
Information for Mothers and Midwives

CHAPTER
19

THE MENSTRUAL PERIOD (MONTHLY BLEEDING IN WOMEN)

Most girls have their first menstrual period or monthly bleeding between the ages of 11 and 16. This means that they are now able to become pregnant.

Most people have their periods every 23 to 36 days. And most periods last 5 to 7 days. But this can vary a lot in different people.

Irregular or painful periods are common in adolescent (teenage) girls. This does not usually mean there is anything wrong.

If your menstrual period is painful

There is no need for you to stay in bed. In fact, lying quietly may make the pain worse.

It often helps to walk around and do light work or exercises . . .

. . . or to take hot drinks, or put your feet in hot water.



But if it is very painful, it may help to take aspirin or ibuprofen (pages 380 to 381) and to lie down and put warm compresses on the belly.

During the period—as at all times—a woman should take care to keep clean, get enough sleep, and eat a well balanced diet. She can eat everything she usually eats and can continue to do her usual work. It is not harmful to have sex during the menstrual period.

Changes and problems with the menstrual cycle:

- Young people whose periods have just started, and people who recently gave birth or stopped breastfeeding, may only bleed every few months, bleed very little, or bleed heavily. Their cycles usually become more regular with time. For other people, cycles that are not regular can be a sign of an illness such as anemia, malnutrition, or a problem in the womb.
- Menstrual periods can be late or not come for many reasons. For young people who have just begun to menstruate, for people using hormonal family planning methods (p. 288), and for people close to menopause (see below), it is not unusual to miss periods. Worry or emotional upset can also cause a missed period. Also, a missed period may be a sign of pregnancy (p. 247).
- People close to menopause (see below) may have heavier or more frequent bleeding than when they were younger. For others, if a period comes later than expected, is more severe, and lasts longer, it may be a miscarriage (p. 281).
- **If the menstrual period lasts more than 8 days, results in unusually heavy bleeding, or comes more than once a month, seek medical advice.**

MENOPAUSE

(WHEN WOMEN STOP HAVING PERIODS)

Menopause or *climacteric* is the time when the menstrual periods stop and pregnancy is no longer possible. In general, this “change of life” happens between the ages of 40 and 50. The periods often become irregular for several months before they stop completely.

There is no reason to stop having sex during or after menopause. But if you do not want to have more children, continue to use birth control for 12 months after your periods stop.

When menopause begins, a woman may think she is pregnant. And when she bleeds again after 3 or 4 months, she may think she is having a miscarriage. If a woman of 40 or 50 starts bleeding again after some months without, explain to her that it may be menopause.

During menopause, people often feel many discomforts—anxiety, distress, hot flashes (suddenly feeling uncomfortably hot), pains that travel all over the body, sadness, etc. After menopause is over, most women feel better again.

Women who have severe bleeding or a lot of pain in the belly during menopause, or who begin to bleed again after the bleeding has stopped for months or years, should seek medical help. An examination is needed to make sure they do not have cancer or another serious problem (p. 280).

After menopause, a woman's bones may become weaker and break more easily. To prevent this, it helps to eat foods with calcium (p. 116).

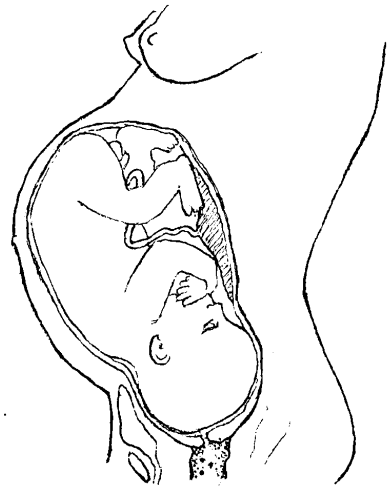
Because she will not have any more children, a woman may be more free now to spend time with her grandchildren or to become more active in the community. Some become midwives or health workers at this time in their lives.



PREGNANCY

Signs of pregnancy:

- The woman misses her period (often the first sign).
- Morning sickness (nausea or feeling you are going to vomit, especially in the morning). This is worse during the second and third months of pregnancy.
- She may have to urinate more often.
- The belly gets bigger.
- The breasts get bigger and may feel tender.
- “Mask of pregnancy” (dark areas on the face, breasts, and belly, p. 207).
- Finally, during the fifth month or so, the child begins to move in the womb.



This is the normal position of the baby in the mother at 9 months.

For more information on pregnancy and birth, see *A Book for Midwives*.

How to Stay Healthy during Pregnancy

- ◆ Most important is to eat enough to gain weight regularly especially if you are thin. It is also important to eat well. The body needs food rich in proteins, vitamins, and minerals, especially iron (see Chapter 11).
- ◆ Use iodized salt to increase the chances that the child will be born alive and will not have learning difficulties. (But to avoid swelling of the feet and other problems, do not use very much salt.)
- ◆ Keep clean. Bathe or wash regularly and brush your teeth every day.
- ◆ Do not use vaginal douches during pregnancy.
- ◆ Avoid taking medicines. Some medicines can harm the developing baby. If a health worker is going to prescribe a medicine, tell her that you are or might be pregnant. You can take acetaminophen, or antacids once in a while if you need them. Vitamin and iron pills are often helpful and do no harm when taken in the right dosage. Get up to date on vaccinations and tested for HIV. Medicines that fight HIV will protect your health and prevent the spread of HIV to the developing baby (p. 400).
- ◆ Do not drink or smoke during pregnancy and avoid second-hand smoke. Smoking and drinking are bad for the mother and harm the developing baby.
- ◆ Stay far away from children with measles, especially German measles (see “Rubella,” p. 312).
- ◆ Try to rest more, but also get some exercise. If there are mosquitoes, sleep under a bed net.
- ◆ Avoid poisons and chemicals. They can harm the developing baby. Do not work near pesticides, herbicides, or factory chemicals—and do not store food in their containers. Try not to breathe fumes or powders from chemicals.

Minor Problems during Pregnancy

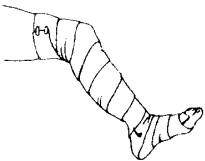
1. **Nausea or vomiting:** This is often worse in the morning, during the second or third month of pregnancy. It helps to eat something dry, like crackers or dry bread, before you go to bed at night and when you wake up in the morning. Do not eat large meals but rather smaller amounts of food several times a day. Ginger, cinnamon, or mint tea also helps. In severe cases, take an antihistamine (p. 385) when you go to bed and when you get up in the morning.

2. **Burning or pain** in the pit of the stomach or chest (acid indigestion and heartburn, p. 128): Eat only small amounts of food at one time and drink water often. Avoid greasy foods. Antacids can help, especially those with calcium carbonate (p. 382). It may also help to suck hard candy. Try to sleep with the chest and head lifted up some with pillows or blankets.

3. **Swelling of the feet:** Rest at different times during the day with your feet up (p. 176). Eat less salt and avoid salty foods. Tea made from maize silk (corn silk) may help (p. 12). If the feet are very swollen, and the hands and face also swell, seek medical advice. Swelling of the feet usually comes from the pressure of the child in the womb during the last months. It is worse in women who are anemic or malnourished. So eat plenty of nutritious food.

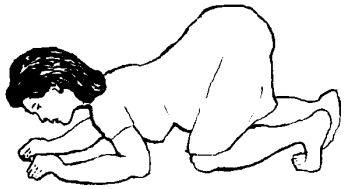
4. **Low back pain:** This is common in pregnancy. It can be helped by exercise and taking care to stand and sit with the back straight (p. 174). You can also ask family for help lifting things, and to rub your back.

5. **Anemia and malnutrition:** Many women in rural areas are anemic even before they are pregnant, and become more anemic during pregnancy. To make a healthy baby, a woman needs to eat well. If she is very pale and weak or has other signs of anemia and malnutrition (pages 107 and 124), she needs to eat more protein and food with iron. Beans, groundnuts, chicken, milk, cheese, eggs, meat, fish, and dark green leafy vegetables are good choices. She should also take iron pills (p. 394), especially if it is hard to get enough nutritious foods. This way she will strengthen her blood to resist dangerous bleeding after birth. If possible, iron pills should also contain some folic acid and vitamin C. (Vitamin C helps the body make better use of the iron.)



6. **Swollen veins (varicose veins):** These are common in pregnancy, due to the weight of the baby pressing on the veins that come from the legs. Put your feet up often, as high as you can (p. 175). If the veins get very big or hurt, wrap them like this with an elastic bandage, or use elastic stockings. Take off the bandage or stockings at night.

7. **Piles (hemorrhoids):** These are varicose veins in the *anus*. They result from the weight of the baby in the womb.

To relieve the pain, kneel with the buttocks in the air like this:  Or sit in a basin of cool water. Also see page 175.



8. **Constipation:** Drink plenty of water. Eat fruits and food with a lot of natural fiber, like cassava or bran. Get plenty of exercise. Do not take strong laxatives.

Danger Signs in Pregnancy

1. **Bleeding:** If a woman begins to bleed during pregnancy, even a little, this is a danger sign. She could be having a miscarriage (losing the baby, p. 281) or the baby could be developing outside the womb (ectopic pregnancy, p. 280). The woman should lie quietly and send for a health worker.

Bleeding late in pregnancy (after 6 months) may mean the *placenta* (afterbirth) is blocking the birth opening (*placenta previa*). Without expert help, the woman could quickly bleed to death. Do not do a vaginal exam or put anything inside her vagina. Try to get her to a hospital at once.

2. **Severe anemia:** The woman is weak, tired, and has pale or transparent skin (see The Signs of Anemia, p. 124). If not treated, she might die from blood loss when giving birth. If anemia is severe, a good diet is not enough to correct the condition in time. See a health worker and get iron sulfate pills (p. 394). If possible, she should have her baby in a hospital, in case extra blood is needed.

3. **High blood pressure or other signs of pre-eclampsia:** Blood pressure of 140/90 or greater can be a sign of a serious problem called pre-eclampsia (toxemia). A lot of protein in the urine, sudden weight gain, and swelling are other important signs. Pre-eclampsia can lead to seizures (convulsions) and even death.

If a woman has high blood pressure, ask her to lie down and rest more often. Help her get plenty of good foods and to eat a lot of protein (p. 110). She should avoid salty packaged foods and snacks. Re-check her blood pressure in a few days.

A woman with high blood pressure or other risk signs may be able to prevent pre-eclampsia by taking a low dose of aspirin. See page 380.

If you cannot check for high blood pressure or protein in the urine, watch for these other signs of pre-eclampsia:

- Swollen face, or swelling all over in the morning upon awakening
- Headaches
- Dizziness
- Blurred vision
- Pain high in the belly

If her blood pressure keeps going up (to 160/110 or higher) or if she shows any of these signs—**get medical help fast!** If she is already having seizures, see page 178.

