Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Ethinyl Estradiol and Levonorgestrel

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

Afirmelle; Altavera; Amethia [DSC]; Amethyst; Ashlyna; Aubra EQ; Aubra [DSC]; Aviane; Ayuna; Balcoltra; Camrese; Camrese Lo; Chateal EQ; Chateal [DSC]; Daysee; Delyla; Dolishale; Enpresse-28 [DSC]; Falmina; Fayosim [DSC]; Iclevia; Introvale; Jaimiess; Jolessa; Joyeaux; Kurvelo; Lessina; Levonest; Levora 0.15/30 (28) [DSC]; LoJaimiess; LoSeasonique [DSC]; Lutera; Marlissa; Minzoya; Portia-28; Quartette [DSC]; Rivelsa; Rosyrah; Seasonique [DSC]; Setlakin; Simpesse; Sronyx [DSC]; Trivora (28) [DSC]; Twirla; Tyblume; Vienva

Brand Names: Canada

Alesse 21; Alesse 28; Alysena 21; Alysena 28; Audrina 21; Audrina 28; Aviane; Indayo; Laylaa 21; Laylaa 28; Min Ovral 21; Min Ovral 28; Ovima 21; Ovima 28; Portia 21; Portia 28; Seasonale; Seasonique; Triquilar 21; Triquilar 28

Warning

All products:

- Smoking cigarettes while using this drug raises the chance of severe heart and blood-related side effects. This chance is raised with age (mainly older than 35 years of age). It is also raised with the number of cigarettes smoked. It is strongly advised not to smoke. Do not use this drug if you smoke and are older than 35 years of age.

Patch:

- Be sure you know your body mass index (BMI). If you do not know, talk with your doctor. If your BMI is 25 or more, this drug may not work as well. Do not use this drug if your BMI is 30 or more. The risk of blood clots may be higher with a BMI of 30 or more.

What is this drug used for?

- It is used to prevent pregnancy. If you have been given this drug for some other reason, talk with your doctor for more information.

What do I need to tell my doctor BEFORE I take this drug?

- If you are allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell your doctor about the allergy and what signs you had.
- If you have had any of these health problems: Blood clots, blood clotting problem, breast cancer or other cancer where hormones make it grow, diseased blood vessels in the brain or heart, heart valve problems, heart disease, certain types of abnormal heartbeats like atrial fibrillation, chest pain caused by angina, heart attack, stroke, high blood pressure, liver tumor or other liver problems, severe headache or migraine, or diabetes.
- If you have had any of these health problems: Endometrial cancer, cancer of the cervix or vagina, or vaginal bleeding where the cause is not known.

- If you turned yellow while pregnant or with estrogen use like hormonal birth control.
- If you have taken ombitasvir, paritaprevir, and ritonavir (with or without dasabuvir) within the past 2 weeks.
- If you are taking glecaprevir and pibrentasvir.
- If you are pregnant or may be pregnant. Do not take this drug if you are pregnant.
- If you are breast-feeding or plan to breast-feed.

This is not a list of all drugs or health problems that interact with this drug.

Tell your doctor and pharmacist about all of your drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe for you to take this drug with all of your drugs and health problems. Do not start, stop, or change the dose of any drug without checking with your doctor.

What are some things I need to know or do while I take this drug?

All products:

- Tell all of your health care providers that you take this drug. This includes your doctors, nurses, pharmacists, and dentists. This drug may need to be stopped before certain types of surgery as your doctor has told you. If this drug is stopped, your doctor will tell you when to start taking this drug again after your surgery or procedure.
- This drug may raise the chance of blood clots, a stroke, or a heart attack. Talk with the doctor.
- Talk with your doctor if you will need to be still for long periods of time like long trips, bedrest after surgery, or illness. Not moving for long periods may raise your chance of blood clots.
- If you have high blood sugar (diabetes), talk with your doctor. This drug may raise blood sugar.

- Check your blood sugar as you have been told by your doctor.
- High blood pressure has happened with drugs like this one. Have your blood pressure checked as you have been told by your doctor.
- Have your blood work and other lab tests checked as you have been told by your doctor.
- Be sure to have regular breast exams and gynecology check-ups. You will also need to do breast self-exams as you have been told.
- This drug may affect certain lab tests. Tell all of your health care providers and lab workers that you take this drug.
- Certain drugs, herbal products, or health problems may cause hormone-based birth control to not work as well. Be sure your doctor knows about all of your drugs and health problems. You will need to see if you also need to use a non-hormone form of birth control like condoms.
- If you are allergic to tartrazine (FD&C Yellow No. 5), talk with your doctor. Some products have tartrazine.
- This drug may cause high cholesterol and triglyceride levels. Talk with the doctor.
- This drug does not protect against infections that are spread through having sex like HIV or hepatitis. To protect against these infections, use a latex or polyurethane condom.
- The chance of getting cervical cancer may be higher in people who take hormone-based birth control. However, this may be due to other reasons. If you have questions, talk with the doctor.
- Some studies have shown the risk of breast cancer is raised when taking hormone-based birth control for a long time. However, other studies have not shown this risk. If you have questions, talk with the doctor.
- Do not use in children who have not had their first menstrual period.

If your product has iron in it:

- Accidental overdose of drugs that have iron in them is a leading cause of deadly poisoning in children younger than 6 years of age. Keep away from children. If this drug is taken by accident, call a doctor or poison control center right away.

