

# ORAL CHEMOTHERAPY EDUCATION



National Community Oncology  
Dispensing Association, Inc.  
PASSION FOR PATIENTS



## TRETINOIN

### Name of your medication

Generic name — tretinoin (TREH-tih-NOYN)  
Brand name — Vesanoid® (VEH-suh-noyd)  
Other name — ATRA (all-trans retinoic acid)

### Common uses

Tretinoin is used to treat adult and pediatric patients with acute promyelocytic leukemia (APL).  
Tretinoin can also be used for other treatments.

### Dose and schedule

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Taking tretinoin as instructed is important to allow your treatment to be as effective as possible, so here are some key points to remember.

- Your dose is based on many factors, including your height and weight, overall health, and diagnosis.
- Tretinoin should be taken with food, at the same time twice a day.
- Tretinoin should be taken whole and not crushed, cut, or dissolved. If you are unable to swallow tretinoin, talk to your care provider or pharmacist for possible options.
- If you miss a dose of tretinoin, **do not** take an extra dose or two doses at one time. Simply take your next dose at the regularly scheduled time. Be sure to write down if you miss a dose and let your care provider know about any missed doses.

### Storage and handling

Handle tretinoin with care. Just like when chemotherapy is given into the vein, this drug can be toxic, and exposure of the drug to others should be limited.

- Store tretinoin at room temperature (68°F–77°F) in a dry location away from light.
- Keep tretinoin out of reach of children and pets.
- Leave tretinoin in the provided packaging until it is ready to be taken.
- Whenever possible, give tretinoin to yourself and follow the steps below. If a family member, friend, or caregiver needs to give tretinoin to you, they also need to follow these steps:
  1. Wash hands with soap and water.
  2. Put on gloves to avoid touching the medication. (Gloves are not necessary if you give the drug to yourself.)
  3. Gently transfer the tretinoin from its package to a small medicine or other disposable cup.
  4. Administer the medicine immediately by mouth with water.
  5. Remove gloves and do not use them for anything else.
  6. Throw gloves and medicine cup in household trash.

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7. Wash hands with soap and water.

- If a daily pill box or pill reminder is used, a separate one should be used for tretinoin. **Do not** mix other medications into the box with tretinoin. The person filling the box or reminder should wear gloves. (Gloves are not necessary if you are filling the box or reminder.) When empty, the box or reminder should be washed with soap and water before refilling. Be sure to wash hands with soap and water after the task is complete, whether or not gloves are worn.
- If you have any unused tretinoin, **do not** throw it in the trash and **do not** flush it down the sink or toilet. Talk to your care provider or pharmacist about proper disposal of tretinoin.
- If you are traveling, put your tretinoin in a sealed plastic bag. Ask your pharmacist if any additional travel precautions are needed.

### Handling body fluids and waste

Because tretinoin remains in your body for several days after it is taken, some of the drug may be present in urine, stool, sweat, or vomit. Once you have started to take tretinoin, it is important to follow the instructions below every day for as long as your treatment lasts. This will keep yourself, loved ones, and the environment as safe as possible.

- Pregnant women should avoid touching anything that may be soiled with body fluids from the patient.
- Toilet and septic systems
  - You may use the same toilet, septic tank, and/or sewer that you usually use. If you have a low-flow toilet, close the lid and flush twice to ensure all waste has been discarded.
  - If the toilet or toilet seat becomes soiled with urine, stool, or vomit, clean the surfaces before other people use the toilet.
  - Wash hands with soap and water after using the toilet.
- If you need a bedpan, be sure your caregiver knows to wear gloves to assist with cleanup and to wash the bedpan with soap and water every day.
- If you do not have good control of bladder or bowels, use a disposable pad with a plastic back, a diaper, or a sheet to absorb body waste.
- Wash any skin that has been exposed to body waste or tretinoin with soap and water.
- Linens or clothing that are soiled with body fluids or body waste should be washed separately from other linens and clothing. If you do not have a washer, place the soiled linens in a plastic bag until they can be washed.
- Wash hands with soap and water after touching linens or clothing that may be soiled with body fluids.