HIV and Pregnancy

If the mother has HIV, it can spread to her baby during pregnancy, birth, and breastfeeding. All pregnant women should be tested for HIV and start treatment to protect their health and the health of their baby. Talk to a health worker who has experience working with people who have HIV, and see page 398 for more information.

CHECK-UPS DURING PREGNANCY (PRENATAL CARE)

Many health centers and midwives encourage pregnant women to come for regular prenatal (before birth) check-ups and to talk about their health needs. If you are pregnant and have the chance to go for these check-ups, you will learn many things to help you prevent problems and have a healthier baby.

If you are a midwife, you can provide an important service to mothers-to-be (and babies-to-be) by inviting them to come for prenatal check-ups—or by going to see them. It is a good idea to see them once a month for the first 5 months of pregnancy, twice a month during months 6 to 8, and once a week during the last month.

Here are some important things prenatal care should cover:

1. Sharing information

Ask the mother about her problems and needs. Find out how many pregnancies she has had, when she had her last baby, and any problems she may have had during pregnancy or birth. Talk with her about ways she can help herself and her baby be healthy, including:

- ◆ **Eating right.** Encourage her to eat enough energy foods, and also foods rich in protein, vitamins, iron, and calcium (see Chapter 11).
- ◆ **Good hygiene** (Chapter 12 and p. 242).
- ◆ The importance of taking **few or no medicines** (p. 54)
- ◆ The importance of **not smoking** (p. 149), **not drinking alcoholic drinks** (p. 148), and **not using drugs** (pages 418 and 419).
- ◆ Getting enough **exercise and rest**.
- ◆ **Tetanus vaccination** to prevent tetanus in the newborn. Give the first dose as soon as possible during pregnancy, the second dose at least 4 weeks later, and the third dose at least 6 months after the second dose. For more information, see *A Book for Midwives*.

2. Nutrition

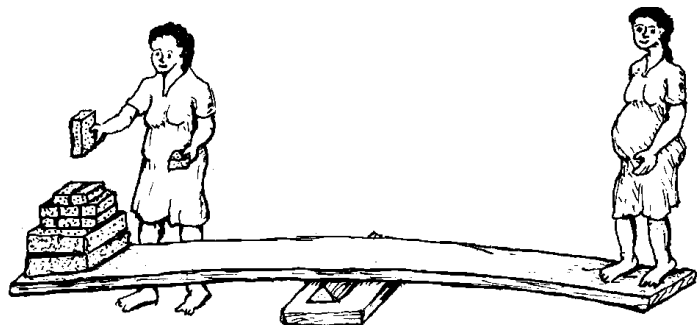
Does the mother look well nourished? Is she anemic? If so, discuss ways of eating better. If possible, see that she gets iron pills preferably with folic acid and vitamin C. Advise her about how to handle morning sickness (p. 248) and heartburn (p. 128).

Is she gaining weight as expected? If possible, weigh her each visit. Someone is expected to slowly and steadily gain 9 to 18 kilograms (20 to 40 lbs) during pregnancy. If she stops gaining weight, this is a bad sign. Sudden weight gain in the last months is a sign of pre-eclampsia.

If you do not have scales, try to judge if she is gaining weight by how she looks.

Or make a simple scale:

bricks or other
objects of known
weight



3. Minor problems

Ask the mother if she has any of the common problems of pregnancy. Explain that they are not serious, and give what advice you can (p. 248).

4. Signs of danger and special risk

Check for each of the danger signs on p. 249. Take the mother's pulse each visit. This will let you know what is typical for her in case she has problems later (for example, shock from pre-eclampsia or severe bleeding). If you have a blood pressure cuff, take her blood pressure (p. 412). And weigh her. Watch out especially for the following danger signs:

- high blood pressure (140/90 or greater)
- protein in the urine
- sudden weight gain
- swelling of hands and face
- headaches
- dizziness and blurred vision
- pain high in the belly

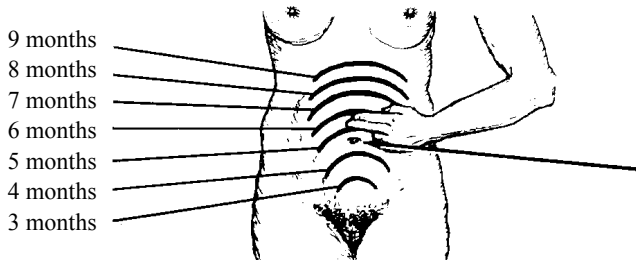
} signs of pre-eclampsia
(p. 249)

Some midwives may have dip sticks or other methods for measuring the protein and sugar in the urine. High protein may be a sign of pre-eclampsia. High sugar could be a sign of diabetes (p. 127).

If any of the danger signs appear, see that the woman gets medical help as soon as possible. Also, check for signs of special risk (p. 256). If any are present, it is safer if the mother gives birth in a hospital.

5. Growth and position of the baby in the womb

Feel the mother's womb each time she visits; or show her how to do it herself.

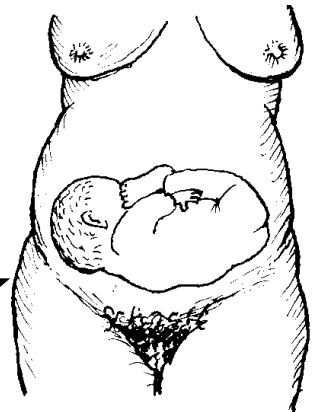


Usually the womb will be
2 fingers higher each month.

At 4 ½ months it is usually
at the level of the navel.

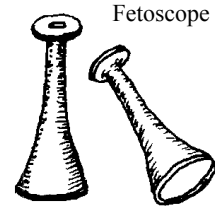
Each month write down how many finger widths the womb is above or below the navel. If the womb seems too big or grows too fast, it may mean the woman is having twins. Or the womb may have more water in it than is typical. If so, you may find it more difficult to feel the baby inside. Too much water in the womb means greater risk of severe bleeding during birth and may mean the baby has a disability.

Try to feel the baby's position in the womb. If it appears to be lying sideways, the mother should go to a doctor before labor begins, because an operation may be needed. For checking the baby's position near the time of birth, see page 257.



6. Baby's heartbeat (fetal heartbeat) and movement

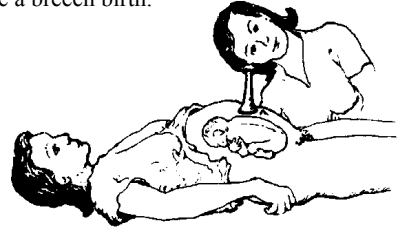
After 5 months, listen for the baby's heartbeat and check for movement. You can try putting your ear against the belly, but it may be hard to hear. It will be easier if you get a *fetoscope*. (Or make one. Fired clay or hard wood works well.)



If the baby's heartbeat is heard loudest below the navel in the last month, the baby's head is down and will probably be born head first.



If the heartbeat is heard loudest above the navel, his head is probably up. It may be a breech birth.



A baby's heart beats about twice as fast as an adult's. If you have a watch with a second hand, count the baby's heartbeats. From 120 to 160 per minute is typical. If less than 120, something is wrong. (Or perhaps you counted wrong or heard the mother's heartbeat. Check her pulse. The baby's heartbeat is often hard to hear. It takes practice.)

7. Preparing the mother for labor

As the birth approaches, see the mother more often. If she has other children, ask her how long labor lasted and if she had any problems. Perhaps suggest that she lie down to rest after eating, twice a day for an hour each time. Talk with her about ways to make the birth easier and less painful (see the next pages). You may want to have her practice deep, slow breathing, so that she can do this during the contractions of labor. Explain to her that relaxing during contractions, and resting between them, will help her save strength, reduce pain, and speed labor.

If there is any reason to suspect the labor may result in problems you cannot handle, send the mother to a health center or hospital to have her baby. Be sure she is near the hospital by the time labor begins.

HOW A MOTHER CAN TELL THE DATE WHEN SHE IS LIKELY TO GIVE BIRTH:

Start with the date the last menstrual period began, subtract 3 months, and add 7 days. For example, suppose your last period began May 10.

**May 10 minus 3 months is February 10,
plus 7 days is February 17.**

The baby is likely to be born around February 17.

8. Keeping records

To compare your findings from month to month and see how the mother is progressing, it helps to keep simple records. On the next page is a sample record sheet. Change it as you see fit. A larger sheet of paper would be better. Each mother can keep her own record sheet and bring it when she comes for her check-up.

Record of prenatal care

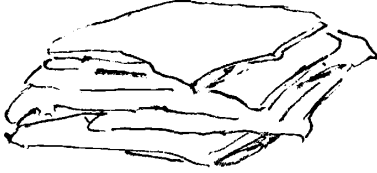
Name of mother: _____ Age: _____ Number of children: _____ Date of last birth: _____
Date of last monthly bleeding: _____ Probable due date: _____ Problems with other births: _____

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

THINGS TO HAVE READY BEFORE THE BIRTH

By the seventh month of pregnancy, have these things ready:

A lot of very clean cloths or rags.



Soap.



A clean scrub brush for cleaning the hands and fingernails.



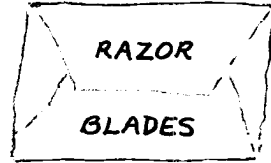
Alcohol for rubbing hands after washing them.



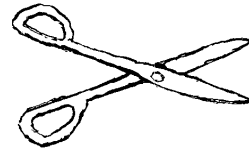
Clean cotton.



A new razor blade. (Do not unwrap until you are ready to cut the umbilical cord.)



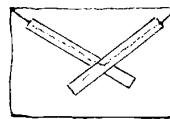
If you do not have a new razor blade, have clean, rust-free scissors ready. Sterilize them (p. 74) just before cutting the cord.



Two bowls—1 for washing hands, 1 for catching and examining the afterbirth.



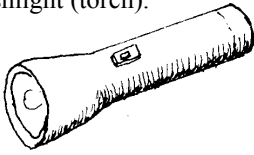
Two ribbons or strips of clean cloth for tying the cord.



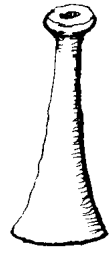
Both ribbons should be wrapped and sealed in paper packets and then baked in an oven (p. 74).

Additional Supplies a Midwife or Birth Attendant May Have

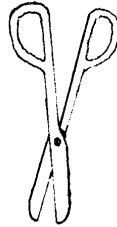
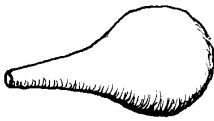
Flashlight (torch).



