemical poisons and violence. But some women have one miscarriage after another, and you may not know why. Get medical advice to find the cause and to help her carry this pregnancy all the way through.



Women who work with pesticides or other chemicals are more likely to have miscarriages.

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Abortion

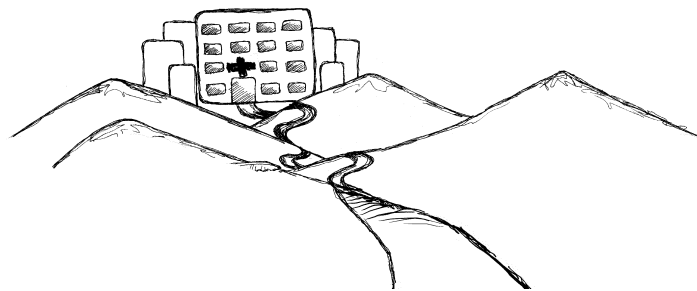
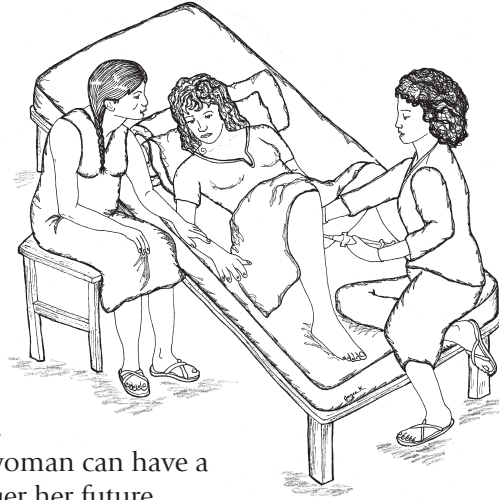
Many women use plant medicines and other remedies to regulate or bring on their monthly bleeding, or prevent or end a pregnancy. These remedies may be safe, but ask the woman if she has ever had a problem — such as pain, heavy bleeding, or infection — after using any plant or any kind of medicine.

If some person, or the woman herself, does something to her body to end a pregnancy, we call this an abortion. Where abortion is legal and available, a woman can have a safe abortion that will not usually endanger her future pregnancies. There are 3 kinds of abortion that can be safe:

- **Vacuum aspiration.** A health worker uses a machine or manual vacuum aspiration (MVA) syringe to empty the womb (see Chapter 23, page 416). If vacuum aspiration is done correctly, it is usually safe.
- **D&C (dilation and curettage).** A health worker empties the womb by scraping it with a sterile instrument. A woman who has had more than 3 D&C abortions may have scar tissue on the womb that can make a later pregnancy difficult. Get medical advice.
- **Medical Abortion.** The woman takes medicines that end the pregnancy and empty the womb. The medicines that are known to be safe and effective for this purpose are mifepristone followed 2 days later by misoprostol. See page 485 to learn how these drugs can be used safely.

In places where abortion is illegal, a woman trying to end a pregnancy may harm herself or turn to someone who does not give abortions safely. Unsafe abortions can cause heavy bleeding, serious infection, infertility, or even death. See Chapter 22, page 400, to learn how to help a woman after an unsafe abortion.

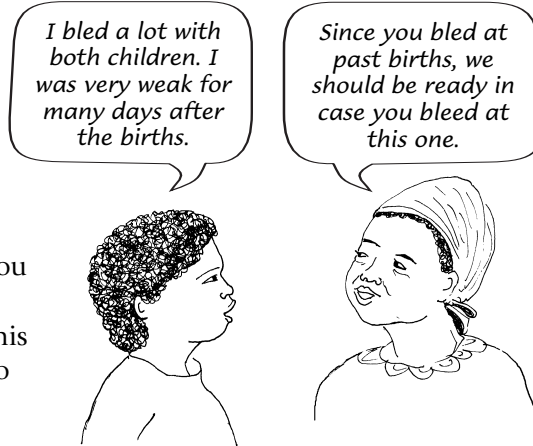
A woman who was sick, injured, or bled heavily after any kind of abortion may have scars in her womb that could cause problems in this pregnancy or birth. It is probably safest for her to give birth in or near a hospital or medical center.



Has she had any problems with past pregnancies or births?

If a woman has had problems with past pregnancies or births, she may have problems with this birth too.

Ask the mother to tell you the story of each of her past pregnancies and births. Let her tell you everything: the good **and** the bad. Then ask the following questions to learn more about problems in past pregnancies and what to be prepared for during this one. If you can, write down what you learn. (Many of these problems are explained more fully in other parts of this book. Turn to the page number listed to learn more about the problem.)



Was she tired or weak (anemic)?

Extreme tiredness or weakness in pregnancy is usually caused by anemia (lack of iron in the blood). If she had anemia in another pregnancy, she is likely to have it again in this pregnancy. Anemia causes problems in pregnancy and birth, but it can be prevented by eating lots of foods with protein and iron in them and by taking iron pills. (See page 116.)

Did she have high blood pressure?

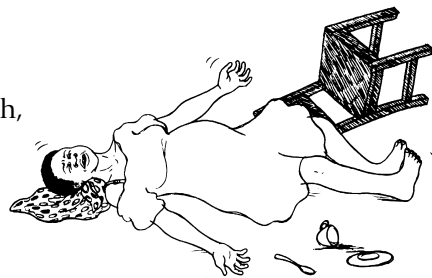
If she had high blood pressure in a past pregnancy, she is likely to get it again. High blood pressure (see page 124) can be a sign of pre-eclampsia.

Did she have pre-eclampsia?

If a woman had pre-eclampsia in a past pregnancy, she is in danger of getting pre-eclampsia again. Check her blood pressure and other signs of pre-eclampsia regularly in this pregnancy. (See page 125.) Be prepared to get medical help if pre-eclampsia develops.

Did she have fits (convulsions)?

If she had convulsions in a past pregnancy or birth, get medical advice. She probably had eclampsia (see page 181). She is likely to get it again, and she should give birth in a medical center or hospital.



Did she have diabetes (blood sugar disease)?

If she had diabetes in a past pregnancy, she is more likely to get it again. If possible, she should be tested by a doctor or health worker. Diabetes in the mother can lead to miscarriage or other problems with the mother or baby after birth. (See page 115.)

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Did she have a very long labor or a long pushing stage?

Was her labor longer than 24 hours for a first baby, or longer than 12 hours for other babies (see page 186)? Did she push for more than 2 hours? Ask if her long labor caused problems for her or her baby. If that birth was healthy and the baby was OK, then she will probably not have a problem with this birth. If that birth was not normal, ask her if she knows why the labor was long. Did she have anemia? Was the baby in a difficult position or very big? Was she very afraid? You may need to get medical advice.

Did she have a fistula?

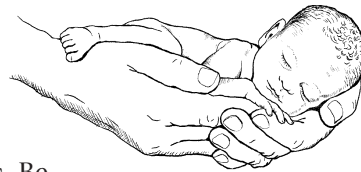
If she had a long labor leading to a fistula (an opening in the tissue of the vagina) she should have this birth in a hospital. (See page 273.)

Did she have a very short labor (less than 3 hours)?

If the mother had a very short labor in the past, make sure she and her family know what to do if you do not get there in time. You can teach the family how to deliver a baby in an emergency.

Did she have an early birth?

If she had a baby born more than a month early, ask her if she has signs of bacterial vaginosis (BV, see page 328). Bacterial vaginosis can lead to early births. Be ready in case this baby is early too, and watch for signs of labor. (See page 149.)

***Did she have a small baby (less than 2.5 kilograms or 5 pounds)?***

Find out if the baby was born early (it is normal for early babies to be small). If the baby came on time, ask the mother if she had anemia, high blood pressure, or pre-eclampsia. Also ask if she had enough to eat, or if she smoked cigarettes or used drugs. Any of these things could have made the baby small.

Check to see if this baby is growing normally. If you think this baby may be very small for her age, the mother should probably give birth in or near a medical center, because small babies can have more health problems. (See pages 221 and 256.)

Did she have a big baby (over 4 kilograms or 9 pounds)?

Ask if the birth was difficult. If it was not, this birth will probably be OK too. Look for signs of diabetes (see page 115). Check carefully to see if this baby seems big too. If possible, have the mother tested for diabetes.

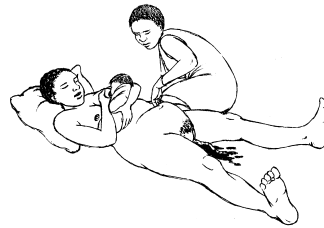


Did she have heavy bleeding before or after the birth?

If she bled a lot in a past pregnancy or birth, it is likely to happen again. Ask her to tell you as much as she can remember about her bleeding. Did she need medical help? Was she anemic? Was she too weak to stand? The answers to these questions will help you prepare for what may happen at this birth. If possible, a woman who bled heavily before should have her babies in a medical center. Be ready to treat her for heavy bleeding after the birth. (See page 224.)

Did she have any problems with the placenta?

If the woman's placenta did not come out easily in a past birth (see page 227), she may have the same problem again. Be ready to treat her for bleeding. It is better if she gives birth in or near a medical center.

**Did she have a fever or infection of the womb during or after the birth?**

This birth may be fine, but she has more risk of infection than other women. Be sure to check her for signs of vaginal infection (see Chapter 18, page 320).

Was she very sad (depressed) after the birth?

If a woman became depressed after a past birth, it may happen again. Be prepared to help if this happens (see page 274).

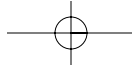
**Did the baby get sick or die before, during, or after the birth?**

Find out if the baby was sick or died. If some of her babies died, she may have a problem in her blood called Rh incompatibility (see page 504). Or the deaths could have had other causes. Check the mother for high blood pressure (see page 122), diabetes (see page 115), anemia (see page 116), malnutrition (see page 117), and illness. These can all cause death in babies. Get medical advice.

Did her baby have birth defects?

- Some birth defects run in the family. Ask about the type of birth defect and if anyone else in her or the baby's father's family has that birth defect. The next baby may have the same problems.
- Some defects are caused by illnesses like herpes or rubella. If the woman had herpes or rubella in a past pregnancy, it probably will not cause birth defects in this pregnancy. Pregnant women should avoid people who are sick.
- Some birth defects are caused by exposure to toxic chemicals, drugs, or medicines. (See pages 45 to 47.)
- Some birth defects are caused by poor nutrition. (See pages 33 to 39.)
- Some birth defects just happen — no one knows why.

See page 266 to learn more about birth defects.



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Did she have a cesarean surgery (birth by operation)?

In a cesarean surgery, a doctor cuts open the woman's belly and womb to get the baby out. After the baby is out, the doctor sews the womb and belly closed. This leaves one scar on the womb and a second scar on the belly. Sometimes a cesarean surgery is done because the baby does not fit through the mother's pelvis. Sometimes it is done because the baby is in danger and must be born very quickly.

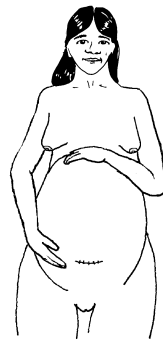
Note: Cesarean surgeries save lives, but in many places they are used too much — usually for the convenience of the doctor or because women falsely believe that a cesarean will be easier. Cesareans should only be used in emergencies.

Most women can have a safe vaginal birth even if they had a cesarean with a previous baby. But there is a very small chance that the scar on the womb may tear open during labor. If this happens, the woman could bleed inside and she or the baby could die. For this reason, it is safest for a woman who has had a cesarean to give birth in or near a medical center or hospital. If she is planning to give birth at home, arrange for her to have medical care in case there are any problems during the labor.

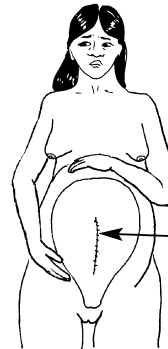
If any of the following are true, this woman should definitely go to a medical center for the birth:

- The cesarean was less than 2 years ago.
- This baby is big or in a difficult birth position.
- The woman had a cesarean because her pelvis was not formed well as a child. This is usually caused by poor nutrition.
- The scar on the womb is up-and-down.

Unfortunately, you cannot tell anything about the scar on the womb by looking at the belly. The scar on the belly can be one way, and the scar on the womb inside can be another. You can only find out by checking the medical records at the hospital or by asking the doctor who did the surgery.

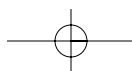


A scar that goes one way on the outside...



...may be hiding a scar on the womb that goes another way.

A scar on the womb that goes this way is more likely to open up in labor.



Is she healthy?

A pregnancy is more likely to go well for a woman who is in good health. See Chapter 4, page 32, for general ideas for staying healthy. Also see Chapter 18, page 320, to learn about avoiding vaginal infections. Some general health problems can cause serious problems in pregnancy.

