

# Information for Mothers and Midwives

## CHAPTER

## 19

## THE MENSTRUAL PERIOD (MONTHLY BLEEDING IN WOMEN)

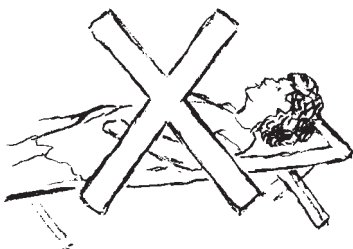
Most girls have their first 'period' or monthly bleeding between the ages of 11 and 16. This means that they are now old enough to become pregnant.

The normal period comes once every 28 days or so, and lasts 3 to 6 days. However, this varies a lot in different women.

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 can 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.



If it is very painful, it may help to take aspirin (p. 380) or ibuprofen (p. 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 normally eats and can continue to do her usual work. It is not harmful to have sex during the menstrual period. (However, if one of the partners has HIV, the risk of infecting the other partner may be higher.)

*Signs of menstrual problems:*

- Some irregularity in the length of time between periods is normal for certain women, but for others it may be a sign of chronic illness, anemia, malnutrition, tuberculosis, worsening HIV infection, or possibly an infection or tumor in the womb.
- If a period does not come when it should, this may be a sign of pregnancy. But for many girls who have recently begun to menstruate, and for women over 40, it is often normal to miss or have irregular periods. Worry or emotional upset may also cause a woman to miss her period.
- If the bleeding comes later than expected, is more severe, and lasts longer, it may be a miscarriage (see p. 281).
- **If the menstrual period lasts more than 6 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 in a woman's life when the menstrual periods stop coming. After menopause, she can no longer bear children. 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 a woman can still become pregnant during this time. If she does not want to have more children, she should continue to use birth control for 12 months after her 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, it is normal to 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 (see 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 (see 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.

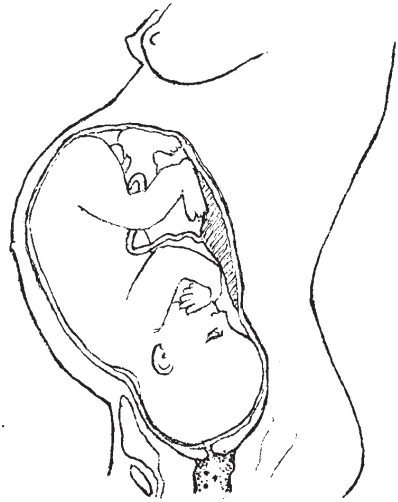


## PREGNANCY

### *Signs of pregnancy:*

All these signs are normal:

- 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 or feel tender.
- 'Mask of pregnancy' (dark areas on the face, breasts, and belly).
- 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.
- ◆ In the last month of pregnancy, do not use a vaginal *douche*.
- ◆ **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 (see 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

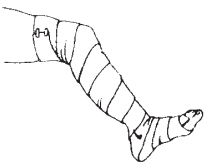
1. **Nausea or vomiting:** Normally, this is worse in the morning, during the second or third month of pregnancy. It helps to eat something dry, like crackers or dry bread, before you go to bed at night and before you get out of bed in the morning. Do not eat large meals but rather smaller amounts of food several times a day. Avoid greasy foods. Tea made from mint leaves also helps. In severe cases, take an antihistamine (see 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, see p. 128): Eat only small amounts of food at one time and drink water often. Antacids can help, especially those with calcium carbonate (see p. 381). 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 (see p. 176). Eat less salt and avoid salty foods. Tea made from maize silk (corn silk) may help (see 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).

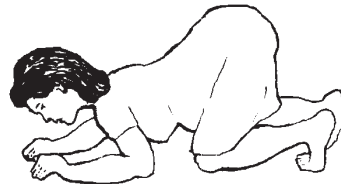
5. **Anemia and malnutrition:** Many women in rural areas are anemic even before they are pregnant, and become more anemic during pregnancy. To make a healthy baby, a woman needs to **eat well.** If she is very pale and weak or has other signs of anemia and malnutrition (see p. 107 and 124), she needs 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 childbirth. 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 (see 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 warm bath. Also see p. 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, see 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 at childbirth. 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 (see 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, fits) 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 381.

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 p. 178.

### ***HIV and Pregnancy***

If the mother has HIV, HIV can spread to her baby while it is still in her womb or during birth. All pregnant women should be tested for HIV and start treatment if necessary to protect their health. Treatment can also prevent the baby from getting HIV. Talk to a health worker who has experience working with people who have HIV, and see p. 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 6 months of pregnancy, twice a month during months 7 and 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 childbirth. 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 at the 6th, 7th, and 8th month if first time. If she has been vaccinated against tetanus before, give one booster during the 7th month.)

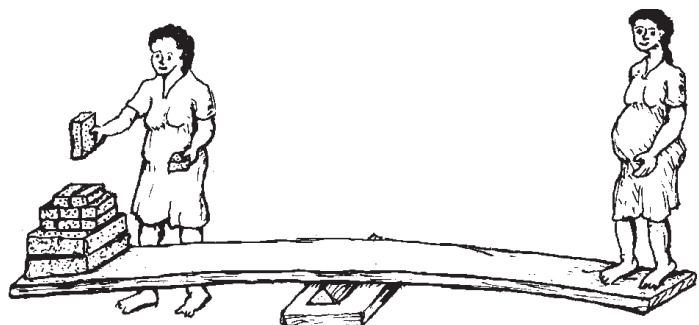
### 2. Nutrition

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 normally? If possible, weigh her each visit. Normally she should gain 8 to 10 kilograms during the nine months of 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 (see 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 normal 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** (see 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

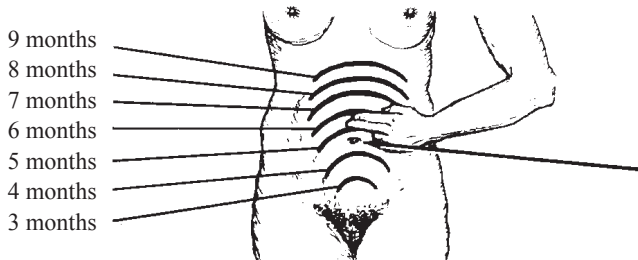
} signs of pre-eclampsia  
(p. 249)

Some midwives may have paper '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**, page 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.

