

A Book for Midwives

Care for pregnancy, birth,
and women's health

selected chapters on
women's reproductive health



the Hesperian Foundation
Berkeley, California, USA

CHAPTER 5
Preventing infection

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Preventing infection



Preventing infection saves lives

Infection makes people sick and can even kill them. It is one of the most common causes of death after childbirth. Procedures that involve putting medical tools inside a woman's womb, like inserting an intrauterine device (IUD) or doing manual vacuum aspiration (MVA), can also cause infection. Much of the work of a midwife, and any procedure inside the womb (invasive procedure), can only be safe if you are able to follow the steps we outline in this chapter to prevent infection.



Germ can live on tools, even tools that look clean.

This chapter explains how to avoid infection by killing or controlling harmful germs. Germs are organisms that carry sickness. Germs are everywhere, but they are so small that they can only be seen with a microscope. The dangerous germs in blood, stool, body fluids (like semen and amniotic waters), and dirt can cause serious sickness when they get into someone's body.



Germ live in body fluids, like blood.

Infection is caused by germs

Some sicknesses, like arthritis, diabetes, asthma, and epilepsy, are not caused by germs. They cannot be passed from one person to another.

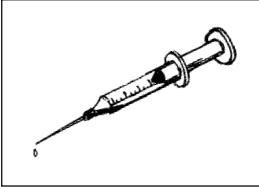
Other sicknesses, like measles, hepatitis, tetanus, womb infection, HIV/AIDS, and malaria, are called infections and are caused by germs. People get sick when the germs that cause these infections get inside their bodies.

How germs get into the body

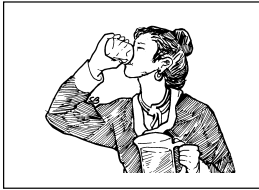
Germs can get inside the body in different ways.



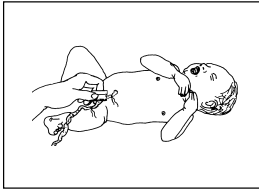
Some germs pass through semen or vaginal mucus (body fluids) when people have sex. HIV and other sexually transmitted infections like chlamydia and gonorrhea can spread this way.



Some germs pass through blood when the blood or body fluid of an infected person get into a cut or through the skin — like with a needle that has been used for piercing or injections. HIV/AIDS, hepatitis B, and hepatitis C can spread this way.



Some germs live in dirty water and pass when people drink it. Cholera and diarrheal diseases spread this way.



Some germs live in dirt, on skin, or in the air, and are not dangerous unless they get into a person's blood. These germs can get into the blood when an instrument that has germs on it is used inside a woman's womb, or to cut the skin or a baby's cord. Tetanus and womb infection can spread this way.



Some germs pass through the air when a sick person coughs or sneezes. Colds, flu, and tuberculosis can spread this way.

Keep sick people away from births

One simple thing midwives can do to prevent infection is to keep sick people away from women who are pregnant or giving birth. Keep anyone who has a sore throat, cough, fever, or other illness that passes through germs away from births. And do not let anyone with a sore on his or her hands or face touch a new baby.





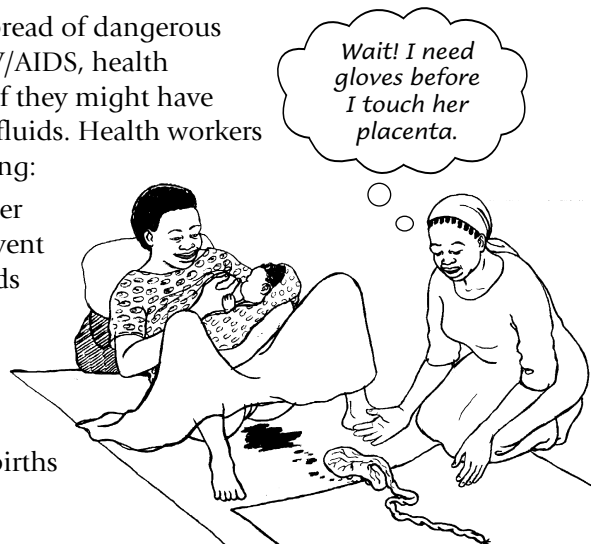
If you are sick but you must go to a birth, wash your hands often and cover your mouth if you sneeze or cough. Be sure to wash your hands after each time you sneeze or cough. Try not to touch the new baby too much.

Anyone may carry germs that cause sickness

People do not always know that they have an infection. And there is no way to tell for sure what germs a person has just by looking at her. Some people have germs in their blood or other body fluids but do not seem sick.

To be safe, and to stop the spread of dangerous infections like hepatitis and HIV/AIDS, health workers must treat everyone as if they might have dangerous germs in their body fluids. Health workers can prevent germs from spreading:

- by wearing gloves and other protective clothing, to prevent blood and other body fluids that contain germs from getting on themselves or others.
- by cleaning and sterilizing the tools they use during births and other procedures.

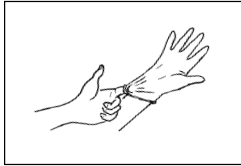


Note: Good general health can help avoid infection. Healthy eating, enough rest, and emotional and spiritual well-being are all important for staying healthy. Sometimes they are enough to help people fight germs that get inside the body so the person does not get sick.

But during birth and invasive medical procedures, a woman's body is more open and vulnerable to infection, and good general health is usually not enough. Germs that are usually kept out of the body can get into the womb. Any cut in the skin also makes a person more vulnerable to infection because the skin usually helps keep germs out of the body. Even an injection can cause an infection if the syringe has harmful germs on it.

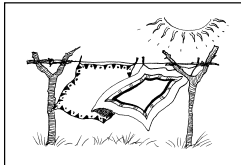
Prevent infection by keeping germs away

Here are the basic rules to prevent infection.



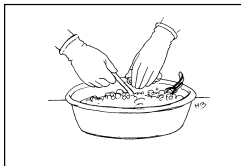
Clean your hands and wear protective clothing.

Wash your hands often and wear protective clothing to prevent spreading germs from one person to another and to keep germs away from yourself (see page 53).



Clean the space and bedding.

Clean the area where births and exams happen, to keep germs away (see page 57).



Clean and sterilize tools.

Wash and sterilize tools to kill any germs on them (see page 59).



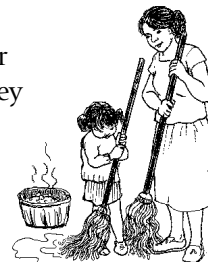
Get rid of wastes safely.

Throw away waste products carefully to prevent people in the community from getting sick from the germs left on them (see page 67).

Remember: Infection can spread most easily when a health worker is caring for many people. For example, if her hands are not clean or her tools are not sterile, she will pass germs from one woman to another to another. For this reason, a woman giving birth at a hospital or maternity center with many other women has more risk of infection than a woman giving birth at home.

Adapt this book to work for you

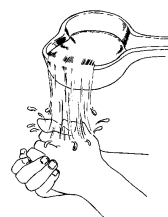
This chapter contains many detailed instructions for preventing infection. They are all important, but they may not all be possible. You will have to decide which you are able to do, or if there are ways you can adapt the instructions to work for you.



Clean your hands and wear protective clothing

Wash your hands often

Washing your hands is one of the most important things you can do to prevent infection. It prevents you from spreading germs to another person, and it helps protect you from germs, too. If you can do nothing else to prevent infection, you must wash your hands.



Wash your hands with soap and clean water. If you do not have soap, you can use ash (but not dirt!). Be sure to rinse all the soap or ash off. When you wash your hands, and especially when you rinse them, use clean water that is flowing, not water sitting in a bowl. When you wash your hands in a bowl, the germs that come off into the water will get back onto your hands again.

Wash your hands each time before you touch a woman's body. Wash after you touch her body, or after you touch anything that has her blood or fluid (like the placenta) on it. Wash before you put on gloves and after you take gloves off. If you are helping more than one woman at once, like at a hospital, it is very important to wash between helping each person.

Normal hand washing removes most germs. But sometimes to remove more germs, you should wash your hands for a full 3 minutes, and scrub under your fingernails.

How to do a 3-minute hand wash

Before you start, take off rings, bracelets, and other jewelry.

1



Wash your hands and arms with soap and clean water — all the way up to your elbows.

2



Make sure to scrub in between your fingers.

3



If you have a clean brush, scrub your fingernails.

4



Keep scrubbing, brushing, and washing your hands and arms for 3 minutes! Spend most of this time on your hands.

5



Rinse with clean, running water.

6



Dry your hands in the air instead of using a towel. Do not touch anything until your hands are dry.

Always do a 3-minute hand wash

before you:

- touch the mother's vagina
- do a pelvic exam
- deliver the baby
- sew up a tear
- insert an IUD (see Chapter 21, page 388)
- do an MVA (see Chapter 23, page 416)



after you:

- clean up after the birth
- touch any blood or other body fluids
- urinate or pass stool

Alcohol and glycerine hand cleaner

You can make a simple hand cleaner to use if you do not have water to wash your hands. When used correctly, this cleaner will kill most of the germs on your hands.

Mix 2 milliliters glycerine with 100 milliliters of ethyl or isopropyl alcohol 60% to 90%.

To clean your hands, rub about 5 milliliters (1 teaspoon) of the hand cleaner into your skin. Be sure to clean between your fingers and under your nails. Keep rubbing until your hands are dry. Do not rinse your hands or wipe them with a cloth.

Clean water

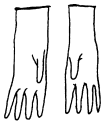
Throughout this book we talk about how important it is to wash your hands and wash your tools. But the water you use must be clean to be of any use. If the water in your community may carry germs, be sure that water is boiled before using it to wash your hands or to wash tools before a birth.



Wear gloves

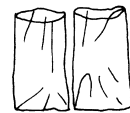
Latex and other plastic gloves protect women from any germs that may be hiding under your fingernails or on your skin. They also protect you from getting infections. Wear clean gloves whenever you touch the mother's genitals, or any blood or body fluid.

If you are doing invasive procedures, or if you are touching any tools that have been sterilized, you must wear sterile gloves.



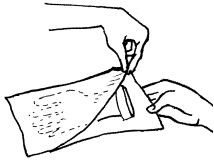
Plastic bag gloves

If you do not have gloves, use plastic bags that have been washed in disinfectant soap instead. Bags are harder to use than gloves, but they are better than nothing. In the rest of this book, we will only mention gloves. But **be sure to use plastic bags if you do not have gloves.**



How to put on sterile gloves

1



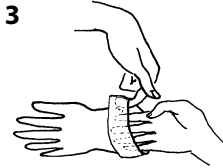
Open the package without touching the gloves. Do not touch the outside of a sterile glove with your hand or it will not be sterile anymore.

2



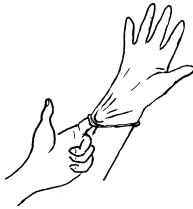
Carefully wash your hands. Let them dry in the air.

3



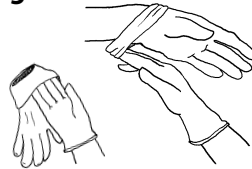
The gloves should be folded out at the cuff. Pick up one glove under the cuff on the inside of the glove and slip your hand into it. Do not touch the outside of the glove.

4



Wiggle your hand in while you pull with your finger tucked inside the glove.

5



Pick up the second glove by slipping your gloved fingers into the fold of the cuff. Slide your hand into the glove.

6



Once the gloves are on, do not touch anything that is not sterile — or the gloves will not be sterile anymore either!

Practice with the same pair of gloves over and over again until it feels easy.

REMEMBER:



If you carefully wash your hands ...



and put on sterile gloves ...



and then scratch your head ...



your glove is not sterile anymore!

Of course, when you touch a woman you will get germs on your gloves, but do not move germs from one part of her body to another. For example, if you touch a woman's anus where there are many germs, do not put your fingers inside the vagina with the same gloves. Germs from the anus can make a woman sick if they get into the vagina or womb.

After you use a pair of gloves one time, throw them away, or sterilize them before you use them again (see page 66).

Protect yourself from infection

Midwives must protect themselves from germs and infection. You will not be able to help women if you are sick. And if you are infected with dangerous germs, you can easily spread them to the women you are trying to help.

Some germs that cause serious illnesses, like AIDS and hepatitis B, only live in blood, urine, stool, the bag of waters, and other body fluids. That means you do not get these illnesses just by touching someone's skin. But the germs that cause AIDS and hepatitis B can infect you if an infected person's blood gets into a cut or opening in your skin — even a cut so small that you cannot see it (see page 99 for all the ways HIV can spread). Keep blood and other body fluids off your clothing and skin, and if they do get onto you, wash them off right away with soap and water.

Wear protective clothing

You do not need expensive equipment to keep body fluids off your skin, out of cuts, and out of your mouth and eyes. You can wear an apron or an extra shirt to keep fluid off your body. Protect your eyes with eyeglasses or plastic goggles. Cover your feet so that you do not step into blood or other fluids.

Wash all your clothing after any blood, waters, or other body fluids gets on it.



If you do not have clothing made to protect you from blood and fluids, you can make it from what you already have.

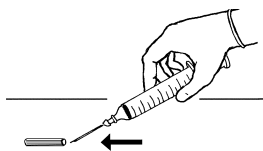
Be careful with needles

If a syringe is used to give an injection, or a needle was used for sewing a vaginal tear, the needle has blood on it. If you accidentally stick yourself with that used needle, you will be exposed to germs. Carry needles carefully with the point away from your body. Do not leave needles lying around.

Use each needle only once and then throw it away in a box like the one on page 68. You may be able to get needles that can only be used once and do not need a cap. If you must reuse a needle, put the cap on very carefully and then put the needle in a bucket filled with bleach solution (see page 57) until you are ready to clean and sterilize it.

How to avoid puncturing your skin with a needle

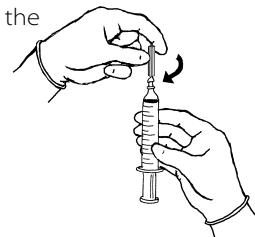
Do not use your hand to put the cap on the needle.



Instead, use the needle to pick up the cap.



Then close the cap all the way.



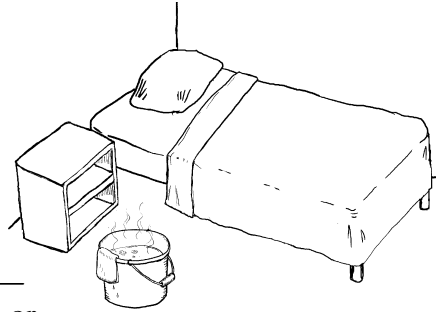
Note: If you do get stuck by a needle, immediately wash the area with soap and water or alcohol.

Clean the space and bedding

Clean the space

At home

One reason that birth or medical procedures can happen as safely in a woman's home as in a medical center is that there are not as many germs in a clean house as in a hospital. But the home should still be cleaned carefully — especially the area where the baby will be born or where procedures such as a pelvic exam or IUD insertion will be done.



Sweep these areas free of dust and dirt, and wash surfaces with soap and water. Put your tools or birth kit on a clean surface.

Move animals out of the house and do not do any medical procedures in places where animals sleep or pass stool, or where people urinate or pass stool. If the floor in the house is made of animal waste (dung), do not let the woman's body or any of your tools touch the floor. Dung has many germs in it that can easily spread to pregnant women. You can cover the floor with clean straw, cloth, or plastic.

In a hospital, maternity center, or clinic

Be extra careful. Germs can easily be passed from one person to another.

After each birth, wash floors and surfaces. If possible, use a bleach (sodium hypochlorite) solution to wash the floor.

How to make a disinfecting solution of 5% bleach

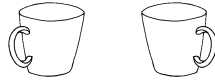
If your bleach says:

5% available chlorine



use undiluted,
straight bleach

10% available chlorine



use 1 part
bleach and 1 part
water

15% available chlorine



use 1 part
bleach and 2 parts
water

Mix just enough solution for 1 day. **Do not use it again the next day.** It will not be strong enough to kill germs anymore.



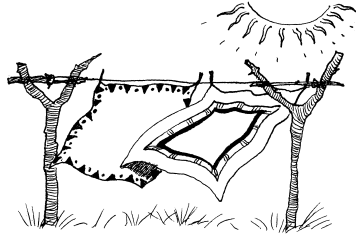
If you do not have bleach, you can wash the floor with:

- ethanol (medical alcohol) 70%
- isopropyl alcohol 70%
- hydrogen peroxide 6%
- soapy water
- ammonia
(But do not ever mix bleach with ammonia — when mixed they make a poison.)

Clean or sterilize the bedding

At home

Wash cloth for covering the bed (bedding) in soap and water, and dry it thoroughly by hanging it in the sun or ironing it. Do not dry bedding on the ground; it will pick up germs.



In a hospital, maternity center, or clinic

Bedding must be sterilized after each birth. Use one of these methods to kill the germs:

- Wash the bedding with soap and water. Then boil for 30 minutes. Dry thoroughly in a clean place.
- or
- Wash bedding with soap and water. Then use a hot iron to dry it.



If neither of these methods is possible, wash the bedding in soap and water and hang it in the sun until it is fully dried. Turn the bedding so the sun shines on both sides, and take care to keep it clean.

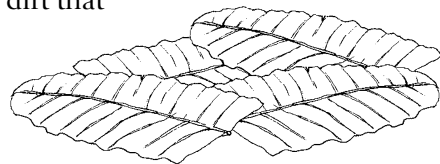
Store bedding to keep germs away

If you are not going to use the bedding right away, keep it clean and dry until you are ready to use it. Put it in a clean bag or wrap it in clean paper and store it in a clean, dry place.

—● **Note:** Do not store bedding that is damp or wet. Germs will come back!

Other kinds of underpadding

Sometimes there is no bed or bedding. The birth or procedure happens on the floor. In these cases, it is useful to have some kind of underpadding. This protects the baby and the mother from the germs and dirt that are on the floor. Find a way to clean the underpadding before it is used. For example, banana leaves can be washed with a disinfectant solution, and then smoked or dried in the sun. Cloth rags or sacks can be boiled and then dried.



Clean and sterilize tools

All the tools used at a birth, exam, or procedure must be cleaned and sterilized. Cleaning and sterilizing the tools gets rid of germs. This protects women from getting sick.

1. Soak your tools

Tools that have been used must be soaked for at least 20 minutes in bleach solution (see page 57).

2. Clean your tools

All tools and equipment you use at a birth or a procedure must be clean. Wash them well after each birth, using a brush to remove any blood or dirt in the hinges or rough edges of your tools. Clean off any rust, and get rid of tools that are dull or damaged. To protect yourself, wear heavy gloves when you clean your tools.

After everything is washed, any tools that you use inside a woman's body must also be sterilized to kill germs.



Carefully wash all the dirt off your tools.

3. Sterilize your tools

To sterilize means to kill all the germs on something. If your tools are sterilized, they will not spread germs to women when you use them. This will protect women from getting infections.

What do we mean when we say "sterile"?

Sterilize means kill **all** the germs that cause infections. To sterilize a tool you must use baking or pressure steaming.

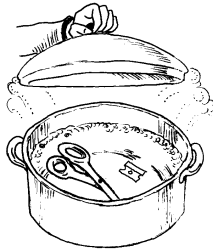
Disinfect means to kill **most** of the germs that cause infections. Some soaps and cleaning products are called "disinfectant." But to disinfect medical tools or instruments you cannot simply clean something with a disinfectant soap — you must boil, steam, or soak the tool in disinfectant chemicals. This kind of disinfection is called High Level Disinfection (HLD).

All the procedures in this book can be done safely with tools that are either sterile or HLD. To be simple, we only use the word "sterilize" or "sterile" throughout the book. But any time we say that a tool should be sterile, we really mean it can be sterile **or** HLD.

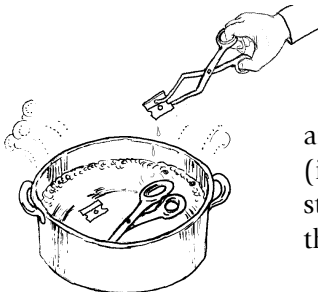
Sterilize everything that will go inside a woman's body, will cut her skin, or will be used to cut the cord at birth.

Sterilize these items:

- syringes and needles
- scissors or razor blade for cutting the cord
- materials for sewing tears
- clamps or hemostats
- gloves
- gauze
- compress cloths
- bulb syringe or mucus trap
- MVA cannula (see page 420)
- speculums, in some cases



Note: You do not need to sterilize tools that are used only on the outside of the body. Stethoscopes, measuring tape, and blood pressure cuffs must be clean but do not need to be sterile.



When you sterilize a tool, the germs on it are killed and it is safe to use. But if that tool touches anything (including the bed, a table, or you!) it is no longer sterile. Germs from whatever it touched are on it, and those germs can cause an infection when the tool is used.

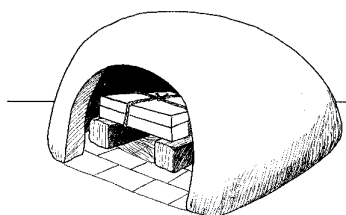
The next few pages explain 5 different ways to sterilize your tools: baking, pressure steaming, boiling, steaming, and soaking in chemicals. Baking and pressure steaming are best — they kill the most germs. If you cannot use either of those methods, boiling, steaming, or using disinfectant chemicals is fine. Use the ways that work best for you.



WARNING! If you cannot sterilize your tools, then do not use them. Unsterilized tools will do more harm than good.

Baking

Use baking to sterilize metal tools, and string for tying the cord. Do not bake rubber or plastic. It will melt.



Wash and rinse all the tools well, then put them into 4 layers of clean cloth or heavy paper. Wrap the cloth up around the instruments and tie it shut.



Put the packet of tools or string into a container or on a pan.

Bake on a medium-high heat (170°C or 340°F) for 1 hour.

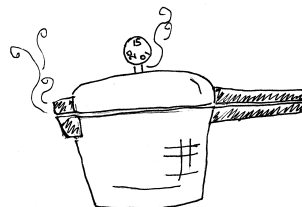
This is a little longer than it takes to bake a big potato or yam. If you cannot make your oven hot enough, bake items longer.

Let the packet cool, then store it in a clean, dry place.

Pressure steaming

Use pressure steaming to sterilize metal tools or rubber or plastic equipment.

Some clinics and hospitals have a machine for sterilizing called an autoclave. Autoclaves sterilize instruments using pressure and steam. If you have a pressure cooking pot, you can sterilize your tools in the same way that an autoclave does.

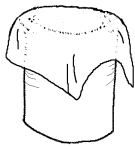


Put a steamer basket and water in the pressure cooking pot. Put your tools into the steamer, close the lid on the pot, and put the pot on a flame to boil.

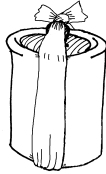
After it comes to a boil, cook at 15 or 20 pounds of pressure for 20 minutes.

After sterilizing tools, let them dry. Do not touch them, or they will not be sterile anymore!

Use sterilized tongs, chopsticks, or spoons to pick the tools out of the pot. Move them directly to a sterilized container. Remember, if the tool touches anything, including your hands, it is no longer sterile.



Let the tools dry in the sterilized container. Cover the container with a sterilized cloth or paper to keep dust out.



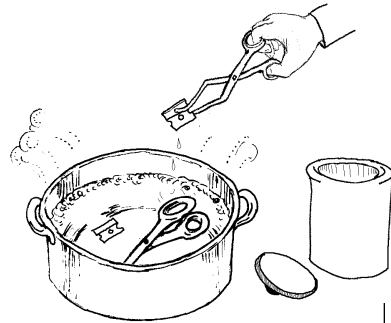
When the tools are all dry, put the lid on the container and seal it with tape or some other material to keep the germs out.

Boiling

Use boiling to sterilize metal tools, rubber or plastic equipment (like mucus bulbs), and cloth.

After you wash and rinse your tools, cover with water and boil for 20 minutes.

Start counting the 20 minutes when the water starts boiling.



Use sterilized tongs, chopsticks, or spoons to pick the tools out of the pot. Move them directly to a sterilized container. Remember, anything you touch is no longer sterile.

Steaming

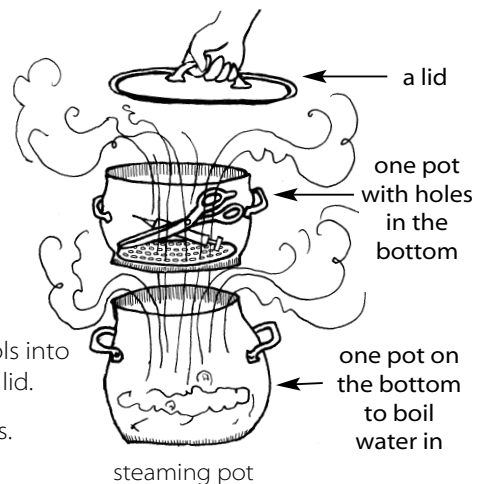
Use steaming to sterilize metal tools, gloves, plastic equipment, and other tools.

A steaming pot has 3 parts that fit together tightly: one pot on the bottom to boil water in, one pot in the middle that has holes in its bottom, and a lid.

Boil a little water in the bottom pot. Put the tools into the steamer pot with the holes. Cover with the lid.