If a pregnant woman is sick with any of the following problems now, she should get medical help to plan for her needs during pregnancy and decide if she should give birth in a medical center:

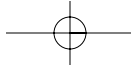


- diabetes (see page 115)
- HIV/AIDS (see page 99)
- bladder or kidney infection (see page 128)
- malaria (see page 98)
- fever over 38°C (100.4°F) for more than 2 days (see page 178)
- high blood pressure (see page 122)
- liver disease (hepatitis, especially hepatitis B, see page 336)
- heart problems
- untreated tuberculosis
- deformity of the hips or lower back

If a woman has EVER had any of the following problems, she should see a doctor or experienced health worker during her pregnancy to find out whether she still has a problem:

- hepatitis (see page 336)
- kidney infection (see page 128)
- pre-eclampsia (see page 125)
- frequent fevers
- tuberculosis





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Malaria

Malaria is an infection of the blood that causes chills and fever. It is especially common in young girls, first-time mothers, and women who are sick with other illnesses. Malaria is more dangerous to pregnant women than to most other people. A pregnant woman with malaria is more likely to have anemia, miscarriage, early birth, small baby, stillbirth (baby born dead), or to die.

Malaria is spread by mosquitoes. To prevent malaria, avoid mosquito bites.

- Get rid of standing water and stay away from wet places where mosquitoes breed.
- Use local remedies to get rid of mosquitoes. Some people use citronella oil on their skin.
- Use mosquito repellent at times of the day when mosquitoes usually bite (dawn and dusk).
- Use bed nets treated with mosquito repellent.



WARNING! Do not spray pesticides on bedding. Pesticides are poison. Wash your hands after touching treated bed nets. Be sure children do not touch them or put them in their mouths.

It is important for pregnant women to avoid malaria — or to be treated quickly if they get sick. Malaria medicines may be costly and can have side effects, but **these medicines are much safer than actually getting sick with malaria.**

Unfortunately, malaria medicines are complicated. In many places the medicines that were once used to prevent or treat malaria do not work anymore. New medicines or combinations of medicines are given in different parts of the world. Also, someone who is very sick with malaria may need a different treatment than someone who is only mildly sick. Some medicines normally given for malaria are not safe during pregnancy.



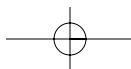
Where malaria is common, all pregnant women may be given medicines to prevent this dangerous sickness. Find out what medicines the local health authority recommends for this.

If a woman is already sick with malaria, she should be treated right away. In many places, chloroquine is the recommended treatment. It is safe in pregnancy.

To treat malaria with chloroquine

- give 600 mg chloroquine.....by mouth, once a day for 2 days **and** then give 300 mg chloroquine on the third day

If the woman does not start to get better on day 2, she may need another type of medicine. Get medical help.



Questions in a pregnancy health history

Chloroquine will not work in some places, so find out what medicines the local health authority recommends.

If you cannot find which treatment is recommended in your area, you can give this combination of medicine that works everywhere and is safe after the first 3 months of pregnancy.



To treat malaria after the 3rd month of pregnancy

- give 300 mg artesunateby mouth, once a day for 7 days
- and**
- give 600 mg clindamycin.....by mouth, 2 times a day for 7 days

HIV/AIDS

AIDS is a sickness that makes a person’s body unable to fight infections. AIDS is caused by a tiny virus (a type of germ) called HIV. A person can have HIV for many years before getting sick. But eventually the virus will prevent the person’s body from fighting infections, and the person will start to get sick. When the person gets sick more and more, and when those sicknesses will not go away, the person has AIDS. Good nutrition and some medicines can help the person fight infections caused by HIV/AIDS and allow her or him to live longer. But there is no cure for HIV/AIDS itself. After a while, the person will get more and more sick and will die.

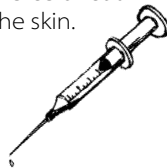
How HIV/AIDS is passed

HIV lives in body fluids — blood, semen, wetness from the vagina, and breast milk — of people who are infected with HIV. The virus spreads when those fluids get into the body of another person. This means that HIV can be spread by:

sex with someone who has HIV, if the person does not use condoms.



unsterile needles or tools that pierce or cut the skin.



infected blood that gets into cuts or an open wound of another person.

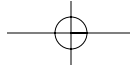


an infected mother to her baby, through pregnancy, birth, or breastfeeding.



In places where blood is not tested for HIV, people can also get HIV from blood transfusions.

It is impossible to know by looking at someone whether she has HIV/AIDS. In some places there is a blood test, but most people do not know for sure if they have the disease unless they are very sick. For this reason, it is important for everyone to protect themselves from HIV/AIDS by using condoms (see page 302) and by sterilizing tools and equipment (see page 59).



Chapter 7: Learning a pregnant woman's health history

HIV does not live outside the human body for more than a few minutes. It cannot live on its own in the air or in the water. This means **you cannot give or get HIV in these ways:**

- touching, hugging, or kissing
- sharing food
- sharing a bed
- sharing clothes, bedding, or latrines
- insect bites



Touching does not pass HIV/AIDS.

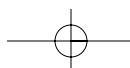
Midwives can help stop HIV/AIDS

HIV/AIDS is a growing problem everywhere in the world. As a midwife, you can help stop this problem. One big way to help is to teach men and women about using condoms.

Even if people around you know how HIV/AIDS is passed, there may be other reasons why they do not protect themselves.

- Some people, especially young people and women, do not have much choice about who they have sex with. If they do not want sex, or if they want to use condoms, their partners may not listen.
- Some people just do not want to use condoms. They may not like how condoms feel. Some people cannot afford to buy condoms, or live in places where condoms are hard to find. Some people may be afraid that using condoms is a sign of unfaithfulness.
- Some people just feel hopeless. If many people around them are sick or dying with AIDS, they may feel there is no way to prevent it, and they do not try.

These challenges are not easily solved. But the health and future of all of us depends on stopping HIV/AIDS, so it is important to try. Find ways to talk to people and to encourage them to talk to each other about social, economic, and spiritual reasons why people have difficulty protecting themselves from HIV/AIDS.



Care for pregnant women with HIV/AIDS

Women who are infected with HIV can have more problems in their pregnancies. Some common problems for pregnant women with HIV/AIDS include:

- miscarriage.
- fevers and infections.
- yeast infections (of the vagina, mouth, or stomach).
- sexually transmitted infections.
- problems after the birth, such as bleeding and infection.

Also, about 1 out of every 3 babies born to mothers with HIV become infected themselves.

Although there is still no cure for HIV/AIDS, there are medicines that can help people with HIV/AIDS live much longer. There are also medicines that help prevent the spread of HIV from a pregnant woman to her baby. See page 335 for more on treating HIV/AIDS. Also see page 293 to learn about preventing the spread of HIV/AIDS while breastfeeding.

It is important that a pregnant woman with HIV/AIDS gets treated for her disease as well as getting normal care in pregnancy. Help her find medical care nearby. If there is a well-equipped medical center in your area, it may be better for her to give birth there.

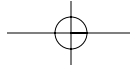
People with HIV/AIDS deserve respect

Because AIDS is so deadly, people are afraid of it. Sometimes this fear causes them to mistreat people who have HIV/AIDS. This mistreatment does not stop the spread of HIV/AIDS, it only causes more suffering. As a midwife, you can set an example for others in your community by treating women with HIV with respect and care. This includes never telling anyone else the person has HIV/AIDS.



Has she been vaccinated against tetanus? If yes, when?

Tetanus (lockjaw) results when the tetanus germ that usually lives in dirt or stool enters the body through a wound. A mother can get tetanus if someone puts something that is not sterile into her womb or vagina during an unsafe abortion, or during or after childbirth. A baby can get tetanus if the cord is cut with something that is not sterilized, or when anything (like dirt or dung) is put on the cord.



Chapter 7: Learning a pregnant woman's health history

Tetanus vaccinations

Everyone should get a series of vaccinations to prevent tetanus. It is best if these vaccinations happen early in life to prevent ever getting sick.

Give tetanus vaccinations (tetanus toxoid) according to this schedule:

- **Injection 1:** best to give to children, but can be given at any time in life
- **Injection 2:** 4 weeks after injection 1
- **Injection 3:** at least 6 months after injection 2
- **Injection 4:** 1 to 3 years after injection 3
- **Injection 5:** 1 to 5 years after injection 4

After this series of injections, everyone needs another injection at least once every 10 years.



People who have received all of these vaccinations will not get sick if they are exposed to tetanus.

Pregnant women who have not received the full course of vaccinations listed above should receive 2 injections, 4 weeks apart. These vaccinations will protect a woman for only 3 years, so if you cannot see her frequently enough to give her a full schedule of vaccinations, you must give the 2 pregnancy vaccinations again the next time she becomes pregnant.

These shots will protect you and the baby against tetanus – for a while.



Good!

To protect pregnant women from tetanus

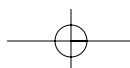
Give vaccinations according to this schedule:

- **Injection 1:** the first time you see the pregnant woman
- **Injection 2:** best if given 4 weeks after the first injection and at least 4 weeks before the end of the pregnancy. But it is not dangerous to give the second injection early if you need to.



Vaccinations during pregnancy will also protect the baby from tetanus during the first few weeks after birth. But the baby must be vaccinated after birth so that the protection will continue.

It is hard to know how much protection a woman already has against tetanus. Most people who have received these vaccinations do not remember if they had the vaccinations or not. If you do not know that someone has had the vaccinations, assume that she has not. Vaccinate her in this pregnancy — an extra vaccination will not harm her.



Is she taking any medicines now?



It is best for a woman to avoid modern medicines and plant medicines during pregnancy. There are many medicines that can harm the baby inside the womb.

If a woman needs to take a medicine, see the green medicine pages at the end of this book to find out whether that medicine is listed as **safe** in pregnancy. If the medicine is not listed, get medical advice.

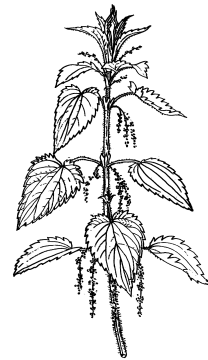
Supplements and tonics

Some modern and plant medicines that are not dangerous are called supplements or tonics. Prenatal vitamins and iron pills are healthy and safe supplements. They help the body get the vitamins and minerals it needs.

Some plants are not used to heal sickness, but to make the body stronger. These herbs have vitamins and minerals that help the baby grow. They are safe and helpful in pregnancy. Some of these tonic plants are nettles, alfalfa, and red raspberry leaf. These plants have different names around the world, so ask someone experienced with plant medicines before giving any tonic herbs to pregnant women.

Stinging nettles (*Urtica dioica*) contain calcium, vitamin K, folic acid, and other important nutrients.

But cover your hands when you pick them or you will be stung!



Has any medicine ever given her problems?



If the woman has ever had a health problem after taking a medicine, like a rash, swelling, or difficulty breathing, **do not give her that medicine.** Those problems are signs of allergy. If a woman takes a medicine that she is allergic to, she might become very sick or even die. An allergic reaction can happen at any time during the rest of her life.

Write down the name of the medicine so you can both remember it. Explain to the woman that she must never use the medicine again, and that she should always tell her doctors or health workers what happened when she used the medicine.

Note: Some kinds of medicines come in “families.” They are very similar to each other. For example, penicillin and ampicillin are in the same family. This is why their names are similar. If a woman is allergic to one member of a family of medicines, she is probably allergic to the other members of that family. See page 470 to learn more.

Medicines that are not in the same family as the one she is allergic to are as safe for her as for anyone else.

What else in her life might affect her pregnancy and birth?

Money

Not having enough money causes many problems for women and their families. It causes physical problems, like not having enough food. And it also causes emotional problems, like feeling stress, fear, and sadness. All of these problems can make pregnancy, birth, and raising children much harder.

The very least that a woman needs during pregnancy is healthy food and a way to get medical help in an emergency.

If the woman you are helping cannot afford these things, help her find them or borrow them.

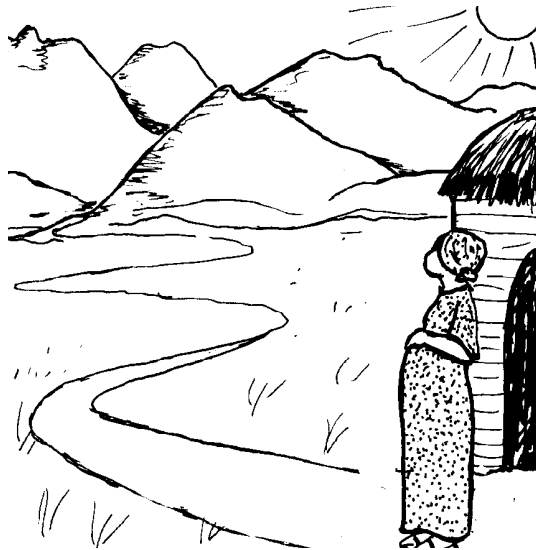
Living conditions

- Is there a clean and private place she can give birth?
- Is clean water available?
- Does anyone in her house have a serious disease that she might catch (contagious disease)?
- Does anyone smoke cigarettes in the house? Is there a smoky cooking stove inside the house? This smoke is very harmful.

Help her find a clean, safe place to give birth.