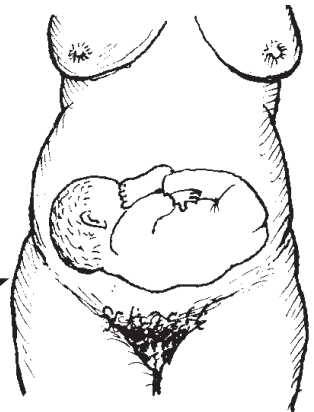


Normally the womb will be  
2 fingers higher each month.

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 normal. 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 childbirth and may mean the baby is deformed.

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.



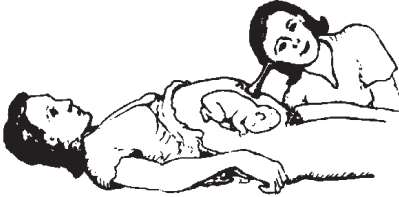


## 6. Baby's heartbeat (fetal heartbeat) and movement

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 normal. 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 \_\_\_\_\_ AGE \_\_\_\_\_ NUMBER OF CHILDREN \_\_\_\_\_ AGES \_\_\_\_\_ DATE OF LAST CHILDBIRTH \_\_\_\_\_

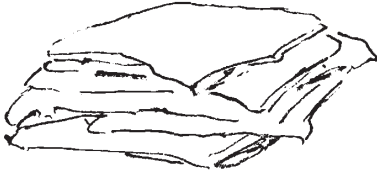
DATE OF LAST MENSTRUAL PERIOD _____			PROBABLE DATE FOR BIRTH _____				PROBLEMS WITH OTHER BIRTHS _____							
MONTH	DATE OF VISIT	WHAT OFTEN HAPPENS	GENERAL HEALTH AND MINOR PROBLEMS	ANEMIA (how severe?)	ANGER SIGNS (see p. 249)	SWELLING (where? how much?)	PULSE	TEMP.	WEIGHT (estimate or measure)	BLOOD PRESSURE *	PROTEIN IN URINE *	SUGAR IN URINE *	POSITION OF BABY IN WOMB	SIZE OF WOMB (how many fingers above (+) or below (-) the navel?)
1														
2														
3														
4														
5														
6														
7														
(1st week)														
(3rd week)														
8														
(1st week)														
(3rd week)														
9														
(1st week)														
(2nd week)														
(3rd week)														
(4th week)														
BIRTH														

\* These are included for midwives who have means of measuring or testing for this information.

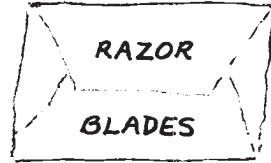
## THINGS A MOTHER SHOULD HAVE READY BEFORE GIVING BIRTH

Every pregnant woman should have the following things ready by the seventh month of pregnancy:

A lot of very clean cloths or rags.



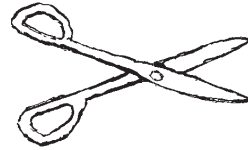
A new razor blade. (Do not unwrap until you are ready to cut the umbilical cord.)



An antiseptic soap (or any soap).



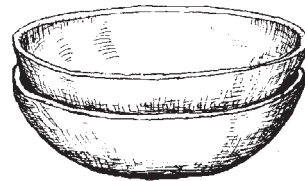
(If you do not have a new razor blade, have clean, rust-free scissors ready. Boil them just before cutting the cord.)



A clean scrub brush for cleaning the hands and fingernails.



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



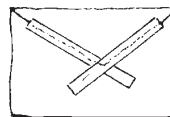
Alcohol for rubbing hands after washing them.



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



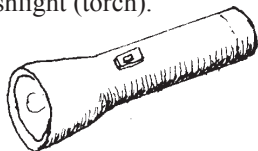
Clean cotton.



Both patches and ribbons should be wrapped and sealed in paper packets and then baked in an oven or ironed.

## Additional Supplies for the Well-Prepared Midwife or Birth Attendant

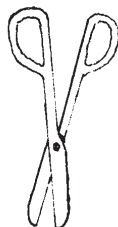
Flashlight (torch).



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

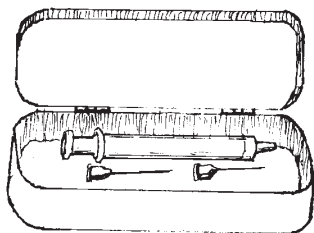


Suction bulb for sucking mucus out of the baby's nose and mouth.

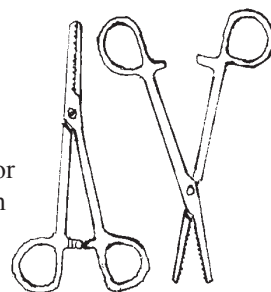


Blunt-tipped scissors for cutting the cord before the baby is all the way born (extreme emergency only).

Sterile syringe and needles.



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



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



Rubber or plastic gloves (that can be sterilized by boiling, see p. 74) 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.



HIV medicines for mother and baby if mother or father has HIV (see p. 400).



Tetracycline or erythromycin eye ointment for the baby's eyes to prevent dangerous infection (see p. 221).