Steam over boiling water for at least 20 minutes.

Start counting the 20 minutes when the water starts boiling.





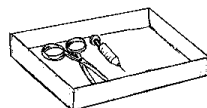
Wait for the tools to dry, and then use sterilized tongs to move the tools from the steamer into a sterilized container, and seal the container.

Steaming uses less water than boiling, and tools that are steamed do not get dull or broken as quickly as tools that are boiled.

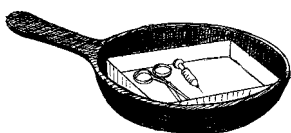
A method from the Philippines

The Medical Mission Sisters in the Philippines have developed a method to sterilize tools with steam:

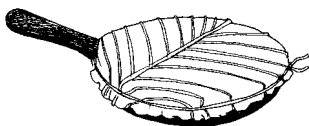
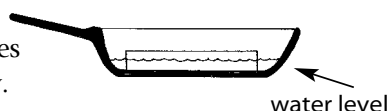
1. Put your clean tools into a metal tray.



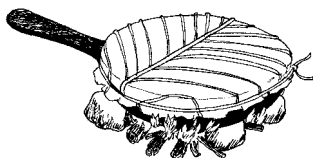
2. Place the tray in a cooking pan.



3. Fill the pan with water until it reaches halfway up the tray.

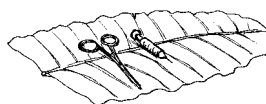


4. Cover the pan with 8 layers of clean green banana leaves. Bind the leaves tightly in place with strips of banana leaf or bark. Be careful not to spill water into the tray when you do this.



5. Put the pan on a low fire and boil for about 1 hour.

6. Throw away the top layer of the leaves. You can use one of the inner layers to put your instruments on.



Using chemicals

Some people use chemicals to sterilize metal, rubber, or plastic tools and equipment. We do not recommend using chemicals to sterilize.

Most chemicals used to sterilize are poisonous. They poison the ground and the water when they are thrown away. They are poisonous to the people who work in factories making them, and they are poisonous to the people who use them to clean tools.

But some tools can only be sterilized with chemicals. Thermometers and some kinds of gloves cannot be baked, boiled, or steamed.



If you do need to use chemicals:

- mix up the bleach solution on page 57.

or If you do not have bleach, use one of the following chemicals:

- ethanol (medical alcohol) 70%
- isopropyl alcohol 70%
- hydrogen peroxide 6%

or If you cannot get any of these chemicals, you can use:

- strong drinking alcohol like gin, or a strong local brew.



Be sure that all of your tools are very clean before sterilizing them with chemicals. Even a little blood or body fluid left on the tool can stop the chemicals from working. Do not use chemicals to sterilize tools that will go inside the womb.

Soak in bleach or disinfecting chemicals for at least 20 minutes.

or

Soak in strong drinking alcohol for a whole day.

After soaking, pour the chemicals off and let the tools dry.

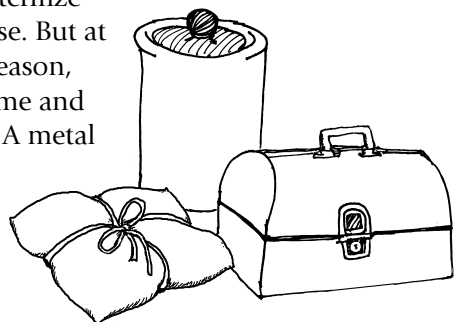


WARNING! Glutaraldehydes and formaldehyde are chemicals that we think are too dangerous to ever use. Many clinics and hospitals use these to sterilize, but they are very toxic. Formaldehyde, for example, causes cancer. Try to find a different way to sterilize.

If you use chemicals, keep them off your skin, and wear gloves when you use them. Get rid of chemicals carefully. You may have to dump bleach or other chemicals into a latrine to be sure animals and children do not drink it.

Storing tools and supplies

At some births there will be plenty of time to sterilize your tools and equipment at the mother's house. But at other births, you may not have time. For this reason, try to sterilize your tools and equipment at home and keep them in a sterilized container in your kit. A metal box or pot with a tight-fitting lid is best. Use any of the above methods to sterilize a container and tools to move equipment. Do not touch the inside of the container.



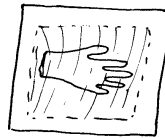
If you cannot get such a container, wrap the tools and equipment in 4 layers of cloth or heavy paper before sterilizing them. Then keep the sterilized tools wrapped up until you are ready to use them. (You can only use cloth or heavy paper to wrap your tools if you are sterilizing by baking.)

Remember that germs grow in moisture, and they will come back if the instruments are put away while they are wet. But if you are going to use the tools right away, it is OK to use them when they are wet. Germs need time to grow.

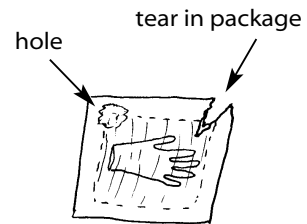
Some equipment needs special care

Sterile packets

Gauze, compresses, gloves, and other equipment sometimes come in sterile packets. Because the inside of the packet is sterile too, you can use this equipment directly out of the packet. But remember: once you take something out of its sterile packet and use it, or if the packet gets wet or gets holes in it, the equipment is not sterile anymore.



This glove is sterile.

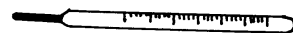


This glove is not sterile.

Things in sterile packets are often meant to be used only once and then thrown away (disposable). But some of these things can be used again if they are carefully cleaned and sterilized before each use. Gloves can be boiled or steamed. Gauze and compresses can be washed and then boiled or baked.

Thermometers

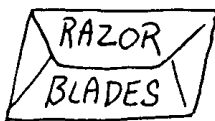
Wash the thermometer in soap and rinse with cool, clean water before and after you use it. Do not use hot water because the thermometer may break.



After washing, it is best to soak the thermometer in alcohol for 20 minutes. You can use ethyl, isopropyl, or medical alcohol (ethanol). Do not reuse the alcohol. Rinse the thermometer in clean water before you use it again.

Razor blades

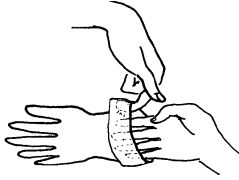
Razor blades for cutting cords often come inside of a sterile packet. To keep the packet sterile, wrap it in clean paper or cloth, or keep it in a clean dry box. If the packet gets wet or dirty, it is not safe to use the razor blade unless you sterilize it again.



Try not to reuse razor blades — but if you do, they must be sterilized first. Razor blades can be sterilized by any method.

Gloves

Most plastic gloves can be boiled or steamed, but some will fall apart in the water. Get strong gloves that can be boiled and reused a few times.



Only touch the inside of the glove.

Before boiling or steaming gloves, turn the cuff inside out. After sterilizing a glove, touch only the inside part of it. If you touch the outside, it will not be sterile anymore.

If the gloves you have cannot be boiled, wash them carefully and soak them in bleach or medical alcohol. Then rinse them in clean water before using them again.

Mucus bulb (bulb syringe)

When you wash out a mucus bulb, make sure to fill it with soapy water and then squeeze the water out. Do this several times. Then rinse it out well.

If you sterilize the mucus bulb by boiling, make sure to let water into the inside of the bulb before boiling and then squeeze out all the water afterward.



Needles

Many people get sick with serious illnesses like hepatitis or HIV/AIDS from using unsterilized needles.

Reusable syringes and disposable syringes

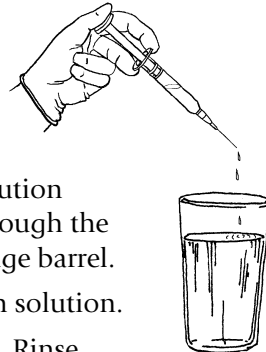
Reusable syringes can be used again and again. Reusable syringes make less waste and can save money, but they must be washed very carefully and sterilized after every use.

Disposable syringes are made to be thrown out after one use. Some disposable syringes can be taken apart, boiled or steamed, and reused several times. But we do not recommend this, because needles that are not completely sterilized can spread disease.

Never reuse a needle or syringe without cleaning and sterilizing it first!

How to wash and sterilize a syringe and needle for reuse:

1. Put on a pair of heavy gloves to protect your hands from germs.
2. Draw 5% bleach solution (see page 57) up through the needle into the syringe barrel.
3. Squirt out the bleach solution.
4. Repeat several times. Rinse everything several times with clean water.
5. Take the syringe and needle apart and boil or steam them. (See page 62.)

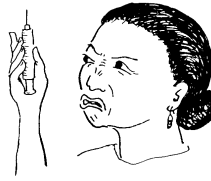


REMEMBER:

If you take a sterile syringe out of boiling water ...



and put it in your pocket ...

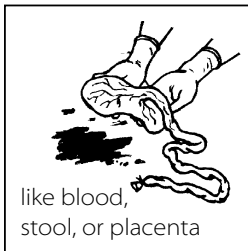


it is not sterile anymore. Instead, it is dangerous!

Get rid of wastes safely

There are three different kinds of waste after a birth or procedure:

body wastes



like blood, stool, or placenta

sharp wastes



like needles for sewing or syringes

other wastes



like used plastic gloves

These wastes carry germs and can spread infections to you and to people in the family and community. Wear gloves when you touch wastes, and get rid of them carefully.

Body wastes

The simplest way to dispose of body wastes is to put them in a latrine or to bury them deep in the ground.

In many communities, families bury the placenta, sometimes with other special objects. Burying the placenta is an important ritual for many people, and is also a way to protect the community from germs that may grow in the placenta.

Sharp wastes

Sharp wastes must be put into a container so they will not injure anyone who finds them. A container made of metal or heavy plastic, with a lid or tape to close it, works well.

When the container is half full, add bleach if possible, then seal it closed and bury it deep in the ground (see page 68).



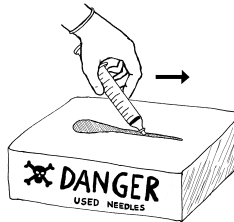
Make a box to dispose of needles safely

Find a metal or hard plastic box. Make a long hole in the lid of the box that is wide on one side and gets narrower on the other side.



When you have finished using a disposable syringe, put the needle into the box and slide it down to the narrowest point.

Then pull up on the syringe and the needle will fall off into the box. The plastic syringe can be sterilized and thrown into a waste pit (see below).



When the box is half full, pour 5% bleach solution into the box, seal it closed, and then bury it deep in the ground.

Other wastes

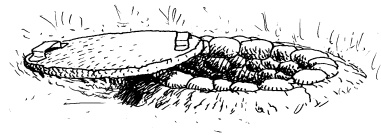
Other wastes, like plastic gloves, syringe barrels, or cloth soaked in blood, should be sterilized and then buried deep in the ground. You can sterilize them by soaking them in bleach for 20 minutes.



WARNING! Do not burn plastic gloves, syringes, or any other plastics. Burning plastic wastes is dangerous — when plastic burns, it makes smoke and ash that is very poisonous.

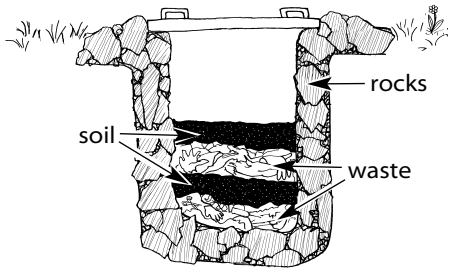
Burying wastes

Find a place away from where people get their drinking water and away from where children play. Dig a safe waste pit to bury wastes.



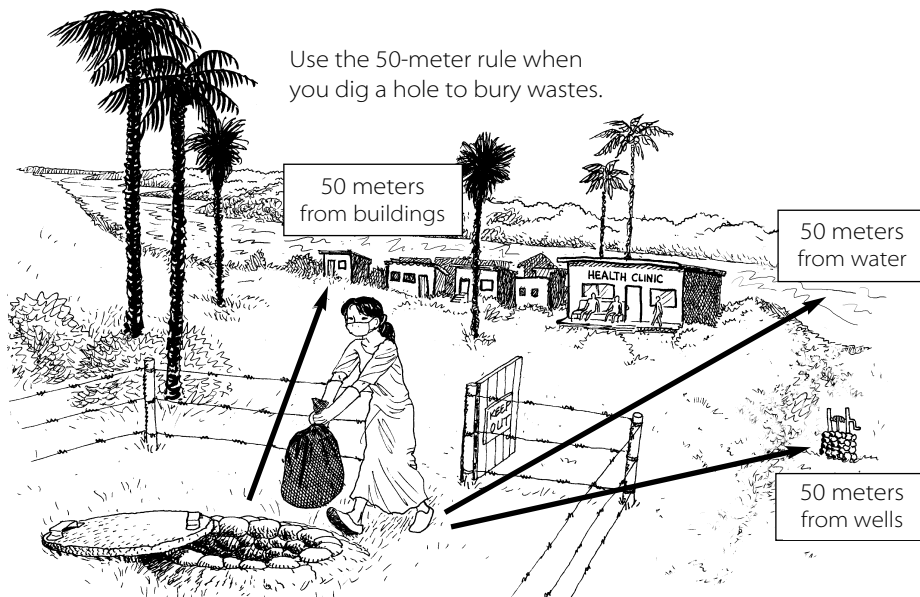
A safe waste pit

1. Dig a pit 1 to 2 meters wide and 2 to 5 meters deep. The bottom of the pit should be at least 1½ meters above the water table.
2. Line the inside of the pit with a layer of clay or rocks at least 10 centimeters thick.
3. Build up a ridge of earth around the top of the pit to prevent surface water from running in.
4. Build a fence around the area where the pit is located to keep animals out.



Each time waste is put in the pit, cover the waste with 10 centimeters of soil, or a mix of soil and lime. Lime helps disinfect the waste, and will also keep animals away while the pit is in use.

When the waste rises to ½ meter from the surface, cover it with ½ meter of soil and seal it with a layer of concrete at least 90 centimeters thick. If the pit is used only for medical waste and not for regular garbage, it will not fill up too quickly.



Garbage dumps

When wastes are sent to a garbage dump, they can spread infections there. In many places, people pick through garbage to find things to sell, like used syringes. This is dangerous for the people picking through the garbage, and for the people who buy the syringes to use them again.

When a syringe is not usable anymore, dispose of it safely. If you must send needles to the garbage dump, sterilize them first, and seal them in a box or tin.

CHAPTER 20

**The pelvic exam:
how to examine a woman's vagina and womb**

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The pelvic exam: how to examine a woman's vagina and womb

CHAPTER 20

A pelvic exam is a way to learn what is happening inside a woman's vagina and womb.

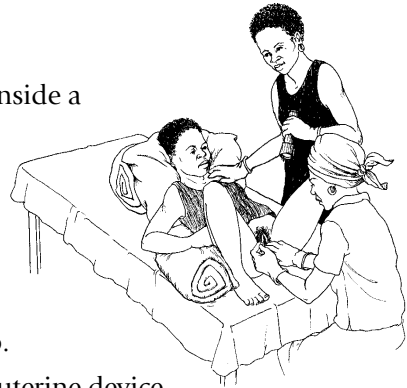
Doing a pelvic exam can help you learn:

- if a woman is pregnant, and how many weeks she has been pregnant.
- if she has an infection in her womb or vagina.
- if she might have cancer of the cervix or womb.

You also must do a pelvic exam to insert an intrauterine device (IUD, see Chapter 21, page 388) or to do manual vacuum aspiration (MVA, see Chapter 23, page 416).

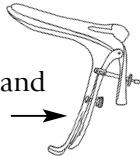
This exam is not difficult to learn, and with practice, most people can do it.

A different exam can tell you if a woman's cervix is opening during labor. This chapter does not explain how to do that exam. See page 339 to learn how.



Note: In some places, pelvic exams are done only by doctors — not midwives. But do not be afraid to try. With training and practice, midwives can learn this and other new skills. A midwife who learns to do pelvic exams can help women stay healthy throughout their whole lives, not just when they are pregnant or giving birth.

There are 3 parts of the pelvic exam

1. The **visual exam** is a way to look for any signs of infection on the outside of the woman's genitals (page 376).
2. The **speculum exam** is a way to see inside the woman's vagina and to test the health of her cervix. You use a tool called a speculum →  to do the speculum exam (page 377).
3. The **bimanual exam** (2-hand exam) is a way to check the health of a woman's womb and ovaries or to check the size of the womb in pregnancy. To do a bimanual exam, you feel the womb with the fingers of one hand inside a woman's vagina and the other hand on her belly at the same time (page 384).

You do not always need to do all 3 parts of this exam.

When to do a pelvic exam

It is safe and useful to do a pelvic exam when:

- the woman wants to know about the health of her cervix, womb, and ovaries. You should certainly do this exam if the woman has signs of infection or cancer. But women can have infections or cancer in the cervix or womb and have no signs. So if possible, women should have this exam every few years — even if they have no signs of problems.
- the woman is pregnant and you need to know how long she has been pregnant.
- the woman wants an IUD (see Chapter 21, page 388).
- the woman is having problems after a miscarriage or abortion (see Chapter 22, page 400), and needs an MVA (see Chapter 23, page 416).



WARNING! It is not safe to do a pelvic exam when:

- the woman is in labor. It is not necessary to do a visual exam, a speculum exam, or a bimanual exam when a woman is in labor. If you must check her cervix to see if it is opening, see page 339.
- the woman has broken waters. If the woman is pregnant and her waters are broken, this exam can spread an infection into her womb.
- the woman is in late pregnancy and is bleeding from the vagina. If the woman is bleeding from the vagina in late pregnancy, she may have placenta previa (see page 112). Do not do a pelvic exam — or you could make the bleeding worse.
- the woman gave birth in the last few weeks.

Making the pelvic exam safe

The pelvic exam is usually safe, but it can have risks. When you do a pelvic exam, you must be sure not to put any germs into the woman's vagina. When you do a pelvic exam:

- always wash your hands well, before and after the exam (see page 53).
- always wear very clean or sterile plastic gloves (see page 54).
- always use clean tools.

If you cannot wash your hands or wear gloves, it is not safe to do the exam.

There may be other ways to get information about a woman's health if you cannot make a pelvic exam safe, or you do not know how to do a pelvic exam, or the woman does not want a pelvic exam.



For example, to find out if a woman has an infection in her womb, start by asking her if she has any signs of infection (see page 325) and by taking her temperature. You can also try pressing on her belly, just above her pubic bone. If she has a womb infection, this will be very painful. These are safe ways to find infection because you do not have to put your fingers into a woman's vagina to do them.

Before the exam

Help the woman relax

The pelvic exam is easier and more comfortable when the woman is relaxed and not afraid.

Explain what you are doing and why you are doing it. Remind the woman to take deep breaths and to let her body relax. Go slowly, and stop if you are hurting her. If the woman is healthy, the exam should not hurt. Pain can be a sign of infection or a sign that you need to be more gentle.

Fear

Some women are afraid to have pelvic exams, such as women who have never had pelvic exams, and women who have had exams that were painful.

Women who have been abused sexually or physically may have an especially difficult time having pelvic exams. These women have been touched when and where they did not want to be touched. With all women, and especially with women who have been abused, ask before you touch.

Tell me anytime if you feel upset or scared, and we'll stop the exam.

All right.



Shame

When you do a pelvic exam, you are examining a woman's genitals and vagina. Many women are embarrassed or ashamed about these parts of their bodies. They may not want to talk about them, look at them, or let other people look at them.

These body parts are an important part of being a woman. When you do a pelvic exam, encourage the woman to ask questions, and explain that these parts of her body are healthy and normal. You may not be able to take away a woman's feelings of shame, but you can help reduce them.

Ask the woman about her history

Before you do a pelvic exam, ask the woman when she had her last monthly bleeding, if she is pregnant, and if she has any signs of infection in her vagina or womb. Chapter 7, starting on page 84, suggests other questions you can ask a woman about her health history.

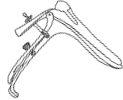
Also, explain to the woman what you are going to do during the pelvic exam and answer any of her questions about it.

The pelvic exam

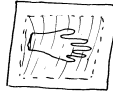
Before you start:

- Make sure that you have privacy.
- Prepare all the tools you will need for the exam:

clean or sterile speculum



clean or sterile plastic gloves



light



mirror

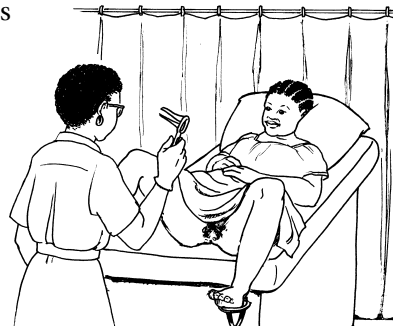


clean cloths for wiping after the exam



The speculum and gloves should be sterile if you are doing a pelvic exam to insert an IUD or to do an MVA. Otherwise, a very clean speculum is OK.

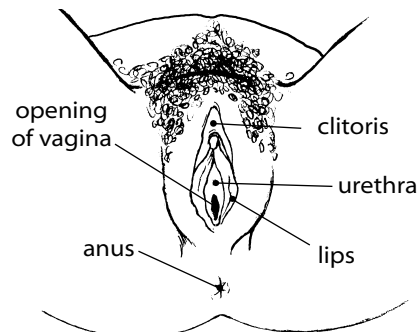
- Ask the woman to urinate before the exam. This will make the exam more comfortable for her.
- Ask the woman to remove her pants or pull up her skirt. If she wants something to cover her legs, give her a sheet or cloth.
- Ask her to lie on her back with her knees up and her buttocks at the end of the table or bed.



- Wash your hands with clean water and soap. Your fingernails should be short and clean.
- Put clean plastic gloves on your hands.

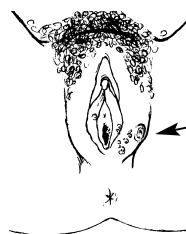
The visual exam

The skin on the genitals should be smooth and healthy. The genitals should be clean, but some clear or white discharge from the opening of the vagina is normal.



healthy genitals

Look for lumps, swelling, unusual discharge, sores, or scars on her genitals. Sometimes you can feel lumps with your fingers that you cannot see. Lumps or sores could be signs of infection or injury. (See Chapter 18, page 320, to learn more about infections of the genitals.)



Sores on the genitals can be a sign of infection.

The speculum exam

A speculum is a tool for looking inside a woman's vagina. The speculum holds the walls of the vagina open. When it is in the right position, you will be able to see the cervix, test for infection or cancer, insert an IUD, or empty the womb.

Practice opening and closing a speculum a few times before you use one for an exam so that you are comfortable with how it works.

Some midwives let a woman look at a speculum before they give her an exam. This can help the woman understand the exam.

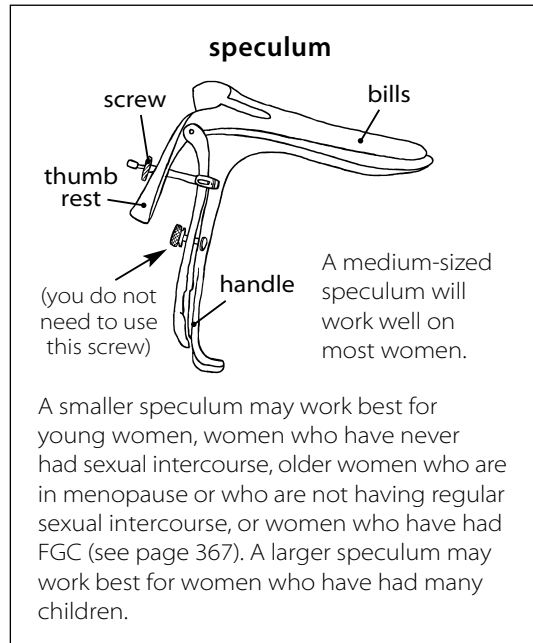
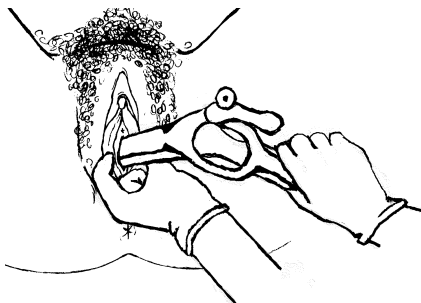
1. Help the woman relax by touching her leg, asking her to breathe, and by being gentle and slow. Remind her to tell you if the speculum hurts and stop the exam if you hurt her.



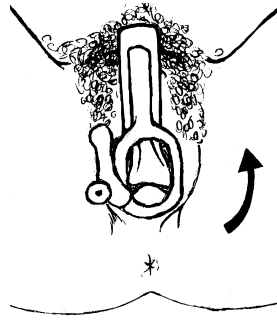
2. Warm the speculum with clean warm water, or by holding it in your gloved hand.
3. Ask the woman if she is ready to start. When she is ready, gently open the lips of her genitals with one hand so that you can see the opening of her vagina. Make sure to explain everything you are doing as you do it.

4. Hold the speculum with your other hand. Turn the handle to one side, and slide the closed bills into the vagina. If you are gentle, the bills will slide downwards into the vagina and should not hurt the woman.

As you put the speculum in, turn it so the handle is down. Be very careful not to pull her skin or hairs. Gently push the speculum all the way in. The handle should rest against the skin between the vagina and the anus.