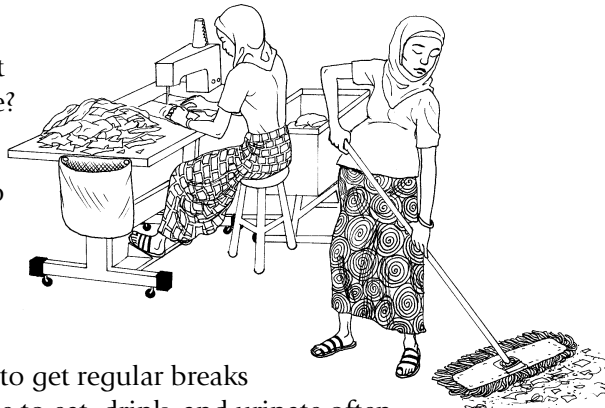
Distance from care

- Will she be able to come to her pregnancy checkups? Can you go to her?
- If she lives far away, can you teach her to do some of the pregnancy checkup herself?
- How far is the maternity center, clinic, or hospital? Does she need to stay somewhere else near the end of her pregnancy to be closer to medical help?
- Is there a telephone or radio she can use in an emergency?



Work

- How much does she work at home and outside her home?
- Does she have time to rest?
- Does her work expose her to dangers — like chemicals? (See page 47.) Can she be protected from work dangers?



It is important for the woman to get regular breaks from her work. She should be able to eat, drink, and urinate often. Her work should not put too much strain on her body.



Family

Partners and other family members can be supportive and can share in the responsibility of the pregnancy. They can help with housework, care for other children, help the woman get enough good food and rest, and can enjoy the growing pregnancy with the woman.

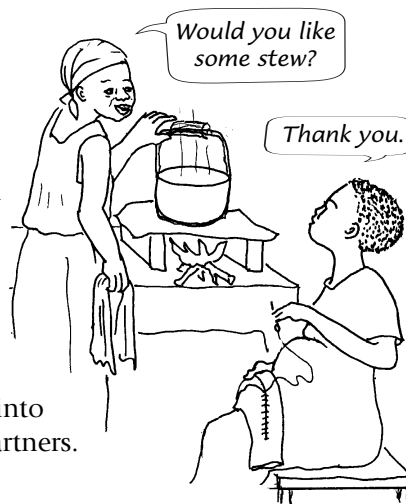
Some women need extra support

Women who do not have much family support, have no partner, or who have a partner who is not supportive may need extra care.

Single mothers are often wonderful and caring parents, but their lives may be harder than those of married women. People may treat single mothers badly, making assumptions about their morals and ignoring their needs. Give single mothers the kindness they deserve, and offer extra care if they do not have family or friends to help.

Very young mothers may have been forced into marriage as young girls, often to much older partners. These girls need particular support.

Women with abusive partners who get drunk or abuse drugs, are often away from home, have sex with other people, or abuse the woman will need support from family, friends, and you. A woman may need to leave her partner, or may choose to stay until she has a safe place to go. See the book *Where Women Have No Doctor* for more information on abusive partners.



Chapter 7: Learning a pregnant woman's health history

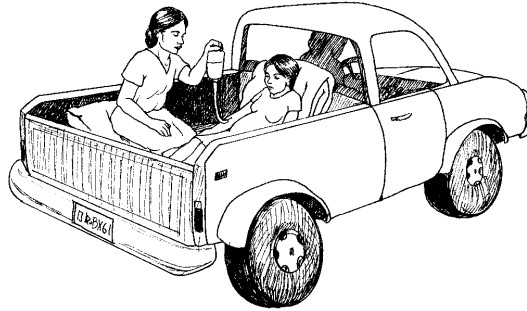
Families save lives

Partners and family are usually the key to a good emergency plan. Find out if the woman needs permission to get medical help in an emergency. For example, if the community expects the husband to give the woman permission to go to a medical center or hospital, he should do so during the pregnancy, so that if he is away during the birth there will be no delay in getting life-saving care.

Teach the husband, mother-in-law, or other close family members the warning signs that mean a woman must be taken to get medical help.

Warning signs in pregnancy and birth — get medical help fast!

- bag of waters breaks early, and labor does not start within 24 hours (see page 175)
- labor is too long — longer than 24 hours (see page 186)
- pre-eclampsia (see page 125)
- infection (see page 178)
- heavy bleeding (see page 224)



Making a transport plan

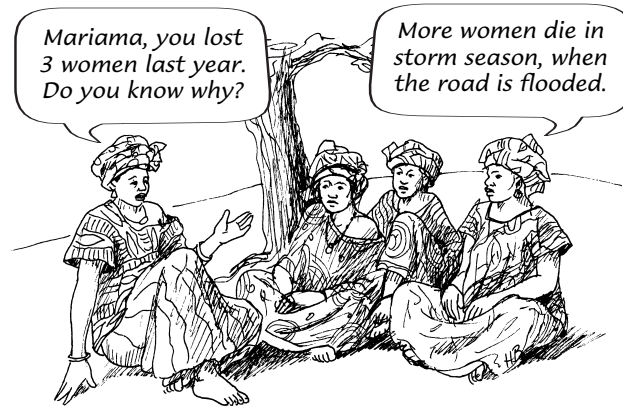
Any woman can have serious problems that require medical help. If a woman has heavy bleeding, an infection, pre-eclampsia, or some other serious problem during labor or birth, she may have a difficult time getting emergency care. A family with no car who lives far from medical help may have no way to get there. They may be poor and afraid they will be unable to pay what the local hospital demands.



If everyone waits until a problem arises to think about how to get medical help, there may not be a solution. But with planning before the birth — while the woman is still pregnant — the woman, her family, her midwife, and her community can make a plan that can save the life of the woman or her baby. Make a transport plan before the birth with each woman. Involve her family and community in making the plan.

Questions in a pregnancy health history

A community transport plan should address all the reasons for delays in getting medical help. To understand these reasons, talk to other midwives who have lost mothers or babies during labor or birth. Talk to families who lost a baby or a mother too. Ask about when the midwife or family first knew there was a problem, and how long it took them to get help. Find out why the midwife and family did not go for help sooner. If possible, these families could meet and all talk to each other. Invite community leaders to listen to what these families and midwives have to say.



A midwife or a family might delay getting emergency care for many reasons:

- The woman, family, or neighbors may feel that the husband or another family member must give permission for the woman to get care.
- The midwife may feel afraid that people at the medical center will blame her for causing the problem.
- The family or the midwife may feel there is no hope — that going to a medical center will not help.
- The family may not have money.
- There may be no car, truck, or other transportation.

After naming the reasons why families in the community do not get help, find solutions. You may be able to find a solution within the family. If the husband must give permission for the woman to go to the hospital, he can give permission in advance of the birth in case he is not home. Some problems are best solved by the whole community. In some villages, every family contributes a small amount of money every year. Anyone in the community who needs medical help can use the pool of money to pay for transportation to a medical center in an emergency.

If everyone understands the problems that women in labor face, they can work together to help women get medical care. By talking to families and communities about the need for emergency medical care, you can help them make a plan that works.



CHAPTER 8

Prenatal checkups

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Prenatal checkups



The regular prenatal (pregnancy) checkup has 3 main parts: talking with the mother, checking the mother's body, and checking the baby. Try to write down what you learn about the mother and baby during each visit.

For each part of the checkup, we list healthy signs and warning signs. If you find a warning sign, be sure to follow instructions for what to do. You may be able to take care of the woman yourself or she may need medical help. At times we suggest that you get medical advice. This means you will need a skilled health worker or doctor to help you decide if there is an emergency or if the woman is OK. If no doctor is willing to give you advice, you will have to send the woman to a medical center for help.



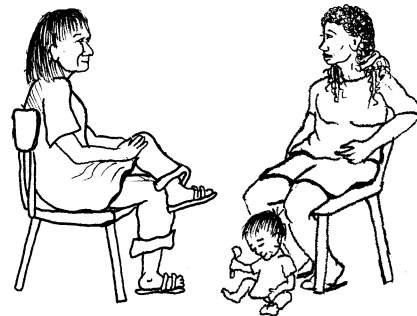
WARNING! The following are the most important warning signs to look for in a pregnant woman:

1. **bleeding from the vagina** (see page 112)
2. **severe pain in the belly** (see page 113)
3. **high fever** (see page 120)
4. **high blood pressure, headache, dizziness, or blurred vision** (see page 125)

At each checkup, remind the mother to get medical help if she has any of these signs.

Talk with the mother

Start the checkup by talking. Ask the mother how she has been feeling and how her pregnancy is going. Find out if she has any complaints or questions.



Observe her general health

HEALTHY SIGNS Mother looks, sounds, and feels healthy and happy.

WARNING SIGNS Mother looks, sounds, or feels unhealthy or unhappy.

While you are talking with the mother, notice everything that you can about her general health. For example:

- Does she have plenty of energy, or is she tired and ill?
- Does she move easily, or is she stiff and slow?
- Does she seem to think and talk clearly, or is she confused?
- Does she have clear skin, or does she have sores and rashes?
- Does she seem happy, or is she sad?



If the mother's general health seems poor, give her extra care, even if you do not know exactly what is wrong. Pay attention if you have a feeling that something is wrong, and remind her to tell you right away if things get worse. She may need medical advice.

Ask if she has any nausea or vomiting

HEALTHY SIGNS Mother has no nausea or vomiting, or mild nausea in the first 3 or 4 months.

WARNING SIGNS

- Mother has severe vomiting, or is unable to keep even water in her stomach.
- Mother can only urinate a little bit, or stops urinating, or her urine is very dark.
- Mother gains less than 1 kilo (2 pounds) in a month after the first 3 months.

Many women have nausea in the first 3 or 4 months of pregnancy. This is not usually dangerous. But if a woman vomits a lot, feels too sick to eat, or cannot keep down even fluids, she will have problems. She and her baby may become malnourished. The nausea may also be a sign that something else is wrong.

If the nausea is mild and in early pregnancy, see page 73 for some helpful remedies to give the mother. If these remedies do not work, or if vomiting is severe, get medical advice. There are medicines that help calm the stomach so she can eat.

If the mother has diarrhea (loose watery stool) or other signs of illness along with vomiting, get medical advice. She should be checked for infection, malaria, ulcers (sores in the stomach), and parasites (harmful worms or other tiny animals living in people's intestines).

If the mother has parasites but they are not causing too many problems, she should probably wait until after the birth to take medicine. Some medicines for parasites harm the baby, especially during the first 3 months of pregnancy. If illness from parasites is severe and the woman is not gaining weight normally or has other signs of illness, get medical advice.

If the mother is unable to keep fluids down and stops urinating, get medical help immediately. She may already have severe dehydration, which is very dangerous. She will need intravenous fluids (fluids given in the veins, which are also called IV fluids, see page 350) and medicine. If you are trained in starting IV fluids, start them while you are traveling to get medical help.



If other people in the area also have trouble with nausea, vomiting, or diarrhea, there may be a problem with the local water. It will not help to give the mother medicines for parasites if she will get parasites again from bad water. If the water is bad, she should only drink it after boiling it or cooking with it. See the book *Where Women Have No Doctor* for simple ways to purify water.

Ask if she feels weak

HEALTHY SIGNS Mother has plenty of energy.

WARNING SIGNS Mother feels weak or tired all of the time, especially after the 4th month.

It is normal for a pregnant woman to feel sleepy in the first 3 months and in the last 4 to 5 weeks of pregnancy. But during the rest of pregnancy she should have plenty of energy.

If a woman is weak or tired for a long time, she may be suffering from one or more of the following problems:

- poor nutrition (see pages 33 to 42)
- anemia (see page 116)
- depression (see page 274)
- too much work
- illness



Help her find out what is causing her weakness. A mother who feels very weak is more likely to have problems in labor and birth. She may have a long, difficult labor, bleed heavily, or get an infection after the birth. Her baby is also more likely to get sick.

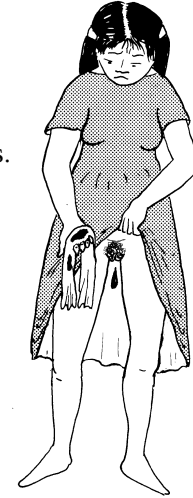
Ask if she has any bleeding from the vagina

HEALTHY SIGNS

- No bleeding.
- Very light bleeding or spotting for a few days during the first months, with no cramps.
- Pink or slightly bloody mucus 2 to 3 days before labor begins. This mucus is called show or the mucus plug.

WARNING SIGNS

- Bleeding as much as monthly bleeding at any time during pregnancy.
- Bleeding with pain at any time during pregnancy.
- Bleeding with no pain in the second half of pregnancy (placenta previa).



Bleeding with cramps during the first 6 months

If the mother has bleeding with cramps, she may be having a miscarriage. If the bleeding is light (spotting), the risk is low.

Get medical help if:

- the bleeding is like a monthly bleeding or heavier.
- the mother is more than 3 months pregnant.
- the mother has a fever.
- there is severe pain or a bad smell from her vagina.

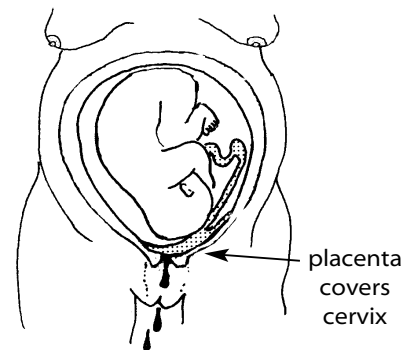
See Chapter 22, page 400, to learn how to help a woman with problems after a miscarriage.

