

Estrogen

Commonly used brand name(s)

In the U.S.

- Alora
- Cenestin
- Climara
- Divigel
- Elestrin
- Emcyt
- Enjuvia
- Esclim
- Estinyl
- EstroGel
- Evamist
- Femtrace
- Gynodiol
- Menest
- Menostar
- Minivelle
- Ogen .625
- Ogen 1.25
- Ogen 2.5
- Premarin
- Vivelle
- Vivelle-Dot

In Canada

- Estraderm
- Estradot Transdermal
- Estradot Transdermal Therapeutic System
- Estradot Transdermal Therapeutic System
- Estrogel
- Oesclim
- Rhoxal-Estradiol Derm 50
- Rhoxal-Estradiol Derm 75

- Roxal-Estradiol Derm 100
- Vivelle 100 Mcg
- Vivelle 25 Mcg

Available Dosage Forms:

- Patch, Extended Release
- Gel/Jelly
- Tablet
- Spray
- Capsule

Uses for estrogen

Estrogens are female hormones. They are produced by the body and are necessary for the normal sexual development of the female and for the regulation of the menstrual cycle during the childbearing years.

The ovaries begin to produce less estrogen after menopause (the change of life). Estrogen is prescribed to make up for the lower amount of estrogen. Estrogens help relieve signs of menopause, such as hot flashes and unusual sweating, chills, faintness, or dizziness.

Estrogens are prescribed for several reasons:

- To provide additional hormone when the body does not produce enough of its own, such as during menopause or when female puberty (development of female sexual organs) does not occur on time. Other conditions include a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), or ovary problems (female hypogonadism or failure or removal of both ovaries).
- To help prevent weakening of bones (osteoporosis) in women past menopause.
- In the treatment of selected cases of breast cancer in men and women.
- In the treatment of cancer of the prostate in men.

Estrogens may also be used for other conditions as determined by your doctor.

There is *no* medical evidence to support the belief that the use of estrogens will keep the patient feeling young, keep the skin soft, or delay the appearance of wrinkles. Nor has it been proven that

the use of estrogens during menopause will relieve emotional and nervous symptoms, unless these symptoms are caused by other menopausal symptoms, such as hot flashes or hot flushes.

Estrogens are available only with your doctor's prescription.

Before using estrogen

Allergies

Tell your doctor if you have ever had any unusual or allergic reaction to medicines in this group or any other medicines. Also tell your health care professional if you have any other types of allergies, such as to foods dyes, preservatives, or animals. For non-prescription products, read the label or package ingredients carefully.

Pediatric

Use of estrogen before puberty is not recommended. Growth of bones can be stopped early. Girls and boys may develop growth of breasts. Girls may have vaginal changes, including vaginal bleeding.

Estrogen may be used to start puberty in teenagers with some types of delayed puberty.

Geriatric

Elderly people are especially sensitive to the effects of estrogens. This may increase the chance of side effects during treatment, especially stroke, invasive breast cancer, and memory problems.

Pregnancy

Estrogens are not recommended for use during pregnancy or right after giving birth. Becoming pregnant or maintaining a pregnancy is not likely to occur around the time of menopause.

Certain estrogens have been shown to cause serious birth defects in humans and animals. Some daughters of women who took diethylstilbestrol (DES) during pregnancy have developed reproductive (genital) tract problems and, rarely, cancer of the vagina or cervix (opening to the uterus) when they reached childbearing age. Some sons of women who took DES during pregnancy have developed urinary-genital tract problems.

Breastfeeding

Use of estrogen is not recommended in nursing mothers. Estrogens pass into the breast milk and their possible effect on the baby is not known.

Interactions with medicines

Although certain medicines should not be used together at all, in other cases two different medicines may be used together even if an interaction might occur. In these cases, your doctor may want to change the dose, or other precautions may be necessary. When you are taking any of these medicines, it is especially important that your healthcare professional know if you are taking any of the medicines listed below. The following interactions have been selected on the basis of their potential significance and are not necessarily all-inclusive.

Using medicines in this class with any of the following medicines is not recommended. Your doctor may decide not to treat you with a medication in this class or change some of the other medicines you take.

- Dasabuvir
- Ombitasvir
- Paritaprevir
- Ritonavir
- Tranexamic Acid

Using medicines in this class with any of the following medicines is usually not recommended, but may be required in some cases. If both medicines are prescribed together, your doctor may change the dose or how often you use one or both of the medicines.