Note: If the woman is on a bed or a flat table and the speculum handle will not fit facing down, you can insert it with the handle pointing up.

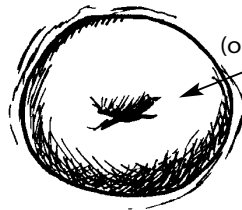


5. Open the bills of the speculum by gently pushing the thumb-rest with your thumb. When you see the cervix between the bills, tighten the screw on the thumb-rest to keep the speculum open.

If you open the speculum but you do not see the cervix, close the speculum and remove it partway.

Then try again, repeating step 4.

The cervix may be off to one side a little. This is normal. Sometimes the cervix will come into view more clearly if the woman coughs or pushes down as if she is passing stool while the speculum is open inside her.



The cervix is usually about this big.



6. Look at the cervix — it should be smooth and pink, or, if the woman is pregnant, a little blue.

Small, smooth bumps on the cervix are usually normal, but sores or warts are signs of infection.

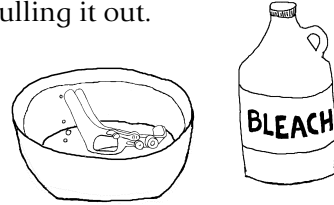
Notice if there is discharge or blood coming out of the cervix. Thin, white, or clear discharge is usually normal and healthy. Green, yellow, gray, lumpy, or foul-smelling discharge can be a sign of infection.



7. If the woman wants to look at her own cervix, you can hold a mirror and a light to help her see. This is a chance for a woman to learn more about her body.

8. Test the cervix for signs of cancer by using either the vinegar or Pap test (see page 379).

9. To remove the speculum, pull it toward you a little until the bills are away from the cervix. Loosen the screw on the thumb-rest and gently let the bills close while pulling the speculum down and out of the vagina. The bills should be closed all the way as you finish pulling it out.
10. Give the woman a clean cloth or tissue to wipe any discharge from her genitals.
11. Be sure to clean the speculum after you use it.



Tests for infections and cancer

An important reason to do a speculum exam is to test the health of the cervix. The cervix can be tested for infections (see Chapter 18, page 320, for more about sexually transmitted infections) and for cancer. Your local health authority may be able to provide you with kits to test for chlamydia, gonorrhea, or other STIs.

There are 2 tests for cancer of the cervix. You do not need to do both tests. Choose the test that you can use most easily in your area.

The vinegar test

The vinegar test is easy to do, it is not expensive, and you do not need to have a laboratory to know the results. If a woman has cancer on her cervix, the vinegar test is very likely to find it.

But the vinegar test cannot tell how severe a cancer is, and sometimes it shows a problem that is not cancer.

or

The Pap test

The Pap test can give you much more information than the vinegar test. The Pap test can tell you whether a problem on the cervix is an infection or cancer. It may tell you what type of infection a woman has, or how severe a cancer is.

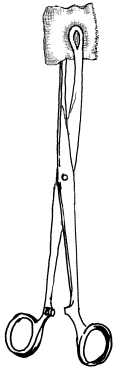
But the Pap test is expensive, and you need a laboratory to know the results.



If either test is positive, the woman needs medical attention as soon as possible.

You can do these tests for a woman at almost any time, including when she has her monthly bleeding or during pregnancy. During a woman's monthly bleeding is not the best time to do the Pap test, because the blood can make the test less clear. But it is better to do the test during a woman's monthly bleeding than not to do the test at all. If the woman is having her monthly bleeding, use a long swab to gently wipe the blood away from her cervix before you do the test.

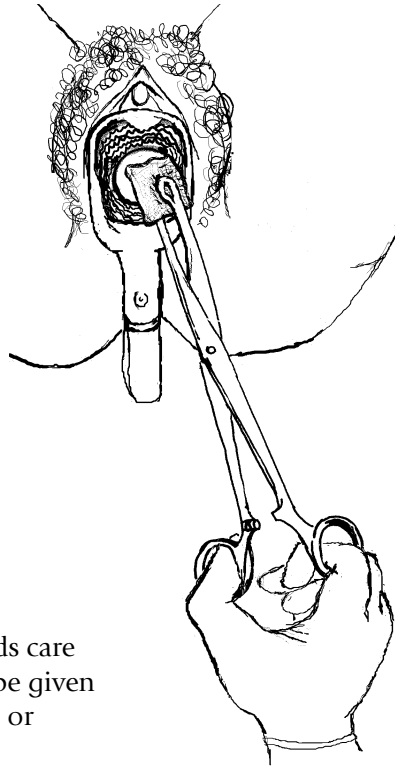
Vinegar test for HPV



Many people are infected with a sexually transmitted virus called human papilloma virus (HPV). Women get HPV when they have sex with someone who has it. HPV is the same virus that causes genital warts, but most people with HPV have no warts and no other signs of the virus. See page 333 for more about HPV. If a woman has HPV for a long time and does not treat it, it may cause cancer of the cervix, a deadly disease (see page 383). Testing for HPV and treating the virus before it causes cancer can save women's lives.

The vinegar test is a very simple way to check if the woman has HPV on her cervix. A positive vinegar test shows sores on the cervix that are usually not visible. These sores could be caused by HPV, cancer, or other sexually transmitted infections.

1. Insert a speculum and look at the cervix.
2. Hold a sterilized piece of gauze or cloth with a sterilized pair of forceps or long tweezers. You can also use a long swab if you have one.
3. Dip the gauze into plain white vinegar (any vinegar can work, as long as it has 4% to 5% acetic acid) and wet the cervix with the vinegar. Remove the gauze. The vinegar should not hurt the cervix but it may sting a little.
4. Wait for 1 minute. If the woman is infected with HPV, white patches will usually appear on the cervix.

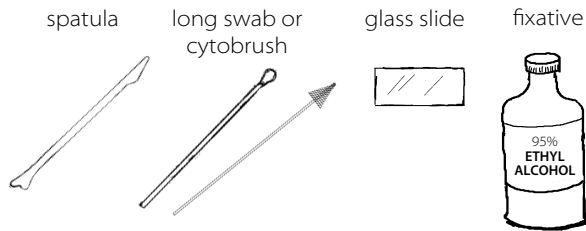


If the woman has white patches, she needs care right away from a medical center. She may be given more tests, or she may have the sores frozen or removed so they do not grow into cancer.

Pap test for infections and cancer

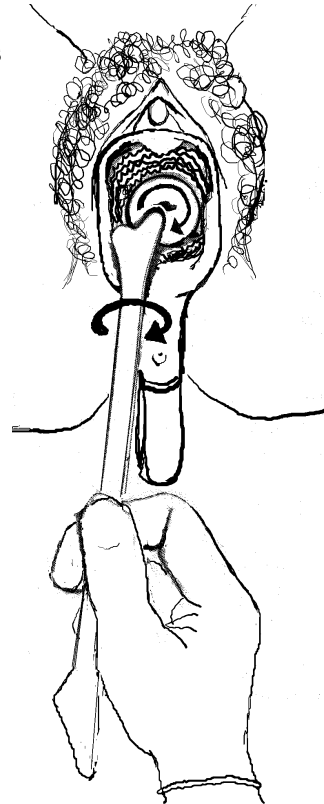
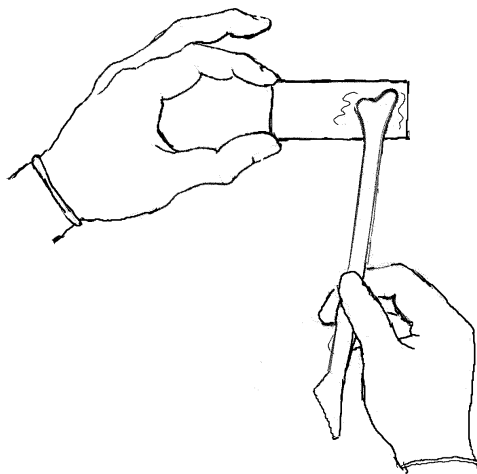
For a Pap test, you will scrape a tiny bit of tissue from the cervix and vagina, and put it on a thin piece of glass called a slide. To do a Pap test, you must have access to a laboratory. At the laboratory, trained people must look at the tissue under a microscope to know if it is healthy or not.

Before the test, gather these supplies:

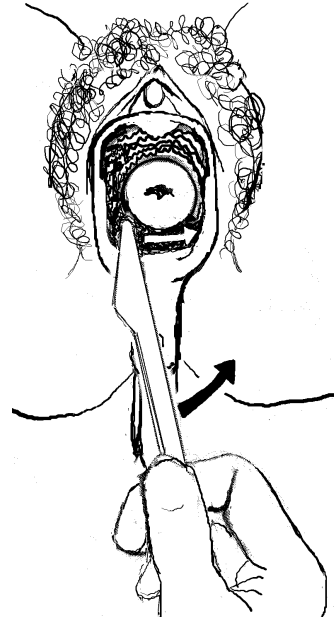
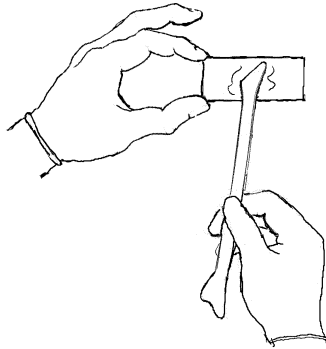


1. Insert a speculum.
2. Place the end of the spatula that has 2 points onto the cervix and roll it in a full circle between your thumb and forefinger.

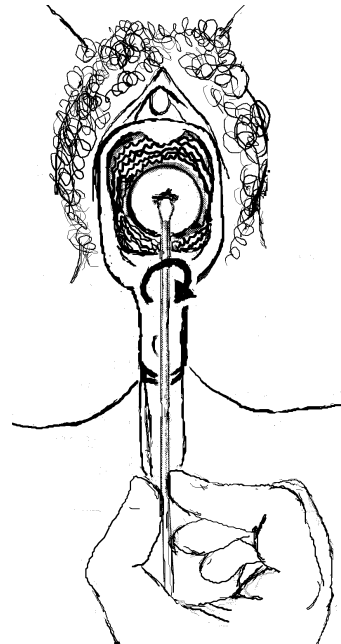
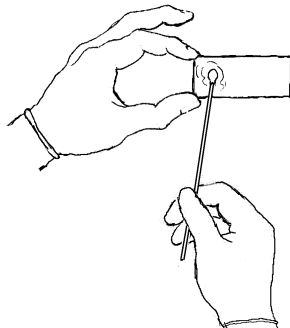
As you roll the spatula, gently scrape a very thin layer of tissue off the cervix. This should not hurt the woman, but sometimes it is uncomfortable for her. It is normal for the cervix to bleed a little.
3. Wipe the spatula onto one end of the slide.



4. Place the other end of the spatula just underneath the cervix where it meets the vagina. Gently scrape sideways once.
5. Wipe the spatula onto the middle of the slide, next to the first sample.

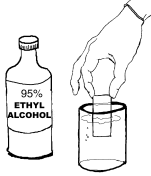


6. Put the tip of the swab or cytobrush about 1 centimeter into the opening of the cervix. Gently roll it in a full circle. This can be uncomfortable for the woman, but it is not dangerous.
7. Wipe the swab onto the end of the slide that has not been used, next to the second sample.



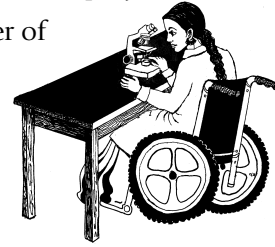
8. Put a fixative on the slide.

There are many fixatives available, but the least expensive is medical alcohol (95% ethyl alcohol). Pour some medical alcohol into a small jar and dip the slide into the jar of alcohol as soon as you have finished wiping the swab onto the slide. You must do it quickly, before the tissue dries. Let the slide sit in the medical alcohol for a few minutes, and then let the slide dry in the air. If you do not have medical alcohol, you can spray the slide with hairspray.



You must use a fixative on the slide or the thin layer of tissue from the cervix will smear or come off and the test will not be accurate.

9. Take the slide to a laboratory that can examine Pap tests (not all laboratories can). Take the slide within a week after doing the test.



Note: Tell the woman that a little bleeding from the vagina is normal after a Pap test.

Cancer of the cervix

Cancer of the cervix can be a deadly disease, but if it is treated early, it can usually be cured. Treatment is simple in the early stages. A trained doctor or nurse can remove or destroy the diseased parts of the cervix in a medical center if they have the right tools. After the diseased parts of the cervix have been removed, the woman will usually get better. But hundreds of thousands of women die every year from this cancer.

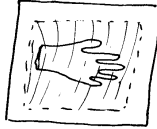
Why do so many women die if the disease is preventable and easily treated?

- Poor communities cannot afford to train health workers to test or treat women for HPV, a common cause of cancer of the cervix.
- Rural and poor women may not be able to travel to distant medical centers that give testing and treatment.
- Women and men do not know that they can prevent cancer of the cervix by protecting themselves from HPV. For example, wearing condoms can prevent women and men from getting HPV.
- Some women cannot protect themselves from HPV because they do not have access to condoms. Some women cannot protect themselves because they are forced to have sex or to have unsafe sex. Some couples do not like to use condoms.

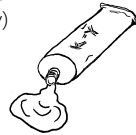
The bimanual exam (2-hand exam)

Feel the womb with 2 hands to check for infections or growths, or to learn how long a woman has been pregnant. To feel the womb, you will need:

very clean or sterilized
plastic gloves

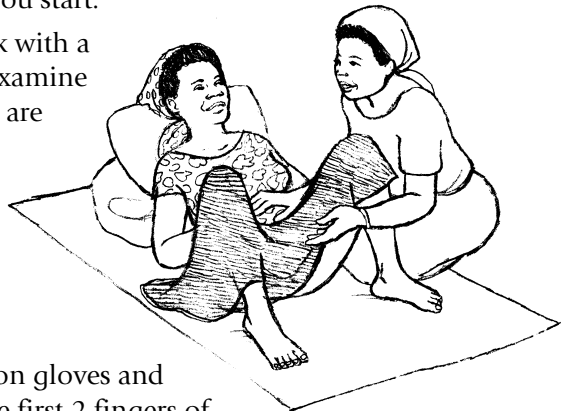


water-based lubricating jelly
like *K-Y Jelly*, or clean water
(do not use oil or
petroleum jelly)

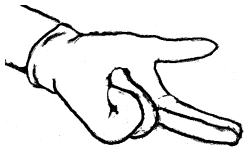


Ask the woman to urinate before you start.

1. Have the woman lie on her back with a pillow under her head. As you examine her, explain everything that you are going to do before you do it, remind her to relax, and stop the exam if she is in pain.



2. When the woman is ready, put on gloves and put some lubricating jelly on the first 2 fingers of your right hand (or your left hand if you are left-handed).



Ask the woman to take a deep breath to help her relax. Gently open the lips of her genitals with your left hand. With the palm of your right hand facing up, put your two lubricated fingers all the way into the woman's vagina.

3. Feel the cervix with your fingertips.

The cervix should be firm, round, and smooth. Normally, it feels about as hard as the tip of a nose. In the last months of pregnancy it feels soft, like lips. Sometimes at the end of pregnancy the cervix is a little open. If the woman has just had a miscarriage or an abortion, her cervix might be open.

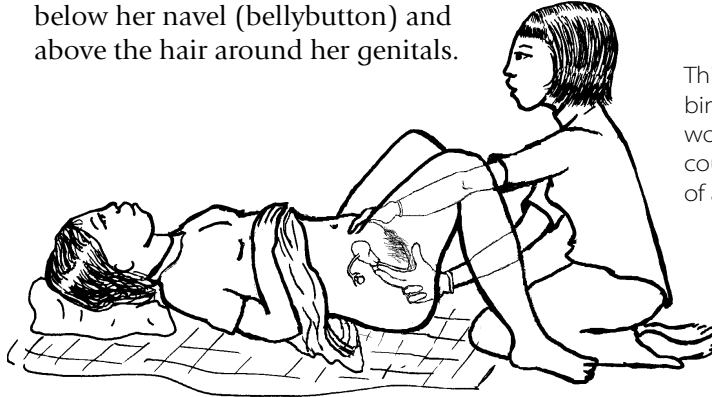
The cervix can be hard to find. If you cannot feel the cervix, ask the woman to cough or push down as if she were passing stool until the cervix touches your finger. It may also help if the woman lies more flat.

Take care not to touch the woman's clitoris, which is sensitive, or her anus, which has germs on it. Your thumb can easily touch the clitoris accidentally, so keep it to one side.

4. Check for pain in the cervix.

Put one of your fingers on each side of the cervix and move it side to side. This might feel strange to the woman, but it should not hurt. If it hurts, she might have an infection in her womb (see page 325) or a tubal pregnancy (see page 113). These are both very dangerous. If the cervix feels soft and is easy to move, the woman may be pregnant.

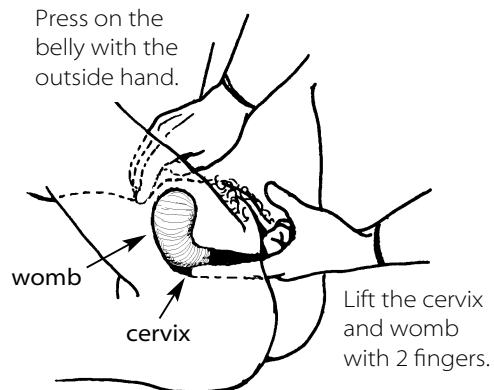
5. Put your left hand on the woman's belly, below her navel (bellybutton) and above the hair around her genitals.



This is how a bimanual exam would look if you could see the inside of a woman's body.

6. Feel the womb.

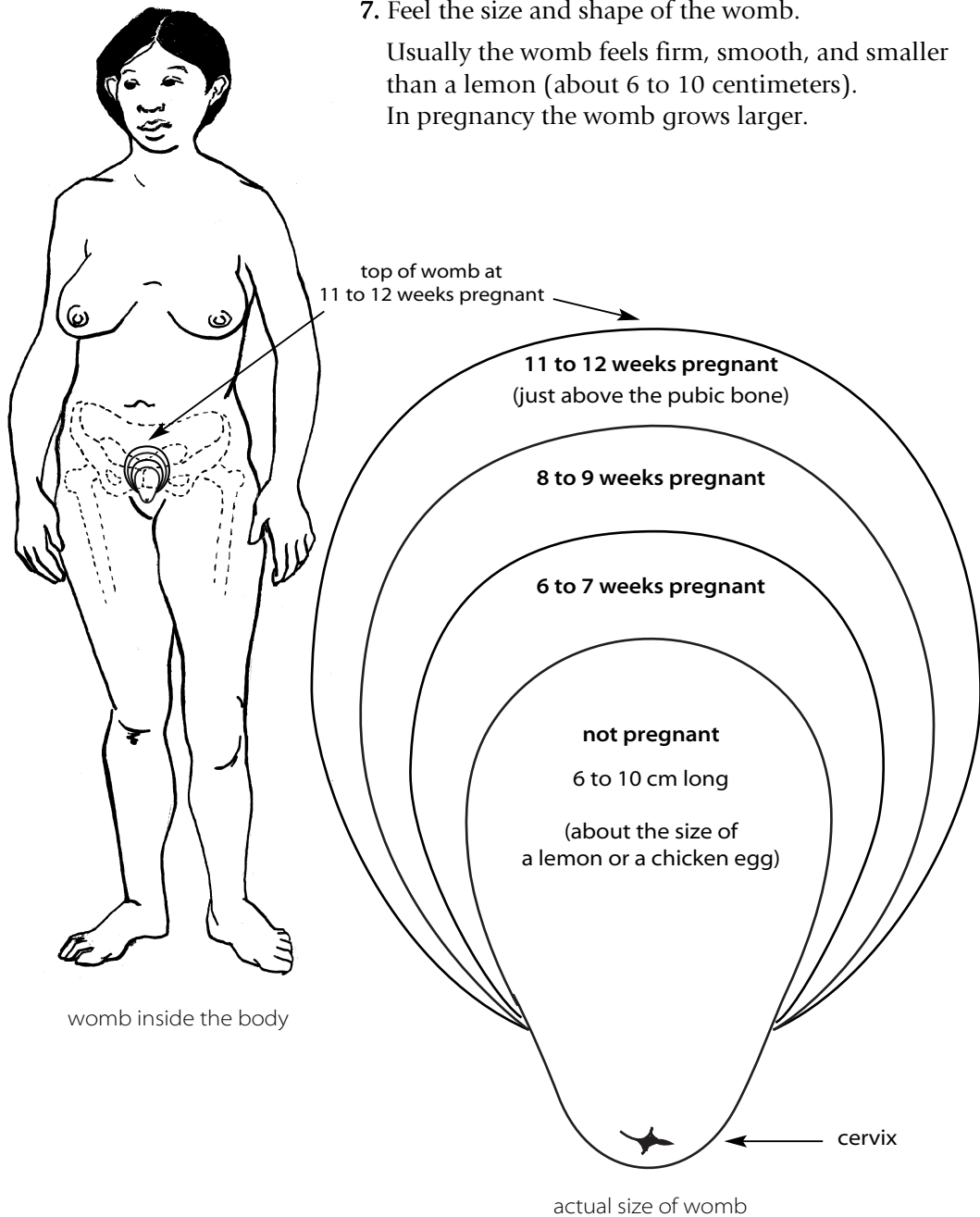
Put the 2 fingers that are in the vagina under the cervix. Lift up the cervix and womb with those 2 fingers. At the same time, press down on the woman's lower belly with your left hand. Try to feel her womb between your hand and your 2 fingers. You will know that you are pressing on the womb when you feel the cervix move. If you do not feel the womb at first, try moving your hand around on her belly and pressing down in different places.



Feeling the womb takes practice. It is especially difficult to feel a woman's womb if she has strong belly muscles or if she has a lot of fat on her belly.

7. Feel the size and shape of the womb.

Usually the womb feels firm, smooth, and smaller than a lemon (about 6 to 10 centimeters). In pregnancy the womb grows larger.



womb inside the body

actual size of womb

To measure the womb after 12 weeks, see page 130.

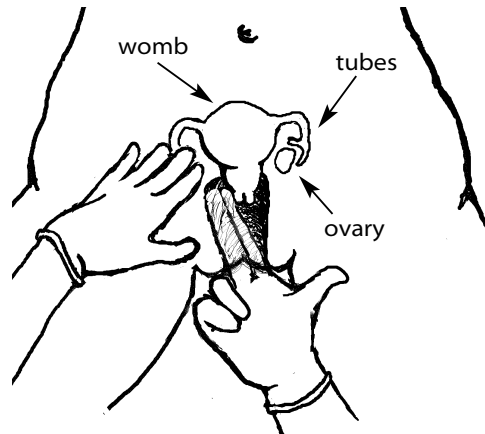
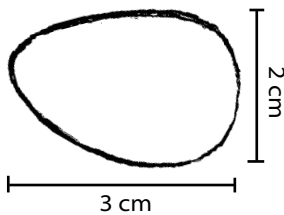
You might feel lumps or growths on the womb. Some growths are not dangerous, but they may cause pain, heavy monthly bleeding, or bleeding between monthly bleedings. They are called fibroids. Other growths may be cancer of the womb. You cannot be sure the growths are not dangerous until the woman has more tests. If you feel growths on the womb, get medical help.

8. Feel the ovaries.

Finding and feeling the ovaries can be very difficult. It takes a lot of practice. Put both your inside fingers on one side of the cervix and lift up the ovary. Move your outside hand to the same side of the woman's body as the inside fingers and slide your outside fingers down her belly. When you press hard, you can feel her ovary slip between your fingers.

You must push down deeply with your outside hand, so ask the woman to take a deep breath and let it go before you feel her ovary. Stop pushing if she is in pain!

An ovary is usually about this big.

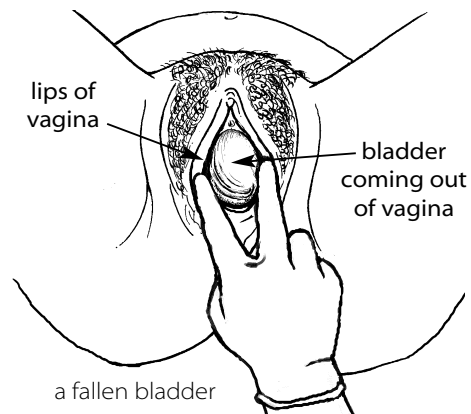


After checking one side, move your hands to check the other ovary.

If you feel something bigger than 3 centimeters long and 2 centimeters wide, or if this exam hurts her a lot, she might have a growth on her ovary, or she might have a tubal pregnancy (see page 113). Get medical help.

Note: It is normal for a woman's ovary to get bigger and smaller every month. If you are not sure of the cause of a large ovary, try checking again in 6 weeks. It may be small again.

9. Take your fingers out of her vagina. Hold the lips of her genitals open and ask her to cough or push down as if she were passing stool. Watch her vagina to see if anything bulges out. If it does, she could have a fallen womb or bladder, or part of her bowel could be bulging into the vagina. Get medical advice.



After the bimanual exam, give the woman a clean cloth or paper to wipe off the jelly. Explain to her that she will have some extra discharge (the jelly) or a little blood after the exam.