Placenta previa

Bleeding with no pain, especially in the second half of pregnancy, may mean the placenta is covering, or partially covering, the cervix instead of being near the top of the womb where it should be. This is called placenta previa. When the cervix starts to open near the end of pregnancy, the womb side of the placenta is not protected. It is like a raw wound. The mother's blood flows through the placenta and out the vagina. This is very dangerous. The mother and baby may die.

Never do a vaginal exam for a woman who might have placenta previa.

Treat her for shock (see page 239) and **get medical help immediately!**



placenta previa

Ask if she has any unusual pain in the belly, back, or legs

HEALTHY SIGNS No pain in the belly, back, or legs. Or aches and pains that are not dangerous, just uncomfortable, such as:

- mild, irregular cramps high in the belly, all over the belly, or inside the belly (also called practice contractions, see page 150).
- sudden, sharp pains low in the front but to the side that last a few minutes and then go away (see page 79).
- lower back pain that feels better with rest, massage, or exercise.
- sharp pain in the buttocks that runs down the leg and feels better with rest.

WARNING SIGNS

If the mother has any of the following pains, there may be a problem.

- Cramps or belly pains in the first 3 months that get stronger or come regularly may mean that a miscarriage is starting. (See page 91.)
- Pain in one leg that does not go away can be a sign of a blood clot in the leg. (See page 273.)
- Constant pain in the lower belly that goes through the sides into the back, or back pain that does not get better with rest, massage, or exercise, especially if the mother also has a fever, may be caused by a bladder or kidney infection. (See page 128.)
- Any belly pain with fever can be a sign of womb infection. (See page 179.)
- Constant belly pain in late pregnancy may mean the placenta is coming off the womb wall. (See page 114.)
- Strong, constant belly or side pain in the first 3 months may mean that this is a tubal pregnancy. (See below.)



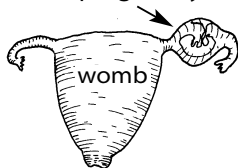
Constant pain early in pregnancy (tubal pregnancy)

Constant pain in the belly during the first 3 months may be a sign that the pregnancy is growing in the wrong place.

The baby usually grows in the womb, where it belongs. But in rare cases, it may start to grow in the tube that leads from the ovary to the womb. This is called a tubal pregnancy. Tubal pregnancy is very dangerous.

At first the tube stretches. But as the pregnancy grows, the mother may feel a sore lump or pain on her side. Then, sometime before she is 3 months pregnant, the tube breaks and bleeds. This bleeding usually stays inside the body where no one can see it, but it can bleed enough to kill the woman. If you think that the pregnancy may be growing in the tube, **get medical help immediately!** Watch for signs of shock (see page 239).

tubal pregnancy



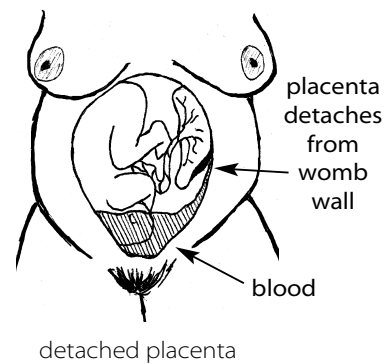
A pregnancy in the tube will make the tube break and bleed.



Chapter 8: Prenatal checkups

Constant pain and bleeding late in pregnancy (detached placenta)

Pain in the belly during the last few months of pregnancy may mean the placenta has come off the wall of the womb. This is called a detached placenta, or abruption of the placenta (see page 184). The mother may be bleeding heavily inside. A womb full of blood may feel hard. This is very dangerous — the mother and baby may die. Get medical help immediately! Watch for signs of shock (see page 239).



Note: A pregnant woman can have a pain in her belly from an illness that is not related to her pregnancy. The illness could be caused by appendicitis (an infection of part of the intestines, with fever, pain on the right side of the belly, and lack of appetite), parasites (with nausea or diarrhea), or ulcers (sometimes with vomiting and black, tarry stool). Get medical advice if you think the mother may have one of these illnesses.

Ask if she has shortness of breath

HEALTHY SIGNS Some shortness of breath, especially late in pregnancy, is normal.

WARNING SIGNS A lot of shortness of breath, especially with other signs of illness, is a warning sign.

Many women get a little short of breath when they are 8 or 9 months pregnant. As the baby gets bigger, it squeezes the lungs so there is less room to breathe. Breathing may get easier when the baby drops lower in the belly shortly before labor begins.

Shortness of breath can also be caused by:

- allergies
- anemia (see page 116)
- heart problems
- tuberculosis (a contagious lung disease)
- asthma
- lung infection
- a blood clot in the lung (see page 273)

If the mother has trouble breathing all of the time, or severe trouble even one time, or if you think she may have any of the illnesses above, get medical advice.



Check for signs of diabetes

WARNING SIGNS

If a woman has some of the following warning signs, she may have diabetes. Women with diabetes do not always have all of these signs. But the more signs a woman has, the more likely it is that she has diabetes.

- She had diabetes in a past pregnancy.
- One of her past babies was born very big (more than 4 kilograms or 9 pounds), or was ill or died at birth and no one knows why.
- She is fat.
- She is thirsty all the time.
- She has frequent yeast infections.
- Her wounds heal slowly.
- She has to urinate more often than other pregnant women.
- Her womb is bigger than normal for how many months she has been pregnant.



When a woman has diabetes, her body cannot use the sugar in her blood. There is a blood test for diabetes. Ask your local health department if they can give the test. The best time to do this test is at about 6 months (24 weeks) of pregnancy.

A simple test for diabetes



Ask a woman to urinate into a container like a pot or a cup, and leave the container outside. If ants climb into the container, there is probably sugar in the woman's urine — a sign of diabetes.

How to help a woman with diabetes

Diabetes can make a woman very sick and childbirth more dangerous. Her baby may be very big, have birth defects, or it may become very ill and die after the birth.

Usually diabetes in pregnancy will improve if the woman eats a good diet and exercises. Sometimes medicine is needed to prevent serious problems.

If you think that a woman has diabetes, she should get medical help. She should probably plan to have her baby in a medical center. She must eat a variety of healthy foods (see pages 33 to 42), avoid candy and sugar, and eat frequent small meals.

For more information about diabetes, see the book *Where There Is No Doctor* or another general health book.

Check the mother's body

Check for signs of anemia

HEALTHY SIGNS General good health and plenty of energy.

WARNING SIGNS

- Pale inside of eyelids, fingernails, and gums.
- Dizziness or fainting.
- Weakness or tiredness.
- Fast pulse (over 100 beats a minute).
- Difficulty breathing.



There is also a blood test for anemia.

When someone has anemia, it usually means she has not been able to eat enough foods with iron (see page 36). Iron helps the blood carry oxygen from the air we breathe to all parts of the body. Some kinds of anemia are caused by illness, not lack of iron. And some kinds of anemia are inherited (genetic). They cannot be cured by eating iron foods or iron pills.

Many pregnant women have anemia, especially poor women. Women with anemia have less strength for childbirth and are more likely to bleed heavily, become ill after childbirth, or even die.

How to treat anemia

Ordinary anemia can usually be cured by eating foods high in iron (like beans, yams and meat) and foods high in vitamin C (like citrus fruits and tomatoes), and by taking iron supplements. After using these methods, the mother should be checked again in about 4 weeks. If she is not getting better, get medical advice. She may have an illness, or she may just need a stronger iron supplement.



iron-rich foods

To treat anemia with iron supplements

- give 300 to 325 mg ferrous sulfate.....by mouth, 2 times a day



If a woman is very anemic in the 9th month of pregnancy, she should plan to have her baby in a medical center.

Check for signs of poor nutrition or lack of iodine

HEALTHY SIGNS General good health and a lot of energy.

WARNING SIGNS

Signs of general poor nutrition:

- Not wanting to eat.
- Not gaining weight.
- Weakness and general ill health.
- Sores, rashes, or other skin problems.
- Sore or bleeding gums.
- Stomach problems or diarrhea.
- Burning or numbness of the feet.



Signs of lack of iodine:

- Goiter (swelling in the front of the throat).
- Short children, or children with deafness or cretinism, a disability that affects thinking.

See page 38 for ways to get more iodine.

What to do for poor nutrition

The best way to prevent or cure poor nutrition is to help people eat well. Find out what the mother has been eating. See pages 33 to 42 to find ways to help her eat better. Remember: vitamin pills and tonics can be helpful in pregnancy, but they cannot replace a good diet!



A woman with poor nutrition is more likely to have a difficult birth, a too-small baby, and more difficulty recovering from birth. If you are worried that a woman may have a hard birth because of poor nutrition, get medical advice.

Weigh the mother

HEALTHY SIGNS Mother slowly and steadily gains between 9 and 18 kilograms (20 to 40 pounds) during pregnancy. This is the same as 1 to 2 kilograms (2 to 4 pounds) each month.

WARNING SIGNS

- Mother is very thin or gains fewer than 9 kilograms (20 pounds) during pregnancy.
- Mother gains more than 19 kilograms (42 pounds) during pregnancy.
- Mother gains weight suddenly — more than ½ kilogram (3 pounds) in 1 week or 3 kilograms (8 pounds) in 1 month, especially in the last 2 months of pregnancy.

Most of the weight a woman gains during pregnancy is from her baby, the placenta, and the bag of waters. The mother also puts on some fat. This is healthy.

If you have a scale, weigh the mother at each visit. If possible, always use the same scale.

Rania is so much bigger than I am. Am I gaining enough weight?

You are both gaining good amounts of weight, a little each month. Don't worry!



What to do if you find warning signs

Mother is very thin or does not gain enough weight

Some women are small or thin and may stay small or thin during pregnancy. That is normal. But all pregnant women should steadily gain weight. If the mother does not gain enough weight, try to find out why. Ask the mother about:

- her eating (see page 33).
- signs of parasites (see page 37).
- drug use (see page 46).
- nausea and vomiting (see page 73).
- HIV/AIDS (see page 99).
- money problems (cannot afford food — see page 104).

Mother is very fat or gains a lot of weight

Women of all sizes can be healthy and have safe births. But gaining a lot of weight can be a warning sign of diabetes. If a woman is very fat, or gains a lot of weight in pregnancy, look for other signs of diabetes (see page 115).

Mother gains weight suddenly

If a mother gains weight suddenly near the end of her pregnancy, it may be a sign of twins (see page 143) or pre-eclampsia (see page 125).

Check the mother's temperature

HEALTHY SIGNS Temperature is close to 37°C (98.6°F). Woman does not feel hot-to-touch.

WARNING SIGNS Woman has a fever — a temperature of 38°C (100.4°F) or above. Woman feels hot-to-touch.

How to check the temperature

Put the back of one hand on the woman's forehead, and the other on your own or that of another healthy person. If the woman has a fever, you should be able to feel that her skin is hotter than that of a healthy person.



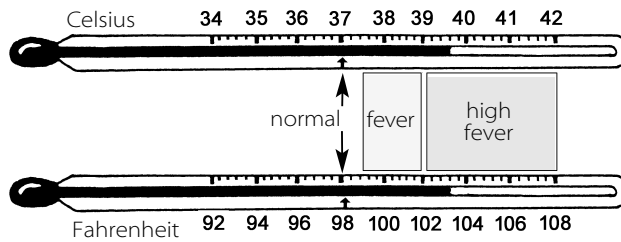
If you have a thermometer, clean it well with soap and clean water or alcohol. Shake with a snap of the wrist until the thermometer reads less than 36°C (96°F).

Put the thermometer under the tongue and leave it there for 3 minutes. The woman should keep her mouth closed.




Take the thermometer out and turn it until you see the silver line. The point where the silver stops marks the temperature.

There is usually a little arrow at the "normal" point.



Always clean the thermometer with soap and cool water or with alcohol after you use it. Do not use hot water — it can break the thermometer!

Glass thermometers are filled with mercury, a very poisonous metal. Be careful with glass thermometers, and if they break, do not pick up the mercury with your bare hands. Sweep the mercury into a jar and bury it. Do not let children play with thermometers or mercury. Get a digital thermometer if you can.



digital thermometer

pregnancy

Chapter 8: Prenatal checkups

What to do if the woman has a fever

A fever can be caused by:

- sickness — like flu or malaria (see page 98).
- an infection of part of the body — like a bladder infection (see page 128) or a womb infection (see page 179).

A mild fever can also be caused by dehydration.

Find the cause of the fever, and then treat it. Along with treating the cause, a high fever needs to be lowered right away.



To lower a fever

- give 500 to 1000 mg paracetamolby mouth, every 4 to 6 hours

And have her drink 1 cup of water every hour. If she is too sick to drink, give rectal fluids (page 342) or IV fluids (page 350).

If the fever does not come down in 8 hours, get medical help.



Check the mother's pulse

HEALTHY SIGNS Pulse is about 60 to 80 beats a minute when the mother is resting.

WARNING SIGNS Pulse is 100 or more beats a minute when the mother is resting.

The pulse tells you how fast the heart is beating. Everyone's pulse is different. That is normal.

How to check the pulse

1. Wait until the mother is resting and relaxed.
2. Put the pads of two fingers on the pulse. Do not use your thumbs.



You can find the pulse on the side of the throat, under the jaw...



or on the wrist below the thumb.