- | | |
|-----------------|-----------------|
| • Abametapir | • Betamethasone |
| • Amifampridine | • Bexarotene |
| • Amoxicillin | • Boceprevir |
| • Ampicillin | • Bosentan |
| • Amprenavir | • Bupropion |
| • Anagrelide | • Carbamazepine |
| • Apalutamide | • Carbenicillin |
| • Aprepitant | • Cefaclor |
| • Armodafinil | • Cefadroxil |
| • Artemether | • Cefdinir |
| • Bacampicillin | • Cefditoren |
| • Belzutifan | • Cefixime |

- Cefpodoxime
- Cefprozil
- Ceftazidime
- Ceftibuten
- Cefuroxime
- Cenobamate
- Ceritinib
- Clavulanic Acid
- Clobazam
- Cloxacillin
- Colesevelam
- Conivaptan
- Cyclacillin
- Cyclosporine
- Dabrafenib
- Darunavir
- Dexamethasone
- Dicloxacillin
- Donepezil
- Doxycycline
- Efavirenz
- Elagolix
- Elvitegravir
- Encorafenib
- Enzalutamide
- Eslicarbazepine Acetate
- Etravirine
- Fedratinib
- Fexinidazole
- Fosamprenavir
- Fosaprepitant
- Fosnetupitant
- Fosphenytoin
- Fostemsavir
- Glecaprevir
- Griseofulvin
- Guar Gum
- Isotretinoin
- Ivosidenib
- Lesinurad
- Lixisenatide
- Lorlatinib
- Lumacaftor
- Minocycline
- Mitotane
- Mobocertinib
- Modafinil
- Mycophenolate Mofetil
- Mycophenolic Acid
- Nafcillin
- Nelfinavir
- Netupitant

- Nevirapine
- Nirmatrelvir
- Octreotide
- Oxacillin
- Oxcarbazepine
- Oxytetracycline
- Paclitaxel
- Paclitaxel Protein-Bound
- Penicillin G
- Penicillin G Procaine
- Penicillin V
- Phenobarbital
- Phenylbutazone
- Phenytoin
- Pibrentasvir
- Piperazine
- Pitolisant
- Pixantrone
- Prednisone
- Primidone
- Red Clover
- Rifabutin
- Rifampin
- Rifapentine
- Ritonavir
- Rufinamide
- Secobarbital
- St John's Wort
- Sugammadex
- Sultamicillin
- Tazemetostat
- Telaprevir
- Tetracycline
- Theophylline
- Ticarcillin
- Tigecycline
- Tizanidine
- Topiramate
- Troglitazone
- Ulipristal
- Valproic Acid

Interactions with food/tobacco/alcohol

Certain medicines should not be used at or around the time of eating food or eating certain types of food since interactions may occur. Using alcohol or tobacco with certain medicines may also cause interactions to occur. Discuss with your healthcare professional the use of your medicine with food, alcohol, or tobacco.

Other medical problems

The presence of other medical problems may affect the use of medicines in this class. Make sure you tell your doctor if you have any other medical problems, especially:

For all patients

- Asthma or
- Calcium, too much or too little in blood or
- Diabetes or
- Epilepsy or seizures or
- Heart problems or
- Kidney problems or
- Liver tumors, benign or
- Lupus erythematosus, systemic or
- Migraine headaches—Estrogens may worsen these conditions.
- Blood clotting problems, or history of during previous estrogen therapy—Estrogens usually are not used until blood clotting problems stop; using estrogens is not a problem for most patients without a history of blood clotting problems due to estrogen use.
- Breast cancer or
- Bone cancer or
- Cancer of the uterus or
- Fibroid tumors of the uterus—Estrogens may interfere with the treatment of breast or bone cancer or worsen cancer of the uterus when these conditions are present.
- Bulging eyes or
- Double vision or
- Migraine headache or
- Vision changes, sudden onset including or
- Vision loss, partial or complete—Estrogens may cause these problems. Tell your doctor if you have had any of these problems, especially while taking estrogen or oral contraceptives (“birth control pills”).