Tell the woman what you found during the pelvic exam. Make sure to answer any questions the woman has.

CHAPTER 17

Family planning

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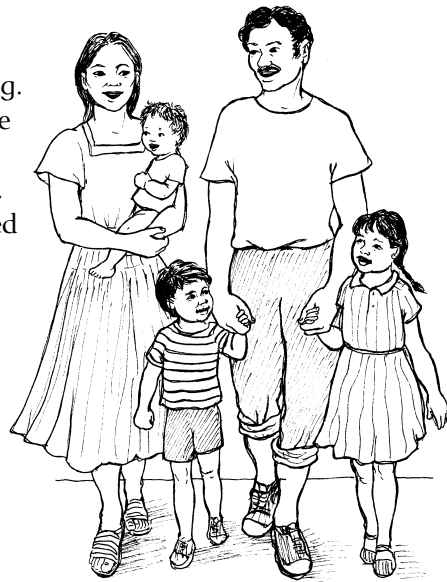
Family planning

CHAPTER 17

Having the number of children you want, when you want them, is called family planning. It is also sometimes called child spacing. There are many methods, both traditional and modern, that can be used for family planning. Family planning methods are sometimes called birth control or contraception.

Why might a woman and a man want to use family planning?

- to take time to finish their education or have an income before they have children
- to allow a couple of years between their children
- to have only as many children as they feel they can support
- to avoid a risky pregnancy, for example if the woman has a certain illness, or is under 17 and does not have a fully formed pelvis



Childbirth should not be dangerous, but in places where women are poor, are not well fed, and do not have access to good health care, many women die because of heavy bleeding and other childbirth complications. A woman may want to protect herself by limiting the number of her pregnancies.

All women have the right to decide whether to have children and how many children to have. However, most women face barriers to this choice. Midwives can help women have more choices:

- by learning about family planning and sharing the information.
- by working with others to give couples more choices of family planning methods.
- by working with the community to get men more involved in using family planning.

Choosing a family planning method

On the following pages we describe different family planning methods. Before recommending a method, find out about the woman's needs.

- Does she want to be sure she will not get pregnant using this method?
- Is she concerned about side effects (uncomfortable and unintended effects)?
- Does she want a method she does not have to think about every day — or can she use a method that requires keeping charts or taking a pill each day?
- Is the woman's partner willing to cooperate in using family planning?
- How much can this woman spend on family planning?
- Does the woman want a method that she can stop using if she wants to become pregnant — or one that is permanent?
- Does she need a method that prevents sexually transmitted infections (STIs)?

The methods described in this chapter work well to prevent pregnancy. Each of these methods also has disadvantages. The woman and her partner may need instruction on how to use the method. The method may cost something, it may require a medical visit, or it may have certain health risks. Make sure you understand how comfortable, safe, costly, or complicated each method is before you recommend it. Make sure the woman understands too.

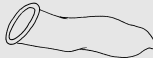
























Consider STI protection along with pregnancy prevention

When thinking about family planning it is important to also think about HIV/AIDS and other STIs. Sexual intercourse, which causes pregnancy, is also how STIs are passed. Some family planning methods, like condoms, help prevent pregnancy and protect against STIs. Some, like birth control pills and intrauterine devices (IUDs), only prevent pregnancy.

When you are helping a woman choose a family planning method, you must help her think about her risk of STIs including HIV/AIDS. See page 320 to learn more about STIs.



On the next page is a chart that shows how well each method works to prevent pregnancy and to protect against STIs. The chart also shows what the possible side effects are for each method, and other important information about how the method must be used. Each method has stars to show how well it prevents pregnancy. Some methods have fewer stars even if they are fairly effective methods because they are often used incorrectly. When a man and a woman use a method correctly every time they have sex, the method will work better.

FAMILY PLANNING METHOD	Protection from pregnancy	Protection from STIs	Possible side effects	Other important information
Condom for men 	★★★ VERY GOOD	GOOD 		Most effective when used with spermicide and lubricant.
Condom for women 	★★ GOOD	GOOD 		Less effective when the woman is on top of the man during sex.
Diaphragm (with spermicide) 	★★ GOOD	SOME 		Effective when used with spermicide.
Spermicide 	★ SOME	NONE 	 skin allergy	More effective when used with another barrier method like diaphragm or condom.
Hormonal methods (birth control pill, patch, injections, implants) 	★★★★★ BEST	NONE 	 nausea, headaches, changes in monthly bleeding	These methods may be dangerous for women with certain health problems.
IUD 	★★★★★ BEST	NONE 	 heavy and painful monthly bleeding	This method may be dangerous for women with certain health problems.
Sex without intercourse 	★ SOME	SOME 		Couples may have a hard time sticking to this method.
Breastfeeding (during the first 6 months only) 	★★ GOOD	NONE 		To use this method, a woman must give her baby only breast milk, and her monthly bleeding must not have returned yet.
Fertility awareness 	★★ GOOD	NONE 		To use this method correctly, a woman must understand when she is fertile.
Sterilization 	★★★★★ BEST	NONE 		Women or men will never be able to have babies after this operation.
Pulling out (withdrawal) 	★ SOME	SOME 		More effective when used with another method like spermicide or diaphragm.

Condom for men (rubber or prophylactic)

A condom is a narrow bag of thin rubber that the man wears on his penis while having sex. The bag traps the man's sperm (seed) so that it cannot get into the woman's vagina or womb. Condoms work well to prevent pregnancy. Condoms also help prevent sexually transmitted infections (STIs), including HIV/AIDS.



The most effective condoms are made from latex or polyurethane — not sheepskin.

A new condom must be used each time a couple has sex.

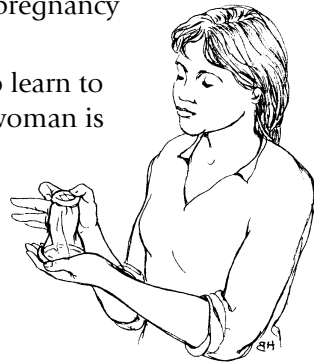
Lubricant can make sex feel better for both the woman and the man. It can also keep the condom from breaking. Use a water-based lubricant like saliva (spit), *K-Y Jelly*, or spermicide. Do not use oils, petroleum jelly (*Vaseline*), skin lotions, or butter. They can make the condom break. A drop of lubricant inside the tip of the condom makes it more comfortable on the penis. A little lubricant can also be rubbed on the outside of the condom after the man puts it on.

Condom for women (female condom)

A female condom fits into the vagina and covers the outer lips of the genitals. Each condom should be used only once, because it may break if it is reused. But if a woman does not have any other condoms, she can clean it and reuse it up to 5 times. It is better than nothing.

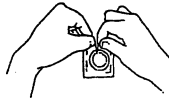
The female condom is very effective in preventing pregnancy and protecting against STIs and HIV/AIDS.

Female condoms can be expensive and take time to learn to use. They work best when the man is on top and the woman is on the bottom during sex.

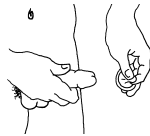


How to use a male condom

A new condom should come rolled up inside a small packet that has not been opened. Be careful not to tear the condom as you open the packet. If the condom is stiff, hard or feels sticky, throw it away. It will not work.



1. A condom should be put on the man's penis when it is hard, and before it touches the woman's genitals. An uncircumcised man should pull his foreskin back. The man should squeeze the tip of the condom and put it on the end of the penis.



2. Unroll the condom until it covers all of the penis. Keep squeezing the tip of the condom while unrolling. Without this extra space at the tip for the sperm, the condom may break.



3. Right after the man ejaculates (comes) and before his penis gets soft, he should hold on to the rim of the condom while he pulls his penis out of the vagina. Then he should carefully take the condom off.



4. Tie the condom shut. Then throw it in the garbage or a latrine.

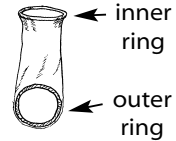


How to use a female condom

1. Carefully open the packet without tearing the condom.



2. Find the smaller inner ring, which is at the closed end of the condom.



3. Squeeze the inner ring together.



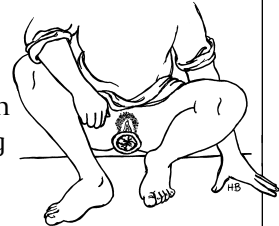
4. Put the inner ring in the vagina.



5. Use your finger to push the inner ring up into your vagina and over the cervix. The outer ring stays outside the vagina.



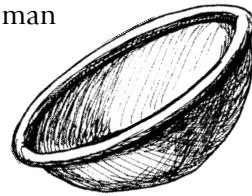
6. Be sure to guide the penis through the outer ring when you have sex.



7. Remove the female condom immediately after sex, before you stand up. Squeeze and twist the outer ring to keep the man's sperm inside the condom. Pull the condom out gently, then bury it or throw it in a latrine. Do not flush it down the toilet.

Diaphragm

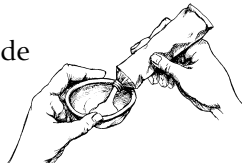
The diaphragm is a shallow cup of soft rubber that the woman wears in her vagina during sex. The diaphragm covers the cervix so that the man's sperm cannot get into her womb. The diaphragm should be used with spermicide (see page 305). When a diaphragm is used correctly, it is effective in preventing pregnancy and may also give some protection against STIs, like HIV/AIDS.



Diaphragms come in different sizes. A health worker must help a woman find the right size. Midwives can learn to fit women for diaphragms. It is easy to do once you have been trained.

How to use a diaphragm

1. Squeeze some spermicide into the center of the diaphragm. Then spread a little around the edge of the diaphragm. If you do not have spermicide, you can still use the diaphragm, but it may not work as well.



2. Squeeze the diaphragm in half.



3. Push the diaphragm into the vagina, right over the cervix.



If the diaphragm is in correctly, the woman can feel her cervix through it.



4. Leave the diaphragm in place for at least 6 hours after sex. If the woman has sex again before 6 hours have passed, she should put more spermicide in her vagina first.

After using the diaphragm, the woman should wash it in mild soap and water. Then she should dry it, dust it in cornstarch if she has any, and store it in a clean, closed container.

Spermicide (foam, jelly, or tablets)

A spermicide is a chemical that kills sperm after it comes out of the penis. Spermicides are fairly good at preventing pregnancy when used alone, and are very effective when used with a condom or diaphragm.



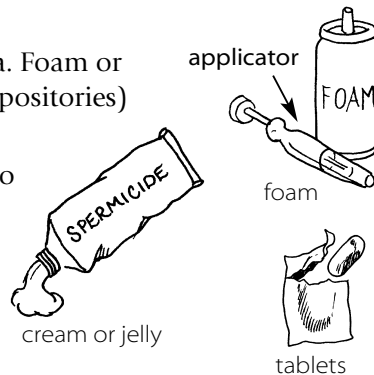
WARNING! A woman should use spermicide only if she knows that her partner does not have HIV/AIDS.

Most spermicide is made with a chemical called Nonoxynol 9. Nonoxynol 9 irritates the vagina, causing tiny cuts. These cuts allow HIV to pass more easily into the blood. So using spermicide, especially using it very often, may actually make HIV/AIDS more likely to pass during sex.

How to use spermicide

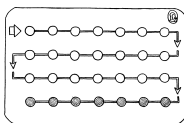
The woman puts the spermicide in her vagina. Foam or jelly is put in with an applicator. Tablets (suppositories) are put deep in the vagina with the fingers.

Spermicides should be put in the vagina no more than half an hour before having sex. Spermicide must be left in the vagina for at least 6 hours after having sex. A woman needs to put in more spermicide each time she has sex.



Hormonal methods

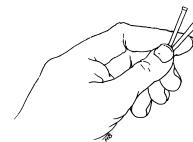
Birth control pills, injections, and implants contain hormones. Hormones are chemicals that a woman's body normally makes. Hormones regulate many processes in a woman's body including her monthly bleeding and her ability to become pregnant. Hormonal methods of family planning prevent pregnancy by stopping the woman's ovaries from releasing eggs into her womb. Some hormonal methods include:



pills



injections



implants

New hormonal methods are still being invented. Some newer methods are a contraceptive patch, a ring (worn around the cervix), and a hormonal IUD.

Hormonal methods are very effective in preventing pregnancy. But none of them used alone protect women against HIV/AIDS or other STIs.

Most birth control pills and some injections contain two hormones: estrogen and progestin. Implants, some pills, and some injections contain only progestin.

Some women should not use a method that contains estrogen.

These women should use progestin-only methods:

- Women who are breastfeeding in the first 8 weeks after the birth. Estrogen passes through the breast milk, but after 8 weeks it is safe for the baby.
- Women who have high blood pressure.
- Women who have diabetes.
- Women who have epilepsy.
- Women who have ever had a stroke, paralysis, or heart disease.
- Women who have hepatitis or liver problems (yellow skin and eyes).
- Women who have ever had a blood clot in the veins. A blood clot usually causes a deep and steady pain in one leg or hip. (Varicose veins are not usually a problem, unless the vein is red and sore.)



Some women should not use any hormonal method.

- Women who have breast cancer.
- Women who might be pregnant already.
- Women who have very heavy monthly bleeding or monthly bleeding that lasts for more than 8 days.

These women should **not** use pills, injections, implants, or any other hormonal method.



Side effects

Hormonal methods sometimes have side effects. These effects are not dangerous, but they are often uncomfortable. Hormonal methods can make a woman have:

nausea



headaches



weight gain



swelling of the breasts



changes in monthly bleeding



These effects usually get better after a few months. If they do not get better, the woman can try a different family planning method.

Birth control pills (oral contraceptives or “the pill”)

Birth control pills have all the benefits and problems of hormonal methods listed on page 306.

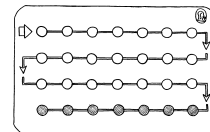
When a woman takes a birth control pill at the same time every day, this method is one of the most effective ways to avoid pregnancy.

There are many brands of birth control pills. Pills should be “low-dose.” That means they should have 35 micrograms (mcg) or less of estrogen, and 1 milligram (mg) or less of progestin. Women should never use pills with more than 50 mcg of estrogen.

How to take birth control pills

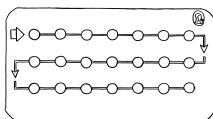
A woman should take the first pill in a packet on the first day of monthly bleeding. If that is not possible, she should take the first pill anytime in the first 7 days after she starts her monthly bleeding.

Pills come in packets of 21 or 28 tablets. If a woman is using a 28-day packet, she should take one pill every day. As soon as she finishes one packet, she should begin taking a new one.



28-day pill packet

(The last 7 pills in a 28-day packet are made of sugar. They have no hormones in them. Women can take these pills as a way to remember to take pills each day at the same time.)



21-day pill packet

If a woman is using a 21-day packet, she should take one pill every day for 21 days. She should then wait 7 days before starting a new packet. Usually, a woman will start her monthly bleeding after the 21st day. But even if she does not, she should start a new packet in 7 days.

The pills will not prevent pregnancy for the first 4 weeks that the woman takes them. During the first 4 weeks on pills, the woman should use condoms or another backup method of family planning. Otherwise she may become pregnant.

It is best to take the pill at about the same time every day. Many women take the pill with food, especially if they feel some nausea during the first few months that they take it.



What if a woman forgets to take her pill?

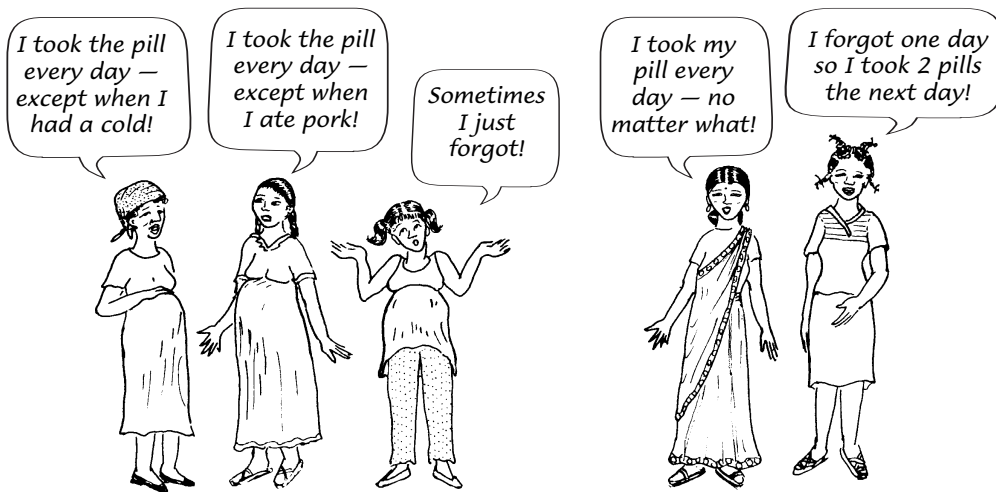
If a woman forgets to take 1 or 2 pills, she should take 1 as soon as she remembers. Then she should take the next pill at the regular time — even if she must take 2 pills in one day.

If a woman forgets to take 3 pills, 3 days in a row, she should take 1 pill right away. Then she should take 1 pill each day at her regular time.

If she is using a 28-day packet of pills, she should only take the hormonal pills, and should skip the sugar pills. If she is taking a 21-day packet of pills, she should start a new packet as soon as she finishes the one she is taking now.

To prevent pregnancy, she should use condoms any time she has sexual intercourse within 7 days of missing her pills.

Remember: Birth control pills will not be effective if they are only taken some of the time. A woman who uses birth control pills must take one pill every day, at the same time of day — even if she is taking other medicine, eating special foods, or is ill.



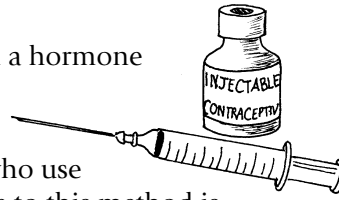
WARNING! If a woman taking the pill gets any of these signs, she should get medical advice right away:

- chest pain and shortness of breath
- strong headaches
- numbness in arms or legs
- strong pain in one leg

For more information about specific birth control pills, see page 490.

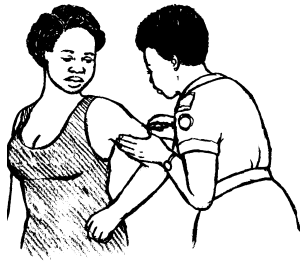
Injectable contraceptives

With this method, a health worker gives a woman a hormone shot to keep her from getting pregnant. One shot lasts 1 to 3 months.



Injections are very effective. Very few women who use this method become pregnant. Another advantage to this method is that a woman does not have to do anything before having sex. And no one except her health worker needs to know she is using a family planning method.

The disadvantages are similar to those for birth control pills — some women have weight gain, sore breasts, nausea, or unusual monthly bleeding. Many women who have injections have no monthly bleeding at all. These effects are not dangerous, but they may be uncomfortable. Another disadvantage is the woman must go to a health worker once every 1 to 3 months to get the injection. And like other hormonal methods, injections do not protect against HIV/AIDS or other STIs.



Most injections contain only progestin. *Depo Provera* and *Noristerat* are the most common brands. These injections are safe to use while breastfeeding, and are safe for other women who should not use estrogen (see page 306).

Some injections contain estrogen, but they cost more and are hard to find. They must be injected once every month. A woman using these injections will usually have a normal monthly bleeding.

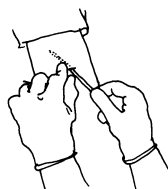
When a woman stops getting injections, it may take longer than usual (as much as a year or more) for her to get pregnant. Women should always be told this before getting injectable contraceptives. For this reason, injections are best for women who are sure they do not want to get pregnant in the next year or more.

Implants

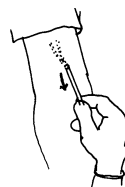
With this method, a trained health worker puts small, soft tubes of progestin under the skin of a woman's arm. The implant then prevents pregnancy for 3 to 5 years, depending on the type of implant. The implants must be replaced after those 3 to 5 years are over. If a woman wants to get pregnant before that time, the implant must be removed by a health worker.



Implants



Implants are put under the skin ...



... and can be removed by a trained health worker.

A woman with implants does not have to do anything before sex to prevent pregnancy. Implants are very effective, although very fat women may not get the same protection from pregnancy as thin women. Implants only contain progestin — so they are safe for women who should not take estrogen. And they can be used safely while breastfeeding.

Implants have the same risks and side effects as other hormonal methods (see page 306). Most women who use implants have very irregular monthly bleeding, with spotting and bleeding between monthly bleeding. This usually gets better after a year of using this method. And like any hormonal method, implants do not protect against HIV/AIDS or other STIs.

A woman cannot remove implants herself. They can only be removed by a trained health worker. And it may be difficult to find a health worker who knows how to remove them. Women should understand this before the implants are put in.



WARNING! Watch women with implants for these signs of dangerous health problems. **Get medical help if you find any of these signs:**

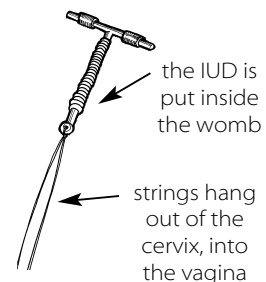
- arm pain near the implant
- pus, redness, or bleeding around the implant
- implant comes out
- monthly bleeding stops after being regular for several months

Intrauterine device (IUD)

The IUD is a small device made of plastic, or plastic and copper, that is put inside the womb to prevent pregnancy. The IUD is also called the IUCD, copper T, or the loop. Chapter 21, starting on page 388, explains more about IUDs and how to insert them.

Once the IUD is put in, it stays inside the womb until it is taken out by a trained person. IUDs must be replaced every few years. Different IUDs can be left in for different lengths of time.

Neither the woman nor man feel the IUD while having sex. A woman who uses an IUD does not have to do anything before having sex. And no one needs to know that the woman has an IUD inside.



Women who have STIs, vaginal or womb infections, or HIV/AIDS, should not use the IUD. These are some of the disadvantages or risks of the IUD:

- The IUD does not protect against HIV/AIDS or other STIs. If a woman already has an STI when an IUD is inserted, that infection is likely to spread to her womb. Womb infection can lead to infertility or other serious health problems.
- The IUD can make monthly bleeding painful or heavier. Heavy monthly bleeding can cause anemia.
- The IUD can cause miscarriage if a woman gets pregnant while using an IUD or if she has one put in when she is pregnant.
- The woman cannot put in or take out the IUD herself. A health worker must do it.

For these reasons, it is best if a woman who uses an IUD lives close to medical center.



WARNING! A woman with an IUD should get medical help if any of these danger signs appear:

- late or missed monthly bleeding or unusual spotting between monthly bleeding
- pain in the belly that does not go away, or pain during sex
- signs of infection: unusual discharge or bad smell from the vagina, fever, chills, feeling ill
- IUD strings get shorter or longer, are missing, or the IUD can be felt in the vagina

A woman with an IUD must check every month to be sure it is still in place. The best time to check is after her monthly bleeding.

First she should wash her hands. Then she should reach into the vagina with 2 fingers and feel for the strings of the IUD. They should be the same length each month.

If the strings are shorter or longer, or if she cannot feel the strings at all, the strings may have moved up into the womb, or the IUD may have fallen out. In this case, the woman should use another method of family planning, and she should get medical help.



Sex without intercourse

There are many ways to have sex that do not cause pregnancy. Oral sex (mouth on genitals) and sexual touch (touching the genitals or other parts of the body) are both sexual activities that many couples enjoy. They have very low risk of passing HIV/AIDS and other STIs and they cannot cause pregnancy. Anal sex also cannot cause pregnancy, although HIV/AIDS and other STIs can pass very easily this way.



Avoiding all sexual intercourse is the most sure way to prevent pregnancy and can be a good way to reduce the risk of HIV/AIDS and other STIs. Not having sexual intercourse may be very difficult for couples to practice for a long time.

Breastfeeding

In the first 6 months after birth, most women who breastfeed do not release eggs from their ovaries (see page 29), and so they cannot get pregnant when they have sex.

Women usually do not get pregnant if they are breastfeeding and:

1. **the baby is less than 6 months old**, and
2. **the woman has not had any monthly bleeding since giving birth**, and
3. **the woman is giving the baby only breast milk.**



The woman can easily get pregnant if she is giving the baby formula, water, or other drinks. She may get pregnant if the baby goes longer than 6 hours between breastfeeding times.

The breastfeeding method does not protect against HIV/AIDS or other STIs. Also, getting infected with HIV while breastfeeding creates a danger of passing HIV/AIDS to the baby. If there is any chance that the mother's partner has HIV/AIDS, they should use condoms each time they have sex.

Fertility awareness (natural family planning)

A woman can only get pregnant during her fertile time when an egg comes from her ovary into her tubes and womb — about once a month (see page 29). To use fertility awareness, a woman must watch her body's signs to understand when she is fertile. During the fertile time she and her partner must not have sexual intercourse (the penis inside the vagina). At these times, they can try other types of sex like oral sex or sexual touching. Or they can prevent pregnancy by using condoms or a diaphragm during the fertile time.

