

Medicines Pages

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Medicines Pages

Medicines are drugs that are used to help the body fight problems like bleeding, allergy, or infection. Some medicines reduce pain.

When we refer to medicines in this book, we usually mean both modern and traditional medicines, but this part of the book is mostly about the modern medicines that are used for women and babies during pregnancy, birth, and after birth.



Traditional medicines vary a lot from one place to another, so a remedy that is used in one place may not be available anywhere else. You can write down the local medicines that you use in the back of this section — and if you translate this book, be sure to include traditional medicines from your community.



WARNING! Most of the time, pregnancy and birth are normal and safe and medicine is not needed. Most health problems are best treated by resting, drinking plenty of liquids, and eating healthy foods. Medicines can be expensive and many have uncomfortable or dangerous side effects. Most medicines pass through the mother's blood or breast milk to her baby. For all of these reasons, **pregnant and breastfeeding women should avoid using medicines** unless they are truly needed.

When to use medicines

Only use a medicine when you know what is causing a problem and you are sure the medicine will help that problem. See page 13 to decide the cause and find the best treatment for a problem.

Before giving a medicine to a woman, ask yourself these questions:

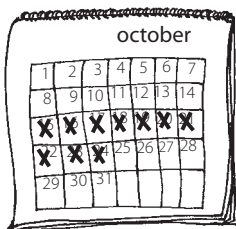
- Will she get better without this medicine?
- Is there a home remedy or traditional medicine that will work as well or better?
- Are the benefits of using this medicine greater than the cost and the risks?

How to take medicines safely

- Take the full amount.
- Do not take too much.
- Avoid taking more than 1 medicine at the same time.
- Know and watch for signs of problems.
- Know as much as you can about a medicine.

Take the full amount

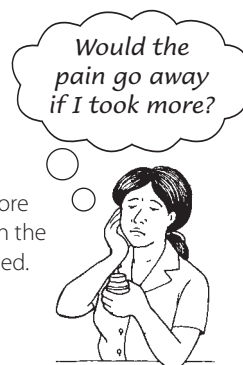
Many medicines, particularly antibiotics (see page 474) must be taken for a number of days to work. A woman who is taking medicines must take them for the full number of days she is supposed to — even if she feels better before then. This is because the medicine kills the weakest germs first and takes longer to kill the stronger germs. If some germs are not killed, the infection may come back. And because these stronger germs are harder to kill, the drug may not work to fight the disease anymore — for the individual woman who did not take her full amount of medicine, or for others in the community who get sick with the same disease. This is called drug resistance.



Do not take too much

Some people think that taking more medicine will heal the body faster. This is not true and can be dangerous! **If you take too much medicine at one time or take a medicine too often, it may cause serious harm.** See page 470.

Never take more medicine than the amount advised.



Avoid taking more than 1 medicine at the same time

Some medicines can stop other medicines from working. Some medicines cause problems when they are taken with other medicines.

Avoid combination medicines (2 or more medicines in 1 tablet). They usually cost more, and you may be putting medicine in your body that you do not need. For example, some eye drops and eye ointments contain both antibiotics and steroids. The steroids can be harmful. Combination medicines can also cause more side effects. An exception to this are antiretroviral medicines for HIV, medicines for malaria, and a few others. These combinations are often more effective and easier to take.



Know and watch for signs of problems with a medicine

Side effects

Many medicines have side effects. These are unintended effects of the medicine that are annoying or uncomfortable. Common side effects are nausea, stomach aches, headaches, or sleepiness.

Side effects can sometimes be very severe — like damage to the organs inside the body. A medicine with these effects is usually only worth taking in emergencies. Sometimes you should only take a medicine for a short time and then stop to avoid being hurt by the side effects.

Whenever you give a medicine to a woman, tell her what side effects she might have. If she has these effects, she will know it is normal and she is more likely to keep taking the medicine for the needed number of days. She will also know which effects are not normal side effects, and might show that she has an allergy.

Allergy

Some people are allergic to certain medicines. When a person is given that medicine, her body has a reaction. She may have a small, uncomfortable reaction or a very serious reaction that can endanger her life.

Do not give a medicine to someone who is allergic to that medicine. Do not give the person any medicines from the same family (see page 474).

To prevent an allergic reaction from a medicine:

1. Before giving any medicine, ask the woman if she has had itching or other problems after taking that medicine or a similar medicine in the past. If she has had a reaction in the past, do not give that medicine or any medicine from the same family.
2. Stay with a woman for 30 minutes after giving an injection. During this time, watch for signs of allergic reaction.
3. Have medicines ready to fight allergic reaction.



Signs of allergic reaction:

- skin rash
- swelling of the lips or face
- itching skin or eyes
- wheezing

For allergy

- give 25 mg diphenhydramine.....by mouth, 1 time

or

- give 25 mg promethazine.....by mouth, 1 time

You can give another 25 mg of either medicine in 6 hours if rash, itching, swelling, or wheezing has not stopped.



Signs of severe allergic reaction or allergic shock:

- pale skin
- difficulty breathing
- cold, sweaty skin
- low blood pressure
- weak, rapid pulse or heartbeat
- loss of consciousness



For allergic shock

Get medical help. On the way:

- inject 0.5 ml of 1:1000 (1 mg/ml) adrenalinein the muscle or under the skin
(subcutaneous injection), 1 time only

and

- inject 50 mg diphenhydramine.....in the muscle, 1 time only

and

- inject 500 mg hydrocortisonein the muscle, 1 time only

If the person's condition does not improve, give a second dose of adrenaline in 5 to 15 minutes, and a third dose in 5 to 15 minutes after that. Do not give more than 3 doses.

Taking too much

Some common signs of taking too much of a medicine are:

- nausea
- vomiting
- pain in the stomach
- headache
- dizziness
- ringing in the ears
- fast breathing

These can also be side effects for some medicines. If you are not sure whether the woman has taken too much, use the descriptions of the drug on the following pages to check for its common side effects.

If a woman has any of these signs and they are not common side effects of the medicine she is taking, she should stop taking the medicine and get medical help

Poisoning

Taking too much of a medicine can kill a person, especially a child. Keep medicines away from children. If you think a person may have poisoned herself from taking too much medicine, act quickly to help her:



- Try to make the person vomit. She may be able to get the extra medicine out of her body before it harms her more.
- Give activated charcoal (see page 477). Activated charcoal can absorb some kinds of drugs and keep them from acting as poison.
- Get medical help immediately.

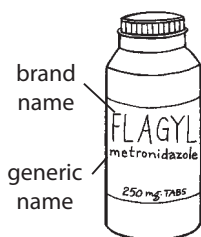
Know as much as you can about the medicine

Many medicines must be taken at a certain time of day, with food, or on an empty stomach. Certain medicines are never safe for certain people to take. For example, a woman with high blood pressure should not take ergometrine, which can make blood pressure even worse. Read the descriptions of each drug on the following pages and any information that comes with the drug, or ask pharmacists or health workers so you can learn who can take the medicine safely — and how they should take it for it to be most effective.

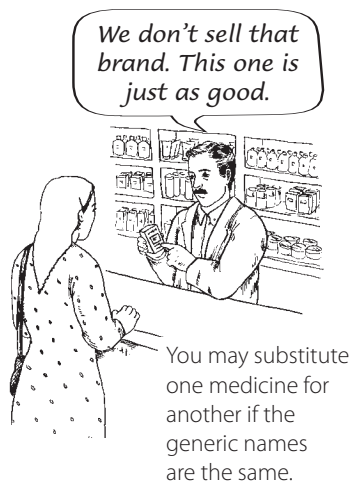
How to give medicines

Medicine names

Medicines usually have 2 names. The generic (or scientific) name is the same everywhere in the world. Some companies that make medicines give



each medicine they make a brand name. The same medicine made by 2 different companies will have 2 different brand names. In this book, we use generic names. If you need a certain medicine, any brand will do. Some brands cost much less than others.



Forms of medicines

Medicines come in different forms:

- Tablets, pills, capsules, and liquids are usually taken by mouth. Sometimes they may need to be inserted in the vagina or rectum.
- Inserts (suppositories, pessaries) are put into the vagina or the rectum.
- Injections (see page 345) are given with a needle — into a large muscle (IM), under the skin (intradermal or subcutaneous injection), or into the blood (IV).
- Liquids and syrups that are taken by mouth.
- Creams, ointments, or salves that contain medicine are applied directly to the skin or in the vagina.

In this book, we use pictures to show how a medicine should be given.



Inject medicines when we show this picture.



Give tablets, pills, capsules, or inserts when we show this picture.



Use ointment or cream when we show this picture.



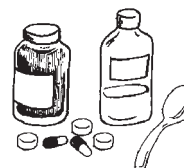
Give drops when we show this picture.



Give syrup when we show this picture.

Often, the same medicine can be given in different forms. For example, many medicines can be given by mouth or given by an injection. Usually, it is best to give medicines by mouth, because injecting can have risks. But in an emergency, injecting the medicine may be better, because it will usually work more quickly.

In this book, we recommend the most effective ways to give each medicine, but you may be able to give a medicine in another form. We do not explain how to give medicines by IV (in the vein), because this method has more risk.



How much medicine to give

Pills, tablets, and capsules come in different weights and sizes. To be sure you are giving the right amount, check how many grams (g), milligrams (mg), micrograms (mcg), or Units (U) each pill or capsule contains.

