Letrozole (Femara®) is an oral medication that your doctor has prescribed for the treatment of your hormone-receptor-positive breast cancer. Letrozole is in the class of medicines called aromatase inhibitors.

What is hormone-receptor-positive breast cancer?
Many breast cancers need estrogen and/or progesterone (female hormones), to grow and spread. When breast cancer is found, the cancer is tested for two proteins, called hormone receptors. These receptors are: estrogen (ER) and progesterone (PgR). If a cancer is found to have these proteins, this means that cancer growth can be stimulated with these hormones. If a cancer is found to have these receptors, hormone or endocrine therapy is recommended as part of your treatment plan.

How is this medication taken?
- Take letrozole once daily.
- Take letrozole with water (with or without food).
- Do not crush, break, or open capsules.
- If you miss a dose of letrozole, take your next dose at the usual scheduled time. Do not make up doses during the day.
- Contact your cancer clinic if you are unable to take letrozole as prescribed, including if you are unable to swallow the capsule.
What are Aromatase Inhibitors?

Aromatase inhibitors are drugs that are sometimes used to treat breast cancer. These drugs are most often called hormonal, anti-estrogen, or endocrine therapy. There are three aromatase inhibitors:

- Anastrozole (Arimidex®)
- Exemestane (Aromasin®)
- Letrozole (Femara®)

Why use an Aromatase Inhibitor?

Aromatase inhibitors are used to either stop a new breast cancer from forming, or to treat early or advanced stage (also called metastatic) breast cancer. AIs work by stopping your body from making estrogen. If your body is no longer making estrogen, it “starves” the cancer and stops or slows the growth. AIs work against the original breast cancer and also any cells that might have escaped from the breast and may be found in other organs of your body, such as the bone, liver, or lung. So, AIs can help keep a cancer from coming back. In fact, AIs reduce the risk of breast cancer from coming back, either in the breast or in other organs, by about 50%.

AIs have also been shown to help cut the risk of new cancers from growing in a woman’s breast. So, if you’ve had breast cancer and take an AI, your risk of getting another new breast cancer in the other breast is also reduced. Also, some women who have never had breast cancer are more at risk for getting breast cancer. By taking an AI you can lower your chance of getting breast cancer.

How does an Aromatase Inhibitor work?

Aromatase inhibitors stop a key enzyme (called aromatase) from changing other hormones into estrogen. This lowers estrogen levels in the body, taking away the fuel that estrogen receptor-positive breast cancers need to grow.
Aromatase inhibitors can't stop the ovaries from making estrogen, so aromatase inhibitors only work in women who have gone through menopause (postmenopausal).

Menopause is defined as: ovaries no longer making estrogen; ovaries that have been removed; or ovaries not making estrogen because of medication.

Do not take AI's if you think your ovaries are working or you are cycling. Do not use any form of estrogen, such as pills, skin cream, or vaginal preparations. These are absorbed by your body and can counteract the beneficial effects of an AI.

**Are there any drugs or foods I should avoid with letrozole therapy?**

- There are many drug and herbal interactions with letrozole. Please contact your cancer clinic if you are taking or interested in taking any new over-the-counter medication, vitamin, or herbal product or if a doctor other than your oncologist has prescribed any new medication for you. We will review these for possible drug interactions with letrozole. Some examples of medications/herbal products that may interact include: artesunate, methadone, tamoxifen, and tegafur.

**What side effects can occur with this regimen?**

This information does not cover all possible side effects, but highlights the side effects seen most frequently, especially when these medications were given in combination. You know what is “normal” for your body best—if you are experiencing a change in one of your symptoms not listed here, please contact your clinic with questions.
**Fertility Concerns**

Cancer treatment may affect your fertility. You should discuss any concerns with your physician before beginning treatment.