Natural family planning costs nothing and has no side effects. But it can be difficult to use. Women do not always know when they are fertile, and if they have one irregular cycle, they can easily get pregnant. This method usually works best when couples receive training before using it. Natural family planning does not protect against HIV/AIDS or other STIs.

Natural family planning does **not** work well for women who do not have control over when they have sex. During a woman's fertile times, her partner must be willing to use condoms or a diaphragm — or not have sexual intercourse.

Women whose cycles are very different lengths each month should not use this method either. Women who recently gave birth or had an abortion should not use this method until their cycles are regular for several months.

There are many ways to use fertility awareness. In this book we talk about the mucus method and the counting days method. These methods work best when they are both used together. But one method alone is better than nothing.



The mucus method

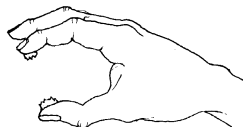
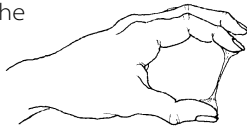
With the mucus method, a woman checks the mucus from her vagina every day to see if she is fertile. On her fertile days, the mucus is stretchy and slimy, like raw egg.

To check the mucus, a woman should wipe the vagina with a clean finger, paper, or cloth. Then she should look for mucus.

Clear, wet, slippery mucus

comes during the fertile time.

Do not have sexual intercourse.



White, dry, sticky mucus

(or no mucus) comes during other times of the month.

It is probably OK to have sexual intercourse 2 days after the first dry day.

After 2 or 3 months of practice, a woman can easily recognize these changes in her mucus.

How to use the mucus method

- Check the mucus at the same time every day. Check before having sex.
- Do not have sexual intercourse on any day you feel slippery mucus. Or use a condom or diaphragm on those days.
- Do not have sexual intercourse until 2 days after the last day that you have clear, slippery mucus.
- Do not douche or wash out the vagina at any time. This will wash the mucus away.

Use another method of family planning if you have a vaginal infection or if you are not sure whether it is a fertile time.



The counting days method

With the counting days method, a woman does not have sexual intercourse during any time that she might be fertile. This method can only be used by women with regular cycles that last between 26 and 32 days. This means that the time from the first day of one monthly bleeding to the first day of her next monthly bleeding must be at least 26 days, and no more than 32 days.

This method will usually work for a woman who has nearly the same number of days from one monthly bleeding to the next (regular cycles). But if a woman has one cycle of a different length, she can easily get pregnant. It is common for a woman to have a cycle of a different length when she is sick or feeling a lot of stress. When a woman is sick or feeling stress, it is best for her to use a different family planning method until she is well and her cycle is normal.

How to use the counting days method

For this method to work, the woman cannot have sexual intercourse from the 8th day of her cycle until the 19th day of her cycle. If she has sexual intercourse during this time, she must use another method of family planning.



Women can use beads, a chart, or some other tool to remember their fertile days. String 32 beads, of 3 different colors, into a necklace. Each color bead can represent a different part of the woman's cycle.

A red bead marks the first day of monthly bleeding.

6 blue beads show days when sexual intercourse will not usually cause pregnancy.

13 more blue beads show days when sexual intercourse will not usually cause pregnancy.

12 white beads show the fertile time — when sexual intercourse can cause pregnancy.

On the first day of her monthly bleeding, the woman puts a ring or string around the red bead. Each day, she moves the ring past one bead. When the ring is on any of the white beads, she may get pregnant if she has sexual intercourse. Whenever she starts her next monthly bleeding, she moves the ring back to the red bead at the start.

You may be able to buy a necklace like this called *CycleBeads*.

Or a woman can make a chart with 32 sections — 1 for each day of her cycle. She can mark off each day on the chart to remember when she can become pregnant.

first day of monthly bleeding

sexual intercourse during the fertile time can cause pregnancy

fertile time

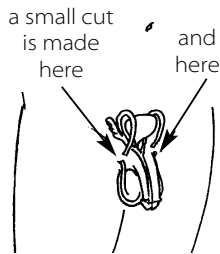
Sterilization

Sterilization is an operation that makes it almost impossible to have a baby. This method is permanent. It is only good for someone who never wants to have another baby.

These operations are done at medical centers. The surgery is fast and safe. Sterilization is almost always completely effective. A doctor can try to undo a sterilization, but that operation is expensive and often does not work.

Sterilization does not protect men or women against HIV/AIDS and other STIs.

Sterilization for men (vasectomy)



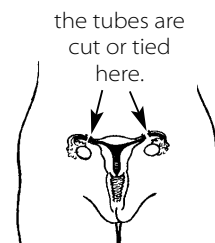
A vasectomy is a simple operation. It takes only about 10 minutes. A health worker cuts the tubes that carry sperm to the penis. The man's testicles are not cut.

The operation does not change a man's ability to have sex or feel sexual pleasure. He still ejaculates (comes), but sperm cannot get from the testicles into the semen. For about 3 months, there are still sperm in the tubes, so the couple must use another method of family planning.

Sterilization for women (tubal ligation)

Tubal ligation is a little more complicated than vasectomy, but it is still very safe. A health worker cuts or ties the tubes that carry the woman's eggs to her womb. The operation takes about 30 minutes.

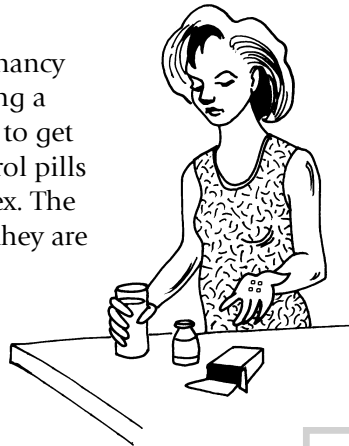
Tubal ligation does not change a woman's monthly bleeding or her ability to have sex and sexual pleasure.



Emergency contraception

Emergency contraception is a way to avoid pregnancy after having sex. If a woman has sex without using a family planning method, and she does not wish to get pregnant, she can take a high dose of birth control pills as soon as possible — within 5 days of having sex. The sooner a woman takes the pills, the more likely they are to work.

This is not a good method to use every time a woman has sex. Emergency contraception often causes nausea or headaches. It is not as dependable as other methods.



How to give emergency contraceptive pills

Most birth control pills contain ethinyl estradiol (estrogen) and levonorgestrel (progestin). The number of pills you take depends on how much ethinyl estradiol the pill contains.

- give 100 mcg (micrograms) ethinyl estradiol by mouth. Then 12 hours later, give another 100 mcg.

Using low-dose pills (*with 30 to 35 mcg ethinyl estradiol*)

- give 4 pills. Then 12 hours later, give 4 more pills.

Using high-dose pills (*with 50 mcg ethinyl estradiol*)

- give 2 pills. Then 12 hours later, give 2 more pills.

Emergency pills can give women headaches or severe nausea. Women can try eating something at the same time as taking the pills. If a woman vomits within 3 hours of taking the pills, she should take the same dose again.

Progestin-only pills

In some communities, women can buy pills specially made for emergency contraception. They have a higher dose of hormones, so women do not have to take as many pills. They may be made with only progesterone and no estrogen. Progesterone-only pills do not usually cause nausea.

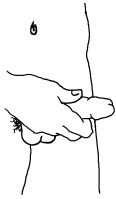
- give 0.75 mg levonorgestrel by mouth. Then 12 hours later, give another 0.75 mg.

Emergency IUDs

An IUD can also be used as emergency contraception. A trained health worker must insert the IUD within 5 days of a woman having sex. This will usually prevent a pregnancy. The IUD can then be left in to prevent future pregnancies. But this method should not be used by a woman who might have an STI.

Pulling out (withdrawal)

In this method, a man pulls his penis out of the woman's vagina and away from her genitals before he ejaculates. This prevents sperm from getting inside the vagina.



Even if a man does pull out every time before he ejaculates, this method does not work well. Sometimes men leak a little sperm before they ejaculate. A man may not be able to pull out before the sperm comes. Or he may not want to. This means the woman may get pregnant. This method is more effective when combined with another method like spermicide or a diaphragm.

This method may give some protection against HIV/AIDS and other STIs.

Homemade sponge method

With this method, a woman puts a sponge soaked in vinegar, lemon, or salt deep in the vagina before having sex. This method is not very effective, but it may prevent some pregnancies. A woman may wish to try it when no other method is available.

This method may irritate the vagina, which can make it easier for a woman to get STIs. The woman should stop using this method if it makes her vagina dry, sore, or itchy.

How to make a homemade sponge

1. Mix: 2 tablespoons of vinegar with 1 cup of clean boiled water **or** 1 teaspoon of lemon juice with 1 cup of clean boiled water **or** 1 spoon of salt with 4 spoons of clean boiled water



2. Wet a boiled piece of sponge about the size of an egg with one of these liquids.
3. Push the sponge deep into the vagina no more than 1 hour before having sex.
4. Leave the sponge in for at least 6 hours after having sex. Then take it out.



The sponge can be difficult to take out, but it cannot get lost in the vagina. It may be easier to take out if the woman squats and pushes down as if she is passing stool, while she reaches into her vagina. If she has trouble taking it out, she can tie a clean ribbon or string around it for the next time.

The sponge can be washed, boiled, and used again many times. Keep it in a clean, dry place. The liquid can be made ahead of time and kept in a bottle.

Methods that do not prevent pregnancy

These are some commonly used family planning methods that do not work. Some are also dangerous.

- Wearing charms will not prevent pregnancy. Neither will spells or prayers.
- Urinating after sex will not prevent pregnancy (though it may help prevent urinary tract infections).
- Washing out the vagina (douching) after sex does not prevent pregnancy. Some herbs or harsh chemicals used for douching can also injure the vagina.

Making family planning work for the community

Men must also be responsible for family planning

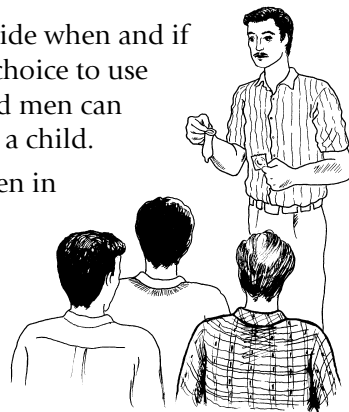
When men and women choose family planning together, it is much easier to use family planning successfully. Because men do not get pregnant, they do not always take the responsibility that women do for pregnancy and family planning. Many men think of family planning as the woman's problem.

Some men do not want their partners to use family planning. They may want lots of children, or they believe family planning is wrong, or they may feel that family planning is expensive or inconvenient to use and do not see any benefits to using it.

When men support the right of women to decide when and if they want to be pregnant, women can make the choice to use family planning if they want to. Then women and men can both have sex with less worry if they do not want a child.

As a midwife, you may be able to influence men in your community to take more responsibility for family planning. The number of children in the family will affect the health and well-being of every family member. Encourage men to:

- use condoms.
- support their partners in whatever family planning method they choose.
- talk to other men in the community about the importance of family planning.



Family planning programs that work

Midwives help individual women and men decide about family planning methods. In this work, they may find that family planning is difficult to get in their communities. Midwives may then get involved in making family planning programs work better.

What makes a family planning program work to improve a woman's health, her knowledge, and her control over her body?

- A wide choice of methods, for both men and women, with clear information about benefits and risks.
- Good testing to know if a woman has a health problem, such as high blood pressure, that means she should not use a certain method. Good follow-up care to make sure a method is not causing problems and to help the woman try another if it is.
- Health services that include family planning along with care before, during, and after birth, support for breastfeeding, treatment for infertility, and treatment and prevention of STIs.
- Encouragement for men and women to share responsibility for birth control.
- Respect for local health providers and safe traditional practices, including traditional methods of regulating monthly bleeding and family planning. Midwives often have good experience combining traditional methods with modern methods of care.
- Freedom from pressure and coercion. Coercion means a health worker or someone else pushes a woman to use family planning or a certain method when she does not want to. This happens when programs limit the choice of method or set targets (a certain number of one method must be given). Targets make health workers push people to accept a method against their will or without full information. These can be problems with family planning programs funded by large groups outside the community, such as international donors and national governments.



Health workers should be free from pressure about which methods to offer women.

CHAPTER 18

Sexually transmitted infections

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Sexually transmitted infections

and other infections of the genitals



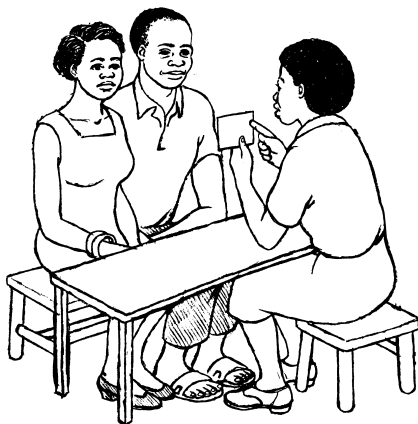
What are sexually transmitted infections?

Sexually transmitted infections (STIs) are infections that are passed from one person to another during sex. Men, women, and their children can all be affected by STIs. Some common STIs are gonorrhea, chlamydia, trichomonas, syphilis, chancroid, herpes, hepatitis B, and HIV/AIDS.

If a person has any of these signs, he or she may have an STI:

- bad-smelling discharge
- itching genitals
- painful genitals
- sores or blisters on the genitals
- pain in the pelvis or pain during sex

It is also very common to have an STI and have no signs at all. Many women and men have STIs but do not know it.



Untreated STIs can lead to very serious health problems, so anyone with an STI needs treatment as soon as possible. A woman with an untreated STI can develop a tubal pregnancy (see page 113), cancer of the cervix, or can become infertile (see page 30). An untreated STI in a pregnant woman can cause a baby to be born too early, too small, blind, sick, or dead. A person who has one STI can more easily get another — including HIV/AIDS.

This chapter describes the most common STIs and explains how to treat them and prevent them. It also describes some other infections of the genitals that are common but are not transmitted sexually.

How STIs are passed

To get an STI, a person must have close contact with someone who is already infected. The contact can be sexual intercourse (sex with the man's penis inside the woman's vagina), anal sex (penis in anus), or less often, oral sex (mouth on genitals or anus). STIs can sometimes pass from just rubbing an infected penis or vagina against another person's genitals. Many people get STIs from people who have no signs of being infected.

STIs can be prevented by not having sex with anyone who has an infection. They can also be prevented by using condoms. To learn about preventing STIs, see pages 334 and 336.

Babies can also be infected with an STI through the mother's blood during pregnancy or during birth when they pass through the vagina.

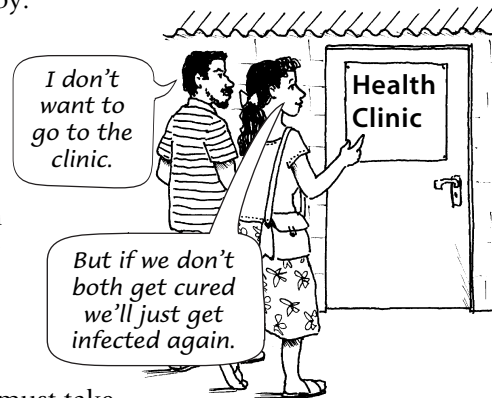
Treating STIs

Most STIs will get better or go away if the person with the STI gets treated right away. But many women do not get treatment. A woman may not be able to afford treatment. She may feel embarrassed or ashamed. She may be afraid that her husband will think she had sex with someone else.

For these reasons, the way you care for a woman who may have an STI is very important. If a woman comes to you for help, do not tell anyone else what she told you. She may not come to you for help again. Do not criticize her. Answer her questions honestly, and as best as you can. If you cannot treat her infection, help her find low-cost care nearby.

Remember:

- Treat STIs as soon as possible. Early treatment for STIs costs less and is more effective than later treatment.
- Treat partners too. Treating a woman for an STI will not help if her partner is still infected.
- Make sure the woman takes all the medicine she is given. Even if the signs of infection go away, a person must take all the medicine to cure the infection completely.



Note: All the medicines listed in this chapter are safe to take during pregnancy or while breastfeeding unless we include a warning that says they are not safe. Women who are not pregnant or breastfeeding may be able to take other, more effective drugs. See the book *Where Women Have No Doctor* or talk to a pharmacist to find out about other drugs.

Discharge from the vagina

It is normal for women to have some discharge (wetness) from the vagina. This discharge is the way the vagina cleans itself. The discharge changes during the days of the monthly cycle and also during pregnancy.

But a major change in the amount, color, or smell of the vaginal discharge can mean there is an infection of the genitals. This infection could be an STI, or could be another type of infection.



In this chapter, we organize the different infections a woman can have by the symptoms the infection causes. Discharge from the vagina can be a symptom of chlamydia, gonorrhea, trichomonas, or a vaginal infection that is not sexually transmitted.

Chlamydia and gonorrhea (clap, the drip, gono, VD)

Chlamydia and gonorrhea are both serious illnesses. But they are easy to cure if they are treated early. If they are not treated, they can lead to severe infection or infertility in women and men.

Signs in a woman

Signs can start weeks or months after having sex with an infected person.



- yellow or green discharge from the vagina or anus
- pain or burning when urinating
- fever
- pain in the lower belly
- pain or bleeding during sex
- or no signs at all

Both men and women can have chlamydia or gonorrhea with no signs. And even a person with no signs can pass chlamydia or gonorrhea to another person.

Signs in a man

Signs usually start 2 to 5 days after a man has sex with an infected person.



- discharge from the penis
- pain or burning while urinating
- pain or swelling in the testicles (balls)
- or no signs at all

Treatment

If possible, every pregnant woman should be tested for chlamydia and gonorrhea. If the test shows she has one or both of these infections, **she and her partner should be treated**. But if it is not possible for her to be tested, and she or her partner have signs of the infection, they should be treated anyway. It is better to treat someone who might be infected — even if you do not know for sure.



To treat chlamydia

- give 500 mg erythromycin.....by mouth, 4 times a day for 7 days
- or**
- give 500 mg amoxicillinby mouth, 3 times a day for 7 days

To treat gonorrhea

- inject 250 mg ceftriaxone.....in the muscle, 1 time only
- or**
- give 400 mg cefiximeby mouth, 1 time only

It is very common to have chlamydia and gonorrhea at the same time. If you are not sure whether the woman has chlamydia or gonorrhea, or if she might have both, treat her and her partner for both infections.

—● **Note:** In the past, penicillin was used to cure gonorrhea. Now, in many places, penicillin will not kill gonorrhea anymore because of drug resistance (see page 464). Find out which drugs work best in your area.

Problems in babies from chlamydia and gonorrhea

Women who have chlamydia or gonorrhea when they give birth can pass these infections on to their newborn babies. This can cause eye infection leading to blindness, or serious lung problems. A chlamydia or gonorrhea infection in the eyes usually causes a thick yellow discharge from the eyes within the first month. To prevent eye infection in babies, put antibiotic ointment into each baby's eyes after birth (see page 260).



If a baby has a chlamydia infection

- give 30 mg erythromycin syrupby mouth, 4 times a day for 14 days

If a baby has a gonorrhea infection

- inject 125 mg ceftriaxone.....in the thigh muscle, 1 time only

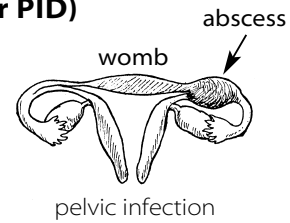
If you cannot test to find out which disease is causing the infection, give medicines for both.

Pelvic infection (pelvic inflammatory disease, or PID)

Pelvic inflammatory disease is a serious infection of a woman's womb, tubes, or ovaries.

A pelvic infection can happen when a woman has an STI, usually chlamydia or gonorrhea, that is not treated. It can also happen to a woman after an abortion or after a birth. Germs get into the woman's womb, tubes, or ovaries and cause infection there.

If a pelvic infection is not treated, it can cause long-term pain for the woman. Women who have had pelvic infections have a greater chance of having a tubal pregnancy or of becoming infertile. Pelvic infection can even lead to death.



Signs of pelvic infection

- pain in the lower belly
- high fever (more than 38°C or 100.4°F)
- feeling very ill or weak
- bad-smelling green or yellow discharge from the vagina
- pain or bleeding during sex

To treat pelvic infections

A woman with a pelvic infection should take 3 medicines at once. One medicine to treat chlamydia, one to treat gonorrhea, and another antibiotic — metronidazole:

For chlamydia

- give 500 mg erythromycin.....by mouth, 4 times a day for 14 days
- or**
- give 500 mg amoxicillinby mouth, 3 times a day for 14 days

AND for gonorrhea

- inject 250 mg ceftriaxone.....in the muscle, 1 time only
- or**
- give 400 mg cefixime.....by mouth, 1 time only

AND to kill any other germs that cause pelvic infection

- give 400 to 500 mg metronidazole.....by mouth, 3 times a day for 14 days

Do not take metronidazole in the first 3 months of pregnancy.

If the woman is not better after 2 days and 2 nights (48 hours), or if she has high fever or vomiting, she should go to a medical center right away. She needs strong IV medicines (in the vein).



Trichomonas (trich)

Trichomonas is very uncomfortable and itchy. Men usually do not have any signs but they can carry it in the penis and pass it to a woman during sex.

Trichomonas is not dangerous, but it can irritate the vagina, which can make it easier for a woman to get other STIs including HIV/AIDS.

Signs of trichomonas

- bubbly gray or yellow discharge
- bad-smelling discharge
- red and itchy genitals and vagina
- pain or burning while urinating

To help the woman feel better, she can take a **sitz bath**. She should sit in a pan of clean, warm water for 15 minutes as often as possible. This is soothing to the genitals and will speed healing. She should not have sex until she and her partner are finished with treatment and all the signs are gone.



To treat trichomonas

If the woman is pregnant:

She should wait until after the end of the third month for treatment. This drug is not safe in the first 3 months of pregnancy. After the third month:

- give 400 to 500 mg metronidazole.....by mouth, 2 times a day
for 7 days

Also treat the woman's partner with 2 g metronidazole by mouth, 1 time only.

Yeast (candida, white discharge, fungus)

Yeast is not usually sexually transmitted, but it is a very common vaginal infection. It is especially common in pregnant women or women who are taking antibiotics or birth control pills. Men can also get yeast infections.

Signs of yeast

- itchy genitals
- white, lumpy, sticky discharge
- bright red skin outside and inside the vagina that sometimes bleeds
- a burning feeling when urinating
- a smell like mold or bread dough from the vagina

Treatment

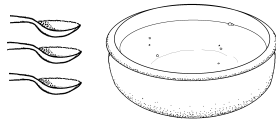
Yeast is not dangerous, but it is best to treat yeast in a pregnant woman before the birth, or the baby can get thrush (see page 290). Yeast can often be cured using natural remedies.

Natural remedies for yeast infection

Mix vinegar or yogurt in a pan of clean warm water. The woman should sit in this liquid 2 times a day until she feels better.

or she can also try making this mix:

Mix 3 tablespoons of vinegar with 1 liter (quart) of boiled cool water.



Soak a piece of clean cotton wool in this mixture and insert the cotton into the vagina every night for 3 nights. Remove the cotton each morning.



If natural remedies do not work, try one of these medicines:

To treat yeast infection

soak a clean piece of cotton in gentian violet 1%:

- insert the cotton.....into the vagina, every night for 3 nights. Remove the cotton each morning.

or

- put one 200 mg miconazole inserthigh in the vagina, each night for 3 nights

or

- put one 100,000 Units nystatin inserthigh in the vagina, each night for 14 nights



Prevention

Wearing loose clothing and underclothes made of cotton, rather than polyester or nylon, lets air around the genitals. This helps prevent yeast. Wash or change the underclothes often. Do not put soap in the vagina when bathing. Do not douche.

Bacterial vaginosis (BV, gardnerella)

Bacterial vaginosis is not sexually transmitted. It is not usually dangerous, but it can cause pregnant women to have their babies too soon or get an infection after the birth.

Signs of bacterial vaginosis

- more discharge than usual
- a bad, fishy smell from the vagina, especially after sex
- mild itching



To treat bacterial vaginosis

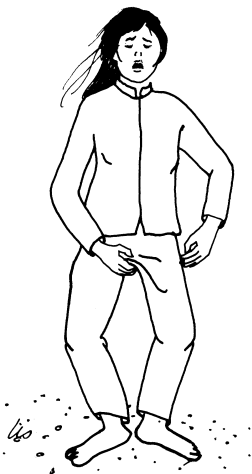
If the woman is pregnant:

She should wait until after the end of the third month. This drug is not safe in the first 3 months of pregnancy. After the third month:

- give 400 to 500 mg metronidazole.....by mouth, 2 times a day
for 7 days
- or**
- put one 500 mg metronidazole inserthigh in the vagina,
every night for 7 nights

Itching of the genitals

Itching of the genitals can have many causes. Itching around the opening of the vagina could be yeast or trichomonas.



Itching in the hair of the genitals or close to the genitals could be caused by scabies or lice. Scabies or lice can be treated with local remedies, or with medicines found in most pharmacies. For more information, see *Where There Is No Doctor* or another general medical book.

Some itching is caused by soaps or deodorants that have perfume in them. It can also be caused by plants and herbs that are used for douching or washing out the vagina. Wash with plain water and see if the itching goes away.

Sores on the genitals (genital ulcers)

Most sores on the genitals are sexually transmitted. (There can be other causes of sores on the genitals — like boils or injuries.)