For tablets, capsules, inserts, and injectable medicines

Most tablets, capsules, inserts, and injectable medicines are measured in grams (g) and milligrams (mg):

1000 mg = 1 g
(one thousand milligrams is the same as one gram)

1 mg = 0.001 g
(one milligram is one one-thousandth part of a gram)

For example: One aspirin tablet has 325 milligrams of aspirin.

You could say that one aspirin tablet has:



.325 g
0.325 g
325 mg

All of these are different ways to say 325 milligrams.

= means **equal to** or **the same as**

+ means **and** or **plus**

$\frac{1}{2}$ tablet = **half** of a tablet =



$\frac{1}{4}$ tablet = **one quarter**
(or one fourth) of a tablet =



Some medicines, such as birth control pills, are weighed in micrograms (mcg or μcg):

1 μcg = 1 mcg = $\frac{1}{1000}$ mg = 0.001 mg
This means there are 1000 micrograms in a milligram.

Injectable medicines may be measured in Units (U) or International Units (IU).

For liquid medicines

Syrups, suspensions, and other liquid medicines are usually given in milliliters (ml) or cubic centimeters (cc). A milliliter is the same as a cubic centimeter.

1 ml = 1 cc

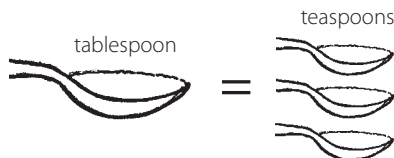
1000 ml = 1 liter

Sometimes liquids are given in teaspoons (tsp) or tablespoons (Tbs).

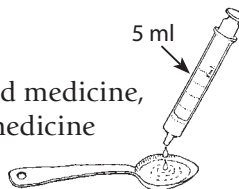
1 tsp = 5 ml

1 Tbs = 15 ml

1 Tbs = 3 tsp



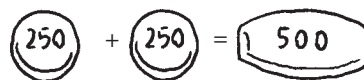
To be sure you are taking the right amount of a liquid medicine, be sure that your teaspoon is 5 ml, or measure the medicine in a syringe.



If your pharmacy does not have the correct weight or size of a medicine

You may have to give part of a pill, or more than one to get the right dose.

For example, if you only have 250 mg tablets of amoxicillin and you are supposed to give 500 mg each time, you must give 2 pills each time.



$$250 \text{ mg} + 250 \text{ mg} = 500 \text{ mg}$$

Or, if you only have 500 mg tablets of amoxicillin and you need to give 250 mg each time, you must cut each pill in half.

Dosing by weight

For most medicines in this book, we suggest doses that any adult woman can use. But for some medicines, especially ones that can be dangerous, it is better to figure out the dosage according to a person's weight (if you have a scale).

For example, if you need to give gentamicin, and the dosage says 5 mg/kg/day, this means that each day you would give 5 milligrams (mg) of the medicine for each kilogram (kg) the person weighs.

So a 50 kg woman would receive 250 mg of gentamicin during 24 hours.

This amount should be divided up into separate doses.

Dosage instructions will say how many times the medicine should be given each day.

Gentamicin should be given 3 times a day so you would give 80 mg in each dose.

**When to take medicines**

Some medicines should be taken once a day. Most must be taken more often. You do not need a clock. If the directions say:

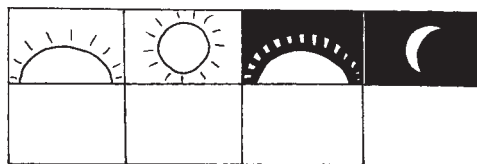
"1 tablet every 8 hours" or "3 tablets a day" take 1 at sunrise, 1 in the afternoon, and 1 at night.

"1 tablet every 6 hours" or "4 tablets a day" take 1 in the morning, 1 at midday, 1 in the late afternoon, and 1 at night.

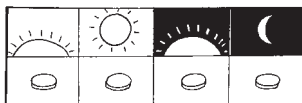
"1 tablet every 4 hours" take 6 pills a day, allowing the same amount of time between each pill.

This is because a medicine only works while it is in the body. After a certain length of time, it passes out of the body. The person must take it regularly throughout the day to keep enough medicine in her body. And taking too much at once can cause poisoning.

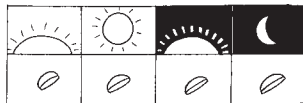
To remind someone who cannot read how often to take their medicine, you can draw them a picture like this: →



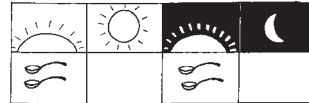
In the blanks at the bottom, draw the amount of medicine to take and carefully explain what it means. For example:



This means they should take 1 tablet 4 times a day: 1 at sunrise, 1 at midday, 1 in the late afternoon, and 1 at night.



This means $\frac{1}{2}$ tablet 4 times a day.



This means 2 spoons of syrup 2 times a day.

Kinds of medicine

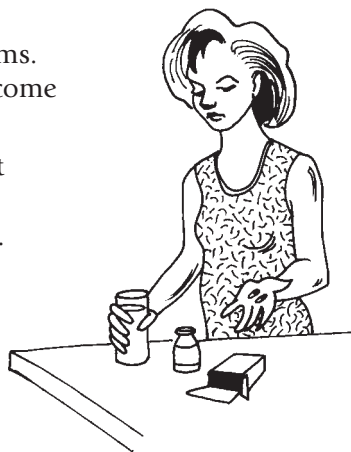
There are several different kinds of medicine listed in this book — antibiotics, pain medicines, medicines to stop allergic reactions or bleeding, and medicines to treat pre-eclampsia. We describe many individual medicines on the following pages. One group of medicines, antibiotics, needs explanation as a group.

Antibiotics

Antibiotics are used to fight infections caused by germs. Antibiotics that are similar to each other are said to come from the same family.

Antibiotics from the same family can usually treat the same problems. If you cannot get one antibiotic, another one from the same family may work instead.

A person who is allergic to one antibiotic is often also allergic to the other antibiotics in the same family. She should not take any antibiotic from that family.



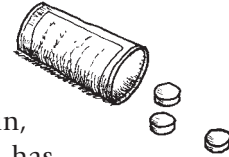
Antibiotics and their families

Penicillins: amoxicillin, ampicillin, benzathine penicillin, benzylpenicillin, dicloxacillin, procaine penicillin, and others

Penicillins work well for a variety of infections. They have very few side effects and are safe to take if pregnant or breastfeeding. They are widely available, low-cost, and can be taken by mouth or injected. Unfortunately, many people are allergic to them. Penicillins have been overused and some diseases are now resistant to them.

Macrolides: azithromycin, erythromycin, and others

Erythromycin works against many of the same infections as penicillin and doxycycline. It is safe for a woman who is pregnant or breastfeeding, or allergic to penicillin. Azithromycin, though harder to find and more expensive, is safe in pregnancy, has fewer side effects, and needs fewer doses than erythromycin.



Tetracyclines: doxycycline, tetracycline

Tetracycline and doxycycline both treat many infections and are low-cost and widely available. **Tetracyclines should not be taken by pregnant or breastfeeding women or by children under 8 years of age.**

Sulfas (sulfonamides): sulfamethoxazole (part of cotrimoxazole), sulfisoxazole

These medicines fight many different kinds of infections and they are cheap and widely available. They can be taken during pregnancy, but **it is better for pregnant and breastfeeding women to take a different medicine.** Many people are allergic to sulfas. Also, some infections have become resistant to them.

Aminoglycosides: gentamicin, streptomycin, and others

These are effective and strong medicines, but most of them can cause serious side effects and can only be given by injection. They should only be used for severe infection when no safer drug is available. **It is better for pregnant and breastfeeding women to take a different medicine.**

Cephalosporins: cefixime, ceftriaxone, cephalexin, and others

These powerful drugs treat many infections that have become resistant to the older antibiotics. They are safer and have fewer side effects than many other antibiotics, but can be very expensive and hard to find. They are safe to use during pregnancy and breastfeeding.

Use antibiotics only when necessary

Antibiotics are used much too often.

- Antibiotics can cause problems like nausea, vomiting, diarrhea, and vaginal yeast infections. Some can cause more serious side effects or allergic reactions.
- Using antibiotics when they are not needed, or for diseases they cannot cure, has made some harmful germs stronger and resistant to medicines that once killed them.

Antibiotics cannot cure illnesses caused by viruses, such as colds or hepatitis.

How to use the list of medicines

This section gives detailed information about the medicines mentioned in this book. Each medicine is listed by its generic (scientific) name, in the order of the alphabet:

a b c d e f g h i j k l m n o p q r s t u v w x y z

Information about birth control pills and medicines for HIV starts after the alphabetical list, on page 494.

To use this list, look up a medicine by its name or use the index of problems below. This index gives the page number where more information about a health problem can be found, and names the medicines we suggest for treating that health problem. Be sure to read more about any health problem before trying to treat it.