## PREPARING FOR BIRTH

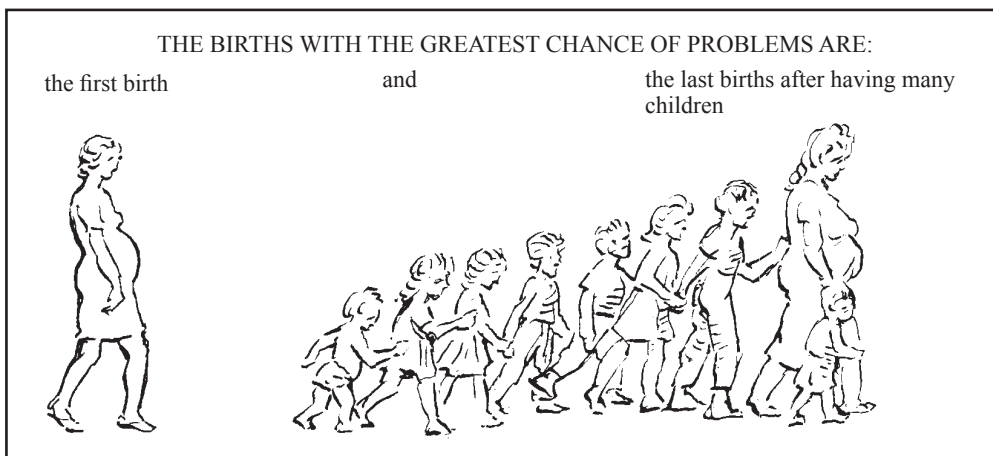
Birth is a natural event. When the mother is healthy and everything goes well, the baby can be born without help from anyone. In a normal birth, **the less the midwife or birth attendant does, the more likely everything will go well.**

Difficulties in childbirth 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.

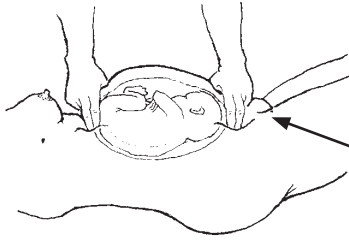
### Signs of Special Risk that Make it Important that a Doctor or Skilled Midwife Attend the Birth—if Possible in a Hospital:

- 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 (see 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 normally (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 (see 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 if the Baby Is in a Good Position

To make sure the baby is head down, in the normal position for birth, feel for his head, like this:



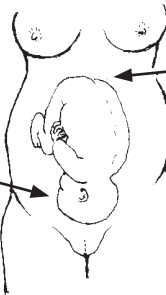
1. Have the mother breathe out all the way.

With the thumb and 2 fingers, push in here, just above the *pelvic* 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.

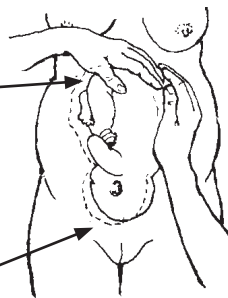


**Butt down** feels larger low down.

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

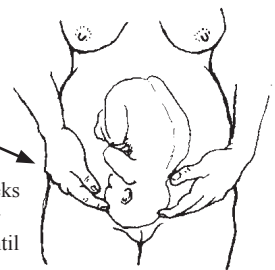
If the baby's butt is pushed gently sideways, the baby's whole body will move too.

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 *down*, his birth is likely to go well.**

**If the head is *up*, the birth may be more difficult (a breech birth), and it is safer for the mother give birth in or near a hospital.**

**If the baby is *sideways*, the mother should have her baby in a hospital. She and the baby are in danger (see p. 267).**

## SIGNS THAT SHOW LABOR IS NEAR

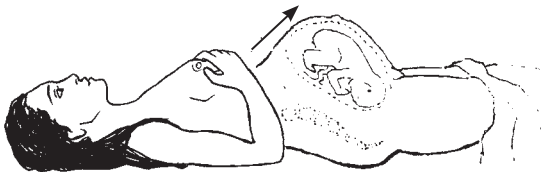
- A few days before labor begins, usually **the baby moves lower** in the womb. This lets the mother breathe more easily, but she may need to urinate more often because of pressure on the bladder. (In the first birth these signs can appear up to 4 weeks before delivery.)
- A short time before the labor begins, **some thick mucus** (jelly) may come out. Or some mucus may come out for 2 or 3 days before labor begins. Sometimes it is tinted with blood. This is normal.
- The **contractions** (sudden tightening of the womb) or labor pains may start up to several days before childbirth at first a long time usually passes between contractions—several minutes or even hours. When the contractions become stronger, regular, and more frequent, labor is beginning.
- Some women have a few **practice contractions** weeks before labor. This is normal. On rare occasions, a woman may have **false labor**. This happens when the contractions are coming strong and close together, but then stop for hours or days before childbirth actually begins. Sometimes walking, a warm bath, or resting will help calm the contractions if they are false, or bring on childbirth if they are real. Even if it is false labor, the contractions help to prepare the womb for labor.

**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.**

- The **bag of water** that holds the baby in the womb usually breaks with a flood of liquid sometime after labor has begun. If the waters break before the contractions start, this usually means the beginning of labor. After the waters break, the mother should keep very clean. Walking back and forth may help bring on labor more quickly. To prevent infection, avoid sexual intercourse, do not sit in a bath of water, and do not **douche** or put anything in the vagina. If labor does not start within 12 hours, seek medical help.

## THE STAGES OF LABOR

Labor has 3 parts or stages:

- The first stage lasts from the beginning of the strong contractions until the womb opens and the baby starts to move through the birth canal.
- The second stage lasts from when the baby enters the birth canal until it is born.
- The third stage lasts from the birth of the baby until the placenta (afterbirth) comes out.