Sores on the genitals should be kept clean. Wash them with soap and water. Dry them carefully. Wash any cloth that you dry them with before you use it again.



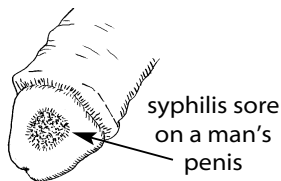
WARNING! When a person has a sore on the genitals, it is easy to get other infections through those sores — especially HIV/AIDS. The best way to prevent passing the infection to another person is to avoid sex until the sores heal.

Syphilis

Syphilis is a serious STI that affects the whole body. It can last for many years, getting worse and worse. Syphilis can be cured if it is treated early.

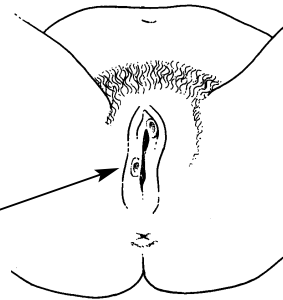
Signs of syphilis

1. The first sign is a sore that may look like a pimple, a blister, or an open sore. It appears 2 to 5 weeks after sexual contact with a person who has syphilis. This sore is full of germs, which are easily passed on to



another person. The sore does not hurt, and if it is inside the vagina, a woman may not know she has it. But she can still infect anyone she has sex with. The sore lasts for only a few days or weeks and then goes away. But the infection is still there and continues to spread throughout the body.

2. Weeks or months later, the infected person may get a sore throat, mild fever, mouth sores, swollen joints, or a rash — especially on the hands, feet, belly, and sides. During this time the person can pass the disease to others by simple physical contact like kissing or touching, because the syphilis germs are on the skin.
3. All of these signs usually go away by themselves, but the disease continues. If a person with syphilis does not get treatment early, the syphilis germs can cause heart disease, paralysis, mental illness (craziness), and death.



Syphilis and pregnancy

If a woman has syphilis when she is pregnant, her baby can be born too early, deformed, or dead. If possible, every pregnant woman should get a blood test to check for syphilis — especially if she has ever had sores on her genitals.



To treat syphilis

- inject 2.4 million Units benzathine benzylpenicillin.....in the muscle, 1 time only

or

if the person is allergic to penicillin:

- give 500 mg erythromycin.....by mouth, 4 times a day for 14 days

(Erythromycin is not always effective against syphilis. You may need to treat the woman with tetracycline after she finishes breastfeeding.)

If the person has had syphilis for 2 years or more, get medical help. She needs different medicines.



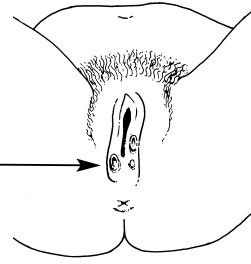
WARNING! It is very hard to tell the difference between syphilis and chancroid (see page 331). If you are not sure whether the woman has syphilis or chancroid, or if she might have both, you should give her benzathine penicillin **and** erythromycin.

Chancroid

Chancroid is an STI that causes sores on the genitals. It is easily confused with syphilis.

Signs of chancroid

- one or more soft, painful sores on the genitals or anus that bleed easily
- enlarged, painful glands (buboes) in the groin
- slight fever



To treat chancroid

- give 500 mg erythromycin.....by mouth, 4 times a day for 7 days
- or*
- inject 250 mg ceftriaxone.....in the muscle, 1 time only



Genital herpes

Genital herpes is a virus that causes painful blisters which burst and turn into sores on the skin. Herpes is spread when the sore on one person touches another person's skin — usually during sexual intercourse. Genital herpes usually affects the genitals or anus. Rarely, the sores may spread to the mouth during oral sex.

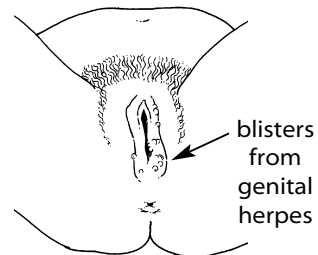
Note: Some sores on the mouth — called cold sores — are caused by another type of herpes. These sores are not usually passed through sex.

Signs of herpes

- tingling, itching, or pain on the genitals
- small blisters that burst and form painful open sores on the genitals

Once a person has the virus, he or she can get sores many times. The first time a person has herpes sores, they can last 3 weeks or more. The person may also have fever, headaches, body aches, chills, and swollen lymph nodes near the genitals. The next infections are usually not as bad as the first one.

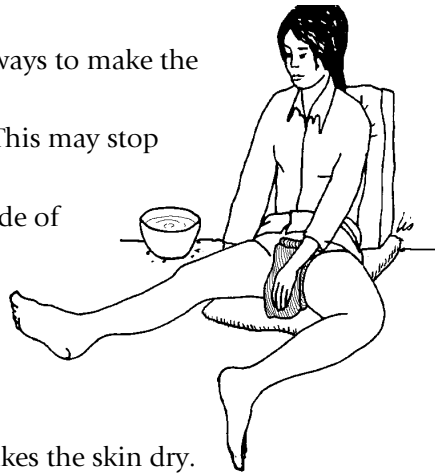
To stop the spread of herpes, people should not have sex when they have a sore. Condoms may prevent the spread of herpes, if the condom is covering the sore. Condoms for women may work even better because they cover more of the genitals.



Treatment

There is no cure for herpes but there are some ways to make the sores feel a little better:

- Put ice on the sore as soon as you feel it. This may stop the sore from getting worse.
- Soak a cloth in cooled black tea or tea made of cloves. Hold the wet cloth on the sores.
- Sit in a pan or bath of clean cool water.
- Make a paste by mixing baking soda or cornstarch with water and put it on the sore area.
- Apply witch hazel or a local plant that makes the skin dry.



The pain and sores of a first outbreak can be lessened with medicines.

To lessen pain and sores of a first herpes outbreak

- give 200 mg acyclovirby mouth, 5 times a day for 7 days



To help with pain

- give 500 to 1000 mg paracetamol.....by mouth, every 4 hours

A person with a lot of stress or other health problems is likely to get sores more often. So if possible, people with herpes should get plenty of rest and eat healthy food.



WARNING! Herpes is very dangerous for the eyes and can cause blindness. After touching a herpes sore, always wash your hands with soap and water.



Herpes and pregnancy

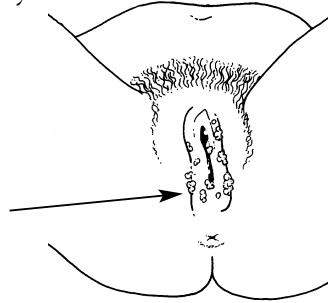
If a woman gets herpes for the first time while she is pregnant, the infection may cause birth defects in her child. If she has sores at the time of the birth, she may pass the disease on to her child if his skin contacts the sores as he comes out of the vagina. This is also much more likely if she is having herpes for the first time when she is in labor. If a woman has a herpes sore when labor begins, it is best for her to give birth in a medical center. Doctors may do a cesarean surgery to prevent the baby from contacting the sores, or give medicines to the baby after he is born.

HPV (genital warts)

HPV is a virus that can cause warts to grow on the genitals or anus. It is also possible to have warts and not know it, especially if they are growing inside the vagina. The warts are not dangerous, but they can be uncomfortable.

Signs of HPV

- Itching.
- Small, dry, white or brown bumps on the genitals or anus. The bumps have a rough surface and do not hurt.



WARNING! Large, flat, wet growths that look like warts are not usually HPV. They may be caused by syphilis.

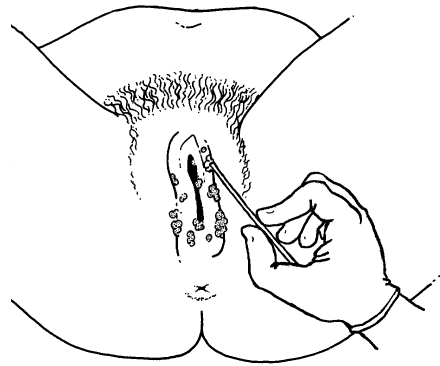
Anyone with these growths should be tested for syphilis. Do not use the following treatment.

Treatment

1. To protect the healthy skin, put petroleum gel (*Vaseline*) or another greasy ointment on the skin around each wart.
2. With a small stick, put a little trichloroacetic acid (TCA) 80% to 90% solution or bichloroacetic acid (BCA) on the wart. Leave the acid on until the wart turns white. Be careful not to spill the acid on the healthy skin. Wash the acid off after 2 hours or if the burning feeling is very painful.

The acid should burn the wart off and leave a painful sore where the wart used to be.

Usually, you must repeat the treatment once a week for a few weeks before the wart goes away completely. Keep the sore clean and dry until it heals. The woman should also not have sex until the sore heals.



A few types of HPV, if they are not treated, can cause cancer in a woman's cervix. See page 380 to learn how to test a woman's cervix for HPV.

STIs that affect the whole body

AIDS (acquired immune deficiency syndrome)

AIDS is a deadly disease caused by a virus, a kind of germ, called HIV (human immunodeficiency virus). HIV/AIDS reduces the ability of the body to fight disease. People with HIV/AIDS get sick very easily with diseases such as pneumonia, tuberculosis, cancer, and other infections. HIV/AIDS cannot be cured but it can be treated so the person does not get sick as easily.

HIV is spread when infected blood, semen, breast milk, or wetness from the vagina of someone who has HIV get into the body of another person. It can be spread through:

sex with someone who has HIV/AIDS.



an infected mother to her unborn child.



sharing a needle or syringe with someone who has HIV.



In places where blood is not tested for HIV, people can also get HIV from a blood transfusion. Sometimes mothers with HIV/AIDS also pass HIV to their babies through breast milk (see page 293).

Signs of HIV/AIDS

People who have HIV may not have any signs for a long time — as long as 10 years. And people with HIV who have no signs of AIDS can easily pass the virus to others. A woman can get HIV/AIDS from someone who looks and feels completely healthy. Early signs of AIDS are fever, diarrhea, and skin rashes.

There is no cure for HIV/AIDS yet. But a person who is able to eat well and care for her body, mind, and spirit can live a longer and healthier life. And new medicines can help people live many years after getting HIV.

To prevent the spread of HIV, women should:

- avoid having sex with someone who has HIV.
- use condoms with any new sex partner, a partner who might be having sex with someone else, or a partner who has HIV. He may have HIV/AIDS or another STI without having any signs.
- not use syringes, needles, or other tools that are not sterilized. This includes the tools used for piercings, acupuncture, tattoos, scarring, or circumcision. Skin should be cut or pierced only with tools that have been sterilized (see page 59).



Medicines for HIV/AIDS

There is no cure for HIV/AIDS, but medicines can make people much healthier and help them live much longer. Medicines can also help prevent the spread of HIV from a mother to her baby during labor.



New medicines for HIV/AIDS are being developed all the time, and what are the best medicines or medicine combinations changes regularly. These powerful medicines can have harmful side-effects. It is very important to ask your local health authority what the best medicines and medicine combinations are in your area and for each woman's level of sickness.

To treat a person who is sick with AIDS (who has signs of AIDS and of the diseases people with AIDS get easily), you must give a combination of 3 or 4 different medicines. Sometimes several medicines are combined into one pill. We have recommended 2 possible medicine combinations here. More detailed information on treating HIV/AIDS or preventing the spread of HIV from a mother to her baby with different combinations of medicines starts on page 492 of this book.



To treat a woman who is sick with AIDS

and to prevent the spread of HIV from a mother with AIDS to her baby

- give 150 mg lamivudine (3TC).....by mouth, 2 times a day, every day
and
- give 300 mg zidovudine (ZDV)by mouth, 2 times a day, every day
and
- give 1250 mg nelfinavirby mouth, 2 times a day, every day
or if you do not have nelfinavir,
give 200 mg nevirapine (NVP) by mouth, once a day for 14 days,
then give it 2 times a day every day

If the woman is not yet very sick with AIDS, you may want to wait to start treatment until after the 3rd month of pregnancy, because these drugs may have harmful effects on the developing baby if they are taken early in pregnancy. But if the woman is very sick with AIDS, she should start the medicines right away.

Where these medicines are still not available or are too expensive it will be very difficult for a woman to get the medicines she needs to stay well. But you may be able to help prevent the spread of HIV/AIDS from a mother to her baby during birth by giving a different combination of medicines or a single medicine during labor. See page 493.

Hepatitis B

A person whose liver is diseased has hepatitis. Hepatitis B is a dangerous infection of the liver caused by a virus. Hepatitis B is spread when the blood or other body fluids from an infected person get into the body of a person who is not infected. Body fluids include spit, wetness from the vagina, and semen. Hepatitis B spreads very easily from one person to another, especially during sex. It can also spread from a pregnant woman to her baby.

Signs of hepatitis (including hepatitis B)

- no appetite
- tired and weak feeling
- yellow eyes and sometimes yellow skin (especially the palms of the hands and soles of the feet)
- pain in the belly or nausea
- brown, cola-colored urine, and stools that look whitish
- or no signs at all

Treatment

There is no medicine that will help. In fact, taking medicine can hurt the liver even more. But most people recover from hepatitis B.

People with hepatitis B may feel better sooner if they rest, eat foods that are easy to digest, and do not drink any alcohol.



Hepatitis B and pregnancy

If a woman has signs of hepatitis B while she is pregnant, seek medical advice. She may be able to get a vaccination that will prevent the baby from getting infected.

Teaching women how to prevent STIs



Women should know that any sex partner may have an STI. A man has a much greater chance of having an STI if he has sex with other partners without using condoms.

Testing is the only sure way to know if a person has an STI. Find out if there is affordable STI testing in your area, and see page 379 to learn about testing women yourself.

The surest way for a woman to avoid getting an STI is for her to avoid having sex with anyone who might be infected. Or she can use condoms (for men or women) when she does have sex. There is a very small chance of getting an STI even when using a condom.

Midwives can help protect women from HIV/AIDS and hepatitis B by sterilizing any syringes or other tools used during birth or invasive procedures. See page 59.

Midwives can teach a woman these ways to protect herself:

- Use a condom every time she has sex.
- Do not have sex with someone who has signs of an STI (although many STIs spread even when the person has no signs).
- Do not douche or use herbs or powders to dry the vagina. When the vagina is dry or irritated by douches, sex can cause tiny cuts in the skin, making the woman more likely to be infected by HIV or other STIs.

If a man will not use a condom, these methods may give a woman a little protection from getting an STI:

- Use a diaphragm.
- Wash the outside of the genitals after sex.
- Urinate right after sex.

A woman and her partner can also have oral sex or other sexual touch instead of intercourse (see page 312).

How to help stop STIs in your community

Here are some ideas to help prevent the spread of STIs in your community:

- Talk to the women you care for about STIs. Some women may feel embarrassed to talk about them, but knowing more may save their lives.
- During prenatal checkups, ask women about unusual discharge or sores on the genitals, or offer to examine them for signs of STIs.
- Organize a group to talk about health topics, including STIs and HIV/AIDS.
- Support education about sex in your local school. Help parents understand that teaching about STIs, including HIV/AIDS, helps young people make safer choices later on when they start having sex.
- Talk to men and help them understand the risks of STIs, including the risks to pregnant women and their babies.
- Find out from your local medical center, hospital, or Ministry of Health what STIs are the most common in your community.
- Find out what medicines to treat STIs work best in your area — and find out what they cost. Learn how to treat STIs, or help women find treatment.
- Start a community pharmacy so that it will be easier for people to get medicines and condoms.

I want my daughters to be safe — but I don't know what to say. My mother never talked to me about this.

I know what you mean. Can we think of ways to explain this to them?



.....

CHAPTER 22

Helping a woman after a pregnancy ends early

In this chapter:

Problems from a pregnancy that ends early.....	401
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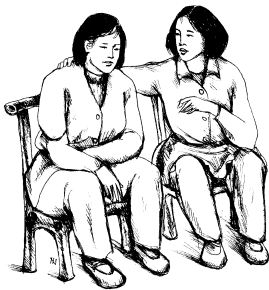
Helping a woman after a pregnancy ends early

CHAPTER 22

Sometimes a pregnancy ends early. With miscarriage the woman simply starts bleeding or having contractions until the pregnancy comes out. When a pregnancy is ended on purpose, it is called an abortion.

Most miscarriages do not cause problems, but some do. Most abortions done by people who are experienced and skilled, and with tools that have been sterilized or the correct medicines, are not dangerous. But many abortions are not done safely. For more information about miscarriage, see page 91. For more information about abortion, see page 92.

Problems from a pregnancy that ends early



A woman can have serious health problems when a pregnancy ends early. Part of the pregnancy may be left in the womb. She may have heavy bleeding or infection. Without treatment, she could die. This chapter will explain how to:

- watch for warning signs.
- give emergency care to a woman who has a problem from a pregnancy that ended early.

Finding care after a pregnancy ends

Women who have bleeding or infection after miscarriages or abortions need medical help fast. But often they do not get this help. There may be no money to pay for care if something has gone wrong. For women in isolated villages, a trip to the hospital in the city can be too far, too frightening, or too expensive. Many women, especially unmarried women, feel they must hide their condition because of attitudes against sex, family planning, or abortion. Fear, lack of money, and distance from medical care should not be reasons for women to suffer — but they often are.





Midwives can help save many women's lives, because midwives are usually the closest and most trusted health workers in their communities. When a woman who is sick or injured knows there is someone kind and skilled nearby who does not charge a lot of money for services, she is more likely to get the care she needs to prevent her death.



Unsafe abortion

Women everywhere find ways to end unwanted pregnancies. But for many women, safe abortion is not available. It is not legal or is too expensive, so women who have unwanted pregnancies try to end them in other ways.

They get abortions from people who do not know how to or do not choose to do abortions safely. These people might put soap, chemicals, dung, sharp sticks, or other dangerous objects into women's wombs. Women also try to use these methods on themselves.

These methods almost never work and they are very dangerous. Tens of thousands of women die every year because of unsafe abortion. Hundreds of thousands of women are made infertile or ill.



Making a decision to help

Some midwives are afraid to care for women who have had unsafe abortions. They may think they will be blamed for causing the abortion. But even in places where abortion is not legal, it is legal to save the lives of women who are suffering after unsafe abortion.

Some midwives do not want to care for women after unsafe abortions because they believe that abortion is wrong. But caring for a woman who is in danger after an unsafe abortion is not the same as doing an abortion. After an unsafe abortion, a woman may die if she does not get help. When women are sick, for any reason, midwives must help them.

At first I did not want to help women who were sick from unsafe abortions. But if I had not helped them, they would have died!



I do not agree with abortion, but I am a midwife, and I will help any woman who is suffering or in danger.

Emotional support after a pregnancy ends

Women who have had miscarriages or abortions may feel afraid, sad, or upset — especially if they have health problems that are caused by the miscarriage or abortion. This emotional pain is just as important as the pain women have in their bodies. You can help a woman with her emotional pain before, during, and after caring for her medical problems.



When a woman has a miscarriage, she may be very disappointed that her pregnancy ended. She may feel guilty — and wrongly think that the miscarriage was her own fault. See page 91 for more information on what can cause miscarriages and how to care for and support a woman after a miscarriage.

Usually, a woman who is having serious health problems because of an abortion did not get good care. An abortion provider who did not do a safe abortion may have also been disrespectful or unkind. The abortion may have been very painful or frightening for the woman. When abortion is illegal, a woman may be afraid of being punished. Be sure to give these women extra care.

Midwives can help a woman with emotional pain

Share information

- Explain what is causing the illness or bleeding.
- Explain what you are doing to help.
- If she does not want to become pregnant again, help her choose a family planning method that is right for her (see Chapter 17, page 298).

Listen and give support

- Ask her if she wants to talk about how she feels. She may not tell you unless you ask.
- Listen to her if she wants to talk or cry.
- Reassure her the way you would reassure a loved one or friend.



Do not blame the woman for being sick

Some people think that women get sick because they deserve to be sick. For example, some midwives think that women who have miscarriages lose their pregnancies because they are bad people. Others think that women who get sick after abortion are being punished for having the abortion. The truth is that no one deserves to be sick, and everyone deserves to be cared for when they are sick.

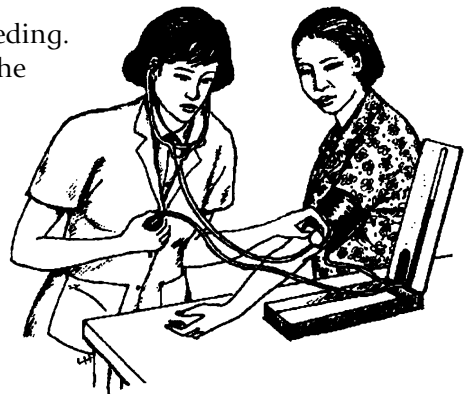
Blaming women for their own sickness does not help them become healthy.

Physical care after a pregnancy ends

Check the woman's physical signs — like her temperature, pulse, and the amount she is bleeding. This will tell you what kinds of medical help she needs.

HEALTHY SIGNS

- Mild pains or cramps in the lower belly for a few days.
- Light bleeding (up to the same amount as normal monthly bleeding) for a few days or very light spotting for up to 2 weeks.



WARNING SIGNS

- Strong cramping in the lower belly.
- Swollen or hard lower belly.
- Heavy bleeding, large clots of blood, or bleeding for more than 2 weeks.
- Bad smell from the vagina.
- High temperature, 38°C (100.4°F) or above.
- Fast pulse, over 100 beats a minute.
- Feeling very nauseated.
- Feeling faint or dizzy.

You should also ask her about this pregnancy.

Find out how long she was pregnant. A woman whose miscarriage or abortion happened early in her pregnancy is easier to help than a woman whose miscarriage or abortion happened later. If a woman was pregnant for more than 3 months and is now having problems, get medical help.

Ask how the pregnancy ended. If the woman had a miscarriage or if her abortion was provided by a trained health worker who used sterile tools, she is less likely to have serious infection or injury than a woman whose abortion was done by someone who used unsafe tools. For example, if the woman tells you that someone used a sharp wire to give her an abortion, you will know to look for signs of injury inside the body (page 413).

The rest of this chapter describes how to help a woman who is having problems after a miscarriage or abortion.

Remember, women may not talk easily about what happened after a miscarriage or abortion. Ask questions respectfully. And be sure she knows you will not share what she tells you with anyone except other health workers.

Tell women how to care for themselves

A woman should take good care of herself for a few days after any miscarriage or abortion. This can prevent her from getting an infection, and will help her body heal faster. Women should:

- drink plenty of liquids and eat nutritious food (see pages 33 to 42).
- rest often.
- avoid heavy work for a week.
- bathe regularly, but should not douche or sit in a bath or tub of water until a few days after the bleeding stops.
- use clean cloths or pads to catch any blood, and change the pads often.



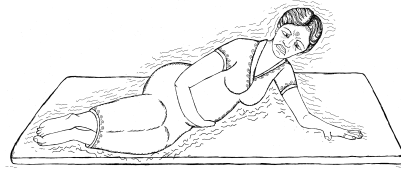
Also, the woman should not put anything inside her vagina, and should not have sexual intercourse for at least 2 weeks, and not until a few days after she stops bleeding.

Emergency care for problems after miscarriage or abortion

The 2 most dangerous problems that women can have after miscarriage or abortion are bleeding too much and infection.

Infection can happen when:

- tissue from the pregnancy is still inside the woman's womb after the miscarriage or abortion (see the next page).
- germs get into the womb during an abortion, when something that was not sterilized is used in the womb.



See page 409 for more about infection.

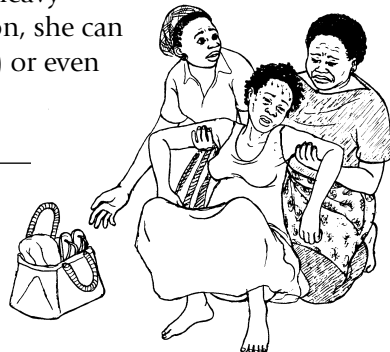


Bleeding too much can happen when:

- tissue from the pregnancy is still inside the woman's womb after the miscarriage or abortion.
- the womb or vagina has been cut with a tool during an abortion (see page 413).
- the womb becomes infected.



WARNING! If a woman has heavy bleeding or a serious infection, she can go into shock (see page 414) or even die. Get medical help fast.



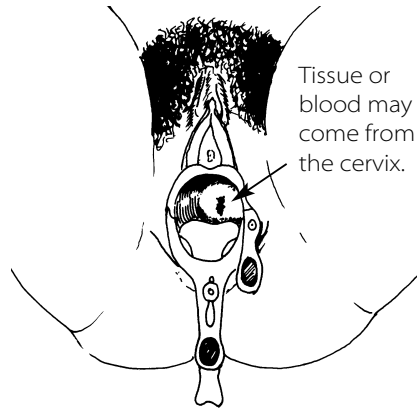
If you have been trained to help a woman after an unsafe abortion or miscarriage, you can help her yourself.

Incomplete abortion (tissue left inside the womb)

Incomplete abortion is a common cause of bleeding or infection. The bleeding or infection will not stop until all the tissue has been removed from the womb.