Problem	See pages	See medicines
allergic reaction	469, 470	adrenaline, diphenhydramine, hydrocortisone, promethazine
bacterial vaginosis	328	clindamycin, metronidazole
bleeding		
after birth	231	ergometrine, oxytocin, misoprostol
chancroid	331	erythromycin, ceftriaxone
chlamydia	324	erythromycin, amoxicillin, azithromycin
contraception	316	birth control pills (ethinyl estradiol, levonorgestrel, norgestrel)
eclampsia	182	magnesium sulfate, diazepam
eye care for newborns	261	erythromycin, tetracycline
genital warts (HPV)	333	bichloroacetic acid, trichloroacetic acid
gonorrhea	324	ceftriaxone, cefixime
herpes	332	acyclovir
HIV	496	atazanavir/ritonavir, efavirenz, lamivudine, nevirapine, tenofovir, zidovudine
incomplete abortion	412	ergometrine, misoprostol
infections		
bladder or kidney	129	cefixime, cotrimoxazole
in pregnancy	179	ampicillin, gentamicin, metronidazole
after birth	271	amoxicillin with clavulanic acid, ampicillin, doxycycline, gentamicin, metronidazole
in a newborn	279	ampicillin, gentamicin
breast	289	dicloxacillin, erythromycin
in the womb, from untreated STI	325	amoxicillin, azithromycin, cefixime, ceftriaxone, erythromycin, metronidazole
from female genital cutting	369	cefalexin, clindamycin
after a miscarriage or abortion	414, 415	amoxicillin with clavulanic acid, ampicillin, doxycycline, gentamicin, metronidazole, tetanus immune globulin, tetanus toxoid vaccine
malaria	98 to 99	artemisinin-based combination therapy (ACT), clindamycin, quinine
medication to numb		
for sewing a tear or doing MVA	360, 428	lidocaine
pain	289, 332, 424	paracetamol, ibuprofen
placenta not coming out	228	oxytocin
preventing infection		
for people with HIV	101, 335	cotrimoxazole
preventing infection of the womb		
after an invasive procedure or MVA	231, 424	amoxicillin, azithromycin, doxycycline, metronidazole
syphilis	330	azithromycin, benzathine benzylpenicillin, erythromycin
trichomonas	326	metronidazole
yeast	327	clotrimazole, nystatin

activated charcoal

Activated charcoal is a specially prepared charcoal used to treat poisonings by drugs like aspirin, paracetamol, chloroquine, or other medicines or chemicals, by absorbing them in the stomach.

Important: Do not give activated charcoal if the person has swallowed fuel, kerosene, lighter fluid or other petroleum products.

Side effects: Black stool, vomiting, diarrhea.

Often comes in: liquid of 25 g per 120 ml; powder 50 g



How to use:

For treating poisoning, give 50 g as soon as possible with a full glass of water. Then give 25 g every 4-6 hours for 24 hours.



WARNING: After giving activated charcoal, get medical help immediately. People who take too much of a drug or chemical can get very sick and need much more help than activated charcoal.

WARNING!

acyclovir

Acyclovir is a medicine that fights viruses including herpes.

Important: Acyclovir can reduce the symptoms of herpes infection — but it will not cure it or prevent it from coming back.

Side effects: headache, dizziness, nausea, vomiting.

Often comes in: tablets of 200 mg; powder for mixing injections.



How to use:

For the first outbreak of herpes (see p. 332), give 400 mg by mouth 3 times a day for 7 to 10 days.

For continuing herpes outbreaks, give 400 mg acyclovir by mouth, 3 times a day for 5 days.

continued...

acyclovir *continued*

For a woman with more than 6 herpes outbreaks a year, give 400 mg acyclovir by mouth, 2 times every day for 1 year. Then stop and see if the medicine is still needed.

For a pregnant woman who has had a herpes outbreak during her pregnancy, give 400 mg acyclovir by mouth, 2 times every day during the last month of pregnancy.



WARNING: This medicine may have some harmful effects in pregnancy. For pregnant women, it is best only to give this medicine for an initial herpes outbreak, or during the last month to prevent an outbreak during labor.

adrenaline

(epinephrine)

Adrenaline is used for allergic reactions or shock, for example, allergic shock caused by penicillin. It is also used for severe asthma attacks.

Important: Inject into muscle, the thigh is best. Take the person's pulse before injecting.

Side effects: Fear, restlessness, nervousness, tension, headaches, dizziness, increased heart rate.

Often comes in: Ampules for injection of 1 mg in 1 ml ("1 mg/ml" or "1:1000").



How to use:

For allergic reaction or shock (see p. 470), inject 0.5 ml of 1:1000 (1 mg/ml) into muscle. If signs do not improve, repeat in 20 minutes. You will also need to give other medicines.

amoxicillin

Amoxicillin is an antibiotic of the penicillin family used to treat womb infections, urine system infections, pneumonia, and other infections. It is now used instead of ampicillin in many places.

Important: Take with food. If you do not start to get better in 3 days, get medical help. You may need a different medicine.

Side effects: Diarrhea, rash, nausea, vomiting. May cause yeast infection in women or diaper rash in children.

Often comes in: tablets of 250 and 500 mg; powder for mixing injections; syrup of various strengths.

**How to use:**

For kidney infection (see p. 129), give 500 mg by mouth 3 times a day for 7 days.

For chlamydia (see p. 324), give 500 mg by mouth 3 times a day for 7 days.

For pelvic infection (see p. 325), give 500 mg by mouth 3 times a day for 7 days.

For infection after genital cutting (see p. 369), give 500 mg by mouth 3 times a day for 10 days.

For preventing infection after an invasive procedure (see p. 231), give 1 g by mouth, 1 time only. Also give metronidazole.

Other drugs that may work: Ampicillin can almost always be used instead of amoxicillin. A person who is allergic to penicillins can try erythromycin.



WARNING: Do not give amoxicillin to someone who is allergic to drugs in the penicillin family.

amoxicillin with clavulanic acid (Augmentin)

The combination of clavulanic acid and amoxicillin improves the effectiveness of amoxicillin and its ability to fight drug resistance. It is a medicine of the penicillin family used to treat womb infection and urine system infections, among others.

Important: Take with food.

Side effects: Stomach upset, diarrhea, jaundice.

Often comes in: tablets of 500 mg amoxicillin + 125 mg clavulanic acid; liquid with 125 mg amoxicillin + 31.25 mg clavulanic acid in 5 ml; liquid with 250 mg amoxicillin + 62.5 mg clavulanic acid in 5 ml.

**How to use:**

For womb infection after birth or abortion (see p. 271) (see p. 414), give 500 mg amoxicillin + 125 mg clavulanic acid by mouth 3 times a day for 10 days.

Other drugs that may work: doxycycline, metronidazole



WARNING: Do not give amoxicillin with clavulanic acid to someone who is allergic to medicines in the penicillin family. Be prepared to treat for allergic shock for someone who is allergic to medicines in the cephalosporin family.

ampicillin

Ampicillin is an antibiotic of the penicillin family used to treat many kinds of infections.

Important: Take ampicillin before eating.

Side effects: May cause stomach upset, diarrhea, and rash. May cause yeast infection in women or diaper rash in children.

Often comes in: tablets or capsules of 250 and 500 mg; liquid for injection of 125 or 250 mg per 5 ml; powder for mixing injections.

continued...

ampicillin *continued***How to use:**

For womb infection during labor (see p. 179), **after birth** (see p. 271), or **after abortion** (see p. 414), inject 2 g into muscle for the first dose, then give 1 g 4 times a day until fever has been gone 48 hours. Give with other antibiotics.

For infection in a newborn baby (see p. 279), inject in the thigh muscle for 7-10 days. For a baby that weighs 2 kg or less, use 100 mg, 2 times a day; 3 kg, use 150 mg, 3 times a day; 4 kg or more, use 200 mg, 3 times a day.

Other drugs that may work: Amoxicillin can almost always be used instead of ampicillin. A person who is allergic to penicillins can try erythromycin.



WARNING: Do not give ampicillin to someone who is allergic to drugs in the penicillin family.

artemisinin-based combination therapy (ACT) *continued*

The different types of ACT that treat malaria, include artemether + lumefantrine, artesunate + amodiaquine, artesunate + mefloquine, and artesunate + sulfadoxine-pyrimethamine (SP)..

WARNING!**aspirin**
(acetylsalicylic acid, ASA)

Aspirin works against pain, swelling and fever. A low dose can help prevent pre-eclampsia.

Important: Aspirin helps reduce signs of illness such as pain and fever, but it is important to find and treat their causes. Except when using low-dose aspirin to prevent pre-eclampsia, paracetamol is a better medicine to use during pregnancy for pain and fever. For pain more than 10 days, or fever more than 3 days, get help.

Side effects: May cause stomach upset, stomach pain, or bleeding problems.

Often comes in: tablets of 300 mg, 500 mg, and other sizes. Low dose tablets: 81 mg.

**How to use:**

For pain, swelling or fever: give 300 to 600 mg by mouth every 4 hours as needed.

For prevention of pre-eclampsia: give 81 mg by mouth one time each day after 12 weeks of pregnancy and until birth.

Other drugs that may work: For pain, swelling or fever: paracetamol (acetaminophen), ibuprofen.

WARNING!**artemisinin-based combination therapy (ACT)**

(artesunate, artemether, wormwood)

Depending on the region, chloroquine or other malaria medicines may no longer work to treat falciparum malaria. Instead, use ACT (Artemisinin-based Combination Therapy) medicines. Find out from local health authorities which of the ACT medicines work in your area.

Important: For women in the first 3 months of pregnancy, avoid ACT and give quinine + clindamycin instead (or only quinine).

**How to use:**

For malaria (see p. 99), ACT either comes as 2 medicines combined in 1 or more pills or 2 medicines in separate pills packaged together to take at the same time. ACT is always taken for 3 days, either 1 or 2 times a day, depending on the type of ACT.

continued...

azithromycin

Azithromycin is an antibiotic of the macrolide family used to treat many serious infections and STIs.

Important: Take with food

Side effects: May cause diarrhea, nausea, vomiting, abdominal pain

Often comes in: Capsules of 250 mg and 500 mg.