Fetoscope—or fetal stethoscope—for listening to the baby's heartbeat through the mother's belly.

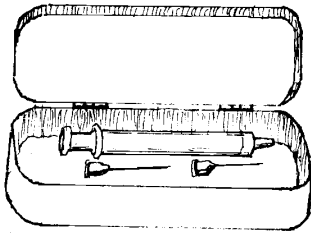


Suction bulb for sucking mucus out of the baby's nose and mouth.

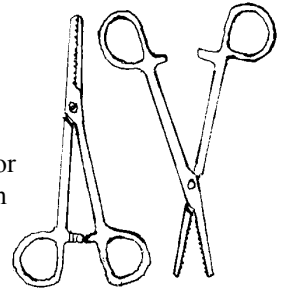


Sterile blunt-tipped scissors for cutting the cord before the baby is all the way born (extreme emergency only).

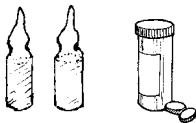
Sterile syringe and needles.



Two clamps (hemostats) for clamping the umbilical cord or clamping bleeding veins from tears of birth opening.



Several injections or tablets of oxytocin, ergometrine, or misoprostol (pages 392 and 393).



Sterile gloves or plastic bags to wear while examining the woman, while the baby is coming out, when sewing tears in the birth opening, and for catching and examining afterbirth.

Sterile needle and gut thread for sewing tears in the birth opening.



ART (HIV medicines) for mother and baby if either parent has HIV (p. 400).



Antibiotic ointment, povidone iodine solution, or silver nitrate solution for the baby's eyes (p. 221).



PREPARING FOR BIRTH

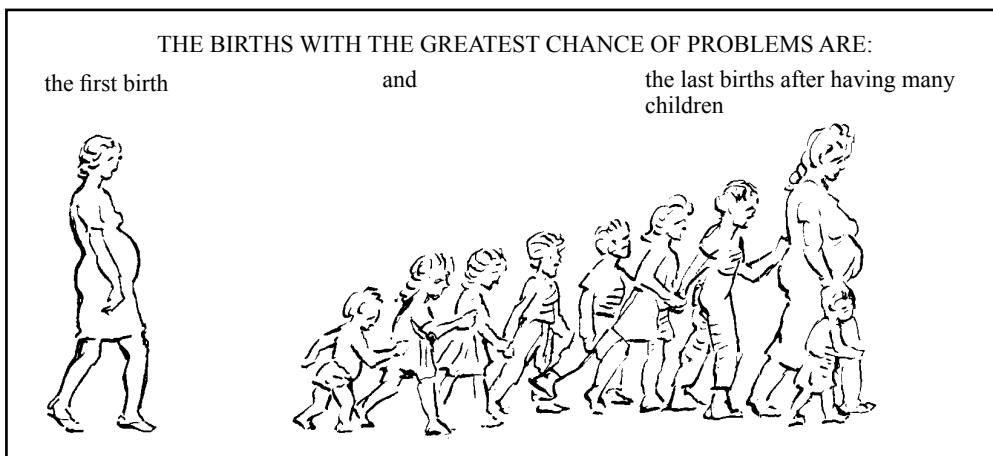
Birth is a natural event. When the mother is healthy and everything goes well, the baby can be born without help from anyone. In most births, the less the midwife or birth attendant does, the more likely everything will go well.

Difficulties during birth do occur, and sometimes the life of the mother or child may be in danger. If there is any reason to think that a birth may be difficult or dangerous, a skilled midwife or experienced doctor should be present.

CAUTION: If you have a fever, cough, sore throat, or sores or infections on your skin at the time of the birth, it would be better for someone else to deliver the baby.

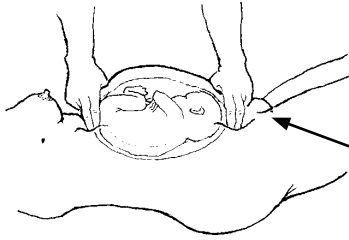
Signs of Special Risk that Make it Important that a Doctor or Skilled Midwife Attend the Birth—if Possible in a Hospital:

- If regular labor pains begin more than 3 weeks before the baby is expected.
- If the woman begins to bleed before labor.
- If there are signs of pre-eclampsia (p. 249).
- If the woman is suffering from a chronic or acute illness.
- If the woman is very anemic or if her blood does not clot when she cuts herself.
- If she is under 15 or over 40, or if it is her first pregnancy and she is over 35.
- If she has had more than 5 or 6 babies.
- If she is especially short or has narrow hips (p. 267).
- If she has had serious trouble or severe bleeding with other births.
- If she has diabetes or heart trouble.
- If she has a hernia.
- If it looks like she will have twins (p. 269).
- If it seems the baby is not in a good position (head down) in the womb.
- If the bag of waters breaks and labor does not begin within a few hours. (The danger is even greater if there is fever.)
- If the baby is still not born 2 weeks after 9 months of pregnancy.



Checking the Baby's Position

A baby may change position several times during pregnancy. For birth, the baby should be lying with its head down, toward the opening of the womb. To check the baby's position, feel for the head, like this:



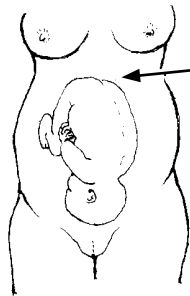
1. Have the mother breathe out all the way.

With the thumb and 2 fingers, push in here, just above the pubic bone.

With the other hand, feel the top of the womb.

The baby's **butt** is larger and wider.

His **head** is hard and round.



Butt up feels larger high up.

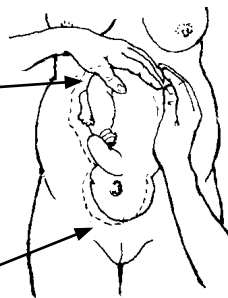


Butt down feels larger low down.

2. Push gently from side to side, first with one hand, then the other.

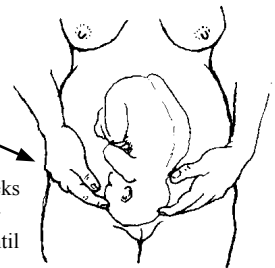
If the baby's butt is pushed gently sideways, the baby's whole body will move too.

But if the head is pushed gently sideways, it will bend at the neck and the back will not move.



If the baby still is high in the womb, you can move the head a little. But if it has already engaged (dropped lower) getting ready for birth, you cannot move it.

A woman's first baby sometimes engages 2 weeks before labor begins. Later babies may not engage until labor starts.



If the baby's head is not down toward the womb opening when labor starts, birth can be difficult or even dangerous.

If the baby's head is up, the birth will be more difficult. It may be safer to give birth in or near a hospital.

If the baby is lying sideways, the birth must be in a hospital. The mother and baby are both in danger. A baby that stays sideways cannot be born without medical help (p. 267).

SIGNS THAT LABOR IS NEAR

These signs show labor will start soon. They may not all happen at every birth, and they can happen in any order. When any of these signs happens, it is time to get ready for the birth.

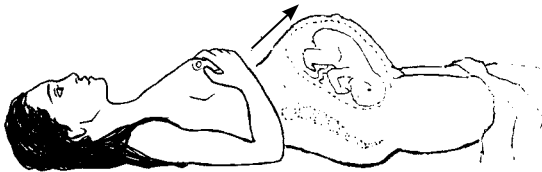
- **Clear or blood-tinted mucus comes out of the vagina.** During pregnancy, mucus plugs the opening to the womb (*cervix*) and prevents infection. When the cervix opens during labor, it releases the plug of mucus.
- **Clear water comes out of the vagina.** The *bag of waters*, which helped protect the baby from infection in the womb, may break before labor starts. (If labor does not start within 24 hours of waters breaking, infection is more likely. See a health worker.)
- **Pains (*contractions*) begin.** It is common to feel some contractions long before labor starts. But when contractions begin to occur regularly with 10 to 20 minutes between them, it is likely the beginning of labor. As labor continues, they happen more frequently and closer together.

Labor pains are caused by contractions or tightening of the womb.

Between contractions the womb is relaxed like this:



During contractions, the womb tightens and lifts up like this:



The contractions push the baby down farther. This causes the cervix or “door of the womb” to open—a little more each time.

To get ready for the birth:

- ◆ Let your family and your midwife know that labor is starting.
- ◆ Make sure your birth supplies are ready (p. 254).
- ◆ Wash your body, especially your outer genitals.
- ◆ Continue to eat small meals and drink whenever you are thirsty.
- ◆ Rest while you can.

THE STAGES OF LABOR

Labor has 3 parts or stages:

- The first stage lasts from the beginning of the contractions that open the cervix until when the cervix is fully open.
- The second stage lasts from when the cervix is fully open until the baby is born.
- The third stage lasts from the birth of the baby until the placenta (afterbirth) comes out.

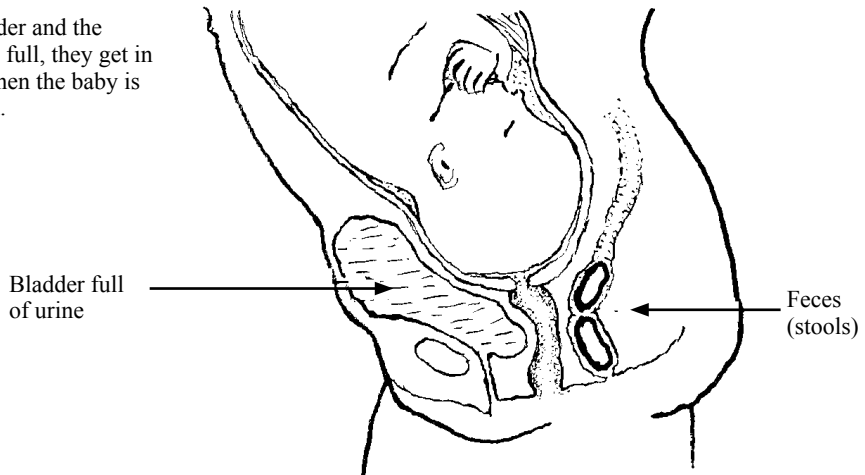
THE FIRST STAGE OF LABOR can last from more than 20 hours (especially for a first birth) to less than 10 hours. This varies a lot.

During the first stage of labor, the mother should not try to hurry the birth. It is natural for this stage to go slowly. The mother may not feel the progress and begin to worry. Try to reassure her. Tell her that most women have the same concern.

The mother should not try to push or bear down until the child is beginning to move down into the birth canal, and she feels she has to push.

The mother should keep her bowels and bladder empty.

If the bladder and the bowels are full, they get in the way when the baby is being born.



