

Understanding THERAKOS™ Photopheresis and CTCL

Helpful Information
for Patients and Caregivers



Therakos™
PHOTOPHERESIS

This brochure will answer the most commonly asked questions about photopheresis treatment. If you have additional questions, please ask your healthcare professional.



THERAKOS™ Photopheresis is indicated for the palliative treatment of the skin manifestations of cutaneous T-cell lymphoma (CTCL) that are unresponsive to other forms of treatment.

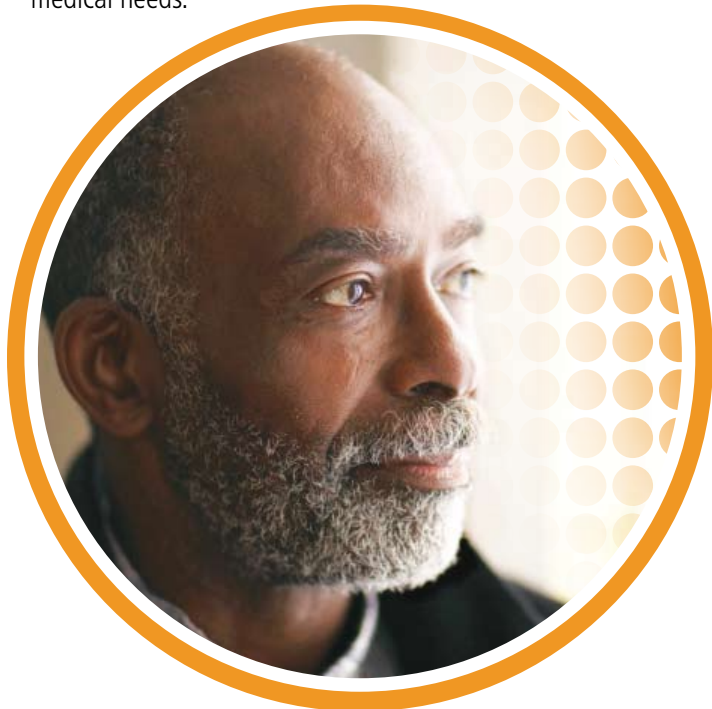
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Understanding THERAKOS™ Photopheresis

THERAKOS™ Photopheresis (*fō'-tō-fe-rē-'sis*) is a state-of-the-art treatment for skin problems from cutaneous T-cell lymphoma (CTCL). (Please see pages 8 and 9 for more on CTCL.)

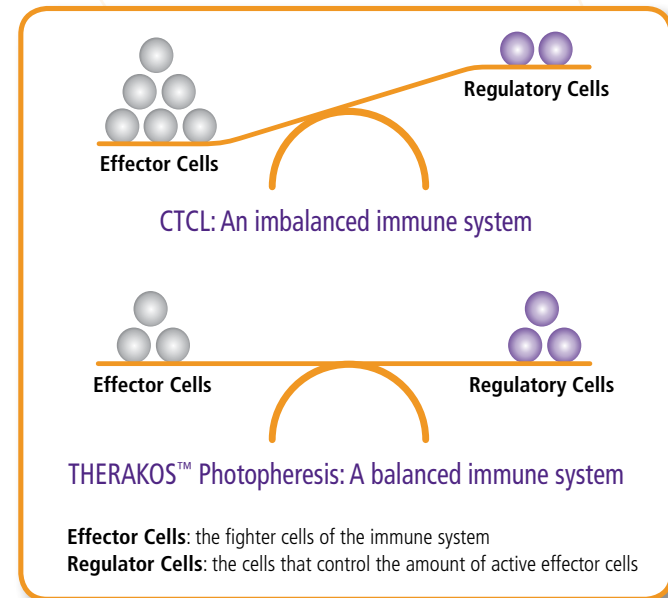
During a photopheresis treatment, while you are connected to the instrument, a small amount of your white blood cells are collected. Inside the instrument, the cells are treated with medicine that is then “activated” (turned on) by brief exposure to ultraviolet-A (UVA) light. The treated blood cells are then promptly returned to your bloodstream. Photopheresis is done in repeated treatments that may reduce symptoms over time. Each patient’s treatment schedule will vary. Your healthcare professional will recommend the schedule best suited to your medical needs.