**How to use:**

For chlamydia (see page 324): **give** Take 1 gram (1000 mg) by mouth, 1 time only.

For pelvic infection (see p. 325): give 1 gram (1000 mg), 1 time only.

To prevent infection after abortion (see page 424): give 500 mg by mouth, one time only, 1 hour before the procedure.

For a baby with chlamydia/gonorrhea who is 7 days old or older (see p. 324), give 50 mg syrup by mouth 1 time a day for 3 days. You must also give other antibiotics.

For a person who has had syphilis less than 2 years (see p. 330), give 2 grams (2000 mg) by mouth, 1 time only.

Other drugs that may work: ampicillin or amoxicillin, or doxycycline.

benzathine benzylpenicillin (penicillin G benzathine)

Benzathine benzylpenicillin is a long-acting antibiotic of the penicillin family used to treat syphilis, genital ulcers, and other infections. It is always given as an injection into muscle.

Important: May cause yeast infection in women or diaper rash in children. Be ready to treat an allergic reaction (p. 469).

Often comes in: powder for mixing injections of 1.2 or 2.4 million Units in a 5 ml vial.

continued...

benzathine benzylpenicillin

continued

How to use:

For a person who has had syphilis for less than 2 years (see p. 330): inject 2.4 million Units into muscle, 1 time only.

For a person who has had syphilis 2 years or more: inject 2.4 million Units into muscle, 1 time a week for 3 weeks.

If a baby needs to be treated, inject about 100,000 Units into muscle 1 time only (or 50,000 Units per kilogram of the baby's weight).

Other drugs that may work: erythromycin.



WARNING: Do not give benzathine benzylpenicillin to someone who is allergic to medicines in the penicillin family.

BCG vaccine

The BCG vaccine helps to protect against getting tuberculosis (TB).

Important: The BCG vaccine is a live vaccine so it must be kept cold at all times or it will not work.

Side effects: The vaccination usually makes a sore and leaves a scar.

Often comes in: liquid for injection.

How to use:

Inject 0.1 ml in the skin (intradermal injection), usually on the upper arm.



cefaalexin

Cefalexin is an antibiotic of the cephalosporin family that is used to treat a variety of infections including skin and urinary tract infections.

Important: Be ready to treat an allergic reaction (see p. 469).

Side effects: Diarrhea, headache, rash.

Often comes in: capsules of 250 mg; liquid for injection with 125 mg in 5 ml; liquid for injection with 250 mg in 5 ml.



How to use:

For infection from female genital cutting (see p. 369): give 1 g by mouth 2 times a day for 7-10 days.

Other drugs that may work: clindamycin



WARNING: Do not give cefalexin to someone who is allergic to medicines in the cephalosporin family. Be ready to treat an allergic reaction if someone is allergic to medicines in the penicillin family.

cefixime

Cefixime is an antibiotic of the cephalosporin family that is used to treat many infections including gonorrhea, pelvic infection, and others.

Important: Be ready to treat an allergic reaction (see p. 469). People who have liver problems should be careful when taking cefixime.

Side effects: Nausea, diarrhea, headache. May cause yeast infection in women or diaper rash in children.

Often comes in: tablets of 200 or 400 mg; liquid with 100 mg in 5 ml.



How to use:

For gonorrhea (see p. 324) or pelvic infection (see p. 325), give 400 mg by mouth one time only.

continued...

cefixime *continued*

For bladder or kidney infection (see p. 129), give 200 mg by mouth 2 times a day for 5-14 days.

Other drugs that may work: ceftriaxone, erythromycin.



WARNING: Do not give cefixime to someone who is allergic to medicines in the cephalosporin family.

ceftriaxone

Ceftriaxone is a very strong antibiotic of the cephalosporin family that is injected into muscle. It is used for many infections including gonorrhea, pelvic infection, kidney infections, and serious infections after abortion, childbirth, or miscarriage.

Important: Be ready to treat an allergic reaction (see p. 469).

Side effects: May cause yeast infection in women or diaper rash in children.

Often comes in: In vials for injection of 250 and 500 mg, and 1 gram, 2 grams, and 10 grams.



How to use:

For gonorrhea (see p. 324) or chancroid (see p. 331), inject 250 mg into muscle 1 time only.

For a baby with chlamydia or gonorrhea (see p. 324), inject 125 mg ceftriaxone into the thigh muscle 1 time only. For babies 7 days old or older, you must also give another antibiotic.

Other drugs that may work: cefixime, erythromycin.



WARNING: Do not give ceftriaxone to someone who is allergic to medicines in the cephalosporin family.

WARNING!**clindamycin**

Clindamycin is a strong antibiotic. We only describe how to use it to treat malaria in women in the first 3 months of pregnancy.

Side effects: Diarrhea, vomiting, rash, metallic taste. May cause yeast infection in women or diaper rash in children.

Often comes in: capsules of 150 mg; liquid for injection of 150 mg per ml.

**How to use:**

For malaria in women in the first 3 months of pregnancy, give 600 mg by mouth 2 times a day for 7 days. You must also give quinine (see p. 98).

For bacterial vaginosis (see p. 328), give 300 mg by mouth 2 times a day for 7 days.

For infection from female genital cutting (see p. 369), give 600 mg by mouth 3 times a day for 7-10 days.



WARNING: Clindamycin can cause serious problems with the colon.

It also passes during breastfeeding to a baby.

Only use this drug when it is truly needed.

clotrimazole

Clotrimazole is an anti-fungal medicine used to treat yeast and other fungus infections in the vagina, mouth, and skin.

Side effects: Clotrimazole may irritate the skin. Stop using if you get a rash.

Often comes in: inserts for the vagina and as cream.

**How to use:**

For yeast infections in the vagina (see p. 327), put one insert high in the vagina every night, including during menstruation. Use one 100 mg insert every night for 5 nights, or one 500 mg insert for 1 night only.

Other drugs that may work: nystatin

WARNING!**cotrimoxazole****(trimethoprim + sulfamethoxazole)**

Cotrimoxazole is a combination of 2 antibiotics (one from the sulfa family) that is used to treat bladder, kidney, and other infections. It also helps prevent infections for people with HIV and AIDS.

Important: Take with lots of water.

Side effects: Stop taking cotrimoxazole if it causes allergic reactions like itching or rashes. It may also cause nausea or vomiting.

Often comes in: tablets of 120, 480, and 960 mg; liquid of 240 mg per 5 ml.

**How to use:**

For kidney infections (see p. 129), give 960 mg (160 mg trimethoprim and 800 mg sulfamethoxazole) by mouth 2 times a day for 7 days.

To prevent infections for adults with HIV, take 960 mg by mouth every day.

For children of mothers with HIV:

For babies less than 6 months old, give 120 mg of liquid every day.

For children 6 months to 6 years old, give 240 mg of liquid every day.



WARNING: Do not give cotrimoxazole to someone who is allergic to medicines in the sulfa family.

Do not give cotrimoxazole to someone already taking sulfadoxine-pyrimethamine for malaria.

diazepam



Diazepam is a tranquilizer used to treat and prevent convulsions and seizures.

Side effects: Sleepiness, loss of balance, confusion.

Often comes in: tablets of 5 or 10 mg; liquid for injections of 5 mg per 1 ml.



How to use:

For convulsions (see p. 182), give 10 mg of injectable diazepam in the rectum using a syringe without a needle (see p. 182). Repeat if needed using 10 mg, 20 minutes after the first dose. Do not give any additional doses after this. Crush diazepam tablets into water if you do not have injectable diazepam.

Other drugs that may work: magnesium sulfate.



WARNING: Diazepam is an addictive (habit-forming) drug.

Do not use diazepam with alcohol or other drugs that can make you sleepy.

Frequent or large doses of diazepam during pregnancy can cause birth defects.

This medicine also passes through breastmilk, so breastfeeding mothers should avoid it except in emergencies.

dicloxacillin

Dicloxacillin is an antibiotic of the penicillin family used to treat breast and skin infections.

Important: Be ready to treat an allergic reaction (see p. 469).

Side effects: Nausea, vomiting, diarrhea. May cause yeast infection in women or diaper rash in children.

Often comes in: capsules of 125, 250, and 500 mg; liquid with 62.5 mg per 5 ml.

continued...

dicloxacillin *continued*

How to use:

For breast infection (see p. 289), give 500 mg by mouth 4 times a day for 7 days.



Other drugs that may work: erythromycin.



WARNING: Do not give dicloxacillin to someone who is allergic to medicines in the penicillin family.

diphenhydramine



Diphenhydramine is an antihistamine that treats allergic reactions and allergic shock. It is also used for treating chronic itching and sleep problems for people with AIDS.

Side effects: Sleepiness and dryness in the mouth and nose. May cause nausea and vomiting. Very rarely causes excitement rather than sleepiness.

Often comes in: tablets or capsules of 25 or 50 mg; syrup with 12.5 mg per 5 ml; ampules for injection with 10, 30, or 50 mg in 1 ml.



How to use:

For mild to moderate allergic reaction (see p. 469), give 25 mg by mouth every 6 hours until signs go away.

For allergic shock (see p. 470), inject 50 mg into muscle. Repeat in 4 hours if signs do not improve.

Other drugs that may work: promethazine.



WARNING: Diphenhydramine is best taken by mouth. Only inject it for severe allergic reactions and shock.

Do not use diphenhydramine with alcohol or tranquilizers. It makes the effects dangerously strong.