During labor, the mother should urinate often. If she has not moved her bowels in several hours, an enema may make labor easier. During labor the mother should drink water or other liquids often. Too little liquid in the body can slow down or stop labor. If labor is long, she should eat lightly, as well. If she is vomiting, she should sip a little Rehydration Drink, herbal tea, or fruit juices between each contraction.

During labor the mother should change positions often or get up and walk about from time to time. She should not lie flat on her back for a long time.

During the first stage of labor, the midwife or birth attendant should:

- ◆ Wash the mother's belly, genitals, buttocks, and legs well with soap and warm water. The bed should be in a clean place with enough light to see clearly.
- ◆ Spread clean sheets, towels, or newspapers on the bed and change them whenever they get wet or dirty.
- ◆ Have a new, unopened razor blade or a sterilized pair of scissors or razor blade ready for cutting the cord (p. 74).

The midwife should **not** massage or push on the belly. She should **not** ask the mother to push or bear down at this time.

If the mother is frightened or in great pain, have her take deep, **slow**, regular breaths during each contraction, and breathe as she usually would between them. This will help control the pain and calm her. Reassure the mother that the strong pains are not a danger sign, and that they help to push her baby out.

THE SECOND STAGE OF LABOR is usually easier than Stage 1, and usually takes 2 to 3 hours. During the contractions the mother bears down (pushes) with all her strength. Between contractions, she may seem very tired and half asleep. This is typical and not a reason for concern.

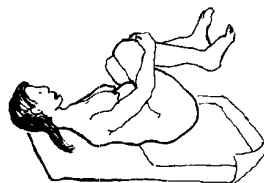
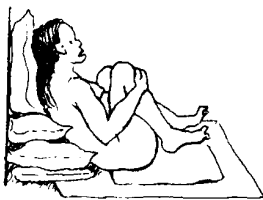
To bear down, the mother should take a deep breath and push hard with her stomach muscles, as if she were having a bowel movement. If the child comes slowly after the bag of waters breaks, the mother can bend her knees like this, while

squatting,

sitting propped up,

kneeling,

or lying down.

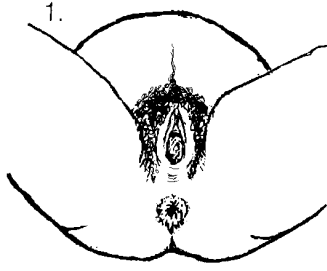


When the birth opening of the mother stretches, and the baby's head begins to show, the midwife or helper should have everything ready for the birth of the baby. At this time the mother should try **not** to push hard, so that the head comes out more slowly. This helps prevent tearing of the opening. See page 269 for more details.

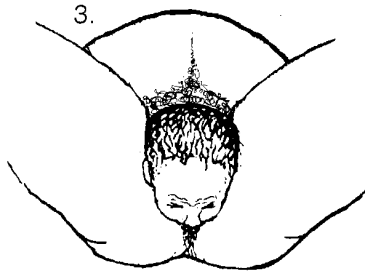
When the head comes out, the midwife may support it, but must never pull on it.

If possible, wear gloves to attend the birth—to protect the health of the mother, baby, and midwife.

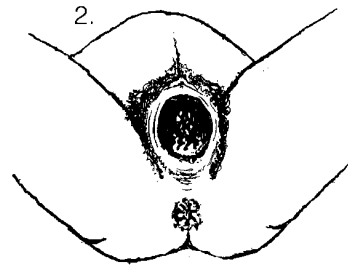
The baby is usually born head first like this:



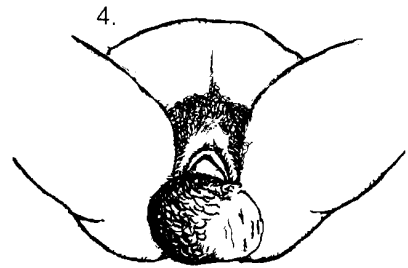
Now push hard.



The head usually comes out face down. If the baby has feces (shit) in her mouth and nose, clean it out immediately (p. 262).

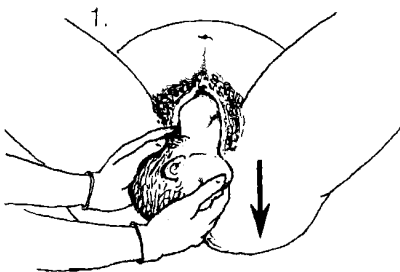


Now try not to push hard. Take many short, fast breaths. This helps prevent tearing the opening (p. 269).

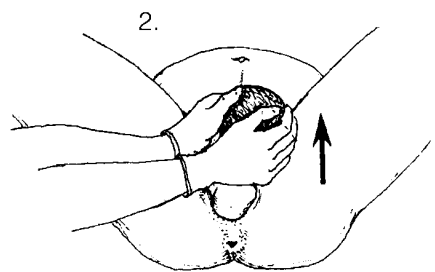


Then the baby's body turns to one side so the shoulders can come out.

If the shoulders get stuck after the head comes out:



The midwife can gently hold the baby's head and guide it toward the mother's back (away from her abdomen). This lets the front shoulder come out.



Then she can raise the head a little so that the other shoulder comes out.

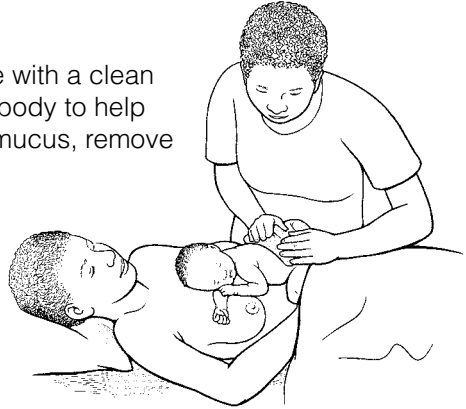
All the force to get the baby out must come from the mother. The midwife should **never pull on the head, or twist or bend the baby's neck**, because this can harm the baby.

THE THIRD STAGE OF LABOR begins when the baby has been born and lasts until the placenta (afterbirth) comes out. Usually, the placenta comes out by itself 5 minutes to an hour after the baby. In the meantime, care for the baby. If there is a lot of bleeding (p. 265) or if the placenta does not come out within 1 hour, seek medical help.

CARE OF THE BABY AT BIRTH

Immediately after the baby is born:

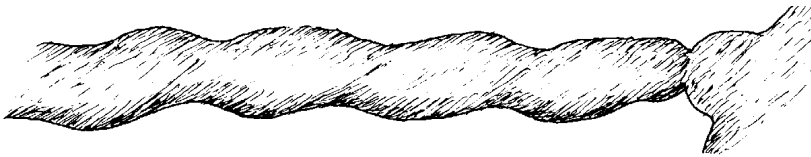
- ◆ Wipe mucus off the baby's mouth and nose with a clean cloth. Keep the baby's head lower than its body to help the mucus drain. If there is a lot of fluid or mucus, remove it with a suction bulb.
- ◆ Dry the baby well with clean cloths and put the baby directly onto the mother's chest, skin against skin. Put cloths or a blanket around them so the baby stays warm.
- ◆ Put the baby's mouth to the mother's nipple right away. When the baby sucks, the womb tightens and helps stop bleeding. This also helps the placenta come out more quickly.
- ◆ If the baby does not breathe after a minute following birth, start mouth-to-mouth breathing (p. 80).



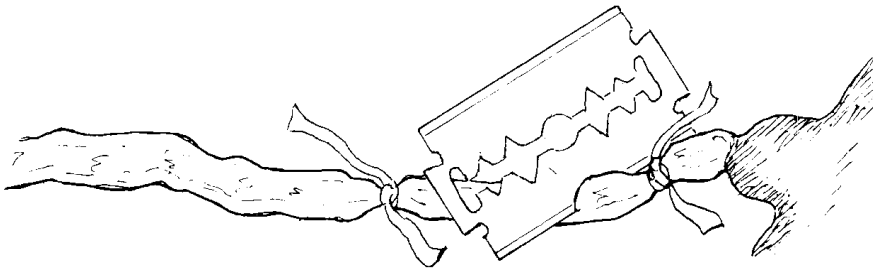
How to Cut the Cord

When the child is born, the cord pulses and is fat and blue. **WAIT.**

After a while, the cord becomes thin and white. It stops pulsing. Now tie it in 2 places with very clean, dry strips of cloth, string, or ribbon. These should have been recently ironed or heated in an oven. Cut between the ties, like this:



IMPORTANT: Cut the cord with a clean, unused razor blade. Before unwrapping it, wash your hands very well. Or wear clean rubber or plastic gloves. If you do not have a new razor blade, use freshly sterilized scissors (p. 74).



Always cut the cord close to the body of the newborn baby. Leave only about 2 centimeters attached to the baby. These precautions help prevent tetanus (p. 182).

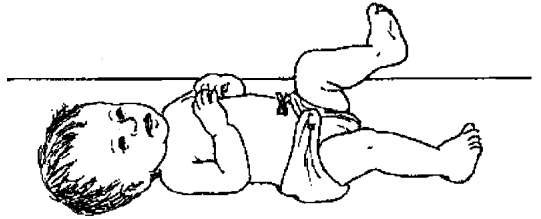
Care of the Cut Cord

Keep the cord stump clean and dry. Always wash your hands before touching the cord stump.

If the stump or belly button becomes dirty or caked with dried blood, clean with soap and cool boiled water and a very clean cloth. Do not put anything else on the cord—dirt and dung are especially dangerous. They can cause tetanus and kill the baby, see pages 182 to 184.

If the baby is wearing diapers, keep the diaper folded below the cord.

If the cord or the area around the cord gets red, drains pus, or smells bad, it is probably infected. Clean it well and give the baby an injection of benzathine benzylpenicillin (p. 352).



The cord stump usually falls off 5 to 7 days after birth. There may be a few drops of blood or mucus when the cord falls off. This is typical and not a reason for concern. But if there is a lot of blood or any pus, get medical help.

Care of the Eyes

To prevent blindness from an eye infection (p. 236), put medicine in each of the baby's eyes within 2 hours of birth. Use 0.5% to 1% erythromycin ointment, 1% tetracycline ointment, 2.5% povidone iodine solution, or 1% silver nitrate solution. See page 221 for more information.

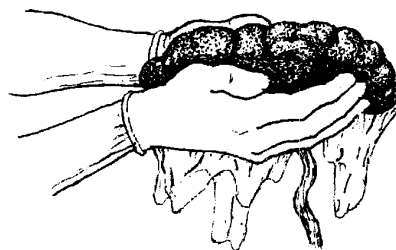


THE DELIVERY OF THE PLACENTA (AFTERBIRTH)

The placenta usually comes out 5 minutes to ½ hour after the baby is born, but sometimes it is delayed (see below).