WARNING SIGNS

- **Tissue coming out of the womb.** If you do a pelvic exam you might see pieces of tissue coming out of the cervix or you might feel that the womb is still enlarged because of tissue inside it.
- **Infection.** The woman might have a fever, a bad smell coming from her vagina, or pain in her belly. (See page 409.)
- **Heavy bleeding from the vagina.** (See page 412.)



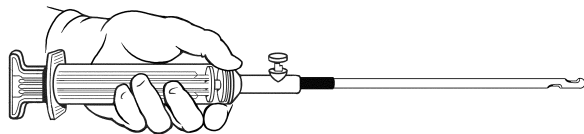
Treating incomplete abortion

There are several ways to empty the womb after an incomplete abortion. In this book, we explain how to use:

- MVA
- medicines
- forceps or other ways to remove tissue from the cervix, if you cannot use the first 2 methods.

MVA

The best treatment for incomplete abortion is to empty the womb using manual vacuum aspiration (MVA, see Chapter 23, page 416). Even though MVA is usually only safe in the first 3 months of pregnancy, it is worth trying later than that for a woman who has an incomplete abortion.



syringe and cannula for manual vacuum aspiration

Treating incomplete abortion with medicines

Two medicines can help empty the womb after an incomplete abortion — misoprostol and ergometrine. Misoprostol is inserted in the vagina — it makes the womb contract and pushes out any tissue. It is best to use this medicine when you have access to emergency care, including MVA, because it can cause heavy bleeding and does not always empty the womb completely. Ergometrine is another medicine that causes contractions and can be given by mouth or injection.



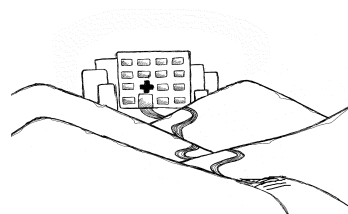
To empty the womb after an incomplete abortion

- insert 800 mcg (micrograms) misoprostol.....in the vagina, up to 2 times, 24 hours apart
- or**
- give 0.2 mg ergometrine.....by mouth, 1 time only
- or**
- inject 0.5 mg ergometrinein the muscle, 1 time only

When misoprostol is used to end a pregnancy

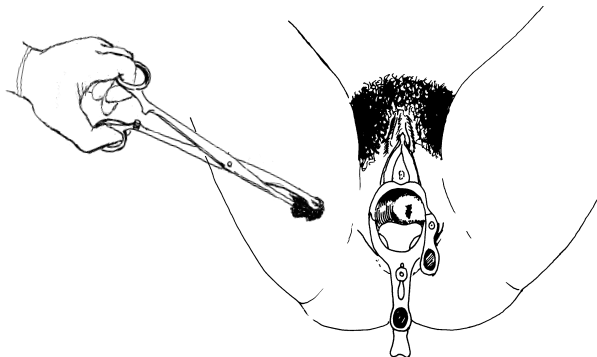
Misoprostol can be used with other drugs, usually mifepristone, to end a pregnancy in the first 3 months (see page 485). Because misoprostol is available at pharmacies and is not expensive, some women use it by itself to end their pregnancies.

Access to emergency care is very important when ending a pregnancy with misoprostol because it can cause heavy bleeding, incomplete abortion, or other dangerous problems. Emptying the womb using misoprostol alone may take several hours or several days to finish. If it does not empty the womb completely, the woman must find someone to empty her womb in another way.

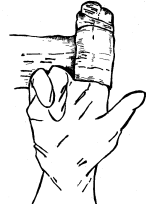


Removing tissue from the cervix

If you cannot do MVA, cannot give medicines, and you cannot find someone else to empty the womb, do a speculum exam (see page 377) and look for tissue or clots of blood coming out of the cervix. Use a sterilized forceps or long tweezers to remove the tissue or clots. This does not always work, but it is better than doing nothing.



If you do not have a speculum but you do know how to do a bimanual exam (see page 384), wash your hands well and put on sterile plastic gloves. Put 2 fingers into the woman's vagina to feel her womb. Move your fingers across the opening of the cervix. If you feel tissue coming from inside the cervix, gently try to remove it. If it is too slippery to hold, wrap two fingers with sterile gauze or a thin piece of sterilized cloth and try again to remove the tissue. This might be painful for the woman, so be very gentle. This method is rarely helpful, but it is better than doing nothing.



WARNING! If you are not able to remove the tissue from an incomplete abortion, you must get medical help immediately so the tissue can be removed. On the way to the medical center, treat the woman for infection with the medicines listed on page 410, and watch for shock (page 414).



After you remove the tissue:

- Feel the womb from the outside to see if it is soft. Rub the womb every few hours to keep it hard (see page 224).
- Watch for signs of infection (see below).

Infection

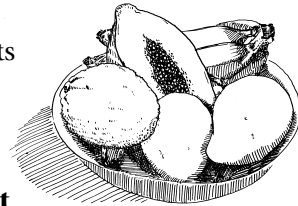
A woman with an infection in the womb is in serious danger. The infection can cause injury to the womb, and can spread into the blood (sepsis). Sepsis is very dangerous and can cause shock or death. Women mainly get infections after abortions when unsterile tools were used, or after miscarriages and abortions that were not complete, but even an abortion that was done safely can sometimes cause an infection.

WARNING SIGNS

- High temperature, above 38°C (100.4°F).
- Fast pulse, over 100 beats a minute.
- Feeling chills and shivering.
- Swollen, hard, or painful belly.
- Bad-smelling fluid coming from the vagina.
- Feeling ill or weak.

To help a woman with an infection

- If she still has tissue in her womb, the infection will not get better until the tissue is removed. Use one of the methods on pages 407 and 408 to empty the womb.
- Give antibiotics (see below).
- Read page 411 for how to prevent tetanus infection.
- Help the woman drink lots of fluids. This will help the body fight infection. If she has a hard time drinking, give her rehydration drink (page 160), rectal fluids (page 342), or an IV (page 350).
- Help the woman eat nutritious food. Some fresh fruits like oranges, guava, papaya, mangos, and breadfruit have vitamin C, which helps fight infections.
- If you know how to use plant medicines to stop infections, the woman can take them, but **do not put any plant medicines into the womb**. (See page 19 for ideas about how to decide if plant medicines are useful or harmful.)



To treat infection

Get medical help. On the way, give these medicines. For complete information on these medicines, see the green medicine pages starting on page 463.

- inject 2 g ampicillin.....in the muscle, 4 times a day
and
- inject 300 mg gentamicin.....in the muscle, 1 time a day
(or 5 mg gentamicin for each kg the woman weighs)
and
- give 400 to 500 mg metronidazoleby mouth, 3 times a day

Stop giving these antibiotics when the signs of infection have been gone for 48 hours. Then start giving doxycycline tablets.

When signs have been gone for 48 hours

- give 100 mg doxycycline by mouth, 2 times a day for 10 days

If you cannot inject medicines or you do not have the above medicines

You can give medicines by mouth instead.

- give 3.5 g ampicillin.....by mouth, 1 time only
and
- give 100 mg doxycyclineby mouth, 2 times a day
for 10 days

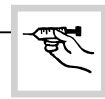
Tetanus (lockjaw)

Tetanus is a type of infection that can be caused by unsafe abortion.

Women who have not been vaccinated against tetanus face a high risk of becoming sick or even dying from tetanus if anything that was not sterilized was put into their womb during an abortion.



If a woman had an unsafe abortion and she may not have been vaccinated against tetanus in the last 10 years, give her tetanus antitoxin immediately.

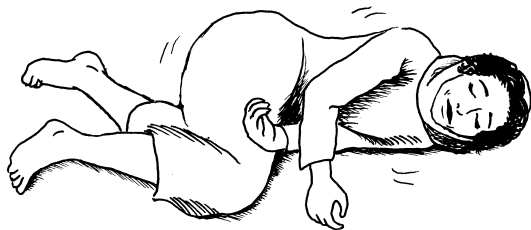


To protect against a tetanus infection

- inject 1500 Units tetanus antitoxinin the muscle
and 4 weeks later
- inject 0.5 ml tetanus toxoid vaccination.....in the muscle

Signs of tetanus

- headache
- difficulty swallowing
- stiff neck
- jaw spasms
- tense or rigid body
- painful muscle contractions or spasms
- convulsions



Signs of a tetanus infection might start weeks after the infection happened.

If a woman is sick with tetanus, get medical help right away. On the way, help her lie down on her side, keep her calm, and protect her from light.

All women should receive vaccinations to prevent them from getting tetanus. See page 102 for information on tetanus vaccinations.

Bleeding

It is normal to bleed about the same amount as regular monthly bleeding for a few days after a miscarriage or abortion. Some women keep bleeding a small amount for up to 2 weeks. After a couple of days, the blood should be dark, not bright red. More bleeding than this is not normal and could be dangerous. If a woman is bleeding a lot after an abortion, especially if the blood is bright red and has few clots, it means the blood is fresh and flowing. She is in danger and the bleeding must be stopped. If she keeps bleeding she could go into shock (page 414) or even die.

Women bleed too much after an abortion or miscarriage when:

- the womb does not contract normally.
- tissue is left inside the womb.
- there is an injury inside the body (see page 413).

A woman can help herself if she is bleeding heavily



If a woman is bleeding and she is by herself with no one to help her, she can try to stop the bleeding herself. This method is probably not enough to stop the bleeding, but it may slow it down.

Help the womb contract by rubbing the lower belly very hard while lying down or squatting. If there is tissue in the womb, a woman may be able to push it out by bearing down as if she is having a bowel movement or pushing a baby out.

To help a woman who is bleeding

1. Help stop the bleeding by emptying the womb (see page 407).





2. Rub her womb every few hours until it is hard (see page 224) to help it push out the blood and tissue inside of it.
3. Check the woman for infection.
4. Watch the woman for signs of shock (see page 414).

Internal injury (injury inside the body)

An internal injury from an abortion is most often caused by a sharp tool making a hole in the womb. The object may also cause harm to other organs inside the body such as the ovaries, intestines, or bladder.

When a woman has internal injuries she may have bleeding inside her belly that you cannot see. Or she may have bleeding from her vagina that you can see.

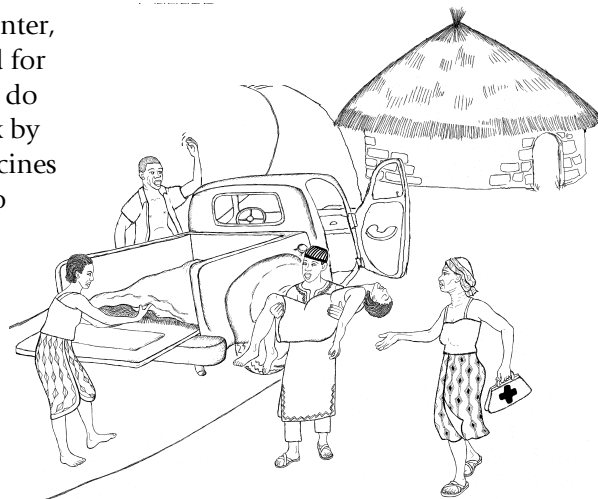
WARNING SIGNS

- Belly feels stiff and hard with no sounds or gurgles inside.
- Very bad pain or cramps in the belly.
- Fever with chills or shivering.
- Nausea and vomiting.
- Pain in one or both shoulders.
- Shock.



WARNING! Immediately take any woman with an internal injury to a hospital or medical center to have surgery. Without surgery she could die.

On the way to a medical center, treat the woman as you would for shock (see the next page), but do not give her any food or drink by mouth. (It is OK to give medicines by mouth and a little water so the woman can swallow the medicine.)



Shock

If a woman has a serious infection or bleeds heavily, she may go into shock.

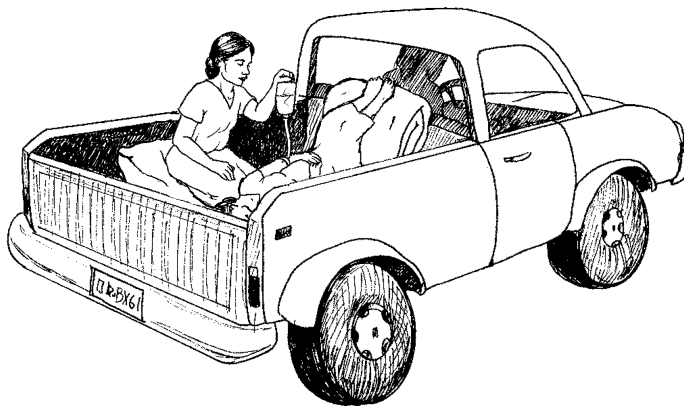
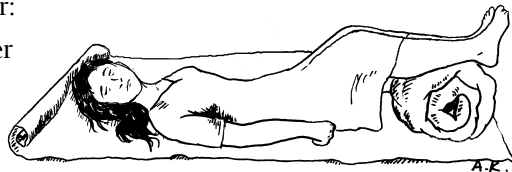
WARNING SIGNS

- She feels faint, dizzy, weak, or confused.
- She is pale and has a cold sweat.
- Fast pulse, over 100 beats a minute.
- Fast breathing.
- Dropping blood pressure.
- Sometimes loss of consciousness.

Get medical help fast. You must treat the shock first to save her life. Then follow the directions earlier in this chapter to stop her bleeding or infection.

On the way to a medical center:

- Have the woman lie with her feet higher than her head, and her head turned to one side.
- Give her fluids. If she is conscious, she can drink water or rehydration drink (see page 160). If she is not conscious, you can give her rectal fluids (see page 342) or an IV if you know how (see page 350).



- If she is unconscious, do not give her anything by mouth — no medicines, drink, or food.

Work with the community to prevent unsafe abortions

Much of the information in this chapter is about how to save a woman's life after an unsafe or incomplete abortion. You can do more to protect women's health by working to understand and prevent the causes of unsafe abortion in your community.

Think about how things can change so that women will not need to have unsafe abortions. Then work to prevent these unsafe practices in your community. Some midwives have helped teach women about family planning. Others have worked to change community ideas about abortion. Others have worked to change laws.

Help women and others in the community discuss the shame and fear women feel if they are sick after an unsafe abortion. Work to find community solutions to help more women get the care they need.



CHAPTER 23

Manual vacuum aspiration (MVA)

In this chapter:

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Preventing pain during MVA 419 doing MVA 420

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Manual vacuum aspiration (MVA)

CHAPTER
23

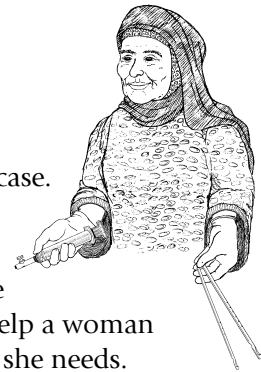


Manual vacuum aspiration (MVA) is a fast and safe way to empty the womb using a large syringe and cannula. It can be used:

- to help a woman who has had a miscarriage or abortion that was not complete.
- to regulate monthly bleeding.
- to end an unwanted pregnancy.

Using MVA to empty the womb is done the same way in each case.

In this book we explain how to use MVA to help women who have had incomplete abortions or miscarriages — when a pregnancy ends early but some tissue is left in the womb. Also see Chapter 22, starting on page 400, which explains other ways to help a woman after an abortion or miscarriage. MVA is only part of the care that she needs.



MVA is safer, simpler, and less expensive than other methods used to empty the womb. While other methods are usually only done by doctors in medical centers, MVA can be done by midwives, nurses, or anyone who has been trained, who has the right tools, and who can sterilize those tools. If midwives and others learn to use MVA safely, more women, especially poor women and women who live in villages far from medical care, will have access to safe abortions and to life-saving care after incomplete miscarriage and abortion.

Some notes about learning MVA

- Before you read this chapter you must understand **infection prevention** (Chapter 5, see page 48) and **pelvic exams** (Chapter 20, see page 372).
- Find out what the law is where you live. In some places, midwives are encouraged to learn MVA. In other places, midwives are not allowed to practice it.
- Doing MVA can cause an infection in the womb or injury to the womb. Use this chapter to help you learn, but remember, you cannot learn as much from a book as you can from an experienced teacher. **You must be trained to do MVA by someone with experience.**

Deciding when to do MVA

Women who have tissue left in the womb after an incomplete miscarriage or abortion can die from infection or bleeding. MVA can help save their lives.



But MVA is also dangerous unless it is done carefully. To do MVA, you must put something into a woman's womb. Putting anything inside a woman's womb is risky because if it is not done correctly, it can give her a serious infection, or injure her womb.

Also, MVA can be done safely only up to 12 weeks of pregnancy.

Before you do an MVA, you should be sure that there is not a safer alternative. Is there a medical center nearby where health workers can empty the womb?

Would this be an appropriate time to use misoprostol (see page 408) instead of MVA? **Only use MVA if it is the safest way to empty the womb.** To make an MVA safe you must:

Have sterilized equipment

Everything that goes inside a woman's womb must be sterilized (see page 59). If you cannot sterilize your tools before doing an MVA, you cannot make it safe and you should not do it!



Be trained and experienced

You cannot learn enough from any book, including this book, to do an MVA safely. You must be trained by an experienced person. Learn as much as you can from books, classes, and teachers. Help someone more experienced when she is doing an MVA so you can watch and learn.

Know that MVA is the appropriate care for the woman

Talk with the woman about why she needs an MVA. Check her physical signs, like pulse and temperature, to see if she needs other medical care as well. Find out how long she has been pregnant. **MVA is only safe during the first 12 weeks (or 3 months) of a pregnancy.** That is 12 weeks after the woman's last monthly bleeding. After that, the pregnancy is too far along for MVA to work. Only try to do MVA after 12 weeks if the woman is in serious danger after incomplete abortion or miscarriage, and you have no other way to help her. See page 88 for methods to help you know how long a woman has been pregnant.

To be sure that a woman is less than 3 months pregnant, you should do a bimanual exam (see page 384) before doing an MVA.

Incomplete abortion

A woman with an incomplete miscarriage or abortion is in serious danger. The womb must be emptied right away. Look for these signs of infection or injury:

- severe pain in the lower belly
- heavy bleeding from the vagina
- fast pulse (over 100 beats a minute)
- high temperature (over 38°C or 100.4°F)
- low or dropping blood pressure

See page 406 to help a woman with these signs, or take her to a medical center right away.

Getting ready for the MVA

Help the woman to be comfortable

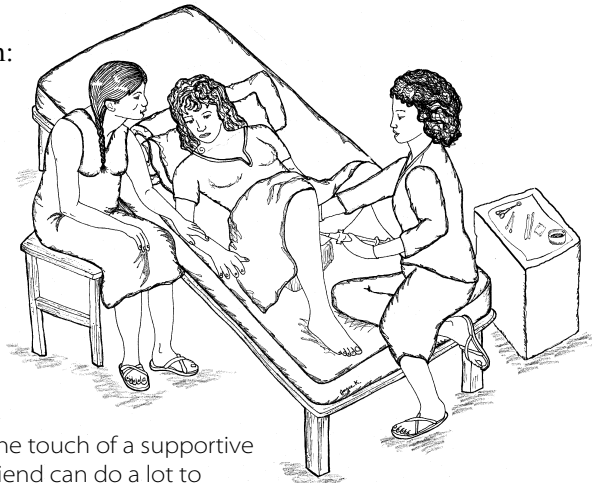
Tell the woman what you will be doing. Answer any questions that she has.

You should find a private place to do the MVA where others are not watching, and be sure to keep everything about her care confidential (see page 7).

Preventing pain during MVA

MVA can be painful. There are some things you can do to reduce the pain:

- Always tell the woman what you are doing and encourage her to ask questions.
- Move smoothly and do not rush.
- Show the woman how to take slow, deep breaths. This can help her body relax. You can take slow deep breaths too! This will help you be gentle and careful.



The touch of a supportive friend can do a lot to lessen a woman's pain

Even when you are very gentle, there can be pain. Medicine to stop pain can be expensive and may cause unhealthy side effects, but you may want to offer it to women if you can get it. Women should not have to suffer pain unnecessarily.

And remember — pain medicine cannot replace gentle and respectful care.

There are 2 types of medicine to lessen pain from MVA. You can give pills by mouth or give an injection near the cervix to numb that part of the body.



To prevent pain

- give 500 to 1000 mg of paracetamolby mouth,
20 minutes before
you start the MVA

or

- see page 424 for instructions on giving an injection to numb the cervix

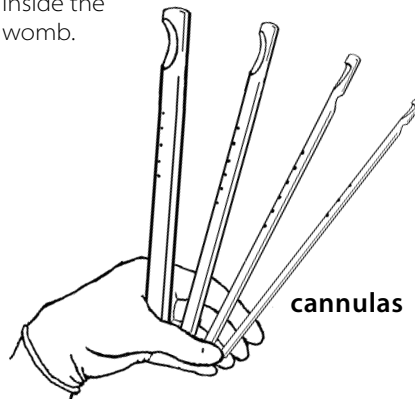
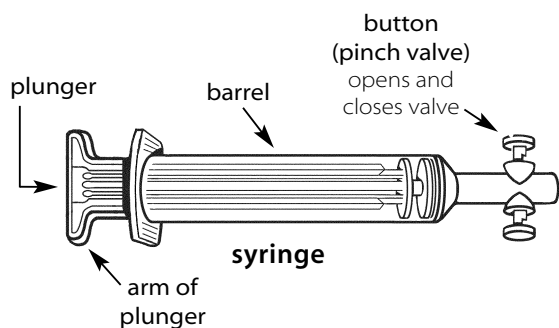
Prepare tools and supplies for doing MVA

There are several different devices used to do MVA. In this chapter, we explain how to use an MVA kit made by an organization named Ipas. (See page 499 to find out how to purchase MVA kits.)

MVA kits have 2 main parts:

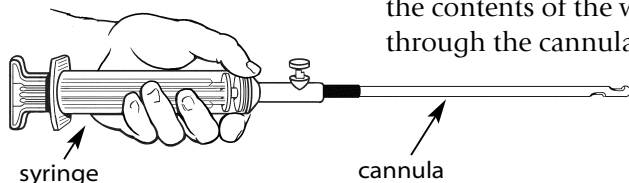
One part is a 50 cc syringe with a wide opening that creates a vacuum to pull the contents of the womb out.

The other main part of the kit is a set of plastic tubes called cannulas. One end of the cannula will be attached to the syringe. The other end will be put inside the womb.



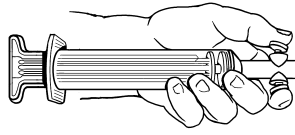
How the syringe works

When the buttons on the syringe are pushed in, the valve is opened and the contents of the womb are sucked through the cannula into the syringe.



Taking care of the syringe

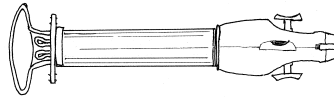
The syringe for MVA should be taken apart and carefully cleaned after each use. Before using it again, lubricate the rubber ring at the bottom of the plunger of the syringe with a little silicone lubricant or even a little vegetable oil. Read any directions that came with the syringe to learn how to care for it.



A 1-valve syringe for pregnancies of less than 8 weeks



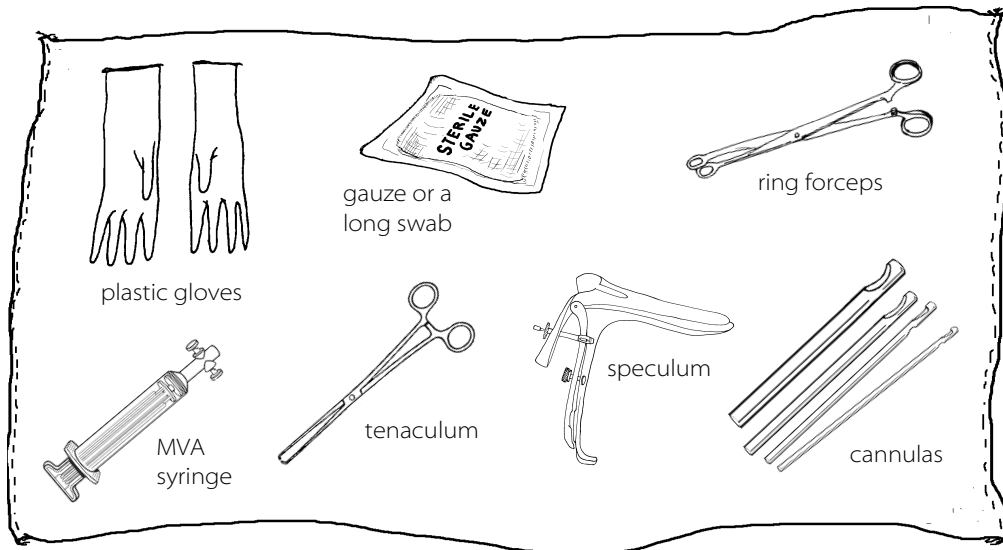
A 2-valve syringe for any pregnancy up to 12 weeks



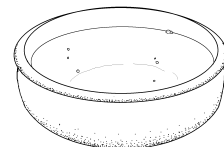
The *MVA plus* syringe for any pregnancy up to 12 weeks

Sterilize your tools

Sterilize all the tools that you will put inside the vagina or the womb (see page 59) and lay them out on a sterilized cloth, paper, or dish. You must wear sterile gloves any time you touch a sterile tool.