- Changes in genital or vaginal bleeding of unknown causes—Use of estrogens may delay diagnosis or worsen condition. The reason for the bleeding should be determined before estrogens are used.
- Endometriosis or
- Gallbladder disease or gallstones, or history of or
- High cholesterol or triglycerides, or history of or
- Liver disease, or history of or
- Pancreatitis (inflammation of pancreas) or
- Porphyria—Estrogens may worsen these conditions. Although estrogens can improve blood cholesterol, they can worsen blood triglycerides for some people.
- Hypothyroid (too little thyroid hormone)—Dose of thyroid medicine may need to be increased.

For males treated for breast or prostate cancer:

- Blood clots or
- Heart or circulation disease or
- Stroke—Males with these medical problems may be more likely to have clotting problems while taking estrogens; the high doses of estrogens used to treat male breast or prostate cancer have been shown to increase the chances of heart attack, phlebitis (inflamed veins) caused by a blood clot, or blood clots in the lungs.

Proper use of estrogen

Take estrogen only as directed by your doctor. Do not take more of it and do not take or use it for a longer time than your doctor ordered. For patients taking any of the estrogens by mouth, try to take the medicine at the same time each day to reduce the possibility of side effects and to allow it to work better.

Estrogen usually comes with patient information or directions. Read and follow the instructions in the insert carefully. Ask your doctor if you have any questions.

For patients taking any of the estrogens *by mouth or by injection*:

- Nausea may occur during the first few weeks after you start taking estrogens. This effect usually disappears with continued use. If the nausea is bothersome, it can usually be prevented or reduced by taking each dose with food or immediately after food.

For patients using the *transdermal (skin patch)*:

- Wash and dry your hands thoroughly before and after handling the patch.
- Apply the patch to a clean, dry, non-oily skin area of your lower abdomen, hips below the waist, or buttocks that has little or no hair and is free of cuts or irritation. The manufacturer of the 0.025-mg patch recommends that its patch be applied to the buttocks only. Furthermore, each new patch should be applied to a new site of application. For instance, if the old patch is taken off the left buttock, then apply the new patch to the right buttock.
- Do not apply to the breasts. Also, do not apply to the waistline or anywhere else where tight clothes may rub the patch loose.
- Press the patch firmly in place with the palm of your hand for about 10 seconds. Make sure there is good contact, especially around the edges.
- If a patch becomes loose or falls off, you may reapply it or discard it and apply a new patch.
- Each dose is best applied to a different area of skin on your lower abdomen, hips below the waist, or buttocks so that at least 1 week goes by before the same area is used again. This will help prevent skin irritation.

For patients using the *topical emulsion (skin lotion)*:

- Washing and drying hands thoroughly before each application.
- Apply while you are sitting comfortably. Apply one pouch to each leg every morning.
- Apply the entire contents of one pouch to clean, dry skin on the left thigh. Rub the emulsion into the entire thigh and calf for 3 minutes until thoroughly absorbed.
- Apply entire contents of the second pouch to clean, dry skin on the right thigh. Rub the emulsion into the entire thigh and calf for 3 minutes until thoroughly absorbed.
- Rub any remaining emulsion on both hands on the buttocks.
- Washing and drying hands thoroughly after application.
- To avoid transfer to other individuals, allow the application areas to dry completely before covering with clothing.

If you are using the *Evamist® transdermal spray*:

- Spray the medicine on your skin on the inside of your forearm, between the elbow and the wrist.

- Do not allow your child to touch the area of the arm where the medicine was sprayed. If you cannot avoid to come nearer with your child, wear clothes with long sleeves to cover the application site.
- If your child comes in direct contact with the arm where the medicine was sprayed, wash your child's skin right away with soap and water.
- Do not allow your pets to lick or touch the arm where the medicine was sprayed.

Dosing

The dose medicines in this class will be different for different patients. Follow your doctor's orders or the directions on the label. The following information includes only the average doses of these medicines. If your dose is different, do not change it unless your doctor tells you to do so.

The amount of medicine that you take depends on the strength of the medicine. Also, the number of doses you take each day, the time allowed between doses, and the length of time you take the medicine depend on the medical problem for which you are using the medicine.