Checking the afterbirth:

When the afterbirth comes out, examine it to see if it is complete. If it is torn and there seem to be pieces missing, get medical help. A piece of placenta left inside the womb can cause continued bleeding or infection.



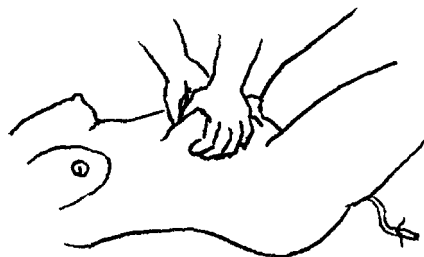
Use gloves or plastic bags on your hands to handle the placenta. Wash your hands well afterwards.

When the placenta is delayed in coming:

If the mother is not losing much blood, do nothing. **Do not pull on the cord.** This could cause dangerous hemorrhage (heavy bleeding). If the baby is not already breastfeeding, put the baby to the mother's nipple or have the mother roll her nipples. This will help the womb contract. Sometimes the placenta will come out if the woman squats and pushes a little. It may also help to have her pass urine.

If the mother is losing blood, feel the womb (uterus) through the belly. If it is soft, do the following:

Firmly rub or squeeze the top of the womb (near the belly button) until it gets hard. This should make it contract and push out the placenta.



If the placenta still does not come out, and the bleeding continues, give medicines to control the bleeding (p. 266) and seek medical help fast.

HEMORRHAGING (HEAVY BLEEDING)

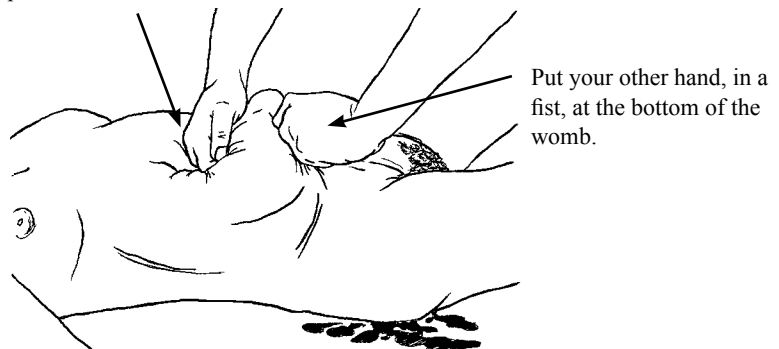
Some bleeding after the placenta comes out is to be expected. But when bleeding does not stop within one day (24 hours) after birth, or more than 500 ml (half a liter, or about 2 cups) of blood is lost, it is a serious problem. Go to a hospital right away, and follow the instructions at the top of the next page while you are on the way.

WARNING: Sometimes a woman may be bleeding severely inside without much blood coming out. Feel her belly from time to time. If it seems to be getting bigger, it may be filling with blood. Check her pulse often and watch for signs of shock (p. 77).

- ◆ Give **oxytocin, misoprostol, or ergometrine** if you have it, following the instructions on the next page.
- ◆ **Check the woman's womb after the birth of the placenta** every 15 minutes or so, and whenever you notice bleeding. If the womb does not feel like a hard, round ball below the belly button, rub firmly until it feels hard. If the womb is off to one side, the bladder is full and the woman should urinate.
- ◆ To help prevent or control heavy bleeding, **let the baby suck the mother's breast**. If the baby will not suck, have someone else suck or gently pull and massage the mother's nipples. This will cause her to produce a hormone that helps control bleeding.
- ◆ **The mother should drink a lot of liquid** (water, fruit juices, tea, soup, or Rehydration Drink, p. 152). If she grows faint or has a fast, weak pulse or shows other signs of shock, put her legs up and her head down (p. 77).

If heavy bleeding continues, or if the mother is losing a great deal of blood through a slow trickle, keep massaging the womb. Rub harder, squeezing the womb between two hands. It will hurt, but can help stop the bleeding and save the person's life.

Rub the womb until it is hard. Then cup
1 hand on the top of the womb.



If the bleeding still does not stop, you can put one hand inside the vagina, make a fist, and then use the other hand to press the womb into your fist.

Note: Although some doctors use it, vitamin K does not help stop bleeding related to giving birth or having a miscarriage or abortion. Vitamin K is only helpful for babies. Do not give to adults.

MEDICINES TO CONTROL BLEEDING AFTER BIRTH OR MISCARRIAGE: Oxytocin, Misoprostol, Ergometrine

Oxytocin, misoprostol, and ergometrine (ergonovine) are medicines that cause the uterus and its blood vessels to contract. Used the wrong way before the baby is born, they can cause the death of the mother or the child in her womb. Used correctly, they can save lives. These are some of their lifesaving uses:

1. To control heavy bleeding before the placenta comes out. Inject 10 units of oxytocin in the buttock or thigh muscle (p. 392).

2. If the bleeding starts after the placenta comes out. Inject 10 units of oxytocin in the buttock or thigh muscle. If bleeding has not stopped after 30 minutes, give 800 mcg of misoprostol to dissolve under the tongue (p. 393). Or, you can give ergometrine (p. 392), but do not use ergometrine for a woman who has hypertension or before the placenta is out.

IMPORTANT: Midwives and other health workers who help women deliver should carry enough medicines to stop heavy bleeding if it happens. Too many mothers bleed to death who could be saved.

3. To help prevent heavy bleeding after birth. Some authorities now recommend giving all women a single dose of oxytocin, misoprostol, or ergometrine to prevent heavy bleeding after birth. This will prevent some dangerous bleeding, but also treats many women with medicine when they do not need it. A midwife who only has a little medicine may choose to save the medicine she has for emergencies.

4. To control the bleeding of a miscarriage (p. 281). If the woman is rapidly losing blood and medical help is far away, use oxytocin, misoprostol, or ergometrine (see above).

WARNING: The use of oxytocin, misoprostol, or ergometrine to hasten birth or give strength to the mother's labor can be very dangerous for both her and the child. These medicines should be used to strengthen labor only if you have been trained to do so and are in a medical center in case something goes wrong.

THE USE OF MEDICINES
TO "GIVE STRENGTH" TO
THE MOTHER DURING
BIRTH . . .



CAN KILL THE
MOTHER, THE
BABY, OR BOTH.

Giving birth is hard work. To have enough strength to deliver a baby, a person needs:

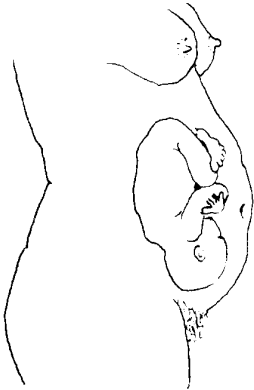
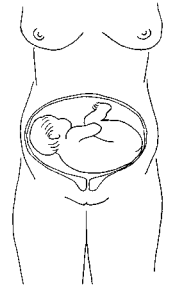
- plenty of nutritious foods, especially during pregnancy (p. 107).
- at least 2 years between pregnancies so the body can regain its full strength (see "Family Planning," p. 284).
- emotional and physical support from family and friends during pregnancy.
- support from an experienced birth attendant, such as a midwife or doula, during the delivery.

DIFFICULT BIRTHS

It is important to get medical help as quickly as possible when there is any serious problem during labor. Many problems or complications may come up, some more serious than others. Here are a few of the more common ones:

1. LABOR STOPS OR SLOWS DOWN, or lasts a very long time after being strong or after the waters break. This has several possible causes:

- **The woman may be frightened or upset.** This can slow down or even stop contractions. Talk to her. Help her to relax. Try to reassure her. Explain that the birth is slow, but there are no serious problems. Encourage her to change her position often and to drink, eat, and urinate. Stimulation (massage or milking motion) of the nipples can help speed labor.
- **The baby is lying sideways.** Feel the belly between contractions to see if the baby is sideways. A baby lying sideways cannot be born without medical help. Because turning the baby is difficult to do safely—it can pull the placenta from the wall of the womb or tear the womb—do not try to turn the baby once labor has started. Get the mother to a hospital right away.

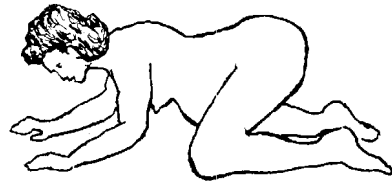


- **If the baby is facing forward** rather than backward, you may feel the lumpy arms and legs rather than the rounded back. Labor may be longer and cause the woman more back pain. She should change positions often, as this may help turn the baby. Have her try on her hands and knees.

- **The baby's head may be too large to fit through the woman's hip bones** (pelvis). This is more likely in a woman with very narrow hips or a young woman or girl whose body is not fully grown. (It is very unlikely in a woman who has had a vaginal birth before.) You may feel that the baby does not move down. If you suspect this problem, try to get the mother to a hospital as she may need an operation (Cesarean) to deliver the baby.
- **If the mother has been vomiting or has not been drinking liquids**, she may be dehydrated. This can slow down or stop contractions. Have her sip Rehydration Drink or other liquids after each contraction.

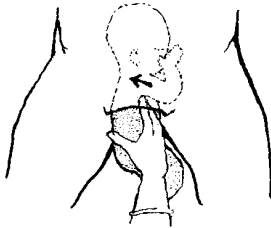
2. **BREECH DELIVERY** (the buttocks come out first). Sometimes the midwife can tell if the baby is in the breech position by feeling the mother's belly (p. 257) and listening to the baby's heartbeat (p. 252).

A breech birth may be easier in this position:

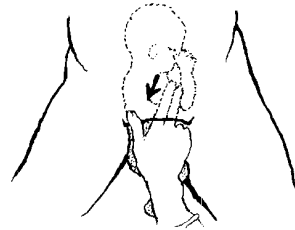


If the baby's legs come out, but not the arms, wash your hands very well, rub them with alcohol (or wear sterile gloves), and then. . .

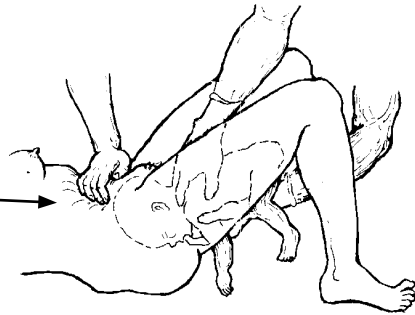
slip your fingers inside and push the baby's shoulders toward the back, like this:



or press his arms against his body, like this:



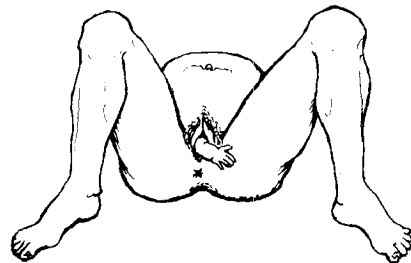
If the baby gets stuck, have the mother lie face up. Put your finger in the baby's mouth and push his head towards his chest. At the same time have someone push the baby's head down by pressing on the mother's belly like this:



Have the mother push hard. But **never pull on the body of the baby.**

3. **PRESENTATION OF AN ARM** (hand first). If the baby's hand comes out first, get medical help right away. An operation may be needed to get the baby out.