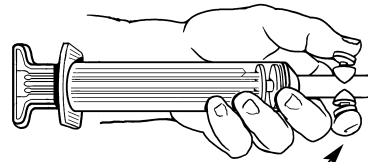
You will also need a small bowl of antiseptic like *Hibiclens* or betadine to clean the outside of the cervix. And be sure you have a good source of light.



Doing the MVA

1. Create a vacuum in the syringe:

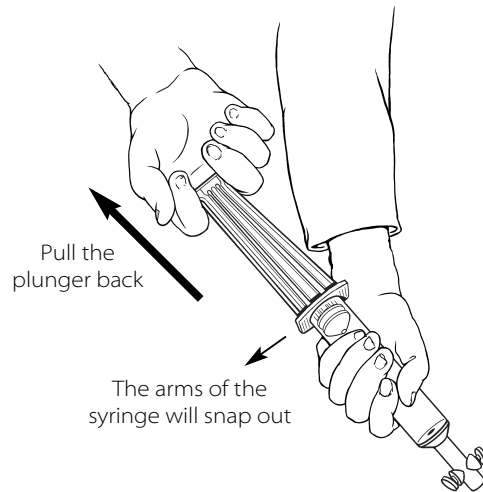
Close the valve by pushing the buttons inward and forward — the buttons will make a “click” sound and will stay stuck in place until you open them again.



Push the buttons inward and forward

Hold the barrel of the syringe with one hand and pull the plunger back with the other hand, until the arms of the plunger snap outward at the end of the syringe barrel.

Check the arms of the plunger. They should both be out as far as they can go. With the arms snapped in this position, you should not be able to push the plunger back into the barrel.

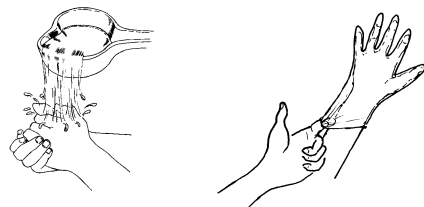


WARNING! Never squeeze the arms of the plunger together or push the plunger into the barrel while doing an MVA. That would push the contents of the syringe back up into the woman’s womb. **This could kill the woman.**

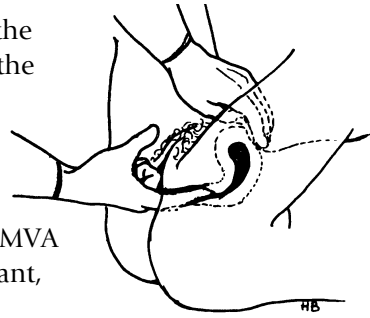
2. Shine a light on the woman’s genitals so you can see well. You may need a helper to hold the light.

3. Wash your hands with soap and water for several minutes (see page 53). Let your hands dry in the air.

Put clean plastic gloves on your hands.



4. When the woman tells you she is ready, follow the steps on page 384 to do a bimanual exam. Feel the size of the womb. The womb should be the right size for the number of weeks the woman has told you that she was pregnant. If her womb is very big, she might have been pregnant for longer than she thinks. Do not do MVA for a woman who is more than 3 months pregnant, unless she is having serious problems from an incomplete abortion and you have no other way to help her.

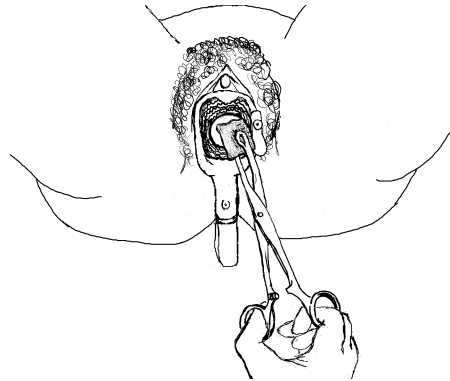


5. Take off your gloves, wash your hands, and put on new, sterile gloves. This will allow you to keep all the tools for the MVA sterile as you do the procedure.

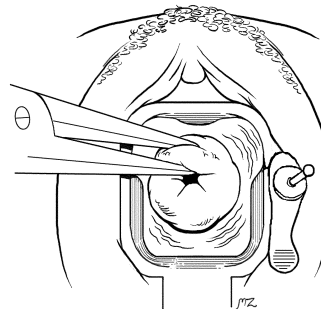
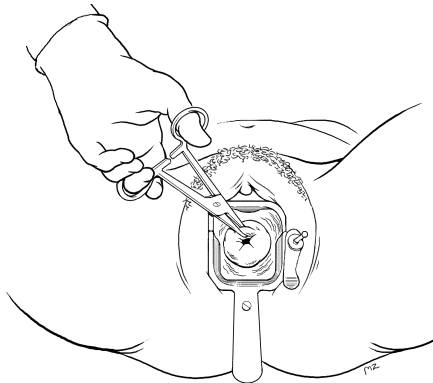
6. Gently insert a speculum (see page 377).



7. Dip a piece of sterile gauze held with the ring forceps, or a long swab, into antiseptic. Use the gauze or swab to wash the cervix.



8. Ask the woman to breathe deeply and relax. When she is ready, grasp the cervix with a tenaculum or a ring forceps. Close the tenaculum and pull it a little to straighten the womb. This can be very uncomfortable for the woman, so be gentle and tell her what you are doing.



9. If you have decided to give an injection to numb the cervix, do so now.

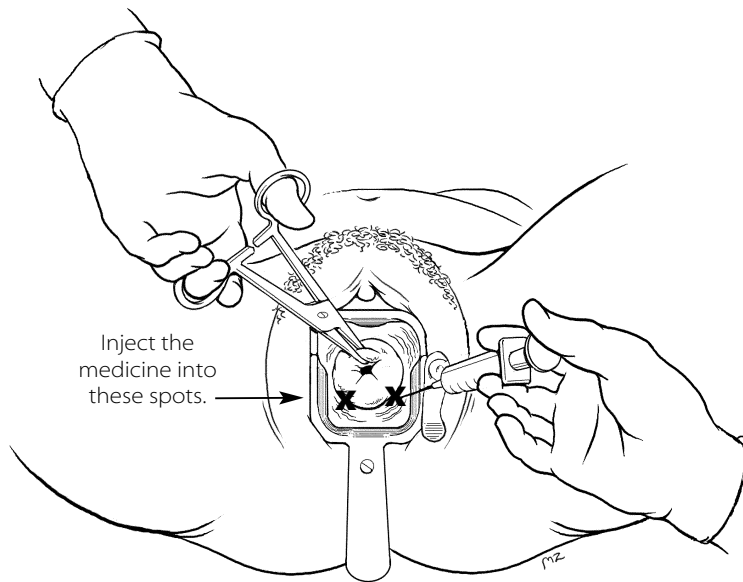
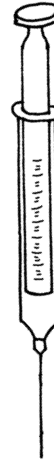
Injection to numb the cervix

You will need a sterilized 22-gauge spinal needle (or a needle extender) and a local anesthetic with **no epinephrine** in it. 1% lidocaine is one example of a local anesthetic to use.

Before you give the injection, ask the woman if she has had this kind of anesthetic medicine before. Find out if she ever had a bad reaction to this medicine. If she has had a bad reaction, do not give the injection.

Use the tenaculum to move the cervix a little to the side until you can see the place where the cervix (which is smooth) joins the vagina (which is more rough).

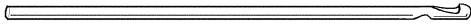
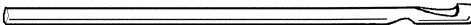
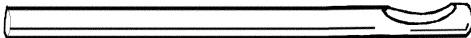
Follow the directions on pages 345 to 349 to give an injection.



Insert the needle about 1 centimeter under the skin and inject 2 milliliters of medicine slowly as you pull the needle out. Repeat on the other side of the cervix.

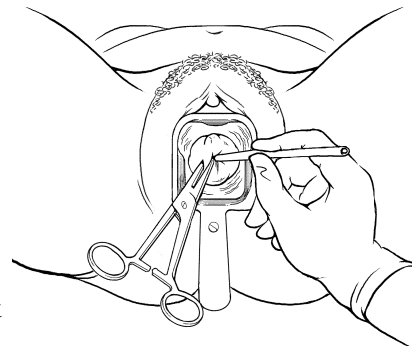
The medicine will take about 3 minutes to numb the cervix. The woman may still feel cramping after the injection, but it will not hurt as much.

10. Choose a cannula. Cannulas come in many different sizes (the size may be printed on it). **The larger a woman's womb is, the larger a cannula you should use.** This chart gives you an idea of which cannula might work best:

For a woman who is 5 to 7 weeks pregnantuse a 5 mm cannula (9 cm long womb)	
7 to 9 weeks pregnantuse a 6 mm cannula (10 cm long womb)	
9 to 12 weeks pregnantuse a 7, 8, 9, 10, or 12 mm cannula (12 cm long womb)	

11. Some types of cannula need an adapter to fit onto some syringes. If you need an adapter, attach one now.

12. Tell the woman that you are ready to start. When she is ready, gently push the sterilized cannula through the opening in the cervix. Do not let the cannula touch anything — even the walls of the vagina — before it goes into the cervix. Sometimes the cervix is too tight to let a large cannula in. If this is the case, first insert a small cannula into the cervix, and then take it out and put in a larger cannula.

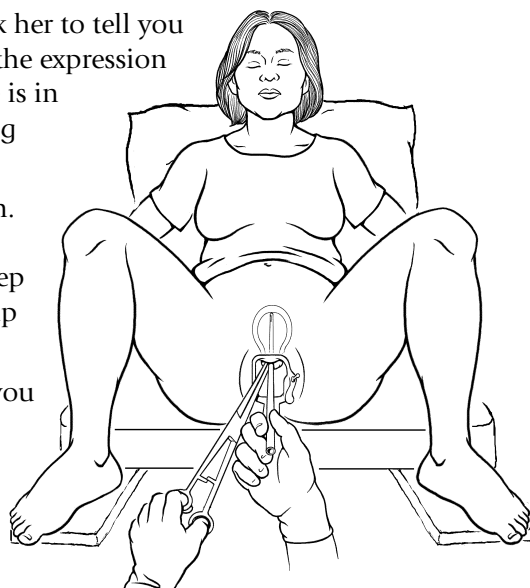


Try gently turning the cannula as it passes through the cervix. This will make it easier to insert.

As you insert a cannula, pay attention to the woman to make sure she is not in pain. Ask her to tell you if the procedure hurts. Sometimes the expression on a woman's face will tell you she is in pain even though she is not making any sounds.

If the woman is in pain, slow down. Moving slowly will help prevent injuries. Ask the woman to take deep breaths to help her relax and to help her cervix open.

13. Gently guide the cannula in until you feel it stop at the top of the womb. When you feel the top of the womb, pull the cannula back just a little. If you need to, you can let go of the tenaculum.



The vagus nerve

Sometimes when a cannula is put into a woman's womb, she feels lightheaded, dizzy, or nauseated. She may faint. This is usually because pressure was put on her vagus nerve.

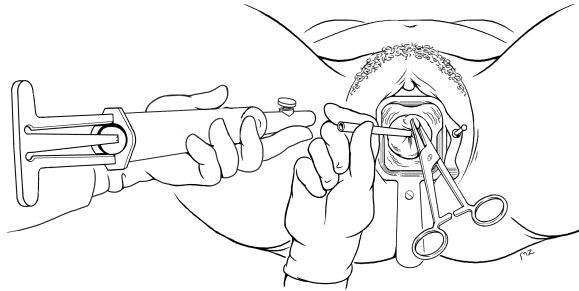
The vagus nerve starts in the back of the brain inside the head and travels all the way down the back and then down each leg. This nerve passes close behind the womb, and when something like a cannula is put into the womb it may press on this nerve.

Signs of a vagal reaction:

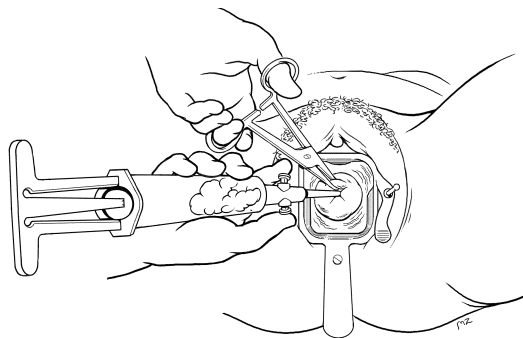
- The woman may become sweaty, cold, or pale.
- Her pulse gets faster, and her blood pressure lowers.
- She feels faint, dizzy, or nauseated.

This feels uncomfortable for the woman, but it is not dangerous. Stop the MVA. Remove the cannula, tenaculum, and speculum. Help her move off of her back and onto her side, keep her warm and calm, and wait until the feeling passes. When she feels better, you can start the MVA again.

14. Hold the syringe with one hand and the cannula with the other. Attach the syringe to the cannula by pulling the cannula slightly back onto the syringe. Make sure you do not push the cannula forward into the womb. Pushing too far will injure the womb.



15. Pinch the buttons on the syringe toward yourself to open the valve. The buttons will make a clicking sound. Foamy and bubbly fluid and some blood and tissue from the pregnancy will flow from the womb into the syringe. Some blood may also come out into the vagina.

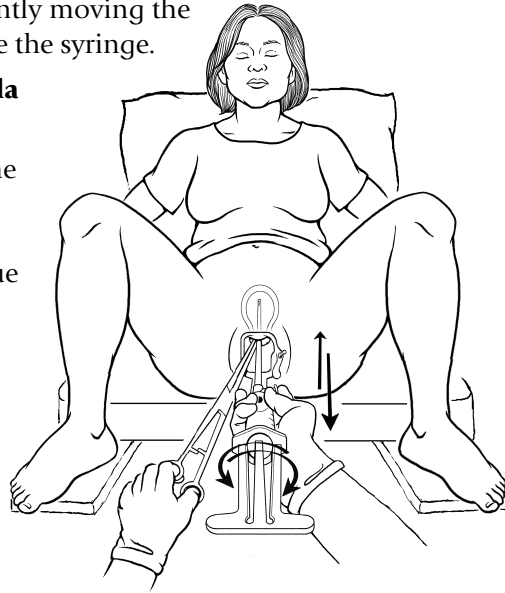


16. Empty the womb by slowly and gently moving the cannula in and out while you rotate the syringe.

Do not pull the tip of the cannula out of the womb.

If you pull the cannula tip out of the cervix, the vacuum will be broken. Even if you push the cannula back into the womb, it will not pull tissue anymore. The MVA will not be complete.

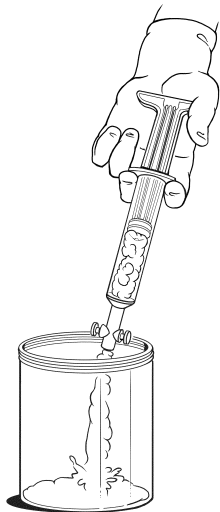
Do not push the cannula too far in or you could injure the womb.



17. Keep moving and turning the syringe until the womb is empty. Usually, the womb empties within 5 minutes.

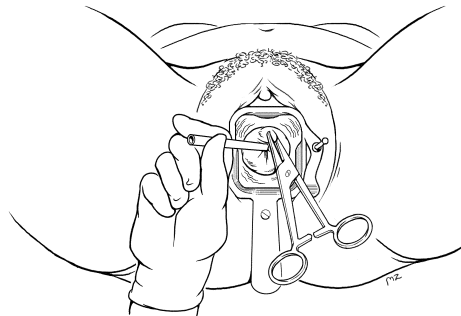
These are the signs that the womb is empty:

- There is only pinkish foam in the cannula.
- There is no more tissue in the cannula.
- When you touch the cannula tip to the inside of the womb, it feels rough and gritty.
- The womb tightens down and “grips” the cannula.



18. When the womb is empty, take the syringe off the cannula. Empty the syringe into a clear container, like a glass jar.

Now gently pull out the cannula, and then remove the tenaculum and take out the speculum.



19. Look at the tissue from the womb to see if it is complete.

It is important to know if you have removed all the tissue, because if any is left inside the womb it can cause infection and bleeding.

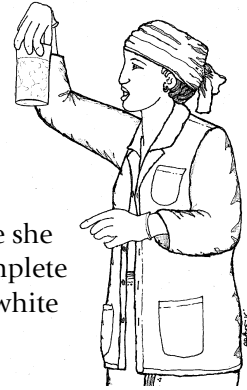
Pour the tissue through a sieve or add some clean water to the jar it is in. What you see will depend on why the woman needed the MVA.

If the woman had an MVA to end a pregnancy or because she was bleeding from a miscarriage, you should see the complete pregnancy. After 4 weeks of pregnancy, there should be white or yellowish feathery tissue attached to a small, clear sac.

If you do not see all this material, repeat the MVA.

If you are doing an MVA to empty the womb after an incomplete abortion or incomplete miscarriage, you might not see all of this tissue. Some of it may have already passed out of the womb. Take note of what you see anyway.

If you did not see the complete pregnancy tissue when you did the MVA, and the woman has bleeding or signs of infection later, you should repeat the procedure.



20. Use the suggestions on page 67 to 69 to safely dispose of the bloody tissue.

Problems with the MVA

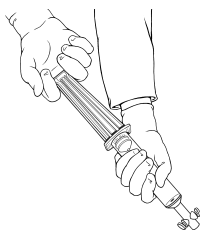
There are some problems that can happen during MVA that will prevent the MVA from being complete. You must solve them to finish the MVA and to protect the woman from bleeding or becoming ill after the MVA.

The cannula comes out of the womb

If the tip of the cannula comes out of the womb after the valves have been opened, even if it comes out just a little, the vacuum will be lost. The syringe will not be able to remove any more tissue.

Solution:

1. Take the syringe off of the cannula.
2. Empty the syringe.
3. Put a new, sterilized cannula into the womb.



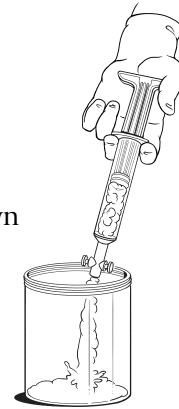
4. Make a new vacuum in the syringe — push the buttons down and forward to close the valves, and pull back the arms until they snap out at the end of the syringe barrel.
5. Gently attach the cannula to the syringe.
6. Open the valves by pushing the buttons toward yourself to continue emptying the womb.

The syringe is full

When the syringe is mostly full, it will not have enough vacuum to empty the rest of the tissue out of the womb.

Solution:

1. Take the syringe off of the cannula, leaving the cannula in the womb.
2. Empty the syringe.
3. Make a new vacuum in the syringe: Push the buttons down and in to close the valves, and pull back the arms until they snap out at the end of the syringe barrel.
4. Gently attach the cannula to the syringe again.
5. Open the valves by pushing the buttons toward yourself to continue emptying the womb.

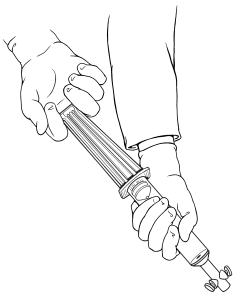


The cannula becomes clogged

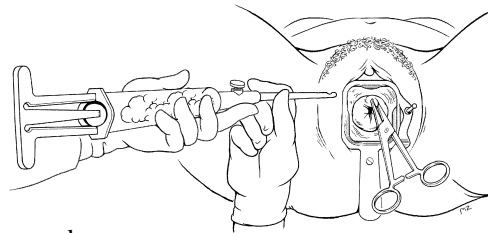
Solution:

1. Remove the syringe and cannula from the womb and take the syringe off of the cannula.
2. Empty the syringe.
3. Put a new, sterilized cannula into the womb.

You may need a larger-sized cannula.



4. Make a new vacuum in the syringe: Push the buttons down and forward to close the valves, and pull back the arms until they snap out at the end of the syringe barrel.
5. Gently attach the cannula to the syringe.
6. Open the valves by pushing the buttons toward yourself to continue emptying the womb.



Sometimes there is a piece of tissue stuck in the cervix that continues to clog the cannula. You may be able to remove it with a pair of sterilized forceps.

The womb is too big to empty using MVA

Sometimes you may think that a woman's womb is small enough to do MVA, but after you start the MVA, you find out that it is too large. She may think she became pregnant later than she actually did. Or her womb may have felt smaller than it really was.

Solution:

If you start to do an MVA, but you cannot empty the womb all the way, first try using a larger cannula. But if you still cannot empty the womb, you must find someone else to empty her womb right away. Even if you must go to a distant hospital, you must get help. She is in serious danger.

You may also:

- give misoprostol to empty the womb (see page 408).
- watch for signs of infection (see page 409).



Problems that MVA can cause

MVA can cause problems if it is done incorrectly. Even experienced midwives will sometimes see problems after MVA. The most common problems are:

- incomplete MVA (see page 407).
- infection (see page 409).
- injury to the womb (see page 413).

After the MVA

For the next day and night, check on the woman regularly to make sure she is OK. Check her temperature and pulse for signs of infection and check to see how much she is bleeding.

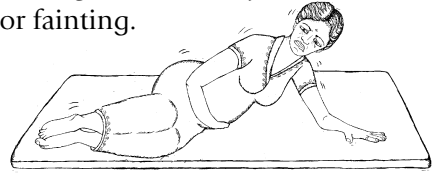
Tell the woman what to expect after the MVA. She should know to get help if she has any warning signs.

HEALTHY SIGNS

- Bleeding about as much as regular monthly bleeding for a few days to a week.
- Some cramping for 2 or 3 days.

WARNING SIGNS

- Bleeding that is more than her usual monthly bleeding — especially bright red blood or large clots.
- Bleeding for more than two weeks after the MVA.
- Bad-smelling discharge from the vagina.
- Womb that stays enlarged or that grows bigger after the MVA.
- Strong pain, increasing pain, or cramping or pain in the belly or pelvis for more than 3 or 4 days.
- Fever, chills, or feeling ill.
- Feeling weak or dizzy, or fainting.



If the woman is bleeding more than a normal monthly bleeding, rub her womb every few hours (see page 224) to keep it hard and to push out any blood clots. Putting a bag of ice on her belly for 15 or 20 minutes may help too.

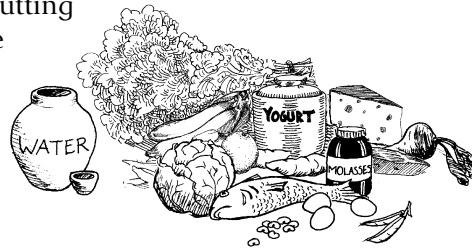
If she continues to bleed or has any other danger signs, get medical help.

Staying healthy after an MVA

Tell the woman what she should expect while her body heals. It is normal for her body to take a couple of weeks to feel like it did before she was pregnant. Tell her what warning signs to look for. And be sure the woman has a chance to talk about how she feels. Some women have fear, sadness, or other feelings after an MVA.

For the next few weeks, the woman should take care of her body so she can heal quickly and completely. She should avoid putting anything in her vagina and should not have sexual intercourse until she stops bleeding.

Encourage the woman to drink plenty of liquids and to eat good, healthy foods. She should rest for a few days if possible.

**Family planning**

After an MVA, ask the woman if she wants to know more about family planning. It is just as easy for a woman to become pregnant after an MVA as at any other time. Also, the woman may have had the MVA because she had a pregnancy that she did not want. See Chapter 17, page 298, to help her find a family planning method that works for her.

mifepristone

Mifepristone can be used with misoprostol or other medicines to end a pregnancy in the first 9 weeks.

Important: It is best to be close to medical help when taking this medicine in case it does not empty the womb completely.

Often comes in: tablets of 200 mg.



How to use:

See directions for using with misoprostol below.

Other drugs that may work: misoprostol.



WARNING: If this medicine does not end the pregnancy completely, the womb must be emptied by MVA or D&C abortion.

misoprostol

Misoprostol helps empty the womb or stop heavy bleeding after a birth.

Important: Misoprostol is usually used with another medicine called mifepristone to end a pregnancy. Used by itself, misoprostol may not completely empty the womb. An abortion caused by misoprostol may take several hours to several days to finish.

After an incomplete abortion, misoprostol can empty the womb and help save a woman's life.

Wetting misoprostol tablets before giving them may make them more effective.

continued...

misoprostol *continued*

Side effects: Nausea, vomiting, diarrhea, headache. If the woman is breastfeeding, misoprostol will cause diarrhea in infants.

Often comes in: tablets of 100 or 200 micrograms.



How to use:

For delivering the placenta (see p. 228), give 600 micrograms by mouth.

To slow heavy bleeding after a birth (see p. 231), put 1000 micrograms in the rectum.

For incomplete abortion (see p. 408), put 800 micrograms high in the vagina. You can repeat the dose 24 hours later if necessary.

To end a pregnancy with misoprostol and mifepristone (see p. 408), give 200 mg mifepristone by mouth and then 2 days later put 800 micrograms misoprostol high in the vagina.

or if you do not have mifepristone, put 800 micrograms misoprostol in the vagina once a day for 2 days. Be ready to get medical help if the womb does not empty completely.



WARNING: Do not use misoprostol to empty the womb (end a pregnancy) after the 3rd month.

Never use misoprostol to speed up or start a labor. It could cause the womb to tear open.