This medicine is OK to use in emergencies, but should not be used regularly in pregnancy or while breastfeeding.

doxycycline


Doxycycline is an antibiotic of the tetracycline family used to treat many different infections.

Important: Take pills while sitting up and with lots of water. Stay out of the sun or you may get a rash.

Side effects: Diarrhea, upset stomach. May cause yeast infection in women or diaper rash in children.

Often comes in: tablets of 50 and 100 mg.

WARNING!





How to use:

To prevent infection after abortion (see page 424), give 200 mg by mouth, once only, 1 hour before the procedure.

For womb infection after birth (see p. 271) or abortion (see p. 414), give 100 mg by mouth 2 times a day for 10 days.

Other drugs that may work: amoxicillin, metronidazole.





WARNING: Women who are pregnant should not take this medicine. Doxycycline can damage a baby's teeth and bones.

Women who are breastfeeding can take doxycycline for a short time to treat infections, but should avoid taking it long term.

Doxycycline may not be safe to use after it has passed its expiration date.

ergometrine

(ergonovine, methylergonovine)

Ergometrine causes contractions of the womb and its blood vessels and is used to control heavy bleeding after childbirth or an abortion.

Side effects: Nausea, vomiting, dizziness, sweating.

Important: Refrigerate ergometrine so it stays cold (between 2 to 8 degrees C, or 35 to 46 degrees F) and keep it away from light. If not it will lose strength over time. If it becomes discolored and does not look like clear water, it probably will not work.



Often comes in: tablets of 0.2 mg; in vials for injection of 0.2, 0.25, and 0.5 mg in 1 ml.


How to use:

For heavy bleeding after childbirth (see p. 231), give 0.2 mg by mouth every 6 to 12 hours,

or inject 0.2 mg in muscle every 6 to 12 hours. Do not give more than 5 doses.

Other drugs that may work: misoprostol, oxytocin.



WARNING: Do not use ergometrine to start or speed up labor or to cause an abortion.

Do not give this drug before the baby and the placenta have come out.

Do not give ergometrine to women with high blood pressure.

erythromycin

Erythromycin is an antibiotic of the macrolide family used to treat many infections. It can be used safely during pregnancy and is often a good choice when a woman is allergic to penicillin family antibiotics.

continued...

erythromycin *continued*

Important: Erythromycin works best when taken 1 hour before or 2 hours after a meal. If this makes a person nauseated, take with a little food.

Do not break up tablets. Tablets are often coated to prevent strong stomach juices from breaking down the drug before it can begin to work.

Side effects: Upset stomach, nausea, diarrhea. May cause yeast infection in women or diaper rash in children.

Often comes in: tablets or capsules of 250 mg; powder for solution of 125 mg per 5 ml; ointment of 1%.

**How to use:**

For newborn eye care (see p. 261), use 0.5% or 1% ointment 1 time only, within 2 hours of the birth.

For breast infection (see p. 289), give 500 mg by mouth 2 times a day for 7 days.

For chlamydia (see p. 324), give 500 mg by mouth 3 times a day for 7 days.

For a baby with chlamydia or gonorrhea who is 7 days old or older, give 30 mg syrup by mouth 4 times a day for 14 days. You must also give other antibiotics.

For pelvic infection (see p. 325), give 500 mg by mouth 2 times a day for 14 days.

For a person who has had syphilis 2 years or more (see p. 330), give 500 mg by mouth 4 times a day for 30 days.

Other drugs that may work: amoxicillin, benzathine benzylpenicillin, ceftriaxone, dicloxacillin, povidone iodine, procaine penicillin, silver nitrate, tetracycline eye ointment.



WARNING: Do not give erythromycin to someone who is allergic to drugs in the macrolide family.

ferrous sulfate**(iron)**

Iron is a mineral that everyone, especially a pregnant woman, needs to have healthy blood and enough energy. It is possible but difficult to get enough iron by eating meat or lots of green leafy vegetables.

Important: Eating fruits and vegetables high in vitamin C can help the body use iron better.

Side effects: Nausea, diarrhea, constipation. Iron is best taken with food.

Often comes in: tablets of many different strengths.

**How to use:**

To prevent anemia in pregnancy, give 300 to 325 mg by mouth once a day with meals, throughout pregnancy.

To treat anemia (see p. 116), give 300 to 325 mg by mouth 2 or 3 times a day until the woman no longer has signs of anemia, or throughout pregnancy.



WARNING: High doses of iron can be poisonous. Keep iron away from children.

folic acid**(folate, folacin)**

Folic acid is an important vitamin that helps prevent birth defects when the mother takes it early in pregnancy.

Often comes in: tablets of 0.04 mg, 1 mg, 5 mg

**How to use:**

To prevent birth defects (see p. 37), give 0.4 mg by mouth every day.

WARNING!**gentamicin**

Gentamicin is a very strong antibiotic of the aminoglycoside family that is used to treat serious infections.

Important: Use gentamicin only if the woman cannot take other drugs without vomiting, or if no other antibiotic is available. Give with plenty of fluids.

Side effects: May cause yeast infection in women or diaper rash in children.

Often comes in: vials for injection of 10 or 40 mg per ml.

**How to use:**

For womb infection during labor (see p. 179), **after birth** (see p. 271), **or after abortion** (see p. 414), inject 80 mg into muscle 2 times a day until fever has been gone 48 hours. Give with other antibiotics.

For infection in a newborn that weighs 2 kg or less (see p. 279), inject 3 mg per kg the baby weighs, in the muscle, once a day for 5 days. **For infection in a newborn that weighs more than 2 kg**, inject 5 mg per kg the baby weighs, in the muscle, once a day for 5 days.

Other drugs that may work: ampicillin, benzylpenicillin, doxycycline, metronidazole



WARNING: Gentamicin can damage the kidneys and cause deafness. When it is given in pregnancy, it may cause birth defects in a baby. Do not give gentamicin to someone who is allergic to drugs in the aminoglycoside family.

WARNING!**hydrocortisone****(cortisol)**

Hydrocortisone fights swelling and itching and can be used to treat rashes. It also helps treat allergic shock.

Often comes in: creams or ointment of 1%; tablets of 5, 10, and 20 mg; liquid for injection; powder for mixing for injections of various strengths.

**How to use:**

For allergic shock (see p. 470), inject 500 mg into muscle. Repeat in 4 hours if needed. Also give other drugs.



WARNING: Pregnant and breastfeeding women should not use this medicine regularly — only in emergencies to treat allergic shock.

lidocaine**(lignocaine)**

Lidocaine is an anesthetic. It blocks pain in the part of the body where it is injected. It can be used to prevent pain while sewing tears or episiotomies, or during a manual vacuum aspiration.

Important: Check the label: only use lidocaine without epinephrine because the epinephrine can stop the flow of blood to the area and cause great damage.

Often comes in: liquid for injection in strengths of 0.5%, 1%, or 2%.

**How to use:**

For a local anesthetic, inject 15 to 20 ml of 1% solution in the skin. Repeat if necessary. Do not give more than 300 mg (30 ml of 1% solution) of lidocaine.

magnesium sulfate

Magnesium sulfate is used to stop convulsions in pregnant women with eclampsia.

Important: Injecting magnesium sulfate requires a big needle and may be uncomfortable. You can split the dose in half and give 2 smaller doses, 1 in each buttock. If you have it, you could also use a little lidocaine to lessen the pain.

Often comes in: liquid for injection of 10%, 12.5%, 25%, or 50%.



How to use:

To stop a convulsion in a woman with eclampsia (see p. 182), inject 10 grams of 50% solution into muscle. If necessary, continue injecting 5 g of 50% solution into muscle every 4 hours for the next 24 hours.

Other drugs that may work: diazepam.



WARNING: Only use this drug if a woman's blood pressure is over 160/110 or if she is having a convulsion. Stop using this drug and get medical help immediately if her breathing slows to less than 12 breaths a minute or if she has not urinated for 4 hours.

Women with kidney problems should not use magnesium sulfate.

WARNING!



metronidazole

Metronidazole is used against some bacteria, amoebic dysentery, trichomonas, and vaginal infections.

Important: Drinking alcohol while taking metronidazole will cause nausea.

Side effects: Metallic taste in mouth, dark urine, nausea, vomiting, headache.

Often comes in: tablets of 200, 250, 400, and 500 mg; inserts of 500 mg; injection of 500 mg in 100 ml vial; suspension of 200 mg in 5 ml.



How to use:

For womb infection during labor (see p. 179), give 500 mg by mouth 3 times a day until 24 hours after birth, if the mother has no fever.

For womb infection after birth (see p. 271), **or abortion** (see p. 414), give 500 mg by mouth 3 times a day until fever has been gone 48 hours. Then give 500 mg by mouth 3 times a day for 10 more days. Give with other antibiotics.

To prevent infection in the womb after an invasive procedure (see p. 231), give 1 g by mouth 1 time only. Also give amoxicillin.

For bacterial vaginosis (see p. 328) **or trichomonas** (see p. 326), give 500 mg by mouth 2 times a day for 7 days,

or give 250 mg by mouth 3 times a day for 7 days.

For pelvic infection (see p. 325), give 400 to 500 mg by mouth 2 times a day for 14 days. You must give other antibiotics too.

Other drugs that may work:

amoxicillin, ampicillin, benzylpenicillin, clindamycin, doxycycline, gentamicin.



WARNING: People with liver problems should not use this drug.

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 on the next page.

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 often used with another medicine called mifepristone to end a pregnancy. 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.