3. Count the number of beats in a minute:

- If you have a watch with a second hand, count the number of beats in the mother's pulse for 1 minute. Write the number down.

(At first, have someone watch the clock for you and tell you when a minute has passed. Many people find it hard to count accurately while looking at a watch. They tend to count one pulse beat every second, no matter how fast the pulse is really beating.)

- If you do not have a watch with a second hand, check the pulse anyway. You can learn to tell if it is slow, normal, or fast compared to your own pulse, and to other women's. Or you can make a homemade timer to use instead of a watch (see page 443).

What to do if the woman has a fast pulse

If the mother's pulse is 100 beats or more a minute, she may have one or more of the following problems:

- stress, fear, worry, or depression (see pages 104 and 274)
- anemia (see page 116)
- infection like malaria (see page 98), bladder infection (see page 128), or womb infection (see page 179)
- heavy bleeding (see page 112)
- harmful drugs in her blood (for example, from using cocaine or methamphetamines or taking diet pills — see page 46)
- thyroid trouble
- heart trouble



If you suspect any of these causes, turn to the page number listed for more information. If you do not know what is causing the fast pulse, get medical advice.

Note: Some healers check other traits of the pulse. For example, in many parts of Asia, healers feel how strong and how easy to feel the pulse is. In this book, we only teach how to check how fast the pulse is beating. If you usually check the pulse for other traits, try checking how fast it beats too.

Check the mother's blood pressure

HEALTHY SIGNS Blood pressure stays between 90/60 and 140/90 and does not go up much during pregnancy.

WARNING SIGNS High blood pressure. The mother has high blood pressure if either of these is true:

- The top number is over 140.
- The bottom number is over 90.

(Very low blood pressure is also a warning sign, but is usually only caused by heavy bleeding or shock. See page 180.)

A woman's heart is like a pump, pumping her blood through her body. High blood pressure means that the heart must work harder to press the blood through tight or shrunken blood vessels (veins and arteries). Blood pressure numbers show how hard the blood has to press.

When a woman has high blood pressure during pregnancy, it is harder for her blood to bring food to the baby. The baby then grows too slowly. Very high blood pressure can also cause the mother to have kidney problems, bleeding in the womb before birth, or bleeding in the brain.

High blood pressure can also be a sign of pre-eclampsia (see page 125). Pre-eclampsia can cause premature birth, bleeding, convulsions, or even death for the mother.

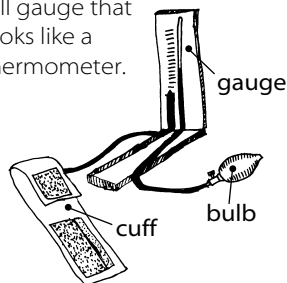
For these reasons it is very important to check the mother's blood pressure.

Blood pressure is not the same as the pulse. You can have a slow pulse with high blood pressure.

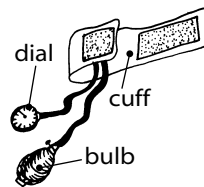
How to check blood pressure

There are several types of blood pressure equipment.

Some have a tall gauge that looks like a thermometer.



Others have a round dial.



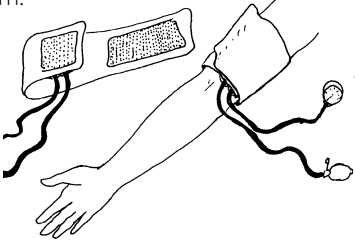
Blood pressure equipment usually comes with a stethoscope. (See page 445 for how to make a homemade stethoscope.)



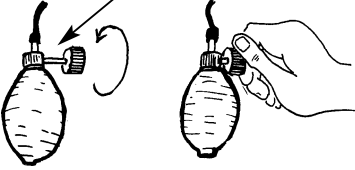
When you take the mother's blood pressure, first tell her what you are going to do and why.

Check the mother's body

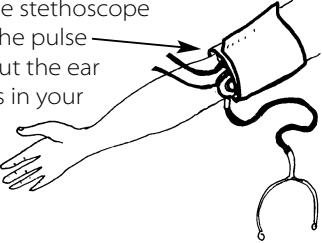
1 Fasten the cuff around the bare upper arm.




2 Close the valve on the rubber bulb by turning the screw to the right. The screw will get shorter.



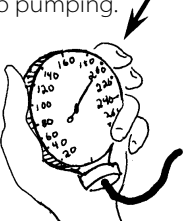
3 Feel for a pulse just below the cuff, on the inside of the elbow. Put the stethoscope over the pulse and put the ear pieces in your ears.



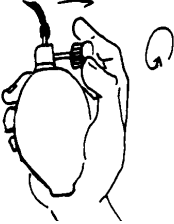
4 Pump the cuff up by squeezing the bulb.




5 As you pump, the needle will move. When it reaches 200, stop pumping.



6 Then open the valve just a little so that the air leaks out slowly.



7 The needle will begin to go back down. (If the valve is closed, it will stay at 200.)



8 As the air leaks out, you will start to hear the mother's pulse through your stethoscope.

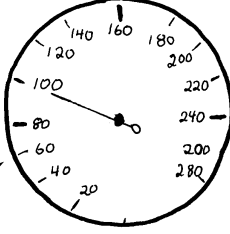
Notice where the needle or mercury is:

1. when you start to hear the pulse (this will be the top number), **and**
2. when the pulse disappears or gets very soft (this will be the bottom number).

If you start to hear a pulse here

and then cannot hear it anymore when the needle is here

then the blood pressure is: 100/60.



Chapter 8: Prenatal checkups

Check the mother's blood pressure at each visit. Write it down on a chart or on one piece of paper, so you can look for changes over time.

If her blood pressure is going up, ask her to come back every week until you are sure that it is not still rising.

If it is ever higher than 140/90, then the blood pressure is too high and can be a warning sign.

| | |
|---------|----------------|
| Sept 13 | 100 / 60 |
| Oct 12 | 110 / 62 |
| Nov 15 | 94 / 58 |
| Dec 10 | 100 / 66 |
| Jan 12 | 110 / 72 |

This woman's blood pressure goes up and down a little from month to month. This is normal.

If her blood pressure is 140/90 or higher

If the mother's blood pressure is high the first time you take it, have her lie on her left side. Help her relax (stress or fear can cause blood pressure to go up). In 10 to 30 minutes, take her blood pressure again.

- If the blood pressure goes down to a normal level, things are probably OK. If possible, have the mother come back in a few days so you can take her blood pressure again. Ask her to rest on her side every day.
- If the blood pressure does not go down, there may be a problem. To find out, take her blood pressure at least 3 times in the next week (or every day for 3 days). If the blood pressure stays high, get medical advice. Teach the mother the danger signs of pre-eclampsia and check to see if she has any of those signs (see page 125). If she has these signs, get medical help fast. It will probably be safest for her to give birth in a medical center.
- If the top number of the blood pressure is over 160, or if the bottom number is over 100, get medical help now. She must get medical help. In some cases, she may need to stay at a medical center until she has the baby.

Home care for moderately high blood pressure (between 140/90 and 160/100)

If the mother cannot see a doctor or if the doctor advises her to rest at home, she should:

- **Rest in bed as much as possible.** It is best if she rests on her left side. If she cannot stay in bed, she should rest as much as she can during the day, even if this is only for a few minutes every 1 to 2 hours. The mother can practice relaxing and feeling peaceful during these rest times. It is especially important to rest in the last 3 months of pregnancy.
- **Eat a good diet.** Help the woman eat a variety of vegetables, fruits, and protein. Foods high in protein, calcium, or magnesium all may help prevent pre-eclampsia. Eating cucumbers, beets, bananas, or lemon or lime juice might help lower blood pressure.





- **Drink a lot of liquid.** Have the woman drink 6 to 8 glasses or more each day of clean water or other healthy fluids.
- **Avoid very salty foods.** A little salt is fine, but women with high blood pressure should avoid foods with a lot of salt like potato chips, salted nuts, or processed meats.

Check for signs of pre-eclampsia (toxemia of pregnancy)

Pre-eclampsia is a very dangerous problem that can happen in late pregnancy, during labor, or in the few days after a woman has a baby. It can lead to convulsions (eclampsia) and even death.

HEALTHY SIGNS Normal blood pressure.

WARNING SIGNS

The two most sure signs of pre-eclampsia are:

- high blood pressure (140/90 or higher).
- protein in the urine (see page 126).

If a woman has both of these signs, she already has pre-eclampsia and needs medical help right away.

If she has high blood pressure and any of these signs of pre-eclampsia, she probably has pre-eclampsia — and you should get medical help:

- Strong headaches.
- Blurred or double vision.
- Sudden, steady, severe pain in the top of the belly, just below the high point between the ribs. It may feel like indigestion.

If you think the pain may be caused by indigestion, you can give an antacid. If the pain does not get better in 20 minutes, it is a danger sign.

- Overactive reflexes. Check the foot for overactive reflexes:



Have the woman lie down and hold her foot like this. Give a sharp push, then let go.



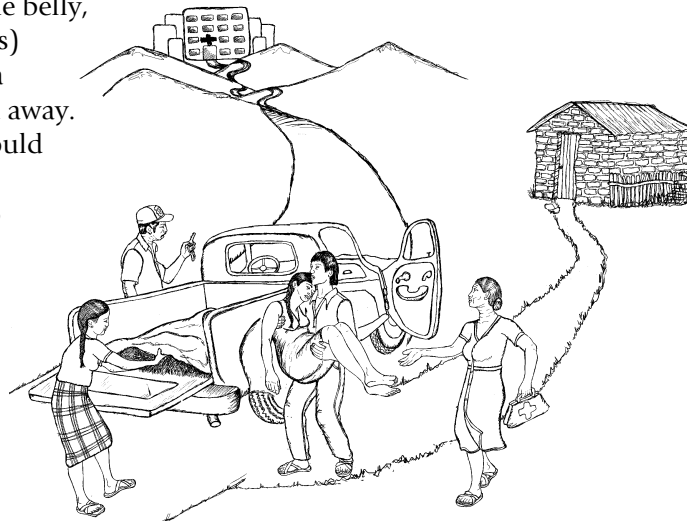
If the foot jerks 2 times or more, it is a danger sign.



Chapter 8: Prenatal checkups

A woman with pre-eclampsia needs medical help immediately

A woman with high blood pressure and any other sign of severe pre-eclampsia (protein in the urine, strong headaches, blurred vision, pain in the top of the belly, or overactive reflexes) should be taken to a medical center right away. On the way, she should lie on her left side. Someone should go with her in case she has a convulsion. For more about convulsions, see page 181.

**Other warning signs of pre-eclampsia are:**

- swelling of the face and hands (especially if she has the swelling when she first wakes up in the morning).
- sudden weight gain.

If she has these signs, continue to check her regularly.

Checking for pre-eclampsia

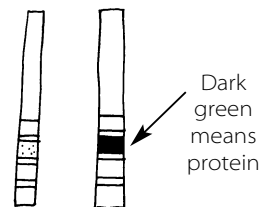
1. Check the woman's blood pressure.
High blood pressure is always a warning sign.



2. If possible, check for protein in the urine.
There are 2 methods for doing this.

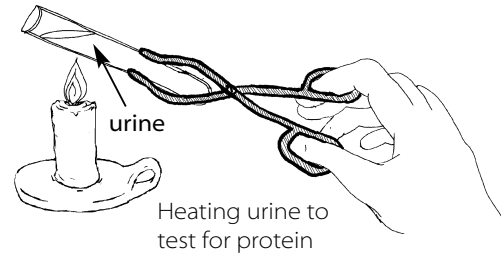
Method 1: Use small plastic strips called *Uristicks*, *Albusticks*, or *Labsticks* to check for protein.

You may be able to get a bottle of these sticks from the local health authority or pharmacy. The strips have different color squares that turn from yellow to dark green. Ask the mother to urinate on the stick, and then compare the color of the squares with the color chart on the bottle. If the square turns dark green, there is protein in the urine. This is the most accurate way to check for protein.



Method 2: Heat the mother's urine to check for protein.

Ask the mother to wash her genitals well and then urinate into a clean container. Then pour the urine into a test tube to within 2½ centimeters (or one inch) of the top of the tube. Heat the upper part of the tube over a small burner, low flame, or candle until the urine boils. (Keep turning the test tube or the glass will break.)



If the urine is clear, there is no protein in it. If the urine becomes cloudy and white, add a few drops of vinegar (2% acetic acid). If the cloudiness goes away there is no protein in the urine. If it stays cloudy or gets whiter, there is protein in the urine. If the woman has protein and high blood pressure, she has pre-eclampsia. When a woman has severe pre-eclampsia, the urine may become very cloudy, white, and thick.

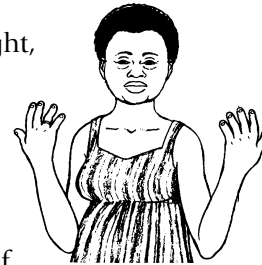


3. Ask the mother if she has had any headaches, dizziness, or trouble seeing.

If these problems are severe or happen often, especially if they start in the last 3 months of pregnancy, they can be signs of pre-eclampsia.