THERAKOS™ Photopheresis Helps Restore Balance

In a person with CTCL, the immune system is out of balance. THERAKOS™ Photopheresis may help restore the body’s natural ability to maintain a balanced immune system.

Here’s how it works. There are two key types of immune cells—effector cells and regulatory cells. In a healthy immune system, the regulatory cells maintain the proper amount of active effector cells. By contrast, in someone with CTCL, there aren’t enough regulatory cells to maintain balance, and too many effector cells are formed.



Although the exact way in which photopheresis works is still being studied, it appears that when the treated cells are reinfused into the body, regulatory cells are restored and regain control of the effector cells.



Benefits of THERAKOS™ Photopheresis

For many patients, THERAKOS™ Photopheresis has very positive effects. Some people may experience decreased itching and redness, while others may have noticeable or complete clearing of the skin. Remember, it is difficult to predict the type and extent of response you will have. Please see important product information on pages 16-18.

Response Time Varies

Response time may be different for each person. You may start to see results within a few months or it may take longer. It is important that you do not give up on the treatment or feel discouraged if you do not see results quickly. Your response may be different depending on the state of your immune system, the severity of your disease, and how frequently you receive the treatment. Improvement usually happens gradually.

Before Photopheresis

After Photopheresis



The pictures on the left were taken before THERAKOS™ Photopheresis treatments began. The pictures on the right show the same patients after 6 months of treatments. Data on file.

It is very important that you attend all of your photopheresis treatment sessions as scheduled.

THERAKOS™ Photopheresis Is Different From Other Treatments

THERAKOS™ Photopheresis empowers your own immune system to treat skin symptoms of CTCL. When your white blood cells are treated and then returned to your body, they may help your immune system restore balance.

Individual results may vary. Please see important product information on pages 16-18.

Patient Testimonials

Raymond G: *"The tormenting part about CTCL, for me, was the itching. And now [with photopheresis], it's almost gone, almost nil. I've been getting treatments for about 4 years and...maybe once in a while I'm a little tired the day after, but that's all."*

Richard S: *"In the beginning, it was the other patients at the photopheresis center that kept me coming. Since it took a while [to start seeing results], I wanted to stop. But the others kept with me and encouraged me to stay. So I did—and I'm glad I did. Photopheresis has helped me tremendously."*



Understanding CTCL

CTCL stands for cutaneous T-cell lymphoma, which is a rare cancer that affects certain white blood cells called T-lymphocytes. CTCL causes visible skin symptoms as mild as a small rash or as severe as tumors or extensive redness, peeling, burning, soreness, and itchiness all over the body. CTCL falls into different categories based on the severity of the disease and symptoms.

The two most common types of CTCL are mycosis fungoides and Sézary syndrome. In 10% of patients with mycosis fungoides, the disease can slowly spread to the blood, lymph nodes, or internal organs. In Sézary syndrome, affected cells are found in both the skin and blood. Only a small percentage of patients with CTCL experience a rapid worsening of the disease with involvement of internal organs.

Definitions

Cutaneous [*kyū-tā'-nē-ūs*]: of the skin.

Lymph nodes [*limf nōdz*]: small organs throughout the body that function as part of the immune system.

Lymphoma [*lim-fō'-mă*]: a type of cancer that begins in immune system cells.

Mycosis fungoides [*mī-kō'sis fūng-goy'-deez*]: a type of CTCL that first appears on the skin and can sometimes spread to other parts of the body.

Sézary syndrome [*sə'-zar-ē 'sin'drōm*]: a type of CTCL that affects the skin and blood.

T-lymphocyte [*tē līm'-fə-sīt*]: a type of white blood cell that fights infections and controls the immune response; also called a T cell.

CTCL Diagnosis and Treatment

CTCL may look like some common skin diseases other than cancer, so many patients may not receive proper treatment immediately for that condition. To correctly diagnose CTCL, your healthcare professional may take skin samples to look at under a microscope.