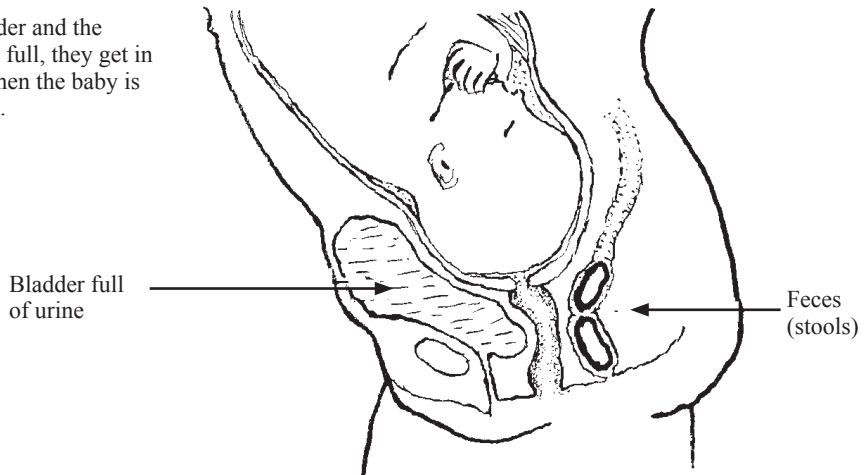
**THE FIRST STAGE OF LABOR** usually lasts 10 to 20 hours or more when it is the mother's first birth, and from 7 to 10 hours in later births. This varies a lot.

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 ready for cutting the cord, or boil a pair of scissors for 15 minutes. Keep the scissors in the boiled water in a covered pan until they are needed.

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 normally between them. This will help control the pain and calm her. Reassure the mother that the strong pains are normal and that they help to push her baby out.

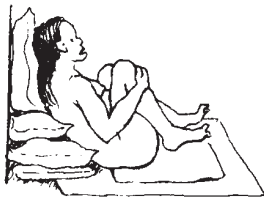
**THE SECOND STAGE OF LABOR**, in which the child is born: Sometimes this begins when the bag of water breaks. It is often easier than the first stage and usually does not take longer than 2 hours. During the contractions the mother bears down (pushes) with all her strength. Between contractions, she may seem very tired and half asleep. This is normal.

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 double her knees like this, while

squatting,



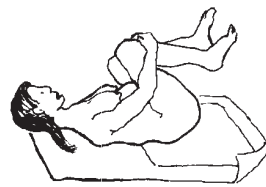
sitting propped up,



kneeling,



or lying down.



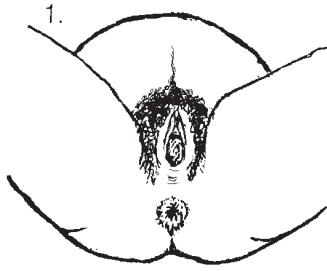
When the birth opening of the mother stretches, and the baby's head begins to show, the midwife or helper should have everything ready for the birth of the baby. At this time the mother should try **not** to push hard, so that the head comes out more slowly. This helps prevent tearing of the opening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

**In a normal birth, the midwife NEVER needs to put her hand or finger inside the mother.** This is the most common cause of dangerous infections of the mother after the birth.

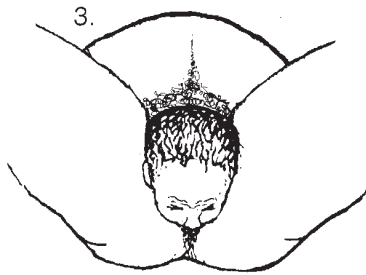
When the head comes out, the midwife may support it, but must never pull on it.

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

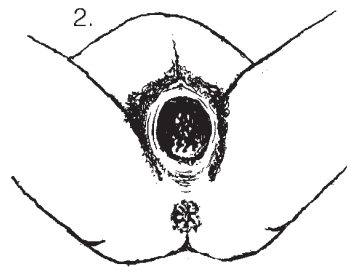
**Normally the baby is born head first like this:**



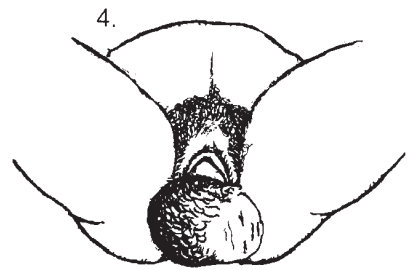
Now push hard.



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

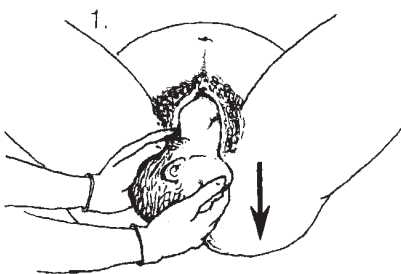


Now try not to push hard. Take many short, fast breaths. This helps prevent tearing the opening (see p. 269).

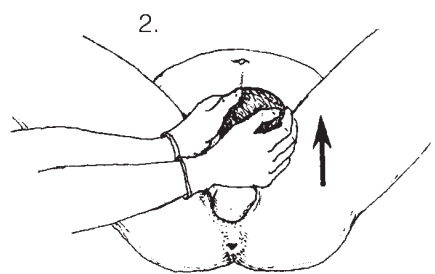


Then the baby's body turns to one side so the shoulders can come out.

**If the shoulders get stuck after the head comes out:**



The midwife can take the baby's head in her hands and lower it very carefully, so the shoulder can come out.



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

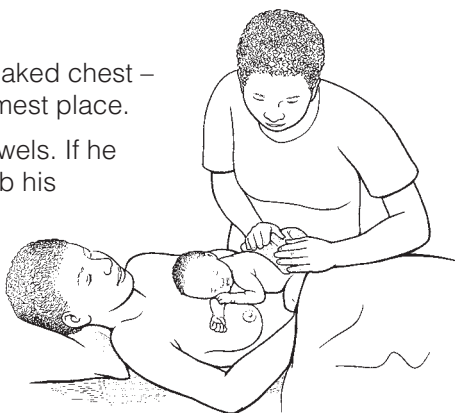
All the force must come from the mother. The midwife should **never pull on the head, or twist or bend the baby's neck**, because this can harm the baby.