4. Check for swelling. Swelling is also called water weight, water retention, or edema.

Swelling is common during pregnancy, and it is not usually a serious warning sign. Swelling is normal when it is on the ankles and feet, and when it goes away after the woman rests with her feet up. If the woman is having swelling, she should drink plenty of water, take more breaks during the day, and put her feet up when she can.



Swelling can be a sign of pre-eclampsia if:

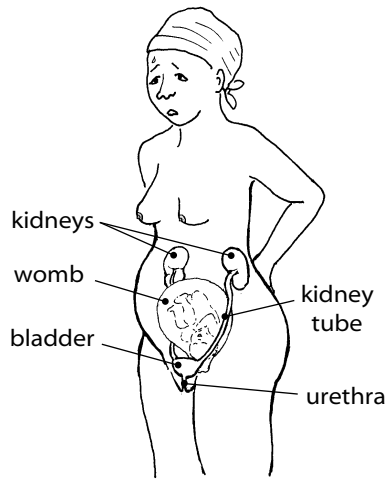
- the woman's hands or face are puffy or swollen **and**
- the woman has swelling when she first wakes up in the morning

What to do if you find warning signs

If a mother has warning signs, get medical help (even if the birth is several months away). It may be safer for her to give birth in a medical center. If you must do the birth at home, be prepared for problems. Read the sections on bleeding (see page 224), convulsions (page 181), and small babies (page 221).

If the mother is told to rest at home, encourage her to follow the instructions for home care for high blood pressure on page 124.

Check for signs of bladder or kidney infection



The kidneys, kidney tubes, bladder, and urethra (the opening where urine comes out of the body) are all connected and work together to get rid of body wastes. First the kidneys clean the blood and turn waste into urine. Then the urine goes down the kidney tubes to the bladder. The urine stays in the bladder until you urinate.

When harmful germs get into the urethra, it can become infected. That infection can easily spread to the bladder or kidneys.

HEALTHY SIGNS No pain, itching, or burning when urinating.

WARNING SIGNS

Bladder infection

- constant feeling of needing to urinate, even after having just urinated
- pain or burning while or just after urinating
- pain in the lower belly, behind the front of the pelvis
- protein in the urine

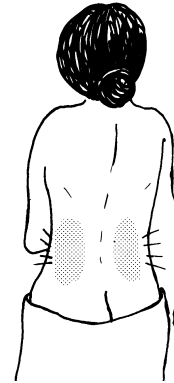
Kidney infection

- any signs of bladder infection
- cloudy or bloody urine
- pain in the lower back, sometimes on the sides
- fever
- feeling very sick or weak

Sometimes a woman has a bladder infection but she has no signs.

(Back pain along the spine is common in pregnancy. It can be helped with massage, exercise, or hot compresses.)

A woman is more likely to get infections of the urethra, bladder, or kidneys during pregnancy than at other times. Bladder and kidney infections can be dangerous for the mother and can also cause her to start labor too early if they are not treated right away.



Pain along the sides of the back may be normal, or it may be a sign of kidney infection.

Note: Itching or burning while urinating can be a sign of infection of the vagina or a sexually transmitted infection. See Chapter 18, page 320, to learn more about treating these infections.

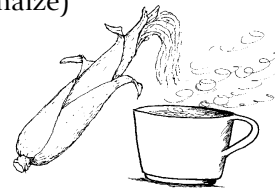
What to do if you find signs of bladder infection

Encourage the mother to **drink 1 glass of liquid every hour while she is awake.** Liquids help wash infection out of the body. Water and fruit juices are especially good to drink.

Encourage the mother to eat fruits that have a lot of vitamin C, like oranges, guavas, kiwis, mangos, or jujubes.

Use local plant medicines that fight infection or heal injured tissues. Two plant medicines that you might be able to use are:

- **corn silk tea** — boil the tassels from an ear of corn (maize) and then drink.
- **marshmallow tea** — soak chopped pieces of the root of the marshmallow plant (*Althaea officinalis*) in cold water overnight and then drink.



Boil a large handful of corn silk in water and drink 1 or 2 cups.

If the infection does not start to improve quickly, or **if the woman has any signs of kidney infection, give antibiotics.** The longer you wait to treat an infection, the more difficult it will be to cure. If she is not better after 2 days of antibiotics, get medical help.

See the green medicines pages at the end of this book before giving this or any medicine.

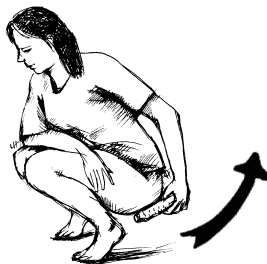
For an infection that is not getting better, or for a kidney infection

- give 500 mg amoxicillinby mouth, 3 times a day for 7 days

If the woman is allergic to amoxicillin

- give 960 mg co-trimoxazole.....by mouth, 2 times a day for 7 days (160 mg trimethoprim and 800 mg sulfamethoxazole)

But do not give co-trimoxazole in the last 3 months of pregnancy.



Prevent bladder infections

To prevent bladder infections, teach women how to keep germs in stool away from the urethra by wiping from front to back after urinating or passing stool. Remind women's partners to clean their hands and genitals before sex. Women should also urinate right after having sex.

Check the baby

Measure the mother's womb

HEALTHY SIGNS

- The size of the womb matches the due date.
- The womb grows about 2 finger widths every month.

WARNING SIGNS

- The size of the womb does not match the due date the first time you check.
- The womb grows more or less than 2 finger widths every month.

When you measure the womb, you check to see where the top of the womb is. This will show you 3 things:

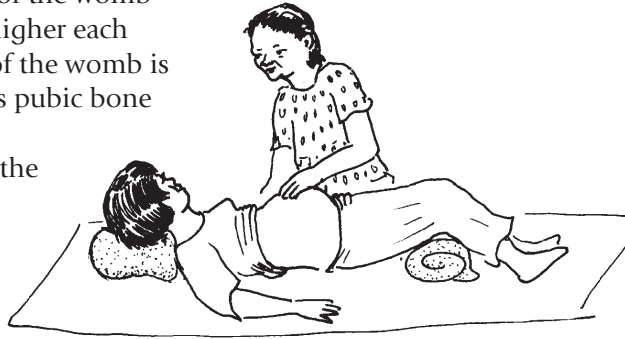
- 1. How many months the woman is pregnant now.**
- 2. The probable due date.** If you were able to figure out the due date from the mother's last monthly bleeding (see page 88), measuring the womb can help you see if this due date is probably correct. If you were unable to figure out her due date from her monthly bleeding, measuring the womb can help you figure out a probable due date. This should be done during the first checkup.
- 3. How fast the baby is growing.** At each checkup, measure the womb to see if the baby is growing at a normal rate. If it is growing very fast or very slow, there may be a problem.

How to measure the womb

As the baby grows inside the womb, you can feel the womb grow bigger in the mother's belly. The top of the womb moves about 2 finger widths higher each month. At 3 months, the top of the womb is usually just above the mother's pubic bone (where her pubic hair begins).

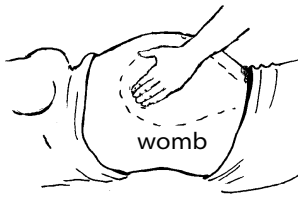
At about 5 months, the top of the womb is usually right at the mother's bellybutton.

At 8½ to 9 months, the top of the womb is almost up to the mother's ribs. Babies may drop lower in the weeks just before birth.

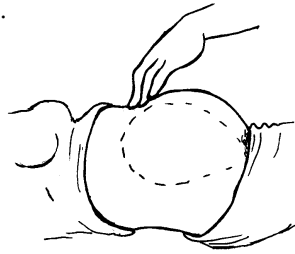


To feel the womb, have the mother lie on her back with some support under her head and knees. Your touch should be firm but gentle.

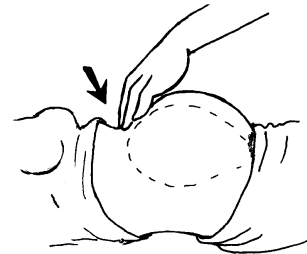
Find the top of the womb.



Walk your fingers up the side of the belly.



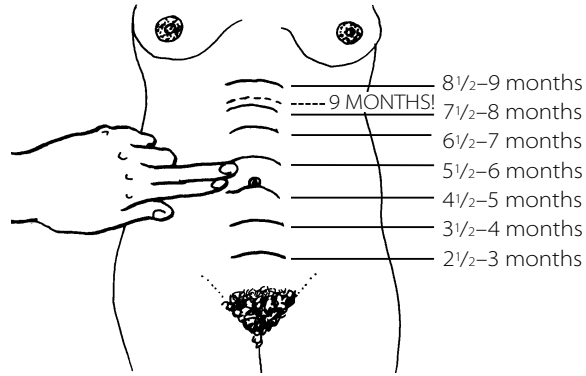
Find the top of the womb (it feels like a hard ball under the skin).



You can feel the top by curving into the belly.

To measure using the finger method

1. If the top of the womb is below the bellybutton, measure how many fingers below the bellybutton it is. If the top of the womb is above the bellybutton, measure how many fingers above the bellybutton it is.

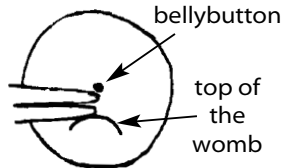


Then see how many months pregnant the woman is now by comparing the number of fingers with this picture (each line is about the width of 2 fingers).

2. Write down what you find, with a picture or with numbers.

To draw a picture: Make a circle for the mother's belly, a dot for her bellybutton, and a curved line for the top of the womb. Then draw the number of fingers the top of the womb is above or below the bellybutton. For example:

This drawing means that the top of the womb is 2 fingers below the bellybutton.



This woman is about 4 1/2 months pregnant.

This drawing means that the top of the womb is 3 fingers above the bellybutton.



This woman is about 6 1/2 months pregnant.

To use numbers: Write down the number of fingers you used to measure the womb. Put a "+" sign in front of the number if the top of the womb is above the bellybutton. Put a "-" sign in front of the number if the top of the womb is below the bellybutton. The example above on the left would be **-2**. The one on the right would be **+3**.

Chapter 8: Prenatal checkups

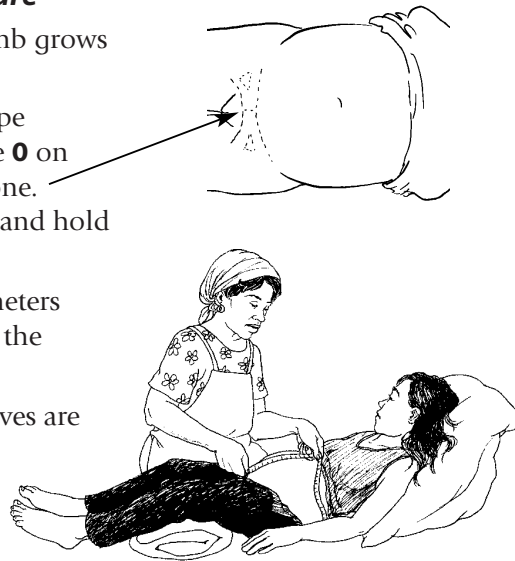
3. Figure out (or double check) the due date.

For example, if measuring the top of the womb tells you that the woman is 7 months pregnant, you can expect that the baby will be born in about 2 months. If you have already figured out her due date using her last monthly bleeding, check to see if the 2 dates are about the same. If the 2 dates are not about the same, see page 133.

**To measure using a soft tape measure**

You can use this method when the womb grows as high as the woman's bellybutton.

1. Lay a cloth or paper measuring tape on the mother's belly, holding the **0** on the tape at the top of the pubic bone. Follow the curve of her womb up and hold the tape at the top of her womb.
2. Write down the number of centimeters from the top of the pubic bone to the top of the womb.
3. Doctors, nurses, and many midwives are taught to count pregnancy by weeks instead of months. They start counting at the first day of the last monthly bleeding, even though the woman probably got pregnant 2 weeks later. Counting this way makes most pregnancies 40 weeks long.



During the second half of pregnancy, the womb measures close in centimeters to the number of weeks that the woman has been pregnant. For example, if it has been 24 weeks since her last monthly bleeding, the womb will usually measure 22 to 26 centimeters. The womb should grow about 1 centimeter every week, or 4 centimeters every month.

If the size of the womb is not what you expected

If you are measuring correctly and you do not find the top of the womb where you expect it, it could mean 3 different things:

- The due date you got by counting from the last monthly bleeding could be wrong.
- The womb could be growing too fast.
- The womb could be growing too slowly.

The due date you got by counting from the last monthly bleeding is wrong

There are several reasons why a due date figured from the last monthly bleeding could be wrong. Sometimes women do not remember the date of their last monthly bleeding correctly. Sometimes a woman misses her bleeding for another reason, and then gets pregnant later. This woman could really be less pregnant than you thought, so the womb is smaller than you expect. Or sometimes a woman has a little bleeding after she gets pregnant. If you assumed that was her regular monthly bleeding, this woman will be 1 or 2 months more pregnant than you thought. The womb will be bigger than you expect.