Once CTCL is diagnosed, your healthcare professional considers your specific disease stage and symptoms to determine an effective treatment approach. Treatment may also depend on whether you have other existing medical conditions, such as heart disease or diabetes. Make sure to ask your healthcare professional if you have questions about CTCL or your treatment.



How to Prepare for Your Treatment

If you and your healthcare professional decide THERAKOS™ Photopheresis is the right treatment for you, there are some things you should do to help each THERAKOS™ Photopheresis treatment session go as smoothly as possible.

Inform the healthcare professional overseeing your THERAKOS™ Photopheresis treatment about any other medications you are taking before starting treatment.



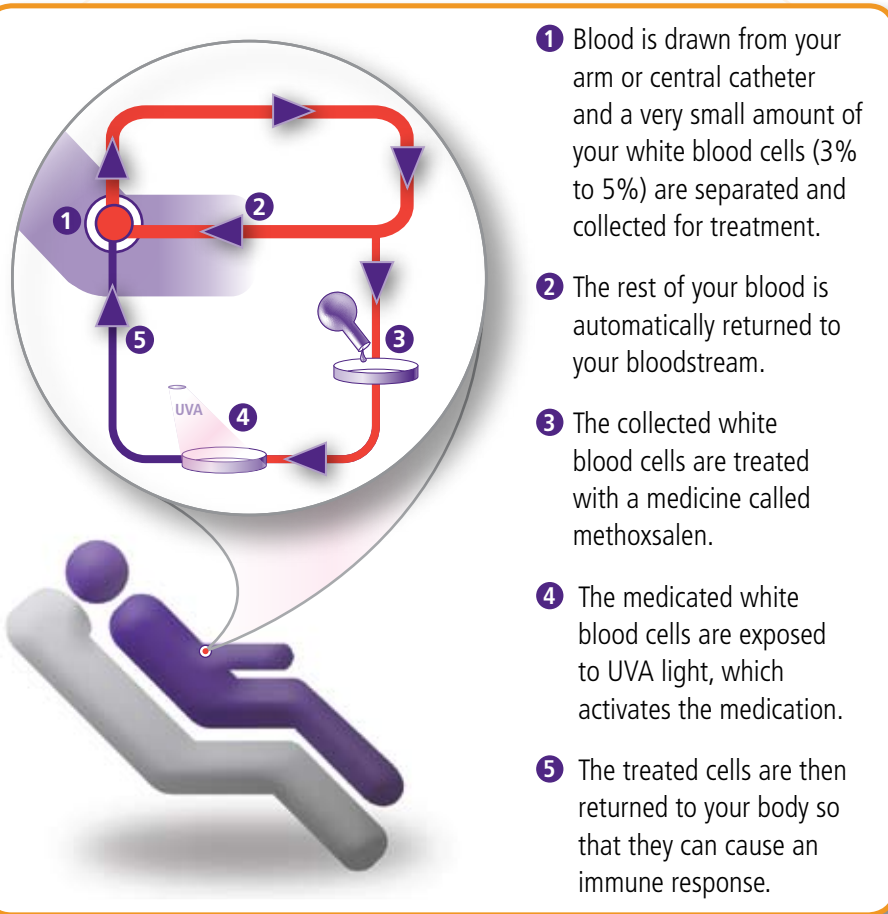
| For 2 Days Before Treatment | On the Evening Before Treatment | On the Day of Treatment | For 24 Hours After Treatment |
|--|---|---|--|
| <ul style="list-style-type: none"> • Drink plenty of fluids • Avoid caffeine • Avoid alcohol | <ul style="list-style-type: none"> • Eat a low-fat meal • Avoid food such as high-fat meat, cream, fried food, cheese, eggs, butter, and desserts | <ul style="list-style-type: none"> • Eat a low-fat breakfast and lunch • Do not skip any meals • Drink as little fluid as possible and visit the restroom right before the treatment so that you remain comfortable during the treatment | <ul style="list-style-type: none"> • Wear UVA-protective, full-coverage sunglasses and sunscreen • Avoid sunlight |
| <p><i>Reason:</i> Having more fluids in your body helps your blood flow better during the treatment. Both caffeine and alcohol can cause your body to have less fluid.</p> | <p><i>Reason:</i> High levels of fat in the blood may make the cell-separation process more difficult and could result in the treatment being stopped before it is completed.</p> | | <p><i>Reason:</i> The drug used in THERAKOS™ Photopheresis treatment makes patients more sensitive to sunlight for about 24 hours after treatment.</p> |