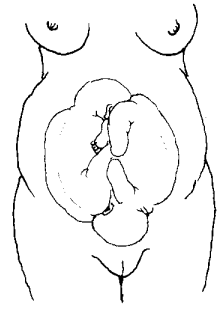
4. Sometimes the **CORD IS WRAPPED AROUND THE BABY'S NECK** so tightly he cannot come out all the way. Try to slip the loop of cord from around the baby's neck. If you cannot do this, you may have to clamp or tie and cut the cord. Use sterilized blunt-tipped scissors.



5. **FECES IN THE BABY'S MOUTH AND NOSE.** When the waters break, if you see they contain a dark green (almost black) liquid, this is probably the baby's first stools (meconium). The stool can get inside the baby's mouth, nose, and lungs and make breathing hard or cause infection after birth. As soon as his head is out, tell the mother not to push, but to take short, rapid breaths. Before the baby starts breathing, wipe its mouth and nose with a clean cloth or use a suction bulb to suck the feces out. Keep the baby's head lower than its body to help empty the mouth and nose. If the baby has difficulty breathing, take it to a hospital.

6. **TWINS.** Giving birth to twins is often more difficult and dangerous—both for the mother and babies—than giving birth to a single baby. There is a greater chance one baby will be in a wrong position, or that there will be heavy bleeding after birth.

It is best to give birth to twins in a hospital.



Because with twins labor often begins early, **the mother should be within easy reach of a hospital after the seventh month of pregnancy.**

Signs that a woman may be pregnant with twins:

- The belly grows faster and the womb is larger than usual, especially in the last months (p. 251)
- If the woman gains weight faster than expected, or the common problems of pregnancy (morning sickness, backache, varicose veins, piles, swelling, and difficult breathing) are worse than usual, be sure to check for twins.
- If you can feel 3 or more large objects (heads and buttocks) in a womb that seems extra large, twins are likely.
- Sometimes you can hear 2 different heartbeats (other than the mother's)—but this is difficult.

During the last months, if the woman rests a lot and is careful to avoid hard work, twins are less likely to be born too early.

Twins are often born small and need special care. However, there is no truth in beliefs that twins have strange or magic powers.

TEARING OF THE BIRTH OPENING

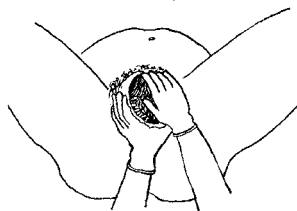
The birth opening must stretch a lot for the baby to come out. Sometimes it tears. Tearing is more likely if it is the mother's first baby.

Tearing can usually be prevented if care is taken:

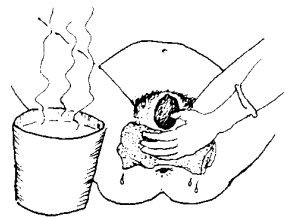
The mother should try to stop pushing when the baby's head is coming out. This gives her birth opening time to stretch. In order not to push, she should pant (take many rapid breaths).



When the birth opening is stretching, the midwife can support it with one hand and with the other hand gently keep the head from coming too fast, like this:



It may also help to put warm compresses against the skin below the birth opening. Start when it begins to stretch. You can also massage the stretched skin with oil.



If a tear does happen, someone who knows how should carefully sew it shut after the placenta comes out (pages 86 and 381).

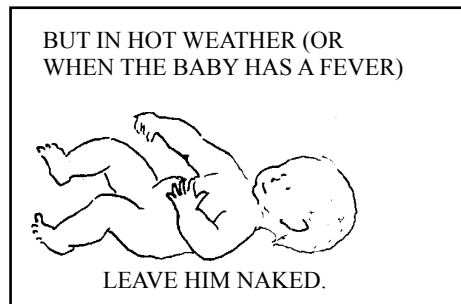
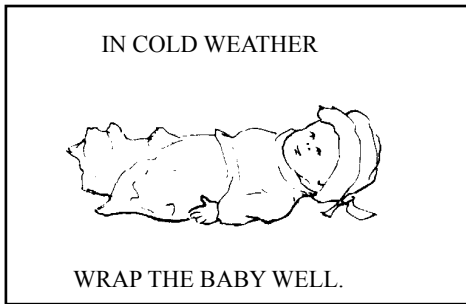
CARE OF THE NEWBORN BABY

The Cord

To prevent the freshly cut cord from becoming infected, it should be kept clean and dry. If possible, clean it with alcohol and a clean cloth with every diaper (nappy) change. The drier it is, the sooner it will fall off and the navel will heal. For this reason, it is better not to use a belly band, or if one is used, to keep it very loose (pages 184 and 263).

Keeping the Baby Warm—but Not Too Warm

Protect the baby from cold, but also from too much heat. Dress him as warmly as you feel like dressing yourself.



To keep a baby just warm enough, keep him close to his mother's body. This is especially important for a baby that is born early or very small. See "Special Care for Small, Early, and Underweight Babies," page 407.

Cleanliness

It is important to follow the Guidelines of Cleanliness as discussed in Chapter 12. Take special care with the following:

- ◆ Change the baby's diapers (nappies) or bedding each time he wets or dirties them.
If the skin gets red, change the diaper more often—or better, leave it off!
See page 215
- ◆ After the cord drops off, bathe the baby daily with mild soap and warm water.
- ◆ If there are flies or mosquitos, cover the baby's crib with mosquito netting or a thin cloth.
- ◆ Persons with open sores, colds, sore throat, tuberculosis, or other infectious illnesses should not touch or go near the newborn baby or the woman while she is giving birth.
- ◆ Keep the baby in a clean place away from smoke and dust.

Feeding

(Also see “The Best Diet for Small Children,” p. 120.)

Breast milk is by far the best food for a baby. Babies who nurse on breast milk are healthier, grow stronger, and are less likely to die. This is why:

- Breast milk has a better balance of what the baby needs than does any other milk, whether fresh, canned, or powdered.
- Breast milk is clean. When other foods are given, especially by bottle feeding, it is very hard to keep things clean enough to prevent the baby from getting diarrhea and other sicknesses.
- The temperature of breast milk is always right.
- Breast milk has things in it (antibodies) that help protect the baby against certain illnesses, such as diarrhea, measles, and polio.

The mother should give her breast to the baby as soon as he is born. For the first few days the mother's breasts usually produce very little milk. This is not a reason for concern. She should continue to nurse her baby often—at least every two hours. The baby's sucking will help her produce more milk. If the baby seems healthy, gains weight, and wets her diaper (nappy) regularly, the mother is producing enough milk.

It is best for the baby if the mother gives him only breast milk for the first 6 months. After that, she should continue to breastfeed her baby, but should begin to give him other nourishing foods also (p. 122). Mothers with HIV should stop breastfeeding when the baby is 12 months old if they can give enough other nutritious foods.

HOW A MOTHER CAN PRODUCE MORE BREAST MILK:

She should...

- ♦ drink plenty of liquids,
- ♦ eat as well as possible, especially food with a lot of calcium (like milk products) and body-building foods (p. 110),
- ♦ get plenty of sleep and avoid getting very tired or upset,
- ♦ nurse her baby more often—at least every 2 hours.

BOTTLE-FED BABIES ARE MORE LIKELY TO GET SICK AND DIE.



BREAST-FED BABIES ARE HEALTHIER.



Care in Giving Medicines to the Newborn

Many medicines are dangerous for the newborn. Use only medicines you are sure are recommended for the newborn and use them only when they are absolutely necessary. Be sure you know the right dose and do not give too much. Chloramphenicol, for example, is dangerous to newborns, especially if the baby is premature or underweight (less than 2 kilograms).

Sometimes it is important to give medicines to a newborn. For example, giving cotrimoxazole to a baby whose mother has HIV can protect the baby's health. See page 357.

ILLNESSES OF THE NEWBORN

It is very important to notice any problem or illness a baby may have and to act quickly.

**Diseases that take days or weeks to kill
adults can kill a baby in a matter of hours.**

Problems the Baby Is Born With (Also see p. 316)

These may result from something that went wrong with the development of the baby in the womb or from injury to the baby while he was being born. Examine the baby carefully immediately after birth. Look for the following signs:

- He does not breathe as soon as he is born.
- His pulse cannot be felt or heard, or is less than 100 beats per minute.
- His face and body are white, blue, or yellow after he has begun breathing.
- His arms and legs are floppy—he does not move them by himself or when you pinch them.
- He grunts or has difficulty breathing after the first 15 minutes.

Some of these problems may be caused by brain injury at birth. They are almost never caused by infection (unless the water broke more than 12 hours before birth). Common medicines probably will not help. Keep the baby warm, but not too warm (p. 270) and get medical help.

If the newborn baby vomits or shits blood, or develops many bruises, she may need vitamin K (p. 394).

If the baby does not urinate or have a bowel movement in the first 2 days, also seek medical help.

Problems that Result After the Baby Is Born (in the first days or weeks)

1. **Pus or a bad smell from the navel or cord** is a dangerous sign. Watch for early signs of tetanus (p. 182) or bacterial infection of the blood (p. 275). Clean the cord carefully with soap and cool boiled water, and leave it open to the air. If the skin around the cord becomes hot and red, give the child benzathine benzylpenicillin (p. 352).

2. Both **low temperature** (below 35.5°C) and **high temperature** (above 38°C) can be signs of infection in a newborn. Get medical help. For a baby with a high temperature, take off all clothing and sponge the baby with cool (not cold) water (p. 76) as you go for help. If there are signs of dehydration (p. 151), give the baby breast milk and Rehydration Drink (p. 152).

3. **Seizures (convulsions)**, p. 178). If the baby also has fever, treat it as just described. Be sure to check for dehydration. Seizures that begin the day of birth could be caused by brain injury at birth. If seizures begin several days later, look carefully for signs of tetanus (p. 182) or meningitis (p. 185).