### Drug and food interactions

- Tretinoin has many drug interactions. Inform your care providers of all prescription medications, over-the-counter medications, vitamins, and herbal products that you are taking.
- Tretinoin should be taken with food.
- Talk with your care provider or pharmacist before taking new medications or supplements, or receiving any vaccines.

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### Side Effects of Tretinoin

The common side effects that have been known to happen in more than 30% of patients taking tretinoin are listed in the left side of this table. You **MAY NOT** experience these side effects. Options to help manage any side effects that do occur are included on the right side of this table. These should be discussed with your care provider. If you experience any side effect you cannot manage or that is not listed here, contact your care provider.

Possible Side Effect	Management
<b>Headache</b>	<p>Ask your provider what you may use to help with this discomfort. Contact your care provider right away if your headache:</p> <ul style="list-style-type: none"> <li>Follows a head injury</li> <li>Is severe or starts suddenly</li> <li>Does not go away after 3 days</li> <li>Is associated with vomiting, visual disturbance, neck stiffness, drowsiness, confusion, rash, weakness in an arm or leg, or numbness, or is made worse by coughing or lowering the head</li> </ul>
<p><b>You may experience flu-like symptoms:</b></p> <ul style="list-style-type: none"> <li>Fever</li> <li>Chills</li> <li>Shivering</li> <li>Fatigue</li> </ul>	<p>You may feel hot, cold and shivery, achy, or dizzy. This usually happens during the first month of therapy but could happen at any time.</p> <ul style="list-style-type: none"> <li>Call your doctor immediately if you have a fever (temperature more than 100.4°F or 38°C)</li> <li>Check with your care provider before taking any medicine for a fever or chills.</li> </ul> <p>You may be more tired than usual or have less energy.</p> <ul style="list-style-type: none"> <li>Stay as active as possible, but know it is okay to rest as needed.</li> <li>Try to do some activity every day.                             <ul style="list-style-type: none"> <li>Plan your activities and do them at a time of day when you feel a bit more energetic.</li> <li>Avoid operating heavy machinery if you feel too tired.</li> </ul> </li> </ul>
<b>Rash or itchy skin</b>	<ul style="list-style-type: none"> <li>Keep your skin moisturized with creams and moisturizing lotions to decrease the risk of rash or itchiness, and wear loose-fitting clothing.</li> <li>Avoid using perfumes and cologne as these products may increase rash symptoms.</li> <li>Avoid being in the heat for long periods of time.</li> <li>Your provider may recommend an over-the-counter antihistamine or a topical cream.</li> </ul> <p>Sunlight can make symptoms worse.</p> <ul style="list-style-type: none"> <li>Avoid sun exposure as much as possible to decrease the risk of sunburn. The highest exposure to UV (ultraviolet) radiation occurs from 10 am–4 pm.</li> <li>Wear long-sleeved clothing, with UV protection if possible.</li> <li>Wear broad-brimmed hats.</li> <li>Apply broad-spectrum sunscreen (UVA/UVB) with at least SPF 30 as often as directed on the bottle.</li> <li>Use lip balm with at least SPF 30.</li> </ul> <p>If your rash or itching continues to worsen, contact your care provider.</p>