For conjugated estrogens

- For oral dosage form (tablets):
 - For treating breast cancer in women after menopause and in men:
 - Adults—10 milligrams (mg) three times a day for at least 3 months.
 - For treating a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), or symptoms of menopause:
 - Adults—0.3 milligram (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month. Your doctor may change the dose based on how your body responds to the medication.
 - To prevent loss of bone (osteoporosis):
 - Adults—0.3 milligram (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month. Your doctor may change the dose based on how your body responds to the medication.
 - For treating ovary problems (female hypogonadism or for starting puberty):
 - Adults and teenagers—0.3 to 0.625 milligram (mg) a day. Your doctor may want you to take the medicine only on certain days of the month.
 - For treating ovary problems (failure or removal of both ovaries):

- Adults—1.25 milligram (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
- For treating prostate cancer:
 - Adults—1.25 to 2.5 milligram (mg) three times a day.
- For injection dosage form:
 - For controlling abnormal bleeding of the uterus:
 - Adults—25 milligrams (mg) injected into a muscle or vein. This may be repeated in six to twelve hours if needed.

For esterified estrogens

- For oral dosage form (tablets):
 - For treating breast cancer in women after menopause and in men:
 - Adults—10 milligrams (mg) three times a day for at least three months.
 - For treating a genital skin condition (vulvar atrophy) or inflammation of the vagina (atrophic vaginitis), or to prevent loss of bone (osteoporosis):
 - Adults—0.3 to 1.25 mg a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - For treating ovary problems (failure or removal of both ovaries):
 - Adults—1.25 mg a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - For treating ovary problems (female hypogonadism):
 - Adults—2.5 to 7.5 mg a day. This dose may be divided up and taken in smaller doses. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - For treating symptoms of menopause:
 - Adults—0.625 to 1.25 mg a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - For treating prostate cancer:
 - Adults—1.25 to 2.5 mg three times a day.

For estradiol

- For oral dosage form:
 - For treating breast cancer in women after menopause and in men:
 - Adults—10 milligrams (mg) three times a day for at least 3 months.
 - For treating a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), ovary problems (female hypogonadism or failure or removal of both ovaries), or symptoms of menopause:
 - Adults—At first, 1 to 2 milligrams (mg) one time per day for at least 3 months. Your doctor may want you to take the medicine each day or only on certain days of the month. Your doctor may also need to change the dose based on how your body responds to the medication.
 - For treating prostate cancer:
 - Adults—1 to 2 milligrams (mg) three times a day.
 - To prevent loss of bone (osteoporosis):
 - Adults—0.5 milligram (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
- For topical emulsion dosage form (skin lotion):
 - For treating symptoms of menopause:
 - Adults—1.74 grams (one pouch) applied to the skin of each leg (thigh and calf) once a day in the morning.
- For transdermal dosage form (skin patches):
 - For treating a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), symptoms of menopause, ovary problems (female hypogonadism or failure or removal of both ovaries), or to prevent loss of bone (osteoporosis):

For the Climara patches

 - Adults—0.025 to 0.1 milligram (mg) (one patch) applied to the skin and worn for one week. Then, remove that patch and apply a new one. A new patch should be applied once a week for three weeks. During the fourth week, you may or may not wear a patch. Your health care professional will tell you what you should do for this fourth week. After the fourth week, you will repeat the cycle.

For the Alora, Estraderm, Estradot, Vivelle, or Vivelle-Dot patches

- Adults—0.025 to 0.1 mg (one patch) applied to the skin and worn for one half of a week. Then, remove that patch and apply and wear a new patch for the rest of the week. A new patch should be applied two times a week for three weeks. During the fourth week, you may or may not apply new patches. Your health care professional will tell you what you should do for this fourth week. After the fourth week, you will repeat the cycle.

For estradiol cypionate

- For injection dosage form:
 - For treating ovary problems (female hypogonadism):
 - Adults—1.5 to 2 milligrams (mg) injected into a muscle once a month.
 - For treating symptoms of menopause:
 - Adults—1 to 5 milligrams (mg) injected into a muscle every 3 to 4 weeks.

For estradiol valerate

- For injection dosage form:
 - For treating a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), symptoms of menopause, or ovary problems (female hypogonadism or failure or removal of both ovaries):
 - Adults—10 to 20 milligrams (mg) injected into a muscle every 4 weeks as needed.
 - For treating prostate cancer:
 - Adults—30 milligrams (mg) injected into a muscle every 1 or 2 weeks.