**Side Effects:**

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| **Aches or pains in your joints and bones.**  
Can get pain in wrists, fingers, hips, shoulders, and knees. There also can be a generalized achiness and stiffness.  
About half of women get this side effect. | • For pain associated with bones joints, and muscles use either aspirin, non-steroidal anti-inflammatory drugs (like ibuprofen, Motrin®, Advil®, etc.) or acetaminophen (Tylenol®, etc.).  
• Drinking more fluids can help with muscle cramps.  
• Adding daily exercise can help lower joint and muscle pain. | Unable to perform normal daily activities. |
| **Carpal tunnel**  
Wrist pain caused by pressure on the median nerve. | • Try using ice packs on the wrists  
• Wear a wrist splint, especially at night while sleeping. | Unable to perform normal daily activities. |
| **Trigger finger**  
When fingers get stuck in a bent position and the muscle cramps. | • Try using ice packs on the palm of the hand.  
• Try using warm water soaks.  
Wear a finger splint. | Unable to perform normal daily activities. |
| **Hot flashes** | • Dress in layers for managing hot flashes.  
• Discuss your concerns with the clinic team. | • Hot flashes that disrupt daily activities.  
• Sleep interruptions.  
Medications are available to treat this side effect by reducing the number of hot flashes. |
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<tr>
<td>Hair Thinning</td>
<td>• Use head coverings to protect against sun and cold temperatures, if needed.</td>
<td>• Discuss concerns with your provider.</td>
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<tr>
<td>Hair Thinning</td>
<td>• Ask the clinic for a prescription if you plan to purchase a wig.</td>
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<td>hair thinning is common while taking an AI. These side effects are likely due to the decrease in estrogen concentrations resulting from treatment with this drug.</td>
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<td>Vaginal dryness and pain during sex</td>
<td>• Use products such as Astroglide® or KY Jelly® for sex. These are water-soluble vaginal lubricants that do not have estrogen. Talk to your doctor if you have questions or would like more information.</td>
<td>• Do not hesitate to discuss emotional and sexual effects with your provider</td>
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<tr>
<td>Vaginal dryness and pain during sex</td>
<td>• Replens® is a vaginal moisturizer that can be used daily or as needed for</td>
<td>• Concerns about mood and sex drive</td>
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<tr>
<td>Note: We do not suggest the use of any Soy-based products or foods to treat hot flashes.</td>
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<td>If you no longer have hot flashes or start having periods again, contact your oncology provider.</td>
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## Osteoporosis (brittle bones)

Estrogen increases bone strength. Your bones often lose some of their calcium and become weaker (osteoporosis) after menopause when estrogen levels have decreased. AIs cause an even greater decrease in estrogen than natural menopause, so osteoporosis is a concern.

Bone Density Scans are used to test for osteoporosis (bone thinning and risk of fracture). If this hasn’t been done within the last two years, it may be ordered by your oncology provider or primary care provider before starting an AI.

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| maintenance of vaginal moisture. | • Bone Density testing should be done every two years but may be done sooner.  
• Bone density is something often followed by your primary care provider and they may want to continue to manage your bone health during breast cancer treatment.  
• You should take in 1200 mg of calcium daily, either in your food or in supplements. Be sure to spread out your calcium intake throughout the day. Also take in 800-1000 IU of vitamin D3 every day to help prevent osteoporosis. The combination of calcium and vitamin D can be found in many over-the-counter preparations, such as OsCal-D or Caltrate+D.  
• Do weight bearing exercise such as walking. | • If you already have osteopenia/osteoporosis, or if you develop it during AI treatment, your doctor may prescribe one of many types of bone strengthener medications, called bisphosphonates, which are commonly used to treat this condition. |
More information:
For more information, visit the Patient Education Resource Center in the Cancer Center or call (734) 647-8626.
When and How to Call Your Doctor

For Medical Emergencies, call 911.

Monday through Friday 8:00 am to 5:00 pm Call (734) 936-6000.

After 5:00pm, weekends and holidays, call the paging operator at (734) 936-6267. Ask to speak to the doctor on call:
- Adult Hematology/Oncology

When should I call the doctor?
- Swelling and pain in one of your legs.
- Sudden chest pain or shortness of breath.
- Any abnormal vaginal bleeding or discharge.
- Pain or pressure in your pelvis.
- A fever of 100.5° Fahrenheit, or greater
- Bleeding or unusual bruising
- Burning and/or pain when urinating
- Constipation (no bowel movement in 2-3 days)
- Diarrhea (loose, watery stools) four or more watery stools in 24 hours
- Nausea, vomiting or if you cannot keep down any liquids
- Pain not controlled by your current medications
- Redness, pain, sores or a white coating in your mouth
- Shaking and chills
- Unusual cough, sore throat, lung congestion or shortness of breath
- Any symptom that concerns you or possible side effects linked to your medications, or as directed by your doctor.
- If you are having side effects that you are cannot manage.
- If you start taking a new medication, call the clinic to check for drug interactions.