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Possible Side Effect	Management
<b>Mouth dryness</b>	<p>Practice good mouth care.</p> <ul style="list-style-type: none"> <li>• Keep your mouth and lips moist.</li> <li>• Use a saliva substitute and lip moisturizer often.</li> <li>• Rinse your mouth frequently.</li> <li>• Use a mild nonalcohol mouth rinse at least 4 times a day (after eating and at bedtime). One example is a mixture of 1/8 teaspoon of salt and 1/4 teaspoon of baking soda in 8 ounces of warm (not hot) water.</li> <li>• Brush your teeth with a soft toothbrush or cotton swab after meals.</li> <li>• Drink 8–10 glasses of water or fluid each day unless your care provider has instructed you to limit your fluid intake.</li> </ul> <p>Call your care provider if you experience difficulty swallowing or eating from severe mouth dryness.</p>
<b>Bone or joint pain</b>	<ul style="list-style-type: none"> <li>• Keep a diary of your pain, including a description of when and where the pain is occurring, what it feels like, and how long it lasts.</li> <li>• Stay as active as possible, but know that it is okay to rest as needed.</li> <li>• Tell your care provider if pain interferes with your activity.</li> </ul> <p>If the pain bothers you, ask your provider what you may use to help with this discomfort. Take only pain medication that has been prescribed or recommended by your care provider.</p>
<b>Respiratory tract infection</b>	<ul style="list-style-type: none"> <li>• Wash your hands often, especially before eating and after using the bathroom.</li> <li>• Avoid people with fevers, flu, or other infections.</li> <li>• Maintain good personal hygiene.</li> <li>• Report symptoms of a respiratory infection like a cough sneezing, runny nose, fever, and scratchy or sore throat to your provider.</li> </ul>
<b>Increased risk of bleeding</b>	<ul style="list-style-type: none"> <li>• Use caution to avoid bruises, cuts, or burns.</li> <li>• Blow your nose gently and do not pick your nose.</li> <li>• Brush your teeth gently with a soft toothbrush and maintain good oral hygiene.</li> <li>• When shaving, use an electronic razor instead of razor blades.</li> <li>• Use a nail file instead of nail clippers.</li> </ul> <p>Call your care provider if you have bleeding that won't stop. Examples include the following:</p> <ul style="list-style-type: none"> <li>• A bloody nose that bleeds for more than 5 minutes despite pressure</li> <li>• A cut that continues to ooze despite pressure</li> <li>• Gums that bleed excessively when you floss or brush</li> </ul> <p>Seek medical help immediately if you experience any severe headaches, blood in your urine or stool, or prolonged and uncontrollable bleeding or if you cough up blood.</p> <p><b>You may need to take a break or “hold” your medication for medical or dental procedures. Talk to your care provider or dentist before any scheduled procedures.</b></p>

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Possible Side Effect	Management
<b>Shortness of breath</b>	<p>If you experience any breathing problems or shortness of breath, notify your care provider immediately. This may be a serious side effect of the medication.</p>
<b>Increased risk of infection</b>	<p>Take the following precautions to protect yourself from infection.</p> <ul style="list-style-type: none"> <li>• Wash your hands often, especially before eating and after using the bathroom.</li> <li>• Avoid crowds and people with fevers, flu, or other infection.</li> <li>• Bathe regularly to keep good personal hygiene.</li> </ul> <p>Contact your care provider if you experience any signs or symptoms of an infection, including the following:</p> <ul style="list-style-type: none"> <li>• Fever (temperature more than 100.4°F or 38°C)</li> <li>• Chills</li> <li>• Sore throat</li> <li>• Burning with urination</li> <li>• Unusual tiredness</li> <li>• A sore that becomes red, is draining, or does not heal</li> </ul> <p>Check with your care provider before taking any medicine for a fever or chills.</p>
<b>Changes in liver function</b>	<p>Your liver function will be checked periodically by a simple blood test. Contact your care provider if you notice any of the following:</p> <ul style="list-style-type: none"> <li>• Yellowing of the skin or whites of your eyes</li> <li>• Dark or brown urine</li> <li>• Unusual bleeding or bruising</li> </ul>
<b>Changes in electrolytes and other laboratory values</b> <ul style="list-style-type: none"> <li>• High triglyceride levels</li> <li>• High cholesterol levels</li> </ul>	<p>Changes in some laboratory values may occur and will be monitored by a simple blood test.</p> <ul style="list-style-type: none"> <li>• You may not feel any symptoms if the changes are mild, and they usually are not a sign of a serious problem.</li> <li>• More severe changes may occur, which can be a sign of a serious problem.</li> </ul> <p>Notify your care provider if you have any of the following:</p> <ul style="list-style-type: none"> <li>• Shortness of breath</li> <li>• Chest discomfort</li> <li>• Weakness or fatigue</li> <li>• New aches and pains</li> <li>• Headaches</li> <li>• Dizziness</li> <li>• Swelling of your legs or feet</li> <li>• Red- or brown-colored urine</li> </ul>