Speak with your healthcare professional if you notice any changes to your health, experience any side effects, or have any other concerns.



What to Expect During THERAKOS™ Photopheresis Treatment

Blood is drawn through a needle in an arm vein or a catheter. The blood cells are then separated by the THERAKOS™ Photopheresis instrument. A small amount of white blood cells are temporarily isolated (set aside), while the red blood cells and plasma are automatically returned to your bloodstream. The collected white cells are treated with a medicine called UVADEX® (methoxsalen). The treated cells are exposed to UVA light, which activates the medication, and then the treated cells are reinfused into your body.



With photopheresis, you are able to avoid exposing your whole body to radiation. It is a safe procedure—the tubing is replaced for each patient, so there is no chance that your blood will come into contact with anyone else's blood.

Treatment Time Varies

Treatment time varies from patient to patient. In general, the treatment itself can vary from about 1 1/2 to 3 hours, and then your healthcare professional may want to monitor your condition after the treatment. Most patients receive the treatment in a lounge chair or hospital bed, during which time they can read, watch television, work, or simply relax.

Use the Bathroom Before Treatment

Because you will be connected to the instrument, you will not be able to leave the lounge chair or hospital bed during treatment. Try to use the bathroom before your treatment begins, so that you are comfortable during treatment.

Your Schedule May Change

Your healthcare professional will customize a treatment schedule to fit your medical needs and conditions. Depending on your response, the healthcare professional may increase or decrease the frequency of your treatments.

It is very important that you attend all of your photopheresis treatment sessions as scheduled.



Length of Treatment Varies

Length of time on treatment varies from patient to patient, but you will probably receive photopheresis treatments for at least 6 months. Individual patient results may vary.

"I have been working with photopheresis for over 20 years. I have seen many patients benefit greatly from this process. Although it generally takes 3 to 6 months to start seeing an initial response, some patients report, even in the early treatment cycles, that their level of energy has increased."

—Emil Bisaccia, MD



Experiencing THERAKOS™ Photopheresis

Most patients report little or no discomfort. You may feel minor discomfort when the IV line is inserted. If you are concerned about this possibility, ask your healthcare professional about ways to lessen discomfort.

You may feel sensations during the treatment that are not painful. Some patients feel a slight pulsing from the instrument's pump, a slight chill, or a cool feeling where blood re-enters the body.

Some patients feel weak or dizzy during or immediately after the treatment. This is usually caused by a slight drop in blood pressure. If you feel dizzy or weak, tell your photopheresis caregiver.

Throughout your treatment, it is very important that you keep your healthcare professional informed about how you are feeling; even the slightest feeling of discomfort should be mentioned.



THERAKOS™ Photopheresis: Important Safety Information

More than 500,000 THERAKOS™ Photopheresis treatments have been given since 1987. Serious side effects of photopheresis are rare and are primarily related to a drop in blood pressure due to minor changes in blood volume during the treatment. Your healthcare professional will monitor you during treatment for low blood pressure. Other possible, side effects such as fever or skin redness usually go away within a day.

Ask your healthcare professional if you have questions about the safety of this treatment.