**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 (see 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 comes out:

- ◆ Put the baby directly onto the mother's naked chest – skin against skin. This is the safest, warmest place.
- ◆ Dry the baby well with clean cloths or towels. If he does not begin to breathe right away, rub his back with a towel or a cloth.
- ◆ Gently wipe mucus off the baby's mouth and then nose with a clean cloth wrapped around your finger.
- ◆ If he still does not breathe after a minute after birth, start MOUTH-TO-MOUTH BREATHING at once (see page 80).

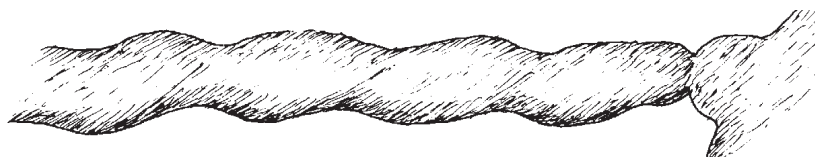


But if all is well, cover the baby and mother with cloths or a blanket. It is very important not to let the baby get cold, especially if he is premature (born too early).

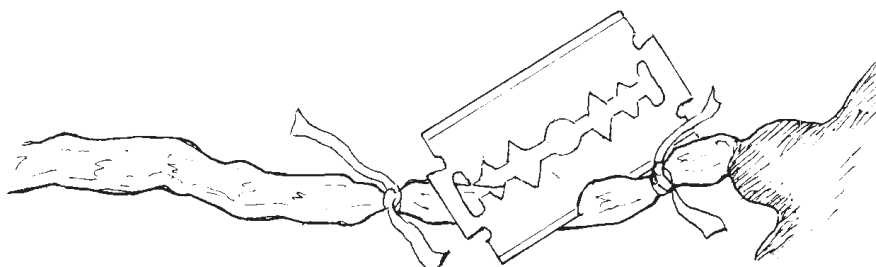
## How to Cut the Cord

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 boiled scissors.



**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 (see p. 182).

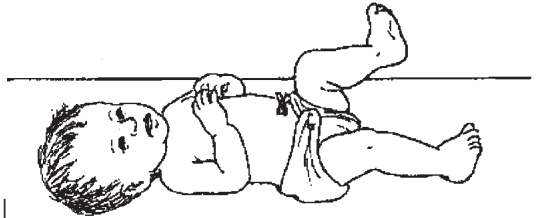
## Care of the Cut Cord

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 amoxicillin (p. 353).



The cord stump usually falls off 5 to 7 days after birth. There may be a few drops of blood or smooth mucus when the cord falls off. This is normal. But if there is a lot of blood or any pus, get medical help.

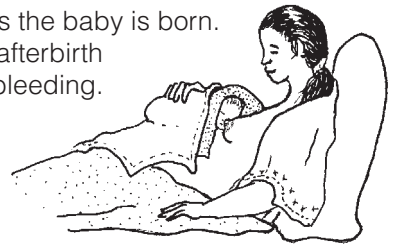
## Cleaning the Newborn Baby

With a warm, soft, damp cloth, gently clean away any blood or fluid.

It is better **not** to bathe the baby until after the cord drops off. Then bathe him daily in warm water, using a mild soap.

## Put the Newborn Baby to the Breast at Once

Place the baby at its mother's breast as soon as the baby is born. If the baby breastfeeds, this will help to make the afterbirth come out sooner and to prevent or control heavy bleeding.

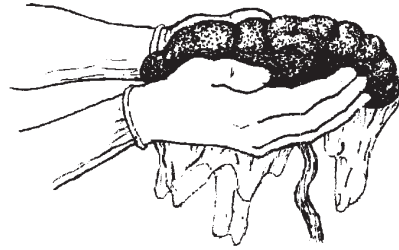


## THE DELIVERY OF THE PLACENTA (AFTERBIRTH)

Normally, the placenta 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, pick it up and 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.

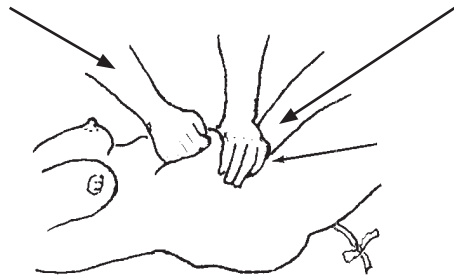
### When the placenta is delayed in coming:

If the mother is not losing much blood, do nothing. **Do not pull on the cord.** This could cause dangerous hemorrhage (heavy bleeding). Sometimes the placenta will come out if the woman squats and pushes a little.

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

Massage the womb carefully, until it gets hard. This should make it contract and push out the placenta.

If the placenta does not come out soon and bleeding continues, push downward on the top of the womb very carefully, while supporting the bottom of the womb like this.



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

## HEMORRHAGING (HEAVY BLEEDING)

When the placenta comes out, there is always a brief flow of blood. It normally lasts only a few minutes and not more than a quarter of a liter (1 cup) of blood is lost. (A little bleeding may continue for several days and is usually not serious.)

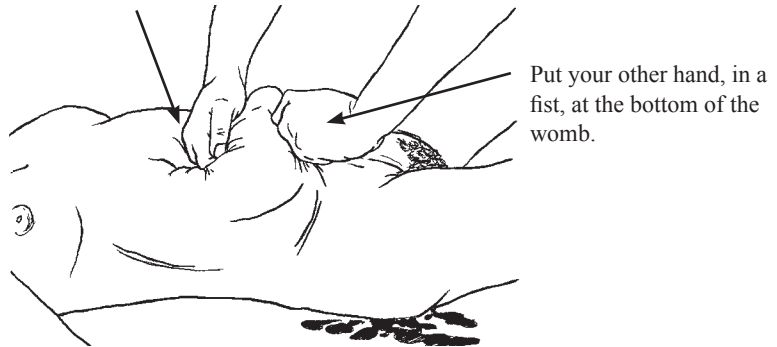
**WARNING:** Sometimes a woman may be bleeding severely inside without much blood coming out. Feel her belly from time to time. If it seems to be getting bigger, it may be filling with blood. Check her pulse often and watch for signs of shock (p. 77).

