

# Hot Flashes and Night Sweats (PDQ®): Supportive care - Patient Information [NCI]

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## Causes of Hot Flashes and Night Sweats in Cancer Patients and Survivors

Hot flashes and night sweats are common in cancer patients and survivors.

A hot flash is a sudden warm feeling over your face, neck, and chest that may cause you to sweat and your face to turn red. Sweating is your body's way of lowering body temperature by causing heat loss through your skin. Hot flashes combined with sweats that happen while sleeping are often called *night sweats* or *hot flushes*. Hot flashes and night sweats are common in patients receiving cancer treatment. Some people continue to have hot flashes and night sweats after cancer treatment.

In women and men, hot flashes and night sweats may be caused by surgery, radiation therapy, and taking certain medications.

### Women

Menopause occurs when the ovaries stop making estrogen. Hot flashes and night sweats are common symptoms of menopause. Early menopause is a condition in which the ovaries stop making estrogen at a younger age than usual. Early menopause can occur when both ovaries are removed by surgery, such as a bilateral oophorectomy to lessen the chance cancer will occur or as part of a hysterectomy to treat cancer.

Other treatments that can cause hot flashes and night sweats include the following:

- Chemotherapy.
- Hormone therapy, such as antiestrogens (tamoxifen) and aromatase inhibitors.
- Radiation therapy.
- Other drug therapy, such as opioids, tricyclic antidepressants, and steroids.

In breast cancer patients, severe hot flashes have been linked with the following:

- Problems sleeping.
- A lot of pain.
- Poor mental health.

In premenopausal breast cancer survivors, hot flashes and night sweats have also been linked with depression.

## Men

In men, the testes produce testosterone. Surgery to remove one or both testicles for the treatment of prostate cancer can trigger a set of symptoms that include hot flashes and night sweats. Hormone therapy with gonadotropin-releasing hormone or estrogen also causes these symptoms in men.

Other drug therapy, such as opioids, tricyclic antidepressants, and steroids, may also cause hot flashes and night sweats.

## Drug Treatment for Hot Flashes and Night Sweats in Cancer Patients and Survivors

Hot flashes and night sweats may be controlled with estrogen replacement therapy.

Hot flashes and night sweats during natural or treatment-related menopause can be controlled with estrogen replacement therapy. However, many women are not able to take estrogen replacement (for example, women who have or had breast cancer) and may need to take a drug that does not have estrogen in it. Hormone replacement therapy that combines estrogen with progestin may increase the risk of breast cancer or breast cancer recurrence.

Treatment of hot flashes in men who have been treated for prostate cancer may include estrogens, progestin, antidepressants, and anticonvulsants.

Other drugs may be useful in some patients.

Studies of non-estrogen drugs to treat hot flashes in women with a history of breast cancer have reported that many of them do not work as well as estrogen replacement or have side effects. Megestrol and medroxyprogesterone (drugs like progesterone),

certain antidepressants, anticonvulsants, and clonidine (a drug used to treat high blood pressure) are non-estrogen drugs used to control hot flashes.

Side effects from drug therapy for hot flashes and night sweats may develop.

Side effects of non-hormonal drug therapy may include the following:

- Antidepressants used to treat hot flashes over a short period of time may cause nausea, fatigue, dry mouth, and changes in appetite. Some antidepressants may change how other drugs, such as tamoxifen, work in the body.
- Anticonvulsants used to treat hot flashes may cause fatigue, dizziness, and trouble concentrating.
- Clonidine may cause dry mouth, fatigue, constipation, and insomnia.

Side effects from drug therapy may vary from person to person, so treatment and dose will be specific to your needs. If one medicine does not improve your symptoms, switching to another medicine may help.

## Non-Drug Treatment for Hot Flashes and Night Sweats in Cancer Patients and Survivors

Treatments that help patients cope with stress and anxiety may help manage hot flashes.

Treatments that change how you deal with stress, anxiety, and negative feelings may help you manage hot flashes. These strategies include cognitive behavioral therapy and relaxation and breathing exercises. They help you gain a sense of control and develop coping skills to manage your symptoms.

Hypnosis has also been used as a treatment for hot flashes. It is a trance-like state that allows you to be more aware, focused, relaxed, and open to suggestion. Under hypnosis, you can concentrate more clearly on a specific thought or feeling without becoming distracted. A therapist helps you to deeply relax and focus on cooling thoughts. This may lower stress levels, balance body temperature, and calm the heart rate and breathing rate.