- THERAKOS™ Photopheresis is a sterile process
 - Single-use, sterile kit is discarded after each treatment
- All phases of the treatment take place during one session:
 - Blood collection and separation
 - Treatment of isolated white blood cells with medication and UVA light
 - Return of treated cells to the body
- Blood is never removed from the THERAKOS™ Photopheresis closed system, so that *your blood never gets contaminated with someone else's blood*, and minimizing your chance of getting infected
- Since the isolated white blood cells are treated with medication while they are in the THERAKOS™ Photopheresis system, the amount of medication that enters your body is extremely low
- Safety in children has not been established

Possible Side Effects of Photopheresis

Methoxsalen, the medicine used in photopheresis, can make you more sensitive to sunlight for about 24 hours after the treatment. Taking the right precautions reduces the risk for cataracts (a condition of the eyes) or serious sunburns. You should protect your eyes and skin by taking the following simple, but very important, precautions for 24 hours after each treatment:

- *Avoid sunlight as much as possible, even indirect sunlight coming through a window*
- *Wear sunscreen SPF 15 or higher when exposed to sunlight (both outdoors and indoors)*
- *Wear UVA-protective, full-coverage sunglasses when exposed to direct or indirect sunlight*

Other possible side effects usually go away within a day. These could include fatigue, a temporary increase in itchiness, or a slight fever or redness appearing 6 to 8 hours after treatment. Having treatments more frequently than labeling recommendations may result in a decrease in red blood cells (anemia). As with any procedure that involves a needle puncture, there is a small risk of infection and pain at the needle puncture site. Talk to your healthcare professional about any concerns you have about potential risks associated with THERAKOS™ Photopheresis.

Important Safety Information

INDICATIONS

UVADEX® (methoxsalen) Sterile Solution is indicated for extracorporeal administration with the THERAKOS™ UVAR™ XTS™ or THERAKOS™ CELLEX™ Photopheresis System in the palliative treatment of the skin manifestations of cutaneous T-cell lymphoma (CTCL) that are unresponsive to other forms of treatment.

CONTRAINDICATIONS

UVADEX® (methoxsalen) Sterile Solution is not appropriate for patients who have had a reaction to psoralen compounds. Patients who have had a disease that causes them to be sensitive to light should not start methoxsalen therapy.

UVADEX® Sterile Solution is also not appropriate for patients who are missing a lens in one or both of their eyes.

Warnings and Precautions

The combination of taking methoxsalen by mouth followed by receiving UVA light to the skin (PUVA therapy) is associated with a risk of causing cancer. Because the dose of methoxsalen with UVADEX® therapy is about 200 times less than with PUVA, and the skin is not exposed to high total doses of UVA light, the risk of developing skin cancer following UVADEX® therapy may be lower.

Methoxsalen may cause harm to the fetus when given to a pregnant woman.

Women undergoing photopheresis should be advised to avoid becoming pregnant.

It is very important to wear UVA-absorbing, wrap-around sunglasses for twenty-four (24) hours after UVADEX® treatment, and these glasses should be worn at any

time there is exposure to direct or indirect sunlight (whether outdoors or exposed through a window).

Safety in children has not been established.

Adverse Reactions

Side effects of photopheresis (UVADEX® used with THERAKOS™ Photopheresis Systems) were primarily related to a temporary decrease in blood pressure.

For the THERAKOS™ Photopheresis Procedure:

CONTRAINDICATIONS

The THERAKOS™ UVAR™ XTS™ or THERAKOS™ CELLEX™ Photopheresis Systems should be used as indicated. THERAKOS™ Photopheresis is not appropriate for people with certain underlying medical conditions, including patients who cannot tolerate blood loss, patients with reactions to 8-methoxypsoralen/psoralen compounds, and patients with blood clotting disorders.