4. **The baby does not gain weight.** During the first days of life, most babies lose a little weight. This is typical and not a reason for concern. After the first week, a healthy baby should gain about 200 g a week. By two weeks the healthy baby should weigh as much as he did at birth. If he does not gain weight, or loses weight, something is wrong. Did the baby seem healthy at birth? Does he feed well? Examine the baby carefully for signs of infection or other problems. If you cannot find out the cause of the problem and correct it, get medical help.

5. **Vomiting.** When healthy babies burp (or bring up air they have swallowed while feeding), sometimes a little milk comes up too. This is common and not a reason for concern. Help the baby bring up air after feeding by holding him against your shoulder and patting his back gently, like this.



**BURP YOUR BABY
AFTER FEEDING.**

If a baby vomits when you lay him down after nursing, try sitting him upright for a while after each feeding.

A baby who vomits violently, or so much and so often that he begins to lose weight or become dehydrated, is ill. If the baby also has diarrhea, he probably has a gut infection (p. 157). Bacterial infection of the blood (see the next pages), meningitis (p. 185), and other infections may also cause vomiting.

If the vomit is yellow or green, there may be a gut obstruction (p. 94), especially if the belly is very swollen or the baby has not been having bowel movements. Take the baby to a health center at once.

6. **The baby stops sucking well.** If more than 4 hours pass and the baby still will not nurse, this is a danger sign—especially if the baby seems very sleepy or ill, or if he cries or moves differently from usual. Many illnesses can cause these signs, but the most common and dangerous causes in the first 2 weeks of life are a bacterial infection of the blood (see next 2 pages) and tetanus (p. 182).

A baby who stops nursing during the second to fifth day of life may have a bacterial infection of the blood.

A baby who stops nursing during the fifth to fifteenth day may have tetanus.

If a Baby Stops Sucking Well or Seems Ill

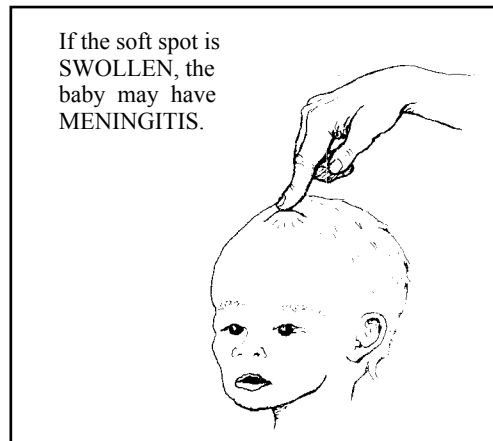
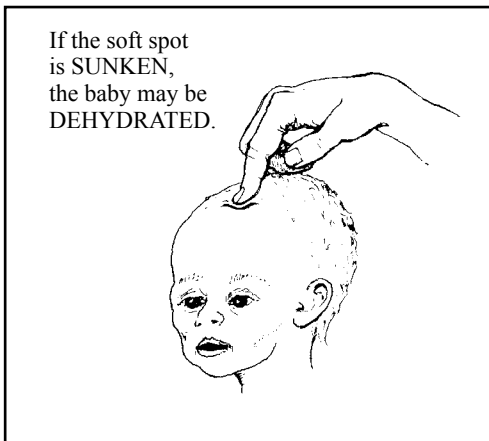
Examine him carefully and completely as described in Chapter 3. Be sure to check the following:

- Notice if the baby has **difficulty breathing**. If the nose is stuffed up, suck out the mucus as shown on page 164. Fast breathing (60 or more breaths a minute), blue color, grunting, and sucking in of the skin between the ribs with each breath are signs of pneumonia (p. 171). Small babies with pneumonia often do not cough; sometimes none of the common signs are present. If you suspect pneumonia, treat as for a bacterial infection of the blood (see the next page).
- Look at the baby's **skin color**.

If the lips and face are blue, consider pneumonia (or a heart condition or other problem the baby was born with).

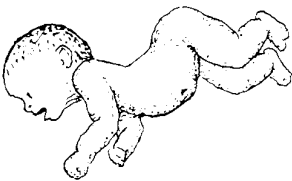
If the face and whites of the eyes begin to get yellow (jaundiced) in the first day of life or after the fifth day, this is serious. Get medical help. Some yellow color between the second and fifth day of life is usually not serious. Give plenty of breast milk by spoon if necessary. Take off all the baby's clothes and put him in bright light near a window (but not direct sunlight).

- Feel the **soft spot on top of the head** (fontanel). See page 9.



IMPORTANT: If a baby has meningitis and dehydration at the same time, the soft spot may not feel different. Be sure to check for other signs of both dehydration (p. 151) and meningitis (p. 185).

- **Watch the baby's movements and expression on his face.**



Stiffness of the body or strange movements may be signs of tetanus, meningitis, or brain injury from birth. If, when the baby is touched or moved, the muscles of his face and body suddenly tighten, this could be tetanus. See if his jaw will open and check his knee reflexes (p. 183).

If the baby's eyes roll back or flutter when he makes sudden or violent movements, he probably does **not** have tetanus. Such seizures **may** be caused by meningitis, but dehydration and high fever are more common causes. Can you put the baby's head between his knees? If the baby is too stiff for this or cries out in pain, it is probably meningitis (p. 185).

- Look for signs of a bacterial infection in the blood.

Bacterial Infection in the Blood (Septicemia)

Newborn babies cannot fight infections well. Therefore, bacteria that enter the baby's skin or cord at the time of birth often get into the blood and spread through his whole body. Since this takes a day or two, septicemia is most common after the second day of life.

Signs:

Signs of infection in newborn babies are different from those in older children. In the baby, almost any sign could be caused by a serious infection in the blood. Possible signs are:

- does not suck well
- seems very sleepy
- very pale (anemic)
- vomiting or diarrhea
- fever or low temperature (below 35°C)
- swollen belly
- yellow skin (jaundice)
- seizures (convulsions)
- times when the baby turns blue

Each of these signs may be caused by something other than septicemia, but if the baby has several of these signs at once, septicemia is likely.

Newborn babies do not always have a fever when they have a serious infection. The temperature may be high, low, or normal.

Treatment when you suspect septicemia in the newborn:

- ◆ Inject 50 mg of ampicillin (p. 352) for each kilogram the baby weighs, 2 times a day for a baby less than 1 week old or 3 times a day if the baby is older than 1 week. If you cannot calculate the dosage, inject the average dose of 150 mg of ampicillin.
- ◆ Also inject 5 mg of gentamicin for each kilogram the baby weighs. Only give gentamicin once a day. If you cannot calculate the dosage, inject the average dose of 15 mg of gentamicin for a baby less than 1 week old, or 20 mg if the baby is older than 1 week.
- ◆ Be sure the baby has enough liquids. Spoon feed breast milk and Rehydration Drink, if necessary (p. 152).
- ◆ Try to get medical help.

Infections in newborn babies are sometimes hard to recognize. Often there is no fever. If possible, get medical help. If not, treat with ampicillin and gentamicin as described above. Ampicillin is one of the safest and most useful antibiotics for babies.



THE MOTHER'S HEALTH AFTER BIRTH

Diet and Cleanliness

After giving birth, the mother can and should eat every kind of nutritious food she can get. She does not need to avoid any kind of food. Foods that are especially good for her are milk, cheese, chicken, eggs, meat, fish, fruits, vegetables, grains, beans, groundnuts, etc. If all she has is corn and beans, she should eat them both at each meal. A good diet helps the mother make plenty of milk for her baby.

The mother can and should bathe in the first few days after giving birth. In the first week, it is better if she bathes with a wet towel and does not go into the water. Bathing is not harmful after giving birth. In fact, women who let many days go by without bathing may get infections that will make their skin unhealthy and their babies sick.

During the days and weeks following birth, the mother should:

eat nutritious foods

and

bathe regularly.



Childbirth Fever (Infection after Giving Birth, Womb Infection)

Sometimes a mother develops fever and infection after giving birth, often because someone attending the birth did not keep everything very clean.

The signs of childbirth fever are: Chills or fever, headache or low back pain, sometimes pain in the belly, and a foul-smelling or bloody discharge from the vagina.

Treatment:

- ◆ Inject 2 grams (2000 mg) of ampicillin in the muscle for the first dose, and then reduce the dose to 1 gram (1000 mg) 4 times a day. Also inject 80 mg of gentamicin in the muscle 2 times a day. Also give 500 mg of metronidazole by mouth 3 times a day.
- ◆ When the person has had no fever for 2 days, change medicines and give 100 mg of doxycycline by mouth 2 times a day, 500 mg of metronidazole by mouth 3 times a day, and 500 mg amoxicillin/125 mg clavulanic acid by mouth 3 times a day, all for 10 days.
- ◆ If the person does not start to feel better within 1 or 2 days, keep giving antibiotics and get medical help.

BREASTFEEDING AND CARE OF THE BREASTS

Taking good care of the breasts is important for the health of both the mother and her baby. The baby should begin to breastfeed soon after it is born. A baby may want to breastfeed right away or just lick the breast and be held. Encourage the baby to suck because it will help the milk to start flowing. This will also help the mother's womb to contract and the afterbirth to come out sooner. The mother's first milk is a thick yellow liquid (called colostrum). This has everything a new baby needs to prevent infection and is rich in protein. **It is very good for the baby, so...**

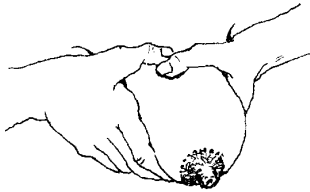
BEGIN BREASTFEEDING EARLY
Put the baby to the mother's breast as soon as possible.

The breasts usually make as much milk as the baby needs. If the baby empties them, they begin to make more. If the baby does not empty them, soon they make less. When a baby gets sick and stops sucking, after a few days the mother's breasts stop making milk. So when the baby can suck again, and needs a full amount of milk, there may not be enough. For this reason,

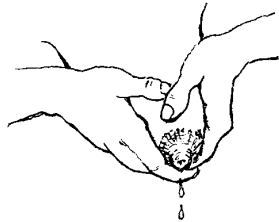
**When a baby is sick and unable to take much milk,
 it is important that the mother keep producing lots of milk
 by milking her breasts with her hands.**

TO MILK THE BREASTS BY HAND

Wash your hands well,
 and take hold of the
 breast near the back,



then massage lightly
 with your fingers, moving
 toward the nipple.



To squeeze the milk out,
 put your fingers and
 thumb at the edge of
 your nipple and press
 back against your chest.



Another reason it is important to milk the breasts if the baby stops sucking is that this keeps the breasts from getting too full. When they are too full, they are painful. A breast that is painfully full is more likely to develop an infection. Also, the baby may have trouble sucking when the breast is very full.

If your baby is too weak to suck, squeeze milk out of your breast by hand and give it to the baby by spoon or dropper.

