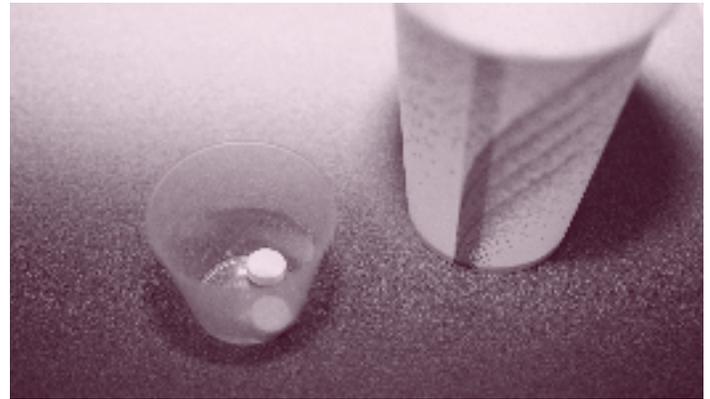


# Hormone Therapy for Breast Cancer Treatment

## Hormone therapy — an overview

Hormones, such as estrogen and progesterone are made in the body. Some cancer cells have proteins, called hormone receptors. Cancer cells with these proteins need hormones to grow. These tumors are called hormone receptor-positive tumors (HR+). Tumors without these proteins are called hormone receptor-negative (HR-). Breast cancers that are HR+ can be treated with hormone therapy.

Hormone therapies slow or stop the growth of estrogen receptor-positive (ER+) tumors. This prevents cancer cells from getting the hormones they need to grow. They do this in a few ways. Some hormone therapies, like tamoxifen, attach to the receptor in the cancer cell. It blocks estrogen from getting to the receptor. Others, like aromatase inhibitors, lower the level of estrogen in the body. This keeps the cancer cells from getting the estrogen they need to grow.



## Hormone therapy drugs

Hormone therapy is used to treat both early stage and metastatic breast cancers that are ER+. If hormone therapy is an option for you, your doctor will consider several factors. These include whether you are pre- or postmenopausal and the stage of your breast cancer. Your doctor should discuss these factors with you. Then together, you can decide which treatment is best for you.

## Related terms

**Estrogen** — a hormone produced primarily by the ovaries that aids in developing female sex organs and in regulating monthly menstrual cycles

**Hormones** — chemicals made by certain glands and tissues in the body that help regulate body functions

**Menopause** — the time in a woman's life when her menstrual cycles stop for good and the level of hormones in her body decreases

**Premenopausal** — before menopause

**Postmenopausal** — after menopause

**Progesterone** — a hormone that is released by the ovaries during every menstrual cycle that helps prepare a woman's body for pregnancy and breast-feeding

## Hormone therapy for early and locally advanced breast cancer

Hormone therapy is given after breast surgery. For early stage breast cancer, treatment with the hormone therapies tamoxifen and/or aromatase inhibitors lowers the risk of breast cancer recurrence (coming back) and death. Both tamoxifen and aromatase inhibitors are taken in pill form. Menopausal status will determine which drugs are used.

Drug (Brand name)	Used to treat estrogen receptor-positive breast cancers in women who are:	
	Premenopausal	Postmenopausal
Tamoxifen (Nolvadex)	✓	✓
Anastrozole (Arimidex)		✓
Exemestane (Aromasin)		✓
Letrozole (Femara)		✓

## Hormone therapy for metastatic breast cancer

For women with ER+ metastatic breast cancer, hormone therapy is often the first treatment. The choice of drug given depends on past hormone therapy treatments. The table shows some hormone therapy drugs used to treat metastatic breast cancer. Research continues on others that may be helpful treatments in the future.

Drug (Brand name)	Used to treat estrogen receptor-positive breast cancers in women who are:	Injection or pill?
Tamoxifen (Nolvadex)	Premenopausal or postmenopausal	Pill
Anastrozole (Arimidex)	Postmenopausal	Pill
Exemestane (Aromasin)	Postmenopausal	Pill
Fulvesterant (Faslodex)	Postmenopausal	Injection
Letrozole (Femara)	Postmenopausal	Pill
Goserelin (Zoladex)	Premenopausal	Injection

## Questions to ask your doctor

If you are not sure if hormone therapy is right for you, talk with your doctor. Being informed will help you feel better about the treatment choices you make. Here are some questions you can ask to get you started:

- Was my breast cancer HR+? If so, what does this mean?
- Which hormone therapy is right for me?
- How long will I be on this treatment?
- What are the side effects of this treatment and what can be done to ease them?
- Do I need tests to check for side effects?

## Hormone therapy versus menopausal hormone therapy

Hormone therapy for breast cancer treatment is different than menopausal hormone therapy (MHT). Hormone therapies used in breast cancer treatment block hormone actions or lower hormone levels in the body. So, although these drugs are called hormone therapies, they act as “anti-hormone” therapies. By contrast, MHT is meant to increase hormone levels in the body to treat menopausal symptoms. MHT increases the risk of breast cancer. It is recommended at the lowest dose for short-term use to ease these symptoms. MHT may be called postmenopausal hormones or hormone replacement therapy.

### Related fact sheets in this series:

- Clinical Trials
- How Hormones Affect Breast Cancer
- Making Treatment Decisions
- Research on Breast Cancer Treatment
- Treatment Choices — An Overview