If the due date does not match the size of the womb at the first visit, make a note. Wait and measure the womb again in 2 to 4 weeks. If the womb grows about 2 finger widths or 1 centimeter a month, the due date that you got from feeling the top of the womb is probably correct. The due date you got by figuring from the last monthly bleeding was probably wrong.

—● **Remember:** Due dates are not exact. Women often give birth up to 2 or 3 weeks before or after their due date. This is perfectly safe.

The womb is growing too quickly

If the womb grows more than 2 finger widths a month or more than 1 centimeter a week, several different causes are possible:

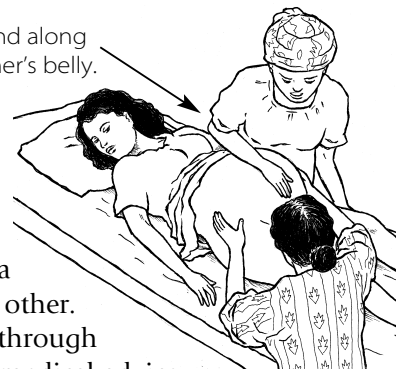
- The mother may have twins. See page 143 to learn how to tell if there are twins.
- The mother may have diabetes (see page 115).
- The mother may have too much water in the womb.
- The mother may have a molar pregnancy (a tumor instead of a baby).

Too much water in the womb

Too much water is not always a problem, but it can cause the womb to stretch too much. Then the womb cannot contract enough to push the baby out or to stop the bleeding after the birth. In rare cases it can mean that the baby will have birth defects. To see if the mother has too much water, try the thump test:

Put one of your hands on one side of the mother's belly. Thump the other side of her belly with your other hand.

Have a helper put a hand along the middle of the mother's belly.

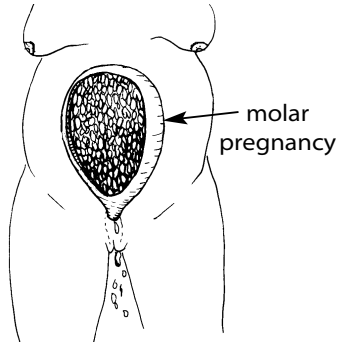


If there is too much water inside, you may feel a wave or ripple cross the belly from one side to the other. (The helper's hand keeps the wave from traveling through the mother's skin.) If there is too much water, get medical advice. It may be safer for the mother to have the birth in a medical center.

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Molar pregnancy (tumor)

Sometimes a woman gets pregnant, but a tumor grows instead of a baby. This is called a molar pregnancy.



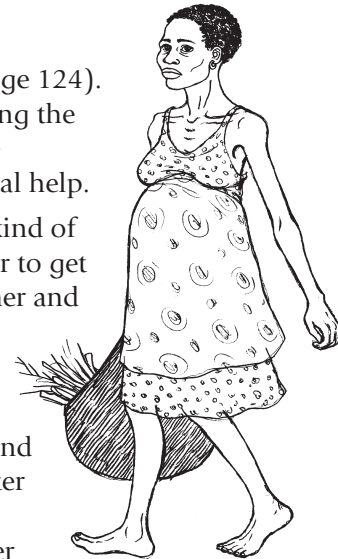
Other signs of a molar pregnancy are: no heartbeat can be heard, no baby can be felt, the mother has bad nausea all through pregnancy, and the mother has spotting of blood and tissue (sometimes shaped like grapes).

If you see signs of a molar pregnancy, get medical help as soon as possible. The tumor can become cancer and kill the woman — sometimes very fast. A doctor can remove the tumor to save the woman.

The womb is growing too slowly

Slow growth can be a sign of one of these problems:

- The mother may have high blood pressure (see page 124). High blood pressure can keep the baby from getting the nutrition it needs to grow well. If you do not have equipment to check her blood pressure, get medical help.
- The mother may have a poor diet. Find out what kind of food the mother has been eating. If she is too poor to get enough good food, try to find some way to help her and her baby. Healthy mothers and children make the whole community stronger.
- The mother may have too little water in the womb. Sometimes there is less water than usual, and everything is still OK. At other times, too little water can mean the baby is not normal or will have problems during the labor. If you think the mother has too little water, get medical advice.
- The mother may be drinking alcohol, smoking, or using drugs. These can cause a baby to be small.
- The baby may be dead. Dead babies do not grow, so the womb stops getting bigger. If the mother is 5 months pregnant or more, ask if she has felt the baby move recently. If the baby has not moved for 2 days, something may be wrong.



If the mother is more than 7 months pregnant, or if you heard the baby's heartbeat at an earlier visit, listen for the heartbeat again. If you cannot find it, get medical help. Some medical centers may have equipment to see if the baby is still alive.

If the baby has died, it is important for the mother to give birth soon. She can give birth at home, but she may bleed more than other mothers, and is at more risk for infection. If labor does not start in 2 weeks, go to a medical center where she can get medicine to start her labor.

Note: When a mother loses a baby, she needs love, care, and understanding. Make sure she does not go through labor alone. If she gives birth in the hospital, someone should stay there with her during the birth.



Find the position of the baby

HEALTHY SIGNS

- There is only 1 baby in the womb.
- The baby is head down at the time of birth.

WARNING SIGNS

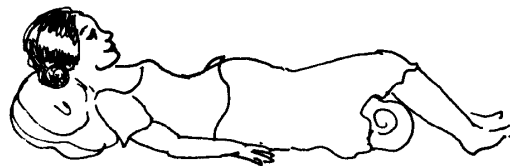
- The baby is breech (feet or bottom down) at the time of birth.
- The baby is sideways at the time of birth.
- The mother has twins.

There are 2 methods for finding the baby's position: feeling the mother's belly, and listening to where the baby's heartbeat is strongest. You may need both to be sure of the position of the baby.

Feeling the mother's belly

It may be difficult to find the position of the baby before the 6th or 7th month. Try anyway. What you feel may not make sense now but may make sense the next time you feel for the baby. It will be easier to find the position during the last 2 months of pregnancy. The more you practice feeling the position of a baby, the better you will be at it.

To begin, help the mother lie on her back and give her support under her knees and head. Make sure she is comfortable.



Then feel the mother's belly. You will be checking for 3 things:

- Is the baby vertical (up and down)?
- Is the baby facing front or back?
- Is the baby head down or bottom down?

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Is the baby vertical?

Most babies are vertical by the 7th month.

To find out if the baby is vertical, lay one hand flat on each side of the belly. Press in gently but firmly, first with one hand, and then with the other.

Check the shape carefully. Do the ends of the baby seem to be in the mother's sides? If so, the baby is probably lying sideways. Many babies lie sideways in the first months but most turn head down by 8 months or so. Babies cannot be born through the vagina from the sideways position. A baby that is sideways and cannot be turned when labor starts must be born by cesarean surgery in a hospital (see page 96). If the baby is sideways after 8 months, get medical help.



vertical:
head or bottom
down



sideways:
head and bottom
on the sides

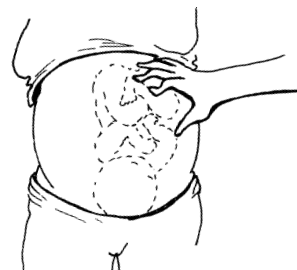
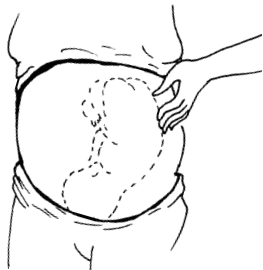
It can be difficult to feel the position of the baby if the mother has very strong muscles on her belly, or if she has a lot of fat on her belly. If you have a hard time feeling the position, ask the mother to take a deep breath and let it out slowly, and to relax her body as you feel.

Is the baby facing the mother's front or her back?

Next, feel the mother's belly for a large, hard shape (the baby's back). If you cannot feel the baby's back, feel for a lot of small lumps.

A large, hard shape probably means the baby is facing the mother's back.

If you feel a lot of small lumps instead of a large hard shape, you are probably feeling the arms and legs. The baby is probably facing the mother's front.

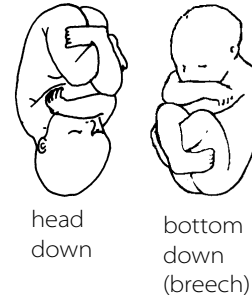


If the baby is facing the mother's front, see page 190.

Is the baby head down or bottom down?

By the last month before birth, most babies are lying with their head toward the cervix. This is called a head-down position. The head-down position is easiest for childbirth.

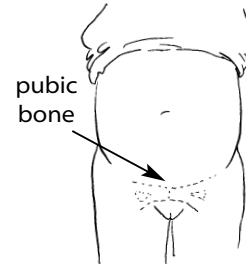
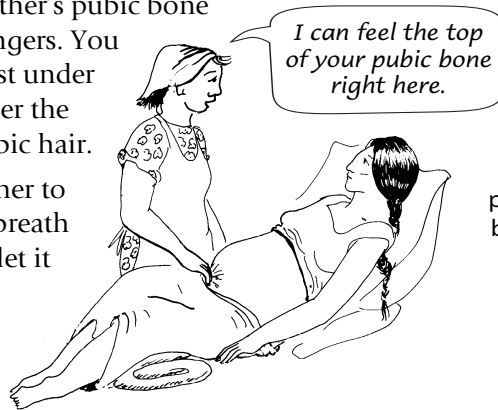
If a baby is head up, with her bottom toward the birth opening, this is called a breech position.



By the 7th or 8th month, the baby's head has usually moved down in the mother's pelvis. Here is how to feel for the baby's head:

1. Find the mother's pubic bone with your fingers. You can feel it just under the skin under the mother's pubic hair.

Ask the mother to take a deep breath in and then let it out slowly.



As she breathes out, press deeply just above her pubic bone. Be gentle and stop if you hurt her.

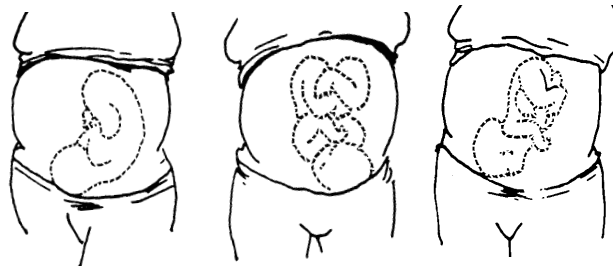
If you feel a round, hard object that you can move a little from side to side, it is probably the back or side of the baby's head.



If you do not feel anything in the mother's lower belly, the baby may be lying sideways.

If the shape is not clearly round, it may be the baby's face or the baby's bottom.

Or sometimes the baby's bottom is up, but the head is not straight down.

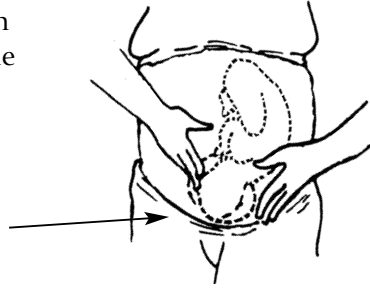


The head may be bent to the side, or the chin may be up. (These could be signs that the baby will not fit through the mother's pelvis at birth.)

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2. If the lower part of the baby is not too deep in the mother's pelvis, try moving that part of the baby from side to side.

If moving the lower part of the baby makes its whole back move, then the baby may be breech. If the back does not move, then the baby may be head down.



3. Now feel the top of the mother's womb. Does it feel round and hard, like a head? Or is it a different shape — like a bottom, a back, or legs? If the top of the womb feels more like a head than what you felt in the mother's lower belly, the baby may be breech.

4. Put one hand on the baby's back. At the same time, with your other hand, push the top end of the baby gently sideways.

If the whole back moves when you move the top end, the baby is probably in a head-down position.



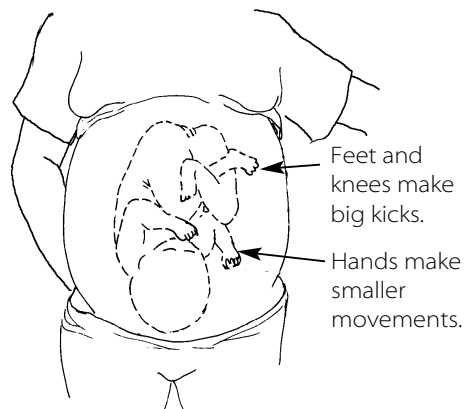
If the back stays where it is while you move the upper part of the baby, you may be moving the head (because the neck can bend, the back stays in place). If you are moving the head, the baby is breech.



Page 142 has more information on breech babies during pregnancy. If the baby is breech at the time of birth, see page 215.

As you feel the mother's belly, try to imagine the different positions the baby might be in. Imagine where the baby's hands and legs might be. Imagine how each position would feel to the mother when the baby kicks.

Then ask the mother where she feels the strongest kicks and where she feels smaller movements. Is this where you think the legs and hands probably are? If not, you may not have figured out the baby's position correctly.



When you check the baby's position, you might think you feel 2 heads or 2 bottoms. The mother may have twins. See page 143.

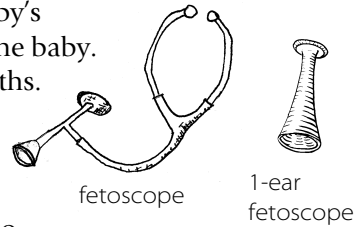
Listening to the baby's heartbeat

The baby's heartbeat gives information about the baby's position inside the mother and about the health of the baby. Listen to the heartbeat at each visit starting at 5 months.