Cognitive behavioral therapy, relaxation and breathing exercises, or hypnosis may help hot flashes and related problems when used together with drug therapy.

Comfort measures may help relieve hot flashes and night sweats.

Comfort measures may be used to treat hot flashes and night sweats related to cancer treatment. Since body temperature goes up before a hot flash, doing the following may control body temperature and help control symptoms:

- Wear loose-fitting clothes made of cotton.
- Use fans and open windows to keep air moving.
- Practice relaxation training and paced breathing.

Herbs and dietary supplements should be used with caution.

It is important that your health care providers know about all of the dietary supplements, such as soy, and herbs you are taking with your medicines.

Studies of vitamin E for the relief of hot flashes show that it is only slightly better than a placebo (pill or procedure that has no effect). Most studies of soy and black cohosh show they are no better than a placebo in reducing hot flashes. Soy is rich in estrogen-like substances, but how it affects cells in the body is unknown. Studies of ground flaxseed and magnesium oxide to treat hot flashes have shown mixed results.

Claims are made about several other plant-based and natural products as remedies for hot flashes. These include dong quai, milk thistle, red clover, licorice root extract, and chaste tree berry. Since little is known about how these products work or whether they affect the risk of breast cancer, you should talk with your doctor before using them.

Acupuncture has been studied in the treatment of hot flashes.

Pilot studies of acupuncture and randomized clinical trials that compare true acupuncture and sham (placebo) treatment have been done in patients with hot flashes and results are mixed. A review of many studies combined showed that acupuncture had slight or no effects in breast cancer patients with hot flashes. In contrast, a randomized clinical trial that was not included in the review showed that breast cancer patients who were given acupuncture had fewer hot flashes. Another randomized clinical trial showed that breast cancer survivors who were given electroacupuncture had a reduction in hot flash symptoms. (See the Vasomotor symptoms section in the PDQ health professional summary on Acupuncture for more information.)

## Current Clinical Trials

Use our clinical trial search to find NCI-supported cancer clinical trials that are accepting patients. You can search for trials based on the type of cancer, the age of the patient,

and where the trials are being done. General information about clinical trials is also available.

## About This PDQ Summary

### **About PDQ**

Physician Data Query (PDQ) is the National Cancer Institute's (NCI's) comprehensive cancer information database. The PDQ database contains summaries of the latest published information on cancer prevention, detection, genetics, treatment, supportive care, and complementary and alternative medicine. Most summaries come in two versions. The health professional versions have detailed information written in technical language. The patient versions are written in easy-to-understand, nontechnical language. Both versions have cancer information that is accurate and up to date and most versions are also available in Spanish.

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### **Purpose of This Summary**

This PDQ cancer information summary has current information about the causes and treatment of hot flashes and night sweats. It is meant to inform and help patients, families, and caregivers. It does not give formal guidelines or recommendations for making decisions about health care.

### **Reviewers and Updates**

Editorial Boards write the PDQ cancer information summaries and keep them up to date. These Boards are made up of experts in cancer treatment and other specialties related to cancer. The summaries are reviewed regularly and changes are made when there is new information. The date on each summary ("Updated") is the date of the most recent change.

The information in this patient summary was taken from the health professional version, which is reviewed regularly and updated as needed, by the PDQ Supportive and Palliative Care Editorial Board.

### **Clinical Trial Information**

A clinical trial is a study to answer a scientific question, such as *whether one treatment is better than another*. Trials are based on past studies and what has been learned in the laboratory. Each trial answers certain scientific questions in order to find new and better ways to help cancer patients. During treatment clinical trials, information is collected about the effects of a new treatment and how well it works. If a clinical trial shows that a new treatment is better than one currently being used, the new treatment may become "standard." Patients may want to think about taking part in a clinical trial. Some clinical trials are open only to patients who have not started treatment.

Clinical trials can be found online at NCI's website. For more information, call the Cancer Information Service (CIS), NCI's contact center, at 1-800-4-CANCER (1-800-422-6237).

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### **Contact Us**

More information about contacting us or receiving help with the Cancer.gov website can be found on our Contact Us for Help page. Questions can also be submitted to Cancer.gov through the website's E-mail Us.

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*If you want to know more about cancer and how it is treated, or if you wish to know about clinical trials for your type of cancer, you can call the NCI's Cancer Information Service at 1-800-422-6237, toll free. A trained information specialist can talk with you and answer your questions.*

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