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.

continued...

misoprostol *continued*

How to use:

To slow heavy bleeding after a birth (see p. 231), give 600



micrograms by mouth by putting tablets between gums and cheeks until they dissolve, then swallow. If the woman cannot swallow, insert pills in her rectum where they will dissolve and be absorbed. Wear a glove. Either way, you can repeat the dose 24 hours later if necessary.

To end a pregnancy with misoprostol and mifepristone (see p. 412): **For a pregnancy of less than 10 weeks**, give 200 mg mifepristone by mouth. After 1 to 2 days, give 800 micrograms (4 pills) misoprostol in the vagina or in the mouth (between gums and cheeks or under the tongue for about 30 minutes, then swallow what is left). If the abortion is not complete in 3 hours, give another dose of 800 micrograms of misoprostol. **For a pregnancy of 10 to 13 weeks**, follow the same instructions as above, but always give a second misoprostol dose of 800 micrograms (4 pills) after 3 hours. **For a pregnancy of 13 to 20 weeks**, give 200 mg mifepristone by mouth and after 1-2 days, give 400 micrograms (2 pills) of misoprostol every 3 hours. Do not give more than 5 doses. The uterus is more sensitive to misoprostol starting around 13 weeks, so use this lower dose for later pregnancies. It may take up to 48 hours for the abortion to complete.

or If you do not have mifepristone: **For a pregnancy of less than 13 weeks**, give 800 micrograms (4 pills) misoprostol in the vagina or in the mouth (between gums and cheeks or under the tongue for about 30 minutes, then swallow what is left). Repeat this in 3 hours, and a last time 3 hours after that, for a total of 3 doses (2,400 micrograms = 8 pills in all). **For a pregnancy of 13 to 20 weeks**, give 400 micrograms (2 pills) misoprostol every 3 hours. Do not give more than 5 doses. The uterus is more sensitive to misoprostol starting around 13 weeks, so use this lower dose for later pregnancies. It may take up to 48 hours for the abortion to complete. Be ready to get medical help if the womb does not empty completely.

continued...

misoprostol *continued*

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

The uterus is more sensitive to misoprostol starting around 13 weeks of pregnancy, so a lower dose of misoprostol is used after this time. A higher dose can harm the uterus.

Where abortion is restricted, serious legal trouble can result if someone suspects a person tried to have an abortion. Because misoprostol usually does not dissolve completely in the vagina, if there is a problem with the abortion and medical help is necessary, undissolved pieces of pills might be found there. **Taking misoprostol between the cheeks and gums or under the tongue is safer where abortion is illegal.**

nystatin

Nystatin fights yeast and other fungus infections in the mouth (thrush), the vagina, or the skin.

Important: Stop using nystatin if it irritates the skin.

A person with a yeast infection should not have sex while using nystatin to avoid passing the infection to her partner.

Nystatin works only against candida yeast infections, while clotrimazole works against other fungal infections as well.

Side effects: Diarrhea and stomach upset.

Often comes in: Inserts, lozenges for the mouth, and cream of 100,000 Units; liquid with 100,000 Units per ml.

continued...

nystatin *continued***How to use:****For yeast infections**

of the mouth (thrush) in babies (see p. 290), give 2 full droppers (0.5 ml each) of nystatin 4 times a day, and continue giving this medicine for 2 days after the patches are gone.

For vaginal infections (see p. 327), put one 100,000 Unit insert or cream high in the vagina every night for 14 nights.

Other drugs that may work: clotrimazole

oxytocin

Oxytocin is used to cause contractions of the womb and its blood vessels to control heavy bleeding after abortion or childbirth.

Important: Refrigerate oxytocin so it stays cold (between 2 to 8 degrees C, or 35 to 46 degrees F) or it will lose strength over time.

Often comes in: 10 Units in 1 ml for injection.

**How to use:**

For delivery of the placenta (see p. 228) **or to stop bleeding after the baby is born** (p. 231), inject 10 Units in the muscle.

Other drugs that may work: ergometrine, misoprostol.



WARNING: Do not use oxytocin to start or speed up labor. Oxytocin can make the womb contract so strongly that it will tear open.

Do not use this drug to cause an abortion because it could kill the woman before ending the pregnancy.

paracetamol**(acetaminophen)**

Paracetamol is used to ease pain and lower fever.

Important: Paracetamol does not cure sickness. It is important to find the cause of the pain and fever and treat that.

Often comes in: tablets of 100, 325, and 500 mg; liquid of 120 and 160 ml per 5 ml.

**How to use:**

Take 500 to 1000 mg by mouth every 4 to 6 hours. Do not take more than 4000 mg of paracetamol in 24 hours.

Other drugs that may work:

Aspirin or ibuprofen may work, but do not use either during pregnancy.



WARNING: Paracetamol should not be used by women with liver or kidney problems. It can cause liver damage if taken regularly every day, or if it is used after drinking alcohol.

WARNING!**promethazine**

Promethazine is an antihistamine used to treat allergic reactions.

Side effects: Dry mouth and nose, blurry vision. Rarely, twitching of the body, face, or eyes.

Often comes in: tablets of 10, 12.5, and 25 mg; syrup of 5 mg per 5 ml; ampules for injection of 25 mg in 1 ml.

**How to use:**

For moderate allergic reaction (see p. 469), give 25 mg by mouth. Repeat in 6 hours if needed.

Other drugs that may work:

diphenhydramine, hydrocortisone



WARNING: Promethazine is best taken by mouth. Only inject it for severe allergic reactions.

This medicine is OK to use in emergencies, but should not be used regularly in pregnancy or while breastfeeding.

quinine**(quinine sulfate or quinine bisulfate)**

Quinine is a medicine used to treat malaria. In this book we recommend it only for women in the first 3 months of pregnancy.

Side effects: May cause sweaty skin, ringing of the ears or impaired hearing, blurred vision, dizziness, nausea, vomiting, and diarrhea.

Often comes in: tablets of 300 or 650 mg.

**How to use:**

For malaria in women in the first 3 months of pregnancy, give 600 mg by mouth, 3 times a day for 7 days. You must also give clindamycin (see p. 98).

tetanus immune globulin

Tetanus immune globulin (also called anti-tetanus immunoglobulin, or *HyperTET*) can be given to people who have been exposed to tetanus but have not received tetanus toxoid vaccinations. Do not give tetanus antitoxin made from horse serum to people.

Important: For people who have not been vaccinated for tetanus, it is OK to give the vaccine on the same day as the tetanus immune globulin. But do not inject tetanus immune globulin into the same spot where you inject tetanus toxoid vaccination — it will stop the vaccination from working.

Side effects: Allergy.

Often comes in: vials of 250 units or 500 units

**How to use:**

For someone who has a wound that could cause tetanus (like from an unsafe abortion, see p. 415) and has not been vaccinated against tetanus, inject 250 Units tetanus immune globulin in the muscle.

If a person develops signs of tetanus inject 500 Units tetanus immune globulin in the muscle.

Other drugs that may work:

benzylpenicillin, tetanus toxoid vaccine.



WARNING: Tetanus can easily kill a person. Get medical help even after giving tetanus immune globulin

tetanus toxoid vaccine

Tetanus toxoid is an immunization given to prevent a tetanus infection. It can be given during or after pregnancy, or after abortion or female genital cutting. If a woman gets 2 injections (or better still, 3 injections — see schedule) when pregnant, it will also prevent this deadly infection in her newborn baby.

Important: Tetanus immunizations should be given to everyone starting in childhood. Tetanus immunization is often given to children as part of a combined immunization called DPT, and the 3 DPT immunizations are equal to the first 2 tetanus toxoid immunizations.

Side effects: Pain, redness, warmth, slight swelling.

Often comes in: single dose (0.5 ml) ampules for injection or liquid for injection.



How to use:

To give lifetime protection from tetanus (see p. 102), inject 5 immunizations of 0.5 ml into the muscle of the upper arm and then 1 booster injection every 10 years.

Injection 1As soon as possible

Injection 24 weeks after injection 1

Injection 36 months after injection 2

Injection 41 year after injection 3

Injection 51 year after injection 4

Booster10 years after injection 5

To prevent tetanus infection if a woman may already have been exposed (see p. 415), inject 0.5 ml in the muscle. You must also give 250 units tetanus immune globulin (see p. 491).

WARNING!



tetracycline

Tetracycline is an antibiotic of the tetracycline family used to treat many infections. In this book we recommend it only for blindness prevention for newborns.

Often comes in:

Ointment of 1%.



How to use:

For newborn eye care (see p. 261), use 1% ointment in each eye at birth, 1 time only, within 2 hours of the birth.

Other drugs that may work:

erythromycin eye ointment, povidone iodine, silver nitrate.



WARNING: Do not take tetracycline by mouth while pregnant or breastfeeding, as it can harm a baby's developing teeth.

Do not take tetracycline and penicillins by mouth at the same time, as this will make the penicillin less effective.

trichloroacetic acid (bichloroacetic acid)

Either trichloroacetic acid or bichloroacetic acid can be used to treat genital warts.

Important: Use very carefully. It can burn normal skin badly enough to cause a scar. If it spills onto healthy skin, wash off with soap and water.

Often comes in: liquids of varying strengths from 10% to 90%.



How to use:

To treat genital warts (see p. 333) first protect the area around the wart with petroleum jelly. Then put on the trichloroacetic acid. It will hurt for 15 to 30 minutes. Then clean off. Repeat after a week if necessary, but do not use this more than 1 time each week.