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Possible Side Effect	Management
<b>Nausea or vomiting</b>	<ul style="list-style-type: none"> <li>• Eat and drink slowly.</li> <li>• Drink 8–10 glasses of water or fluid each day unless your care provider has instructed you to limit your fluid intake.</li> <li>• Eat small, frequent meals throughout the day rather than a few large meals.</li> <li>• Eat bland foods; avoid spicy, fried, and greasy foods.</li> <li>• Avoid vigorous exercise immediately after eating.</li> <li>• Don't lie down immediately after eating.</li> <li>• Avoid strong odors.</li> </ul> <p>Let your provider know if you experience nausea or vomiting. Your provider may prescribe medication to help with the nausea or vomiting.</p>
<b>Fluid retention or swelling</b>	<ul style="list-style-type: none"> <li>• Do not stand for long periods of time.</li> <li>• Keep your legs elevated when sitting or lying down.</li> <li>• Avoid eating salty foods, which can increase swelling.</li> <li>• Avoid tight-fitting clothing and shoes.</li> <li>• Weigh yourself daily.</li> </ul> <p>Contact your care provider if you notice the following:</p> <ul style="list-style-type: none"> <li>• Swelling in the hands, feet, or legs</li> <li>• Shortness of breath</li> <li>• Weight gain of 5 pounds or more in one week</li> </ul>
<b>Abdominal pain</b>	<p>Abdominal pain or discomfort may occur. Report any serious pain or symptoms to your care provider immediately.</p>

### Serious side effects of tretinoin

- ❑ Tretinoin can cause APL differentiation syndrome within the first month of therapy. Patients with differentiation syndrome may have a fever, shortness of breath or trouble breathing, swelling, and weight gain.
- ❑ Tretinoin may cause increased pressure around the brain with no specific cause. Let your care team know right away if you have a severe headache, nausea, vomiting, or changes to your eyes.
- ❑ Tretinoin can increase your white blood cell level (leukocytosis), increasing your risk of life-threatening complications.
- ❑ Tretinoin can cause serious birth defects. Do not take tretinoin if you are pregnant or think you might become pregnant.

If you experience ANY uncontrolled side effect, call your physician or healthcare center immediately:

(INSTITUTIONAL CONTACT INFO)

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### Pregnancy, sexual activity, and contraception

- ❑ Women should not become pregnant and men should not get a partner pregnant while taking tretinoin. Men and women of childbearing age and potential should use effective contraception during therapy and for a minimum of 1 month after the last dose of tretinoin.
- ❑ Do not breastfeed while taking tretinoin and for 1 month after the last dose of tretinoin.
- ❑ Inform your care provider if you become pregnant.
- ❑ It is safe to hug and kiss. Special precautions may be needed for sexual activity while on tretinoin, and you are encouraged to ask your care provider.

### Obtaining medication

Talk with your care provider about the process for obtaining your tretinoin.

(PHARMACY OR SPECIALTY PHARMACY CONTACT INFO)

### Additional resources

**Product prescribing information:** <https://dailymed.nlm.nih.gov/dailymed/getFile.cfm?setid=0f81f505-a962-414e-8612-c3ef3b159e9a&type=pdf>

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### Additional instructions

**Important notice:** The Association of Community Cancer Centers (ACCC), Hematology/Oncology Pharmacy Association (HOPA), National Community Oncology Dispensing Association, Inc. (NCODA), and Oncology Nursing Society (ONS) have collaborated in gathering information for and developing this patient education guide. This guide represents a brief summary of the medication derived from information provided by the drug manufacturer and other resources. This guide does not cover all existing information related to the possible uses, directions, doses, precautions, warnings, interactions, adverse effects, or risks associated with this medication and should not substitute for the advice of a qualified healthcare professional. Provision of this guide is for informational purposes only and does not constitute or imply endorsement, recommendation, or favoring of this medication by ACCC, HOPA, NCODA, or ONS, who assume no liability for and cannot ensure the accuracy of the information presented. The collaborators are not making any representations with respect to the medications whatsoever, and any and all decisions, with respect to such medications, are at the sole risk of the individual consuming the medication. All decisions related to taking this medication should be made with the guidance and under the direction of a qualified healthcare professional.

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