By the last 2 months, you can often hear the baby's heartbeat in a quiet room by putting your ear on the mother's belly.



The heartbeat will be easier to hear if you have a fetoscope or a stethoscope. You can make a simple fetoscope from wood, clay, or a hollow tube of bamboo (see page 445). Or you can buy a fetoscope.



fetoscope

1-ear fetoscope



2-ear fetoscope



stethoscope



1-ear fetoscope

The baby's heartbeat is quiet and quick. It may sound like a watch ticking under a pillow, only faster. The baby's heartbeat is about twice as fast as a healthy adult heartbeat — usually 120 to 160 beats a minute.

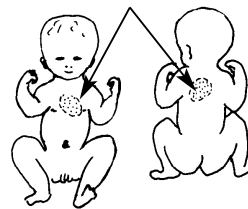
Note: If you hear a "swishy" sound (shee-oo shee-oo shee-oo), you are probably hearing the baby's pulse in the cord. Cord sounds tell you how fast the baby's heart is beating, but they do not help you find the baby's position.

If the heartbeat sounds slow, you are probably hearing the mother's pulse instead of the baby. Try listening to a different place on her belly.

Find the baby's heartbeat

Think about which way the baby seems to be lying. Then start listening for the heartbeat near the spot where you think the baby's heart should be. You may need to listen in many places before you find the spot where the heartbeat is the most loud and clear.

This is where the heartbeat is loudest:



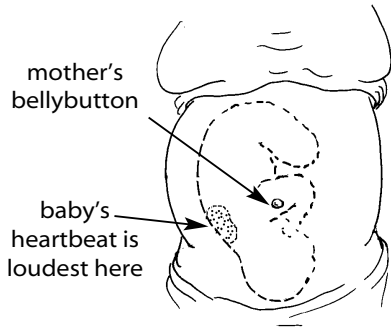
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Find the baby's position by listening to the heartbeat

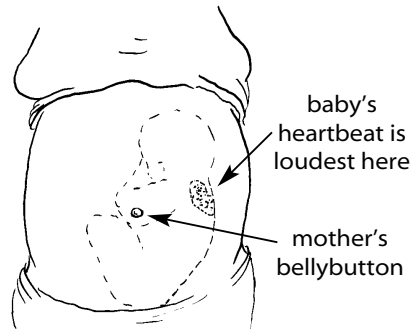
Is the heartbeat loudest above or below the mother's bellybutton?

If you hear the heartbeat loudest **below** the mother's bellybutton, the baby is probably head down.

If you hear the heartbeat loudest **above** the mother's bellybutton, the baby may be breech.

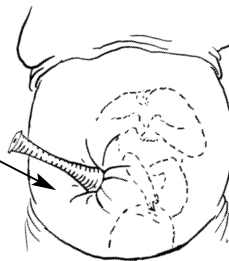


head down

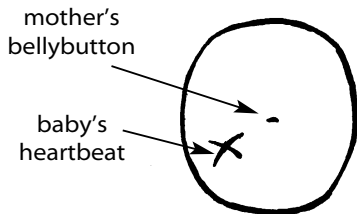


breech

Sometimes when the baby is facing the mother's front, the heartbeat is harder to find because the baby's arms and legs get in the way. Listen near the mother's sides, or directly in the middle of her belly to hear the heart.



If you can, keep a record of where you heard the baby's heartbeat by making a simple drawing.



In this picture, the dot in the middle is the mother's bellybutton, and the X shows where the heartbeat was found.

In this record, for example, the baby did not turn head down until 7 months. Even then the baby moved from side to side, so the X moves from the left side to the right side of the mother's belly and then back again. This kind of movement is normal.

a record of baby's position

| | | |
|--------------|----------|----------------|
| 5 months | Sept. 13 | (-X) |
| 6 months | Oct. 12 | (X) |
| 7 months | Nov. 15 | (X-) head down |
| 8 months | Dec. 10 | (-X) head down |
| 8 1/2 months | Jan. 12 | (X-) head down |
| 9 months | Jan. 28 | (-X) head down |

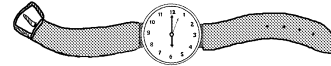
Check how fast the baby's heart beats

HEALTHY SIGNS Baby's heartbeat is between 120 and 160 beats a minute.

WARNING SIGNS A baby whose heartbeat is slower than 120 or faster than 160 beats a minute may be having trouble. A baby whose heartbeat is slower than 100 or faster than 180 needs medical help.

Follow these steps to check how fast the baby's heart beats:

1. Use a clock or a watch with a second hand, as you would for checking the mother's pulse (see page 120). If you do not have a clock or watch, compare the baby's heartbeat to your own pulse when you are resting and calm. (Or make a timer out of homemade materials; see page 443.) The baby's heartbeat should be about 2 times as fast as your pulse.



2. Count the number of heartbeats in one minute. If you have trouble watching the clock and counting at the same time, have someone tell you when to start and stop counting.

If the baby's heartbeat seems very slow, feel the mother's pulse in her wrist while you listen. If the mother's pulse and the heartbeat you hear are the same, you are hearing the mother's heartbeat by mistake.

3. Keep a record of where you found the heartbeat and how fast it beats.

If the baby's heartbeat is above 160, wait a few minutes and check it again. Sometimes the heartbeat is faster when the baby moves. If the heartbeat stays above 160 (especially if it is 180 or more) the mother may have an infection. Check if she has a fast pulse or a fever. If she does, see page 179.

If the baby's heartbeat is slow, the baby may be in danger. If the heartbeat is between 100 and 120 beats a minute, try moving the baby a little from the outside. The baby may be sleeping. Check if the heartbeat is faster when the baby is awake.

If the heartbeat is slower than 100 beats a minute, get medical help.

The baby is in danger! At a hospital the woman may be able to get a cesarean surgery to help the baby to be born early.

Note: A **quiet** heartbeat does not mean that the baby is weak. It just means that the baby's chest or back is far from your ear, or that the mother's belly is hard to hear through. For example, the wall of the belly might be thick if the mother is fat.

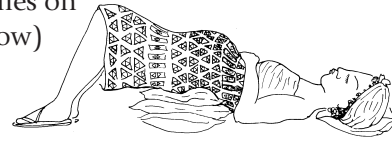
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What to do if you find warning signs**Baby is breech**

Breech babies are often born without any trouble, especially if the mother has had other children and her births were easy. But breech babies are more likely to get stuck or have other serious problems (see page 215).

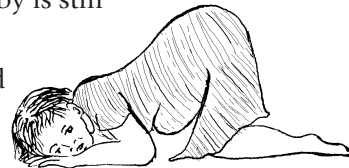
It may be possible to get the baby to turn. Try these methods:

- Lift the mother's hips. This lifts the baby out of the pelvis so he can turn around and put his head down. The mother lies on her back and puts something soft (like a pillow) under her hips for 15 minutes, 3 times every day. It is best to do this when the baby is moving a lot.



After lying this way for 15 minutes, the mother should walk around for about 5 minutes. If she thinks she felt the baby turn, she should not lift her hips like this again until you have checked to see if the baby is still breech.

- Ask the mother to get on her knees with her head resting on the floor. This is another way to move the baby out of the pelvis so that he can turn.
- Try talking to the baby, shining a flashlight, or playing music low on the mother's belly, near her pubic bone. The baby may turn to be closer to the light or sounds.
- You may have plant medicines in your area that can help.

**WARNING! Only try massage to turn the baby if you have been taught how to do it safely and can get medical help.**

Trying to turn the baby by pushing on the womb is very dangerous. See page 369.

Never turn a baby if the mother's waters have broken or if she has ever had vaginal bleeding, high blood pressure, surgery on her womb, or cesarean surgery.

A doctor can pull the baby out with forceps.



If the baby is not head down when labor starts, it is safer for the mother to give birth in a medical center or hospital. Doctors can use forceps (pulling tools) if the baby gets stuck. Or they can do a cesarean surgery.

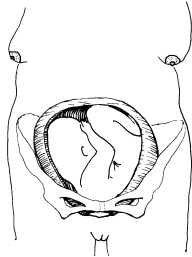
If a breech baby is going to be born at home, it is important for a very skilled midwife to be there (see page 215 for how to deliver a breech baby).

Remember, there are some times when breech birth is even more dangerous. Do not try to deliver a breech at home if:

- this is the mother's first baby.
- the mother has had long or difficult births in the past.
- the baby is big.
- the mother is weak or has been ill, so she cannot push well.
- the midwife is not very skilled or experienced with breech births.

Baby is sideways

If the baby is sideways — not head down or head up — by 8 months, you can try lifting the mother's hips. If the baby does not turn, you should make arrangements for a hospital birth by cesarean surgery.



This baby must be born by cesarean.

Sideways babies cannot fit through the mother's pelvis to be born. If you try to deliver the baby without surgery, the mother's womb will break during labor, and she and the baby will die without medical care.

If the baby turns head down at any time — even on the day the mother goes into labor — it is OK for the mother to give birth at home. But remember that turning a sideways baby by hand is just as dangerous as trying to turn a breech baby. (See page 369.)

Twins

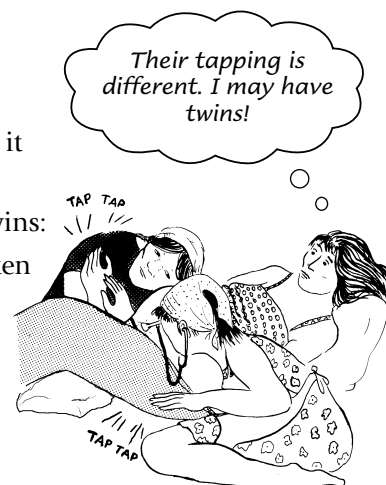
It can be very difficult to know for sure that a mother is pregnant with twins.

Signs of twins:

- The womb grows faster or larger than normal.
- You can feel 2 heads or 2 bottoms when you feel the mother's belly.
- You can hear 2 heartbeats. This is not easy, but it may be possible in the last few months.

Here are 2 ways to try to hear the heartbeats of twins:

1. Find the heartbeat of 1 baby. Have a helper listen for other places where the heartbeat is easy to hear. If she hears a heartbeat, have her listen to one place while you listen to the other.



Chapter 8: Prenatal checkups

Each of you can tap the rhythm of the heartbeat with your hand. If the rhythms are the same, you may be listening to the same baby. If the rhythms are not exactly the same, you may be hearing 2 different babies.

- If you do not have a helper but you have a watch with a second hand, or a homemade timer, try timing each heartbeat separately. If the heartbeats are not the same, you may be hearing 2 different babies.



If you think there might be twins, even if you can find only one heartbeat, get medical help. At a medical center or hospital, someone can use a sonogram (see page 434) to see if there are twins.

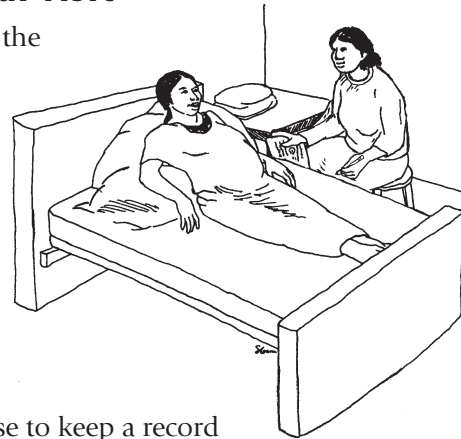
Because twin births are often more difficult or dangerous than single births, they are safer in a medical center. Since twins are more likely to be born early, the mother should try to have transportation ready at all times after the 6th month. If the medical center is far away, the mother may wish to move closer in the last months of pregnancy. Be sure to have a plan for how to get help in an emergency (see page 106).

If the babies must be born at home, 2 very skilled midwives should attend the birth. Watch for labor starting too soon. See page 219 for more about twin births.

After the checkup

Make a time for the next prenatal visit

After you have finished checking the baby and the mother, find out if the woman has any more questions or needs to talk about anything else. If she has any warning signs, carefully explain what the warning sign is and what she must do to care for herself. If she needs to get medical help, be sure she knows where and when to go. Before you leave her, make a time for her next prenatal checkup. Make sure the mother knows when and where the next checkup will be.



On the next page, there is a chart you can use to keep a record of prenatal checkups. If you can, copy this chart and fill it out for each woman who you help. You can look at it at each checkup and at the birth to see how things have changed for the woman, and to remind you of any warning signs she has had.

Adapt this chart or make your own to record other things that you think are important to remember.

Record of prenatal care

Name of mother: _____ Age: _____ Number of children: _____ Date of last childbirth: _____

Date of last monthly bleeding: _____ Probable due date: _____ Problems with other births: _____

| date of visit | month of pregnancy | general health and minor problems | anemia | weight | temperature | pulse | blood pressure | signs of pre-eclampsia | protein in urine | other warning signs | size of womb | position of baby in womb | baby's heartbeat |
|---------------|--------------------|-----------------------------------|--------|--------|-------------|-------|----------------|------------------------|------------------|---------------------|--------------|--------------------------|------------------|
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