What are some side effects that I need to call my doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.
- Signs of liver problems like dark urine, tiredness, decreased appetite, upset stomach or stomach pain, light-colored stools, throwing up, or yellow skin or eyes.
- Signs of gallbladder problems like pain in the upper right belly area, right shoulder area, or between the shoulder blades; change in stools; dark urine or yellow skin or eyes; or fever with chills.
- Signs of high blood pressure like very bad headache or dizziness, passing out, or change in eyesight.
- Signs of high blood sugar like confusion, feeling sleepy, unusual thirst or hunger, passing urine more often, flushing, fast breathing, or breath that smells like fruit.
- Weakness on 1 side of the body, trouble speaking or thinking, change in balance, drooping on one side of the face, or blurred eyesight.
- New or worse migraines.
- Depression or other mood changes.

- A lump in the breast, breast pain or soreness, or nipple discharge.
- Vaginal itching or discharge.
- Spotting or vaginal bleeding that is very bad or does not go away.
- Eyesight changes or loss, bulging eyes, or change in how contact lenses feel.
- This drug may cause you to swell or keep fluid in your body. Tell your doctor if you have swelling, weight gain, or trouble breathing.
- Call your doctor right away if you have signs of a blood clot like chest pain or pressure; coughing up blood; shortness of breath; swelling, warmth, numbness, change of color, or pain in a leg or arm; or trouble speaking or swallowing.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

Tablets and chewable tablets:

- Appetite changes.
- Dizziness or headache.
- Weight gain or loss.
- Upset stomach or throwing up.
- Stomach cramps.
- Bloating.
- Enlarged breasts.
- Tender breasts.
- Period (menstrual) changes. These include spotting or bleeding between cycles.
- Back pain.
- This drug may cause dark patches of skin on your face. Avoid sun, sunlamps,

and tanning beds. Use sunscreen and wear clothing and eyewear that protects you from the sun.

Patch:

- Irritation where this drug was used.
- Headache.
- Weight gain.
- Stomach cramps.
- Upset stomach.

These are not all of the side effects that may occur. If you have questions about side effects, call your doctor. Call your doctor for medical advice about side effects.

You may report side effects to your national health agency.

You may report side effects to the FDA at 1-800-332-1088. You may also report side effects at https://www.fda.gov/medwatch.

How is this drug best taken?

Use this drug as ordered by your doctor. Read all information given to you. Follow all instructions closely.

All products:

- Do not skip doses, even if you do not have sex very often.
- After starting this drug, you may need to use a non-hormone type of birth control like condoms to prevent pregnancy for some time. Follow what your doctor has told you to do about using a non-hormone type of birth control.

Tablets:

- Take with or without food. Take with food if it causes an upset stomach.

Chewable tablets:

- Chew and swallow with a full glass of water or swallow the tablet whole.
- Take on an empty stomach.

Tablets and chewable tablets:

- Take this drug at the same time of day.
- If you also take colesevelam, take it at least 4 hours before or after you take this drug.
- If you throw up or have diarrhea, this drug may not work as well to prevent pregnancy. If this happens within 3 to 4 hours after you take an active tablet, take another tablet. If it goes on for more than 1 day, use an extra form of birth control and call your doctor. Call your doctor if you throw up or have diarrhea and are not sure what to do.
- If your monthly cycle is 28 days and you miss 2 periods in a row, take a pregnancy test before starting a new dosing cycle.
- If you have a cycle longer than 91 days and you miss one period, take a pregnancy test before starting a new dosing cycle.

Patch:

- Put patch on once a week for 3 weeks. Put it on the same day each week. Do not use patch on the 4th week.
- Put patch on clean, dry, healthy skin on the buttock, stomach, or upper back.
- Move the site with each patch.
- Do not put on the breast.
- Do not put the patch on the waistline or under a bra strap.
- Do not put on skin that is irritated or damaged. Do not put on an area with skin folds or skin that will be rubbed by tight clothes.
- Do not cut or divide patches. Do not use patches that are damaged.

- Do not use adhesives or wraps to hold the patch in place.
- Do not put on skin where you have just used creams, oils, lotions, powder, or other skin products. The patch may not stick as well.
- Do not put on more than 1 patch at a time.
- If you miss 2 periods in a row, take a pregnancy test before starting a new dosing cycle.
- If this drug has not been used the right way and 1 monthly period is missed, take a pregnancy test.
- If you swim or often have contact with water, the patch may not stick as well. Talk with your doctor if you are a swimmer or you often have contact with water for more than 30 minutes.
- If the patch loosens at the edges, press the edges firmly.
- Put the same patch on the same place if it falls off and has been off for less than 24 hours.
- Put on a new patch if the patch being used is no longer sticky or if it is sticking to itself or some other surface.
- If a patch has been off for more than 1 day, you may not be protected from pregnancy. Put a new patch on to start a new 4 week cycle. Use another type of birth control like a condom during the first week of the new cycle.

What do I do if I miss a dose?

- If a dose is missed, check the package insert or call the doctor to find out what to do. If using this drug to prevent pregnancy, a non-hormone form of birth control like condoms may need to be used for some time to prevent pregnancy.

How do I store and/or throw out this drug?

Tablets and chewable tablets:

- Store at room temperature protected from light. Store in a dry place. Do not store in a bathroom.

Chewable tablets:

- Protect from heat.

Patch:

- Store at room temperature. Do not refrigerate or freeze.
- Store in pouch until ready for use.
- After you take off a skin patch, be sure to fold the sticky sides of the patch to each other. Throw away used patches where children and pets cannot get to them.

All products:

- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

General drug facts

- If your symptoms or health problems do not get better or if they become worse, call your doctor.
- Do not share your drugs with others and do not take anyone else's drugs.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- Some drugs may have another patient information leaflet. Check with your

pharmacist. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.

- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

Consumer Information Use and Disclaimer

This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at https://www.wolterskluwer.com/en/know/clinical-effectiveness-terms.

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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