- ◆ If you have **oxytocin** or **misoprostol**, use it, following the instructions on the next page.
- ◆ **Rub the woman's womb after the birth of the placenta** every 15 minutes or so, and anytime you notice bleeding. Rub hard and deep, until the womb feels like a hard, round ball in the center of the belly, below the belly button. 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 (see p. 77).

If heavy bleeding continues, or if the mother is losing a great deal of blood through a slow trickle, do the following:

- ◆ Get medical help fast. If the bleeding does not stop quickly, the mother may need to be given serum blood in a vein (a transfusion).
- ◆ Keep massaging the womb. Rub harder, squeezing the womb between two hands. It will hurt, but should work.

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 childbirth, 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. They are important but dangerous drugs. Used the wrong way, or 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 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). If necessary, give 10 more units after 10 minutes. If there is no oxytocin, you can use misoprostol instead. Give 800 mcg to dissolve under the tongue (p. 393).

**2. If the bleeding starts after the placenta comes out.** Inject 10 units of oxytocin in the buttock or thigh muscle. You can give this dose again in 20 minutes if bleeding does not stop. Or, give the woman 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 childbirth or give strength to the mother's labor is very dangerous for both her and the child. These medicines are rarely needed before the baby is born, and then only a highly trained birth attendant should use them.

THE USE OF MEDICINES  
TO 'GIVE STRENGTH' TO  
THE MOTHER DURING  
CHILDBIRTH . . .



CAN KILL THE  
MOTHER, THE  
BABY, OR BOTH.

There is **no** safe medicine to give strength to the mother or to make the birth quicker or easier.

If you want the woman to have enough strength for childbirth, have her eat plenty of nutritious foods, especially during the 9 months of pregnancy (see p. 107). Also encourage her to space a few years between her pregnancies so her body can regain its full strength (see Family Planning, p. 283).

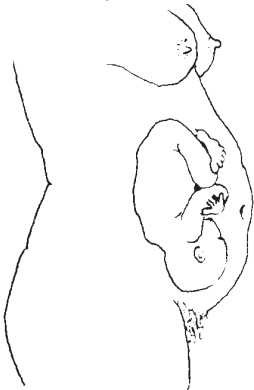
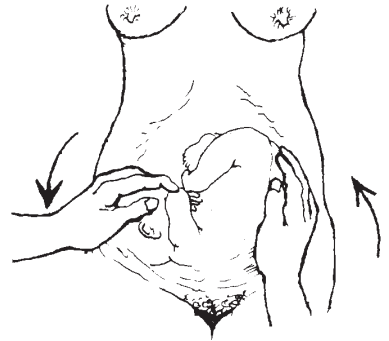


## DIFFICULT BIRTHS

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 may be in an unusual position.** Feel the belly between contractions to see if the baby is **sideways**. Sometimes the midwife can turn the baby through **gentle** handling of the woman's belly. Try to work the baby around little by little between contractions, until the head is down. But **do not use force** as this could tear the womb or placenta, or pinch the cord. If the baby cannot be turned, try to get the mother to the hospital.



- **If the baby is facing forward** rather than backward, you may feel the lumpy arms and legs rather than the rounded back. This is usually no big problem, but 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 given normal 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). **Women who are of short stature (dwarfs), have very narrow hips or are especially young should have at least their first child in or near a hospital.**
- **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.

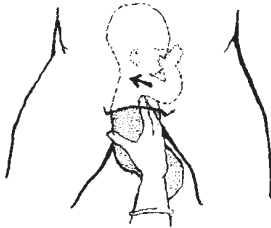
2. **BREECH DELIVERY** (the buttocks come out first). Sometimes the midwife can tell if the baby is in the breech position by feeling the mother's belly (p. 257) and listening to the baby's heartbeat (p. 252).

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:



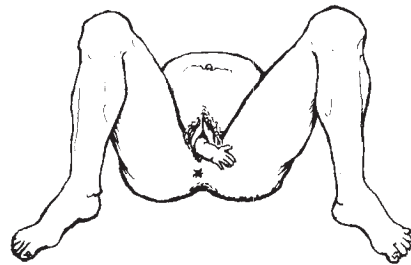
If the baby gets stuck, have the mother lie face up. Put your finger in the baby's mouth and push his head towards his chest. At the same time have someone push the baby's head down by pressing on the mother's belly like this:



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.

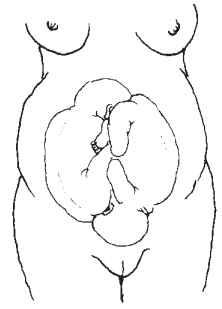
4. Sometimes the **CORD IS WRAPPED AROUND THE BABY'S NECK** so tightly he cannot come out all the way. Try to slip the loop of cord from around the baby's neck. If you cannot do this, you may have to clamp or tie and cut the cord. Use boiled blunt tipped scissors.



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 baby may be in danger. If he breathes any of the feces into his lungs, he may die. As soon as his head is out, tell the mother not to push, but to take short, rapid breaths. Before the baby starts breathing, take time to suck the feces out of his nose and mouth with a suction bulb. Even if he starts breathing right away, keep sucking until you get all the feces out.

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.

**To be safe, the mother should 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 is likely to have twins:*

- The belly grows faster and the womb is larger than usual, especially in the last months (see p. 251)
- If the woman gains weight faster than normal, 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

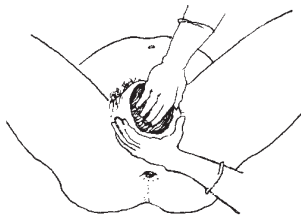
The birth opening must stretch a lot for the baby to come out. Sometimes it tears. Tearing is more likely if it is the mother's first baby.

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 (see p. 86 and 381).