For estrone

- For injection dosage form:
 - For controlling abnormal bleeding of the uterus:
 - Adults—2 to 5 milligrams (mg) a day, injected into a muscle for several days.
 - For treating a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), or symptoms of menopause:
 - Adults—0.1 to 0.5 milligram (mg) injected into a muscle 2 or 3 times a week. Your doctor may want you to receive the medicine each week or only during certain weeks of the month.
 - For treating ovary problems (female hypogonadism or failure or removal of both ovaries):

- Adults—0.1 to 1 milligram (mg) a week. This is injected into a muscle as a single dose or divided into more than one dose. Your doctor may want you to receive the medicine each week or only during certain weeks of the month.
- For treating prostate cancer:
 - Adults—2 to 4 milligrams (mg) injected into a muscle 2 or 3 times a week.

For estropipate

- For oral dosage form (tablets):
 - For treating a genital skin condition (vulvar atrophy), inflammation of the vagina (atrophic vaginitis), or symptoms of menopause:
 - Adults—0.75 to 6 milligrams (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - For treating ovary problems (female hypogonadism or failure or removal of both ovaries):
 - Adults—1.5 to 9 milligrams (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - To prevent loss of bone (osteoporosis):
 - Adults—0.75 milligram (mg) a day. Your doctor may want you to take the medicine each day for twenty-five days of a thirty-one-day cycle.

For ethinyl estradiol

- For oral dosage form (tablets):
 - For treating breast cancer in women after menopause and in men:
 - Adults—1 milligram (mg) three times a day.
 - For treating ovary problems (female hypogonadism or failure or removal of both ovaries):
 - Adults—0.05 milligram (mg) one to three times a day for 3 to 6 months. Your doctor may want you to take the medicine each day or only on certain days of the month.
 - For treating prostate cancer:
 - Adults—0.15 to 3 milligrams (mg) a day.
 - For treating symptoms of menopause:
 - Adults—0.02 to 0.05 milligram (mg) a day. Your doctor may want you to take the medicine each day or only on certain days of the month.

For ethinyl estradiol and norethindrone

- For oral dosage form (tablets):
 - For treating symptoms of menopause:
 - Adults—1 tablet (5 mcg ethinyl estradiol and 1 mg of norethindrone) each day.
 - To prevent loss of bone (osteoporosis):
 - Adults—1 tablet (5 mcg ethinyl estradiol and 1 mg of norethindrone) each day.

Missed dose

If you miss a dose of estrogen, take it as soon as possible. However, if it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule. Do not double doses.

If you miss a dose of estrogen, apply it as soon as possible. However, if it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule.

If you forget to wear or change a patch, put one on as soon as you can. If it is almost time to put on your next patch, wait until then to apply a new patch and skip the one you missed. Do not apply extra patches to make up for a missed dose.

Storage

Store the medicine in a closed container at room temperature, away from heat, moisture, and direct light. Keep from freezing.

Keep out of the reach of children.

Do not keep outdated medicine or medicine no longer needed.

Ask your healthcare professional how you should dispose of any medicine you do not use.

Precautions while using estrogen

It is very important that your doctor check your progress at regular visits to make sure estrogen does not cause unwanted effects. These visits will usually be every year, but some doctors require them more often.

In some patients using estrogens, tenderness, swelling, or bleeding of the gums may occur. Brushing and flossing your teeth carefully and regularly and massaging your gums may help prevent this. See your dentist regularly to have your teeth cleaned. Check with your medical doctor or dentist if you have any questions about how to take care of your teeth and gums, or if you notice any tenderness, swelling, or bleeding of your gums.

Although the incidence is low, the use of estrogens may increase your chance of getting cancer of the breast, ovaries, or uterus (womb). Therefore, it is very important that you regularly check your breasts for any unusual lumps or discharge. Report any problems to your doctor. You should also have a mammogram (x-ray pictures of the breasts) done if your doctor recommends it. Because breast cancer has occurred in men taking estrogens, regular breast self-exams and exams by your doctor for any unusual lumps or discharge should be done.

If your menstrual periods have stopped, they may start again. This effect will continue for as long as the medicine is taken. However, if taking the continuous treatment (0.625 mg conjugated estrogens and 2.5 mg medroxyprogesterone once a day), monthly bleeding usually stops within 10 months.

Also, vaginal bleeding between your regular menstrual periods may occur during the first 3 months of use. Do not stop taking your medicine. *Check with your doctor if bleeding continues for an unusually long time, if your period has not started within 45 days of your last period, or if you think you are pregnant.*

Tell the doctor in charge that you are using estrogen before having any laboratory test because some results may be affected.