Oral contraceptives (birth control pills)

Most birth control pills contain 2 hormones similar to the hormones that a woman's body normally makes. These hormones are called estrogen (ethinyl estradiol) and progestin (levonorgestrel or norgestrel). Birth control pills come in different strengths of each hormone and are sold under many different brand names. Some of the brand names are listed on the next page.



Usually, brands that contain a smaller amount of both hormones are the safest and work best for most women. These “low dose” pills are found in Groups 1, 2, and 3 on page 495.

To assure effectiveness and minimize spotting (small amounts of bleeding at other times than normal monthly bleeding), take birth control pills at the same time each day, especially with pills that have low amounts of hormones. If spotting continues after 3 or 4 months, try one of the brands in Group 3. If there is still spotting after 3 months, consider a different type of hormonal contraception.

As a rule, women who take birth control pills have lighter monthly bleeding. This may be a good thing, especially for women who are anemic. For a woman who has very heavy monthly bleeding or whose breasts become painful before her monthly bleeding begins, a brand low in estrogen but high in progestin may be better. These pills are found in Group 3.

Women who are breastfeeding, or who should not use pills that contain estrogen because of headaches or mild high blood pressure, may want to use a pill with only progestin. These pills in Group 5 are also called “mini-pills.”

Progestin only pills should be taken at the same time every day, even during the monthly bleeding. Menstrual bleeding is often irregular. There is also an increased chance of pregnancy if even a single pill is forgotten.

group 1 — triphasic pills

These contain low amounts of both estrogen and progestin in a mix that changes throughout the month. Since the amounts change, it is important to take the pills in order.

Brand names:

Logynon	Triquilar
Synfase or Synphase	Triphasil
Tricyclen	
Trinordiol	
Trinovum	

group 2 — low dose pills

These contain low amounts of estrogen (35 micrograms of the estrogen "ethinyl estradiol" or 50 micrograms of the estrogen "mestranol") and progestin in a mix that stays the same throughout the month.

Brand names:

Brevicon	Ortho-Novum 1/35, 1/50
Neocon 1/50	Ovysmen 1/35
Norimin	
Norinyl 1 + 35, 1 + 50	

group 3 — low dose pills

These pills are high in progestin and low in estrogen (30 micrograms of the estrogen "ethinyl estradiol").

Brand names:

Lo-Femenal
Lo-Ovral
Microgynon 30
Microvlar
Nordette

group 4 — progestin only pills

These pills, also known as "mini-pills," contain only progestin.

Brand names:

Femulen	Microlut
Micronor	Microval
Micronovum	Neogest
Nor-Q D	Norgeston
	Ovrette



These brands can also be used for emergency contraception (see p. 316).

Medicines for HIV and AIDS

No medicines can cure HIV yet. But people who have HIV can live much longer, healthier lives by taking antiretroviral therapy (ART), a combination of several medicines that must be taken every day. ART medicines also help prevent the spread of HIV to others, including a baby during pregnancy and birth. Check with your local health authority about what ART medicines are available and how to use them.



For more information about HIV infection, see pages 99 and 334. Also see page 482 for another medicine, cotrimoxazole, that prevents many infections in people with HIV. Women in areas where there is a lot of tuberculosis should talk to a health worker about taking isoniazid to prevent TB.

Where can people get ART? ART medicines are available from HIV or AIDS treatment programs, from clinics and hospitals, and from programs for prevention of mother-to-child (or parent-to-child) transmission, called PMTCT or PPTCT programs. In many places, the medicines are free. A woman taking ART should have regular health care visits.

When should someone start ART? The best time to start ART is as soon as you know you are HIV positive. But some places ask for a CD4 test, a blood test that measures the strength of the immune system. Then start ART when the CD4 count is less than 350 (a healthy CD4 count is 500–1500). When CD4 tests are not available, ART may be started based on other illnesses a woman has. Women with HIV and tuberculosis should start ART 2 to 8 weeks after beginning tuberculosis treatment no matter what their CD4 count is. Women with HIV and hepatitis B should also start ART as soon as possible.

All pregnant women with HIV should take ART, for their own health and to protect the baby from HIV. For best protection of the baby, a woman should start taking ART medicines as soon as she knows she is pregnant and has HIV. Also see page 499.

Someone who takes ART must take it every day, without fail. If a person stops taking ART, their HIV will start making them ill again. Taking ART some days and not others lets HIV become resistant to medicines, which means that those medicines will no longer work as well to treat their HIV. A midwife, as well as people who manage ART programs, can work to ensure there is a steady supply of ART for people with HIV.

Talking to another person using ART can help people find ways to deal with side effects of the medicines. Help identify who in the family or household can encourage and support them in taking ART. Keeping HIV a secret can make it difficult to take medicines at the right time.

What medicines are in ART? Usually 3 or 4 medicines make up an ART combination. Sometimes 2 or 3 medicines are combined in 1 pill. In some places, people are tested to see what medicines will be best for them. Where testing is not available, a few combinations that work well for most people are used. We show some common combinations here. These same medicines can be used during pregnancy, birth, and breastfeeding to protect the baby from HIV.

How to take ART

- Take your medicines every day, at the same time each day.
- If medicines need to be taken 2 times a day, leave 12 hours between the 2 doses. For example, if you take the morning dose at 6:00, then the second dose should be taken at 6:00 in the evening. Having too little medicine in your body can cause drug resistance.
- If you forget to take a dose on time, take it as soon as you can. But if it is almost time for the next dose, do not take a double dose.
- Do not stop taking any ART medicine without seeing a health worker to find out if your medicines should be stopped separately or all at the same time.

Side effects of ART

ART is helping many people with HIV live longer, healthier lives. But like many other medicines, ART can have side effects. People often find that as they get used to the medicines, side effects lessen and may go away completely. Common side effects for ART are diarrhea, tiredness, headaches, and stomach problems such as nausea, vomiting, stomach pain, or not feeling like eating. Even if you feel bad, keep taking all your medicines until your health worker tells you to change or stop.

Some serious side effects might mean that one of the medicines needs to be changed. Serious side effects include tingling or burning feelings in the hands and feet, fever, rashes, yellow eyes, tiredness along with shortness of breath, anemia and other blood problems, and liver problems. If you have serious side effects, see a health worker right away.

Preventing HIV soon after someone has been exposed

Midwives or others are sometimes exposed to HIV while doing health work. For example, someone might stick herself with a needle that was used on someone with HIV. Many women are also exposed to HIV through rape. If you think you have been exposed to HIV (see page 334 for how HIV is spread), it is possible to prevent getting HIV by taking ART medicines for 4 weeks. This is called Post Exposure Prophylaxis or PEP. Talk with a health worker you trust as soon as possible about whether you should take PEP.

PEP works best if you start taking medicines within a few hours, and no later than 3 days, after exposure. Start one of the ART combinations in the box “ART Combinations for people 11 years old and older” on page 498, preferably Combination 1 or 2. Other medicines may be available and recommended in your area. Whichever combination you use, the medicines must be taken for 28 days.

ART Combinations for people 11 years old and older**Combination 1**

Medicines	Dose	Warnings and side effects	Advantages of combination
tenofovir (TDF)	300 mg once a day	Can cause kidney problems For use by women over 18 years old	<ul style="list-style-type: none"> • Good combination for pregnant or breastfeeding women with HIV and hepatitis B
lamivudine (3TC) or emtricitabine (FTC)	300 mg once a day or 200 mg once a day		
dolutegravir (DTG)	50 mg once a day	sleep problems, mood changes, dizziness	

Combination 2

Medicines	Dose	Warnings and side effects	Advantages of combination
tenofovir (TDF)	300 mg once a day	Can cause kidney problems For use by women over 18 years old	<ul style="list-style-type: none"> • Best combination for post-exposure prophylaxis (PEP) • Safe for pregnant women • Good combination for women with HIV and hepatitis B
lamivudine (3TC) or emtricitabine (FTC)	300 mg once a day or 200 mg once a day		
lopinavir/ritonavir (LPV/r)	1 tablet of 400 mg lopinavir/100 mg ritonavir 2 times a day	Liver problems	

Combination 3

Medicines	Dose	Warnings and side effects	Advantages of combination
zidovudine (AZT)	250 to 300 mg 2 times a day	Anemia Low white blood count	<ul style="list-style-type: none"> • Most widely used and available
lamivudine (3TC)	150 mg 2 times a day, or 300 mg once a day		
nevirapine (NVP)	200 mg once a day for 14 days, then 200 mg 2 times a day	Skin rash Liver problems	

Combination 4

Medicines	Dose	Warnings and side effects	Advantages of combination
zidovudine (AZT)	250 to 300 mg 2 times a day	Anemia Low white blood count	<ul style="list-style-type: none"> • Combination if on rifampicin for TB
lamivudine (3TC)	150 mg 2 times a day, or 300 mg once a day		
efavirenz (EFV)	400 mg once a day	Dizziness, confusion, mood changes	



WARNING! Stavudine (d4T) is sometimes used instead of zidovudine in Combinations 3 and 4. But long-term use causes serious side effects. Try not to use it.

Preventing HIV before and during exposure

Someone who does not have HIV may be regularly exposed to it from a partner with HIV. To protect against HIV infection, take 3 ART medicines every day as pre-exposure prophylaxis (PrEP).

To prevent HIV infection in people at high risk of HIV exposure

- give 300 mg tenofovir (TDF)by mouth, 1 time a day,
AND
- give 200 mg emtricitabine (FTC)by mouth, 1 time a day,
OR
- give 300 mg tenofovir (TDF)by mouth, 1 time a day,
AND
- give 300 mg lamivudine (3TC)by mouth, 1 time a day

Preventing HIV in babies

A woman who is already on ART when she becomes pregnant should continue taking it. When her baby is born, he will also need to be given medicine for a few weeks. See below.