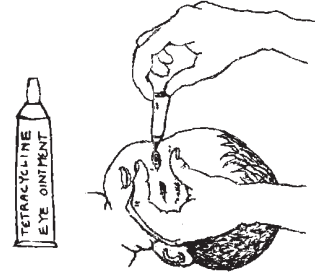
## CARE OF THE NEWBORN BABY

### The Cord

To prevent the freshly cut cord from becoming infected, it should be kept **clean** and **dry**. 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 (see pages 184 and 263).

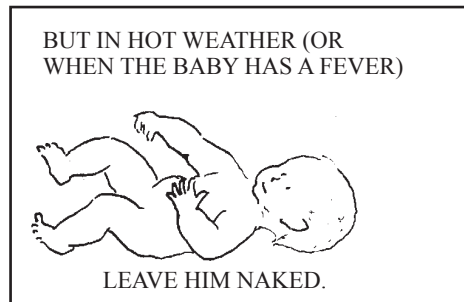
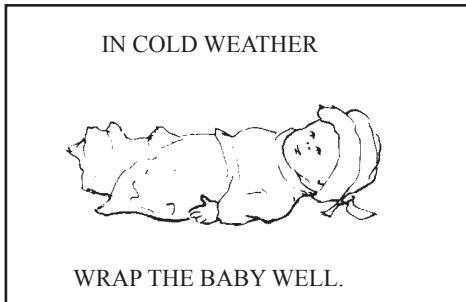
### The Eyes

To protect a newborn baby's eyes from dangerous conjunctivitis, put a line of 1% tetracycline or erythromycin 0.5% to 1% ointment in each eye within the first 2 hours (p. 221 and 380). This is especially important if either parent has ever had signs of gonorrhea or chlamydia (p. 236).



### 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', p. 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 (nappy) 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 p. 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 normal. 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 (see 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 (see 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 p. 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 damage to the baby while he was being born. Examine the baby carefully immediately after birth. If he shows any of the following signs, something is probably seriously wrong with him:

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

Some of these problems may be caused by brain damage 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 (see p. 270). Try to get medical help.

If the newborn baby vomits or shits blood, or develops many bruises, she may need vitamin K (see 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 amoxicillin (p. 352).

2. Either **low temperature** (below 35° C) or **high fever** can be a sign of infection. *High fever (above 39° C) is dangerous for the newborn.* Take off all clothing and sponge the baby with cool (not cold) water as shown on page 76. Also look for signs of dehydration (see p. 151). If you find these signs, give the baby breast milk and also Rehydration Drink (p. 152).

3. **Seizures (fits, convulsions,** see 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 damage 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 normal. 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 normal. 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 normal. 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

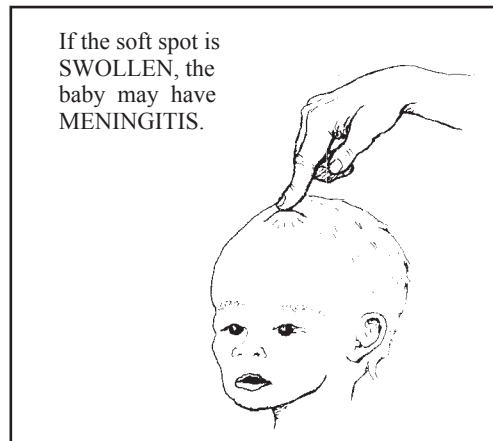
Examine him carefully and completely as described in Chapter 3. Be sure to check the following:

- 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 defect or other problem the baby was born with).

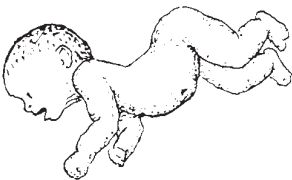
**If the face and whites of the eyes begin to get yellow (jaundiced) in the first day of life or after the fifth day, this is serious.** Get medical help. Some yellow color between the second and fifth day of life is usually not serious. Give plenty of breast milk by spoon if necessary. Take off all 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 p. 9.



**IMPORTANT:** If a baby has meningitis and dehydration at the same time, the soft spot may feel normal. **Be sure to check for other signs** of both dehydration (see p. 151) and meningitis (see 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 damage 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 (see 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 (see 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 CHILDBIRTH

### Diet and Cleanliness

As was explained in Chapter 11, after she gives birth to a baby, **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 together 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 following childbirth.** 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 childbirth, 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 childbirth, often because someone attending the birth did not keep everything very clean or because he or she put a hand inside the mother.

*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:*

**Give 3 medicines:** inject 2 grams of ampicillin for the first dose, and then 1 gram 4 times a day. Also inject 80 mg of gentamicin for the first dose, then give 60 mg 3 times a day. Also give 500 mg of metronidazole by mouth 3 times a day. Continue giving these medicines until after the fever has been gone for 2 days.

**Childbirth fever can be very dangerous. If the mother does not start to feel better the next day, 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). The first milk has everything a new baby needs to prevent infection and is rich in protein. **The first milk is very good for the baby, so...**

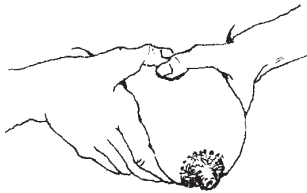
**BEGIN BREASTFEEDING EARLY**  
**Put the baby to the mother's breast as soon as possible.**

Normally, the breasts 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,

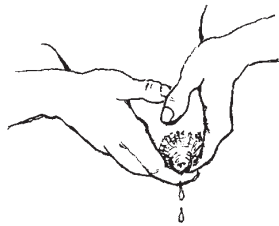
**When a baby is sick and unable to take much milk,  
 it is important that the mother keep producing lots of milk  
 by milking her breasts with her hands.**

### TO MILK THE BREASTS BY HAND

Take hold of the breasts  
 way back, like this,



then move your hands  
 forward, squeezing.



To squeeze the milk out,  
 press behind the nipple.