Regular bathing will help to keep your breasts clean. It is not necessary to clean your breasts and nipples each time you breastfeed your baby. Do **not** use soap to clean your breasts, as this may cause cracking of the skin, sore nipples, and infection.

Sore or Cracked Nipples

Sore or cracked nipples develop when the baby sucks only the nipple instead of taking the nipple and part of the breast when she is breastfeeding.

Treatment:

It is important to keep breastfeeding the baby even if it hurts. To avoid sore nipples, breastfeed often, for as long as the baby wants to suck, and be sure the baby is taking as much of the breast into her mouth as she can. It also helps to change the baby's position each time she nurses.



If only one nipple is sore, let the baby suck on the other side first, then let the baby suck from the sore nipple. After the baby is finished, squeeze out a little milk and rub the milk over the sore nipple. Let the milk dry before covering the nipple. The milk will help the nipple heal. If the nipple oozes a lot of blood or pus, milk the breast by hand until the nipple is healed.

Painful Breasts

Pain in the breast can be caused by a sore nipple or breasts that get very full and hard. The pain will often go away in a day or two if the baby breastfeeds frequently and the mother rests in bed and drinks lots of liquids. Usually, antibiotics are not needed, but see the next section.

Breast Infection (Mastitis) and Abscess

Painful breasts and sore or cracked nipples can lead to an infection or abscess (pocket of pus).

Signs:

- Part of the breast becomes hot, red, swollen, and very painful.
- Fever or chills.
- Lymph nodes in the armpit are often sore and swollen.
- A severe abscess sometimes bursts and drains pus.



Treatment:

- ◆ Keep breastfeeding frequently, giving the baby the infected breast first, or milk the breast by hand, whichever is less painful.
- ◆ Rest and drink lots of liquids.
- ◆ Use hot compresses on the sore breast for 15 minutes before each feeding. Use cold compresses on the sore breast between feedings to reduce pain.
- ◆ Gently massage the sore breast while the baby is nursing.
- ◆ Take acetaminophen (p. 381) for pain.
- ◆ Use an antibiotic. Dicloxacillin is the best antibiotic to use (p. 350). Take 500 mg by mouth, 4 times a day, for 7 days. Erythromycin (p. 354) can also be used, or cotrimoxazole (p. 357) after the baby is one month old.

Prevention:

- ◆ Keep the nipples from cracking (see above) and don't let the breasts get overfull.

A painful, hot lump in the breast of a nursing mother is probably a breast abscess (infection).

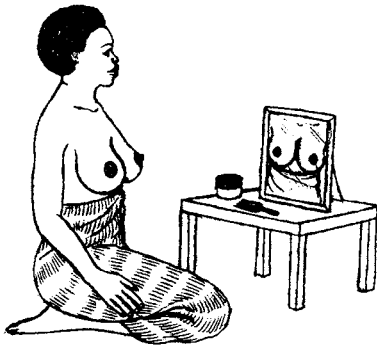
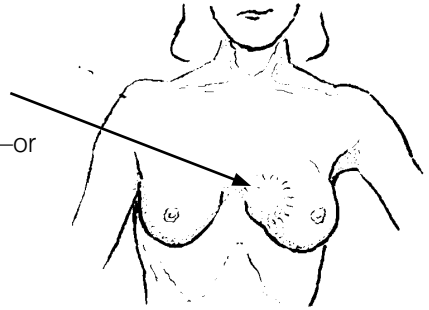
A painless breast lump may be cancer, or a cyst.

Breast Cancer

Most women have some small lumps in their breasts. These lumps can change in size and shape, and become tender during your period (menstruation). Sometimes, a breast lump that does not go away can be a sign of breast cancer. Successful treatment depends on finding and treating the problem as soon as possible. This requires medical care and sometimes surgery.

Signs of breast cancer:

- a new lump found during self-examination of the breasts (see below).
- an abnormal dent or dimple in the breast—or many tiny pits like the skin of an orange.
- swollen lymph nodes in the armpit, which may or may not be painful.
- redness or a sore on the breast that does not heal.
- abnormal discharge from the nipple.

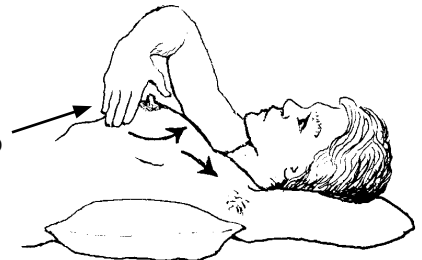


SELF-EXAMINATION OF THE BREASTS

Every woman should learn how to examine her own breasts for possible signs of cancer. It is best to do this monthly at the same point in each menstrual cycle.

- ◆ Use a mirror to look at your breasts carefully for any new difference between the two in size or shape. Try to notice any of the above signs.

- ◆ While lying with a pillow or folded blanket under your back, feel your breasts with the flat of your fingers. Press your breast and roll it beneath your finger tips. Start near the nipple and go around the breast and up into the armpit.
- ◆ Squeeze your nipples. If blood or a **discharge** comes out, get medical help.

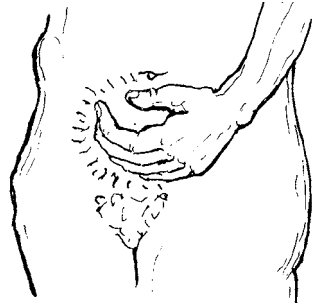


If you find a lump that is smooth or rubbery, and moves under the skin when you push it, don't worry about it. But if it is hard, has an uneven shape, is painless, or does not move when you push it, get medical advice. Many lumps are not cancer, but it is important to find out early.

LUMPS OR GROWTHS IN THE LOWER PART OF THE BELLY

The most common lump is, of course, caused by the development of a baby. Abnormal lumps or masses may be caused by:

- a **cyst** or fluid-filled swelling, often in the ovaries
- a fertilized egg that has begun to develop outside of the womb (ectopic pregnancy)
- cancer



All 3 of these conditions are usually painless or mildly uncomfortable at first, and become very painful later. All require medical attention. If you find any unusual, gradually growing lump, seek medical advice.

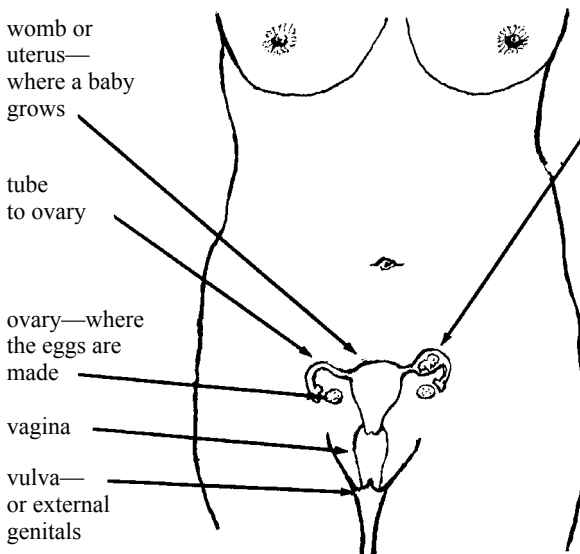
Cancer

The first sign of cancer of the uterus (womb), cervix (neck of the womb), or ovaries may be **anemia** or unexplained bleeding from the vagina. Later, an uncomfortable or painful lump in the belly may be noticed.

Cancer of the cervix can be cured if found early, but there are no warning signs you can see. A Pap test can find abnormal cervical cells that may be cancer or pre-cancer. Anyone with a cervix should get a Pap test every 3 to 5 years, starting around age 30. Visual inspection uses a vinegar solution to find abnormal cervical tissue, which then shows that further testing or treatment is needed. See *Where Women Have No Doctor* page 378 for more about these tests, and page 270 for a treatment that helps prevent cancer of the cervix.

At the first suspicion of cancer, seek medical help.

Ectopic (tubal) Pregnancy



Sometimes a fertilized egg begins to grow outside the womb, in one of the tubes that comes from the ovaries.

There may be abnormal menstrual bleeding together with signs of pregnancy—also severe cramps low in the belly and a painful lump **outside** the womb.

A fertilized egg that begins to form in the tube cannot develop into a baby. Ectopic pregnancy requires surgery in a hospital. **If you suspect this problem, get medical help soon, as dangerous bleeding could start any time.**

MISCARRIAGE (SPONTANEOUS ABORTION)

A miscarriage is when a pregnancy ends early by itself. This happens most often in the first 3 months (90 days) of pregnancy.

Many people have 1 or 2 miscarriages before they carry a pregnancy to birth. Many times they do not realize that they are having a miscarriage. They may think their period was missed or delayed, and then came back in a strange way, with big blood clots. A woman who has heavy bleeding after she has missed one or more periods probably is having a miscarriage.

Heavy bleeding with big blood clots and painful cramps often continue until all of the pregnancy is completely out. Bleeding may continue for several days after the miscarriage, similar to a menstrual period. She should not have sex or put anything in her vagina for at least 2 weeks after the miscarriage, or until the bleeding stops.

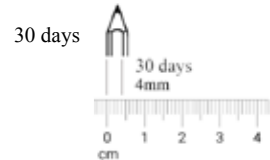
Treatment:

The woman should rest and take ibuprofen (p. 380) or codeine (p. 385) for pain.

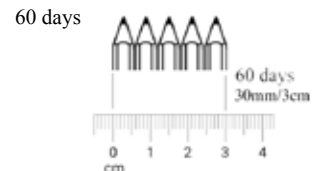
If heavy bleeding continues for many days:

- ◆ Get medical help. A medicine (misoprostal, p. 393) or a simple procedure using suction may be needed to empty the womb.
- ◆ Stay in bed until the heavy bleeding stops.
- ◆ If the bleeding is extreme, follow the instructions on page 266.
- ◆ If fever or other signs of infection develop, treat as for childbirth fever (p. 276).

The embryo and tissue that come out during a miscarriage may be so small they are not visible to the naked eye. At 30 days of pregnancy, the embryo and tissue is around 4 mm in length (compared here to the width of 1 pencil).



At 60 days of pregnancy, the embryo and tissue is around 30 mm in length (compared here to the width of 5 pencils).



HIGH RISK MOTHERS AND BABIES

A note to anyone who cares for people who are pregnant:

Some women are more likely to have difficult births and problems following birth, and their babies are more likely to be underweight and sick. These include people who are very poor or very young, who have cognitive delay, who already have sick or malnourished children, or who are raising children without support.

When a midwife, health worker, or someone else helps struggling parents get the food, care, and companionship they need, it can make a great difference in the lives of these families.

Do not wait for those in need to come to you. Go to them.