Medicines are only one part of preventing HIV in a baby. Safer sex during pregnancy, safe birth practices, careful feeding of the baby, and treatment of illnesses in both mother and child are also important to prevent babies from getting HIV.

The mother being on ART helps protect her baby from HIV, but the baby needs ART too.

Give the baby only nevirapine (see page 501) for 6 weeks if:

- the mother started taking ART before pregnancy or very early in the pregnancy.

Give the baby both nevirapine (see page 501) and zidovudine (see page 502) for 6 weeks if:

- the mother started taking ART less than 1 month before the birth.
- the mother thinks she was infected with HIV during pregnancy or breastfeeding.
- the mother has a lot of HIV in her blood (a viral load over 1000) or feels very sick.

If the mother is breastfeeding, continue giving the baby either nevirapine or zidovudine for an additional 6 weeks.

If the mother stops taking ART while breastfeeding, begin giving the baby nevirapine again. You can stop giving the baby nevirapine 6 weeks after the mother restarts ART, or a week after she stops breastfeeding.

dolutegravir (DTG)

Dolutegravir is used in combination with other medicines to treat HIV, and to protect people from becoming infected with HIV after exposure (PEP).

Important: To treat or prevent HIV, you must give DTG with other medicines. It is important to take this medicine every day, in the recommended dose.

Side effects: DTG may cause sleep problems, mood changes, dizziness, and headache. These will usually go away after 2 to 4 weeks. If they do not, or if they get worse, see a health worker.

Often comes in: tablet of 50 mg.

**How to use:**

To prevent HIV infection after exposure (PEP) (see p. 497), give 50 mg by mouth 1 time a day for 28 days, along with other medicines.

For HIV treatment (see p. 498), give 50 mg by mouth 1 time a day every day, along with other medicines.

efavirenz (EFV)

Efavirenz is used in combination with other medicines to treat HIV.

Important: If EFV is given to a person who also taking rifampicin for tuberculosis (TB), a higher dose of EFV may be needed (800 mg instead of 600 mg).

To treat HIV, you must give EFV with other medicines. It is important to take this medicine every day, in the recommended dose.

Side effects: EFV may cause dizziness, confusion, mood changes, and strange dreams. These will usually go away after 2 to 4 weeks. If they do not, or if they get worse, see a health worker.

Seek care immediately for signs of allergy: red or purple areas on the skin, rashes or other spreading skin problems, fever, mental health problems.

Often comes in: capsules of 50 mg, 100 mg, 200 mg; tablets of 600 mg; oral solution of 150 mg/ 5 ml.

**How to use:**

For HIV treatment (see p. 498), give 400 mg once a day, along with other medicines.

emtricitabine (FTC)

Emtricitabine is used in combination with other medicines to treat HIV, and to protect people from becoming infected with HIV before (PrEP) or after exposure (PEP).

Important: To treat or prevent HIV, you must give FTC with other medicines. It is important to take this medicine every day, in the recommended dose.

Side effects: EFV may cause dizziness, headache, and strange dreams. These will usually go away after 2 to 4 weeks. If they do not, or if they get worse, see a health worker.

Seek care immediately for belly pain, nausea, vomiting, extreme tiredness with difficulty breathing, or muscle pain.

Often comes in: tablet of 200 mg; oral solution of 10 mg/ml.

**How to use:**

To prevent HIV infection after exposure (PEP) (see p. 497), give 200 mg by mouth 1 time a day for 28 days, along with other medicines.

To prevent HIV infection from ongoing exposure (PrEP) (see p. 497), give 200 mg by mouth 1 time a day every day. You must also give tenofovir (TDF).

For HIV treatment (see p. 498), give 200 mg by mouth 1 time a day every day, along with other medicines.

lamivudine (3TC)

Lamivudine is used in combination with other medicines to treat HIV, to protect people from becoming infected with HIV before (PrEP) or after exposure (PEP), and to prevent passing HIV to a baby.

Important: To treat HIV, you must give 3TC with other medicines. It is important to take this medicine every day, in the recommended dose.

Side effects: Side effects are rare.

Seek care immediately for belly pain, nausea, vomiting, extreme tiredness with difficulty breathing, or muscle pain.

Often comes in: tablet of 150 mg; oral solution of 50 mg per 5 ml.

**How to use:**

For HIV treatment (see p. 498), give 150 mg by mouth 2 times a day, or 300 mg once a day, along with other medicines.

To prevent HIV infection after exposure (PEP) (see p. 497), give 300 mg by mouth 1 time a day for 28 days, along with other medicines.

To prevent HIV infection from ongoing exposure (PrEP) (see p. 497), give 300 mg by mouth 1 time a day every day. You must also give tenofovir (TDF).

lopinavir / ritonavir (LPV/r)

Lopinavir/ritonavir is a combination of two drugs used in combination with other medicines to treat HIV, or to prevent HIV after a possible exposure (PEP).

Important: To treat or prevent HIV, you must give with other medicines. It is important to take this medicine every day, in the recommended dose.

Side effects: LPV/r may cause diarrhea and vomiting. These will usually go away after 2 to 4 weeks. If they do not, or if they get worse, see a health worker.

Often comes in: tablets of 100 mg lopinavir + 25 mg ritonavir and 200 mg lopinavir + 50 mg ritonavir; oral solution of 400 mg lopinavir + 100 mg ritonavir per 5 ml.

**How to use:**

To prevent HIV infection after exposure (PEP) (see p. 497), give 400 mg lopinavir + 100 mg ritonavir by mouth 2 times a day every day for 28 days, along with other medicines.

For HIV treatment (see p. 498), give 400 mg lopinavir + 100 mg ritonavir mg by mouth 2 times a day every day, along with other medicines.

nevirapine (NVP)

Nevirapine is used in combination with other medicines to treat HIV, and to prevent passing HIV to a baby during birth.

Important: To treat HIV, you must give NVP with other medicines. It is important to take this medicine every day, in the recommended dose. For fewer allergic reactions, which can be a problem with NVP, give once a day for the first 14 days.

Side effects: Rash, fever, nausea, headache.

Seek care immediately for signs of allergy: red or purple areas on the skin, rashes or other spreading skin problems, fever, yellow skin or eyes, or swollen liver.

Often comes in: tablets of 200 mg; suspension of 50 mg per 5 ml.

**How to use:**

For HIV treatment (see p. 498), give 200 mg by mouth once a day for 14 days, then give 200 mg 2 times a day, every day.

Also give other medicines.

For any baby born to a woman with HIV, give the baby 2 mg for each kilogram of weight (or 6 mg) immediately after the birth. Then give 2 mg/kg to the baby for 6 weeks if the mother is not breastfeeding. If she is breastfeeding, give 2 mg/kg of NVP to the baby until 1 week after breastfeeding has ended.



WARNING: Nevirapine can cause serious problems in the liver. Stop giving this drug if the person has signs of hepatitis (see p. 336). It should never be restarted.

Women with CD4 counts over 250 are more likely to have an allergic reaction to nevirapine. If possible, they should use another ART medicine.

tenofovir (TDF)

Tenofovir is used in combination with other medicines to treat HIV.

Important: To treat HIV, you must give TDF with other medicines. It is important to take this medicine every day in the recommended dose.

Do not give TDF to women who are less than 18 years old.

Side effects: Diarrhea, nausea, vomiting, headaches, weakness.

Often comes in: tablets of 300 mg.

**How to use:**

For HIV treatment (see p. 498), give 300 mg once a day, along with other medicines.

To prevent HIV infection after exposure (PEP) (see p. 497), give 300 mg by mouth 1 time a day for 28 days, along with other medicines.

To prevent HIV infection from ongoing exposure (PrEP) (see p. 497), give 300 mg by mouth 1 time a day every day. You must also give lamivudine (3TC) or emtricitabine (FTC).



WARNING: Tenofovir can cause kidney problems. Seek care immediately if the person has signs of kidney failure.

zidovudine (ZDV, AZT)

Zidovudine is used in combination with other medicines to treat HIV, and to prevent passing HIV to a baby.

Important: To treat HIV, you must give AZT with other medicines. It is important to take this medicine every day, in the recommended dose.

Side effects: Diarrhea, nausea, belly pain, vomiting. These effects usually get somewhat better after a few weeks.

Seek care immediately for pale skin or other signs of anemia (see p. 116).

Often comes in: tablets of 300 mg; capsules of 100 mg, 250 mg; oral solution or syrup of 50 mg per 5 ml; liquid for injection of 10 mg per ml in 20 ml vial.

**How to use:**

For HIV treatment (see p. 498), give 250 to 300 mg 2 times a day, along with other medicines.

For a baby born to a woman with HIV with a high risk of transmission: give 4 mg per kg of weight 2 times a day for a baby who is less than 2 kg; 10 mg 2 times a day for a baby who is 2-2.5 kg; or 15 mg 2 times a day for a baby who is more than 2.5 kg, for 6 weeks. You should also give nevirapine.

If the mother is breastfeeding, then give 60 mg 2 times a day for an additional 6 weeks.



WARNING: AZT can cause severe anemia. If testing is available, check the woman's hemoglobin before starting AZT, and regularly while she uses it, especially if you live where there is a lot of malaria.

Do not give AZT with stavudine (d4T).