Check with your child's doctor right away if your child starts to have the following symptoms: nipple or breast swelling or tenderness in females, or enlargement of the breasts in males. Your child may have been exposed to *Evamist® transdermal spray*.

Do not allow your pets to lick or touch the arm where *Evamist® transdermal spray* was applied. Small pets may be sensitive to estrogen. Call your pet's veterinarian if your pet starts to have the following symptoms: nipple or breast enlargement, swelling of the vulva, or any signs of illness.

Estrogen side effects

Women rarely have severe side effects from taking estrogens to replace estrogen. Discuss these possible effects with your doctor:

The prolonged use of estrogens has been reported to increase the risk of endometrial cancer (cancer of the lining of the uterus) in women after menopause. This risk seems to increase as the dose and the length of use increase. When estrogens are used in low doses for less than 1 year, there is less risk. The risk is also reduced if a progestin (another female hormone) is added to, or replaces part of, your estrogen dose. If the uterus has been removed by surgery (total hysterectomy), there is no risk of endometrial cancer.

Although the incidence is low, the use of estrogens may increase your chance of getting cancer of the breast. Breast cancer has been reported in men taking estrogens.

Along with its needed effects, a medicine may cause some unwanted effects. Although not all of these side effects may occur, if they do occur they may need medical attention.

The following side effects may be caused by blood clots, which could lead to stroke, heart attack, or death. These side effects occur rarely, and, when they do occur, they occur in men treated for cancer using high doses of estrogens.

Check with your doctor immediately if any of the following side effects occur:

More common

- Breast pain (in females and males)
- fast heartbeat
- fever
- hives
- hoarseness
- increased breast size (in females and males)
- irritation of the skin
- itching of the skin
- joint pain, stiffness, or swelling
- rash
- redness of the skin
- shortness of breath
- swelling of the eyelids, face, lips, hands, or feet
- swelling of the feet and lower legs
- tightness in the chest
- troubled breathing or swallowing
- weight gain (rapid)
- wheezing

Less common or rare

- Changes in vaginal bleeding (spotting, breakthrough bleeding, prolonged or heavier bleeding, or complete stoppage of bleeding)
- chest pain
- chills
- cough
- heavy non-menstrual vaginal bleeding
- lumps in, or discharge from, breast (in females and males)
- pains in the stomach, side, or abdomen
- yellow eyes or skin

Rare

- for males being treated for breast or prostate cancer only

- Headache (sudden or severe)
- loss of coordination (sudden)
- loss of vision or change of vision (sudden)
- pains in the chest, groin, or leg, especially in the calf of leg
- shortness of breath (sudden and unexplained)
- slurring of speech (sudden)
- weakness or numbness in the arm or leg

Incidence not known

- Abdominal or stomach bloating
- abdominal or stomach cramps
- acid or sour stomach
- anxiety
- backache
- belching
- blindness

- blistering, peeling, or loosening of the skin
- blue-yellow color blindness
- blurred vision
- change in vaginal discharge
- changes in skin color
- changes in vision
- chest discomfort
- clay-colored stools
- clear or bloody discharge from nipple
- confusion
- constipation
- convulsions
- dark urine
- decrease in the amount of urine
- decreased vision
- depression
- diarrhea
- difficulty with breathing
- difficulty with speaking
- dimpling of the breast skin
- dizziness
- double vision
- dry mouth
- eye pain
- fainting
- fluid-filled skin blisters

- full feeling in upper abdomen or stomach
- full or bloated feeling or pressure in the stomach
- headache
- heartburn
- inability to move the arms, legs, or facial muscles
- inability to speak
- incoherent speech
- increased urination
- indigestion
- inverted nipple
- irregular heartbeats
- light-colored stools
- lightheadedness
- loss of appetite
- loss of bladder control
- lump under the arm
- metallic taste
- migraine headache
- mood or mental changes
- muscle cramps in the hands, arms, feet, legs, or face
- muscle pain
- muscle spasm or jerking of all extremities
- muscle weakness
- nausea
- noisy breathing
- numbness or tingling of the hands, feet, or face

