

Aromatase Inhibitor Therapy for Breast Cancer for Females

What are aromatase inhibitors (AI's) and how do they work?

Anastrozole (Arimidex), **Exemestane** (Aromasin) and **Letrozole** (Femara) are medicines taken by mouth that block an enzyme in our body called “aromatase” from making estrogen. Your provider may use this therapy to lower the amount of estrogen in your body. This may prevent breast cancer cells from growing and spreading.

How is this medicine used to treat my cancer?

Aromatase inhibitors (AIs) are not chemotherapy – they are a type of therapy known as “hormone blocking therapy” or “endocrine therapy”.

You can learn more about hormone blocking therapy in the book **Hormone Blocking Therapy for Women with Breast Cancer** at <https://go.osu.edu/pted5506>

If you have gone through menopause or if your ovaries have been removed or shut down, your body can still make estrogen using an enzyme called “aromatase”. An enzyme is a chemical that helps change one substance into something else. High levels of the aromatase enzyme are found in the breast, body fat and muscle.

What should I tell my health care team before starting this treatment?

- If you have ever had anti-cancer treatment and the names of the medicines you were given.
- If you have ever had heart, liver or high cholesterol problems.
- If you have ever had decreased bone density, also known as “bone thinning”, “osteopenia” or “osteoporosis”.

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

- If you are pregnant or think you may be pregnant. You should not become pregnant while you take these medicines.
- If you develop menstrual bleeding, vaginal bleeding, or spotting while taking these medicines.
- If you are breastfeeding.
- If you have been told that you need to start a new medicine.
- The medicines/pills you are taking, including:
 - ▶ Medicines ordered by any of your doctors
 - ▶ Herbs
 - ▶ Vitamins
 - ▶ Over-the-counter medicines

There are certain dietary and herbal supplements you should not take while using Aromatase Inhibitors. More information can be found in these two documents.

- **Breast Cancer: Precautions for Use of Dietary/Herbal Supplements**
<https://healthsystem.osumc.edu/pteduc/docs/PrecautionsBreast.pdf>
- **Breast Cancer and Nutrition**
<https://healthsystem.osumc.edu/pteduc/docs/BreastCancerNutrition.pdf>

When is AI therapy used?

AI therapy may be used to treat “hormone-receptor positive” breast cancer also known as “estrogen-receptor (ER) positive”, or “progesterone receptor (PR) positive” breast cancer in postmenopausal women, or in premenopausal women who are also using ovarian suppression.

Your health care team may recommend AI therapy before or after other cancer treatments. If AI therapy is given before surgery, it is called a “neoadjuvant” therapy. If it is given after surgery, it is called an “adjuvant” therapy.

For early-stage (stages 0-III) hormone-receptor-positive breast cancer, your doctor may use AI therapy after surgery. This is to help prevent cancer cells from coming back in the breast or other areas in the body. You may need to take adjuvant AI therapy for about 5 to 10 years.

For advanced stages (stage IV) of hormone-receptor-positive breast cancer, AI therapy may be used to control the symptoms of your cancer and to prevent the cancer from growing larger or spreading to new areas. Your health care team will talk with you about changing or stopping endocrine therapy if you are unable to tolerate this therapy or if your cancer does not respond well to the treatment.

Sometimes AI therapy may be used to prevent breast cancer in patients who are at high risk of developing breast cancer.

Can AI therapy be given with other kinds of treatment?

For early-stage hormone-receptor-positive breast cancer, your health care team can use AI therapy after you have had other treatments (surgery, chemotherapy or radiation). AI therapy can be used by itself, or in combination with other drugs including Trastuzumab, Pertuzumab, Ado-Trastuzumab Emtansine or Neratinib if your breast cancer is also “human epidermal growth factor receptor 2” (HER2) positive.

For the treatment of advanced stages of hormone-receptor-positive breast cancer, your doctor may use AI therapy by itself or in combination with other types of “targeted” therapy. AI therapy is normally not given in combination with chemotherapy.

How do I handle, store and dispose of AI’s?

It is safe to handle them as a whole tablet. Store them in a closed container in a dry place such as a cabinet away from light, heat, and moisture. Do not store in your bathroom or refrigerator. Keep this medicine away from children and do not share it with anyone. Talk with your pharmacist about how to get rid (dispose) of this medicine safely.

How do I take AI’s?

A check (✓) has been put in the box by the medicine and the dose that has been prescribed by your health care team:

- ☐ Anastrozole (Arimidex) 1 mg one time each day **with or without food**
- ☐ Exemestane (Aromasin) 25 mg one time each day **with food**
- ☐ Letrozole (Femara) 2.5 mg one time each day **with or without food**

- **Do not** take more tablets than prescribed.
- Take the tablet once a day at the same time every day.
- Do not stop taking your medicine until your doctor tells you to.
- If you miss a dose by more than 6 hours, wait until it is time for your next dose to take your dose; skip the dose you missed. **Do not double up on doses.**
- The pharmacy where you fill your prescription may give you more specific directions on how to take this medicine.

What are the side effects of AI therapy?

Every person responds differently to treatment. Some of the more common side effects are:

- Muscle or joint aches and pains (also called arthralgias)
- Hot flashes or flushing
- Night sweats
- Mood swings or depression
- Vaginal dryness and irritation
- Fatigue
- Decrease in bone density leading to osteopenia or osteoporosis
- Changes in blood cholesterol or triglycerides
- Hair thinning
- Changes in sex drive

When should I call my health care provider?

You should call your health care team **right away** if you have any of the following signs or symptoms:

- Vaginal spotting or bleeding
- If you think you are pregnant
- Shortness of breath or difficulty breathing
- Swelling of your face, lips or throat
- Depressed mood or sadness

Is there anything else I should know about this treatment?

- You should drink 8 to 10 cups of non-caffeinated, non-alcoholic fluid each day to stay hydrated during treatment. It is especially helpful if you have hot flashes.
- Talk to your provider about ordering bone density tests.
- Include weight-bearing exercises in your daily routine. Ask your doctor, nurse or pharmacist about taking calcium and vitamin D supplements to help strengthen bones.
- If you develop side effects to one of the AIs, your provider may give you a break from the medicine until your symptoms get better, and then try a different AI. Sometimes patients will not have the same side effects after they change their medicine.
- Patient education materials on how to care for yourself while on AIs are available on The James Patient Education site at <https://go.osu.edu/jamespatienteducation>

You may also find it helpful to watch The James Patient Education videos at <http://cancer.osu.edu/patientvideos> to help you learn tips for managing treatment side effects.