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 abscess. 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 each day, for a full 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).**

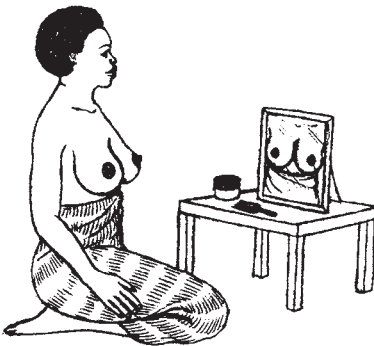
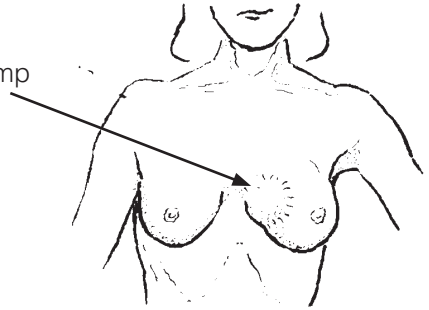
**A painless breast lump may be cancer, or a cyst.**

## Breast Cancer

Most women have some small lumps in their breasts. These lumps can change in size and shape, and become tender during her monthly cycle. Sometimes, a breast lump that does not go away can be a sign of breast cancer. Successful treatment depends on spotting the first sign of possible cancer and getting medical care soon. Surgery is usually necessary.

### *Signs of breast cancer:*

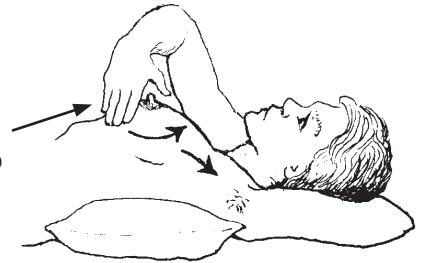
- The woman may notice a slow-growing lump during self-examination of the breasts (see below).
- Or the breast may have an abnormal dent or dimple—or many tiny pits like the skin of an orange.
- Often there are swollen lymph nodes in the armpit, which may or may not be painful.
- There may be redness or a sore on the breast that does not heal.
- She may have abnormal discharge from a nipple.
- At first it usually does not hurt or get hot. Later it may hurt.



### SELF-EXAMINATION OF THE BREASTS

Every woman should learn how to examine her own breasts for possible signs of cancer. She should do it once a month, preferably on the 10th day after her menstrual period started.

- ◆ 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 normal development of a baby. Abnormal lumps or masses may be caused by:

- a **cyst** or watery swelling, often in the ovaries
- a baby that has accidentally begun to develop outside of the womb (ectopic pregnancy), or
- cancer

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



### Cancer of the womb

Cancer of the uterus (womb), cervix (neck of the womb), or ovaries is most common in women over 40. The first sign may be **anemia** or unexplained bleeding. Later, an uncomfortable or painful lump in the belly may be noticed.

There is a special test called a Pap smear (Papanicolaou) to find cancer of the cervix when it is just beginning. Where it is available, all women over 20 should try to get a Pap smear once a year. Another method is called 'visual inspection' and uses a vinegar solution painted on the cervix. If this makes tissue turn white, then further testing or treatment is needed. See page 384 of *A Book for Midwives* for a treatment that prevents cancer of the cervix.

**At the first suspicion of cancer, seek medical help.**

### Ectopic (tubal) Pregnancy

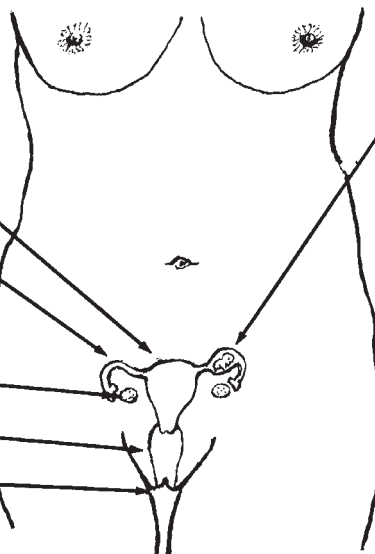
womb or uterus—  
where a  
baby grows  
normally

tube  
to ovary

ovary—where  
the eggs are  
made

vagina

vulva—  
or lips of  
vagina



Sometimes a baby begins to form 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 baby that begins to form in the tube cannot live. 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 the loss of the unborn baby. Miscarriages are most frequent in the first 3 months of pregnancy. Usually the baby is imperfectly formed, and this is nature's way of taking care of the problem.

Most women have one or more miscarriages in their lifetime. 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 should learn to know when she is having a miscarriage, because it could be dangerous.

**A woman who has heavy bleeding after she has missed one or more periods probably is having a miscarriage.**

A miscarriage is like a birth in that the embryo (the beginning of the baby) and the placenta (afterbirth) must both come out. Heavy bleeding with big blood clots and painful cramps often continues until both are completely out.

The embryo of a miscarriage may be no longer than 1 or 2 centimeters.

30 days



60 days



### *Treatment:*

The woman should rest and take ibuprofen (p. 381) 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 clean out 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** (see p. 276)
- ◆ A woman may continue to bleed a little for several days after the miscarriage. It will be similar to her menstrual flow (period).
- ◆ She should not *douche* or have sex for at least 2 weeks after the miscarriage, or until the bleeding stops.
- ◆ If she is using an IUD and has a miscarriage, serious infection may occur. **Seek medical help fast**, have the IUD removed, and give antibiotics.

## HIGH RISK MOTHERS AND BABIES

*A note to midwives or health workers or anyone who cares:*

Some women are more likely to have difficult births and problems following birth, and their babies are more likely to be underweight and sick. Often these are mothers who are single, homeless, poorly nourished, very young, mentally slow, or who already have malnourished or sickly children.

Often if a midwife, health worker, or someone else takes special interest in these mothers, and helps them find ways to get the food, care, and companionship they need, it can make a great difference in the well-being of both the mothers and their babies.

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