- pain in the ankles or knees
- pain or discomfort in the arms, jaw, back or neck
- pain or feeling of pressure in the pelvis
- pain, tenderness, swelling of the foot or leg
- painful or tender cysts in the breasts
- painful, red lumps under the skin, mostly on the legs
- pains in the chest, groin, or legs, especially calves of the legs
- partial or complete loss of vision in the eye
- pelvic pain
- persistent crusting or scaling of nipple
- pinpoint red or purple spots on the skin
- prominent superficial veins over affected area
- red, irritated eyes
- redness or swelling of the breast
- sensitivity to the sun
- severe headaches of sudden onset
- skin thinness
- skin warmth
- slow speech
- sore on the skin of the breast that does not heal
- sore throat
- sores, ulcers, or white spots in the mouth or on the lips
- stomach discomfort, upset, or pain
- sudden loss of consciousness
- sudden loss of coordination
- sudden onset of shortness of breath for no apparent reason

- sudden onset of slurred speech
- sudden vision changes
- swelling of the abdominal or stomach area
- swelling of the fingers or hands
- thirst
- tremor
- unpleasant breath odor
- unusual tiredness or weakness
- vomiting
- vomiting of blood
- weight loss

Some side effects may occur that usually do not need medical attention. These side effects may go away during treatment as your body adjusts to the medicine. Also, your health care professional may be able to tell you about ways to prevent or reduce some of these side effects. Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:

More common

- Abnormal growth filled with fluid or semisolid material
- accidental injury
- bladder pain
- bloated full feeling
- bloody or cloudy urine
- body aches or pain
- coating or white patches on tongue
- congestion
- cough producing mucus
- decrease in amount of urine

- difficult, burning, or painful urination
- discouragement
- dryness of the throat
- ear congestion or pain
- excess air or gas in the stomach or intestines
- fear
- feeling of warmth
- feeling sad or empty
- frequent urge to urinate
- general feeling of discomfort or illness
- headache, severe and throbbing
- increased clear or white vaginal discharge
- irritability
- itching of the vaginal, rectal or genital areas
- lack of appetite
- lack or loss of strength
- loss of interest or pleasure
- mild dizziness
- neck pain
- nervousness
- pain
- pain during sexual intercourse
- painful or difficult urination
- pain or tenderness around the eyes and cheekbones
- passing gas
- redness of the face, neck, arms, and occasionally, upper chest

- runny nose
- skin irritation or redness where skin patch was worn
- shivering
- sleeplessness
- sneezing
- sore mouth or tongue
- stuffy nose
- sudden sweating
- tender, swollen glands in the neck
- thick, white vaginal discharge with no odor or with a mild odor
- tiredness
- trouble concentrating
- trouble sleeping
- unable to sleep
- voice changes

Less common

- Blemishes on the skin
- burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- burning or stinging of the skin
- diarrhea (mild)
- difficulty with moving
- dizziness (mild)
- increased hair growth, especially on the face
- lower abdominal or stomach pain or pressure
- mood or mental changes
- muscle stiffness

- painful cold sores or blisters on the lips, nose, eyes, or genitals
- pimples
- pounding in the ears
- problems in wearing contact lenses
- slow heartbeat
- tooth or gum pain
- unusual decrease in sexual desire (in males)
- unusual increase in sexual desire (in females)
- white or brownish vaginal discharge

Incidence not known

- Abnormal turning out of cervix
- changes in appetite
- dull ache or feeling of pressure or heaviness in the legs
- flushed, dry skin
- fruit-like breath odor
- increased hunger
- irritability
- large amount of triglyceride in the blood
- leg cramps
- patchy brown or dark brown discoloration of the skin
- poor insight and judgment
- problems with memory or speech
- trouble recognizing objects
- trouble thinking and planning
- trouble walking
- twitching, uncontrolled movements of the tongue, lips, face, arms, or legs

- unexpected or excess milk flow from the breasts

Also, many women who are taking estrogens with a progestin (another female hormone) will start having monthly vaginal bleeding, similar to menstrual periods, again. This effect will continue for as long as the medicine is taken. However, monthly bleeding will not occur in women who have had the uterus removed by surgery (total hysterectomy).

Estrogen may cause loss or thinning of the scalp hair in some people.

Other side effects not listed may also occur in some patients. If you notice any other effects, check with your healthcare professional.

Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

Further information

Always consult your healthcare provider to ensure the information displayed on this page applies to your personal circumstances.