Adverse Reactions

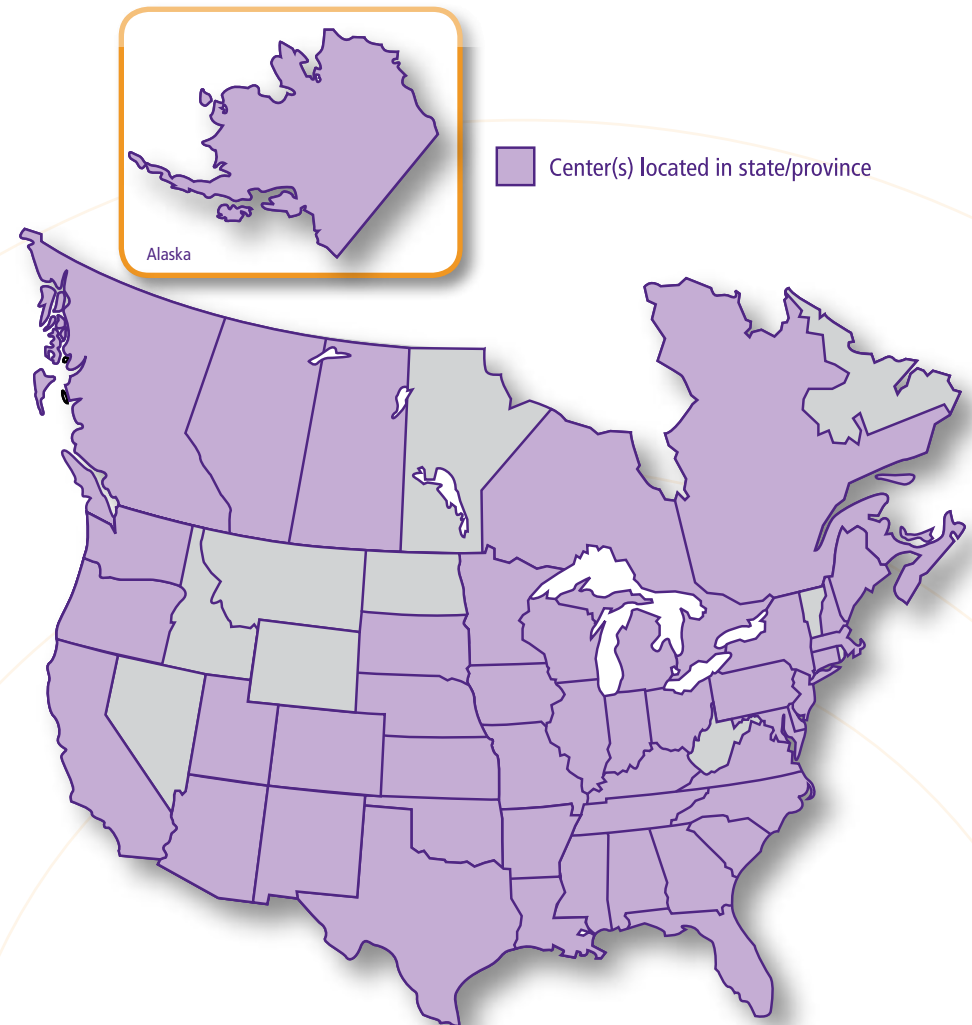
Low blood pressure may occur during treatments, like photopheresis. Your healthcare professional will monitor you during treatment for low blood pressure.

Temporary fever has been observed in some patients within six to eight hours of reinfusion treated blood. A temporary increase in skin redness may accompany the fever.

Having treatments more frequently than labeling recommendations may result in a decrease in red blood cells (anemia).

There is a small risk of infection and pain at the needle puncture site.

THERAKOS™ Photopheresis Center Locations



There are more than 100 THERAKOS™ Photopheresis centers throughout North America. Your doctor's office can help you find the right center for you; a listing of centers can be found at www.THERAKOS.com.



For more information about THERAKOS™ Photopheresis
please visit: www.THERAKOS.com

Additional Resources

The web sites listed below are maintained by third parties.
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American Cancer Society

www.cancer.org
1-800-ACS-2345 (1-800-227-2345)

CancerCare

www.cancer.org
1-800-813-HOPE (1-800-813-4673)

Cutaneous Lymphoma Foundation

www.clfoundation.org
1-248-644-9014

Leukemia and Lymphoma Society

www.leukemia-lymphoma.org
1-800-955-4572

Lymphoma Research Foundation

www.lymphoma.org
1-800-500-9976

National Cancer Institute

www.cancer.gov
1-800-4-CANCER (1-800-422-6237)

National Coalition for Cancer Survivorship

www.canceradvocacy.org
1-888-650-9127

