

Wood's Lamp Examination General Information:

A Wood's lamp examination is a test that uses ultraviolet light to closely look at the skin.

1. **How the Test is performed:**

The test is done while the individual is seated or standing in a **dark room**. The person conducting the test will turn on the Wood's lamp, holds it 4 to 5 inches from the area of skin being examined, and looks for any skin color changes. **Avoid shining the light directly into the eyes of the individual being examined.**

2. **How to Prepare the Individual for the Test:**

No special preparation is needed to conduct the test.

3. **Why the Test is Performed**

The Wood's Lamp test is done to help to detect several conditions affecting the skin, including:

•Bacterial infections •Fungal infections •Ectoparasites infestations •Skin coloring changes

4. **Normal Results:**

Under normal condition the skin will not shine, or fluoresce, under the ultraviolet light.

5. **What Abnormal Results Mean:**

The Wood's lamp exam will help you identify any parasites, fungal infection or bacterial infections in the skin. The medical staff will conduct further testing and assessments to properly determine what is causing any light- or dark-colored spots on your skin.

6. **Risks:**

Avoid looking or shining the light directly into the eyes.

7. **Important Considerations to Follow**

Do not allow the individual to wash or take a shower before the test, because that may cause a **false-negative** result. You need to conduct the test in a dark room if the room is not dark enough you will alter the examination results. Other materials or substances in the skin may also glow. For example,

- a. Deodorants,
- b. Make-ups
- c. Soaps, and Lotions, and
- d. Lint may be visible with the Wood's lamp.

**It is important to know that not all types of bacteria and fungi can be detected with the Wood's light. If you suspect of any, notify the medical staff immediately for further assessments.**

## **WOOD'S LAMP APPLICATIONS**

Typical Applications for Woods Lamps or Woods Light are very diverse. In the medical field there are several applications. We also find them used in criminology (forensics), mineralogy and gemology to detect fluorescence in many minerals and gems.

We will attempt here to list some of the major applications of our woods lights or woods lamps.

### ***MEDICAL USES***

Several skin diseases/challenges such as vitiligo, acne and a host of others cause the skin (or the fluids on the skin) to fluoresce.

- Vitiligo
- Bacterial Infections
- Acne
- Porphyria
- Erythasma
- Alopecia
- Tinea Versicolor
- Fungus & Fungal Infections
- Head Lice and their nits, fluoresce under black light.
- Ringworm
- Scabies
- Child abuse / bruising can often be discerned with a Woods light.

Why is it useful to be examined with the Wood's lamp? Normally your skin will not fluoresce, or shine, under the ultraviolet light. This test reveals different colors according to the type of skin disease, which may include:

- Golden Yellow (Tinea Versicolor)
- Pale Green (Trichophyton Schoenleini)
- Bright Yellow-green (Microsporum Audouini or M. Canis)
- Aquagreen To Blue (Pseudomonas Aeruginosa)
- Pink To Pink-orange (Porphyria Cutanea Tarda)
- Ash-Leaf-Shaped Spot (Tuberous Sclerosis)
- Blue-white (Leprosy)
- Pale White (Hypopigmentation)
- Purple-brown (Hyperpigmentation)
- Bright White, Or Blue-white (Depigmentation, Vitiligo)
- Bright White (Albinism)

### **Ophthalmology**

When used with sodium fluorocein or other fluorescing dyes, there are several applications for the world of the eye doctor.

- Foreign Particles in the Eye (glass and other hard to see particles)
- Eye Injury
- Scratches of the cornea
- Blocked Tear Ducts

## Miscellaneous Uses

- **Pets, small and large leave urine and feces in places that you would least expect. Feces, urine and other biological contaminants/materials can be detected easily with UVA Woods Lights.**
- **Hard water detection. Many "Culligan Men" water softener sales people carry a UVA black light as many hardened mineral deposits on taps, sinks etc. fluoresce with black light.**
- **Re-admittance inks. Fluorescent Ink detection. Some invisible inks such as those used at some night clubs and amusement parks for re-entry stamps can be seen under UV (Black Light)**
- **Rodent urine and traces fluoresce under black light. One can monitor/detect some forms of rodent activity with a simple woods lamp.**
- **Fraud detection. Some of our money has fluorescent dyes within.**

**Alternative Names:** Black light test; Ultraviolet light test

**Definition:** wood's lamp is a test that is performed in a dark room, shining ultraviolet light on the area of interest.

**How the Test is performed:** You will be seated and the lights will be turned off. The health care provider will turn on the Wood's lamp and hold it four to five inches from the area being studied. The health care provider will look at your skin for any color changes. You should not look directly into the light.

**How to Prepare for the Test:** No special preparation is needed. If you are treating the area in question with any topical medications, you may wish to skip an application before visiting the doctor.

**How the Test Will Feel:** You will feel nothing during this test.

**Why the Test is performed:** Your health care provider may perform this test to detect several conditions, including:

- Bacterial infections
- Fungal infections
- Porphyria
- Pigmentary alterations

**Normal Results:** Normally your skin will not fluoresce, or shine, under the ultraviolet light.

**What Abnormal Results Mean:** Using the light, your doctor may be able to confirm a diagnosis of fungal infection or bacterial infection. Your doctor may also be able to learn what is causing the light- or dark-colored spots on your skin.

**Risks:** There are no risks, but avoid looking directly into the ultraviolet light, as you avoid looking into the sun.

**Considerations:** Do not wash before the test, because that may cause a false-negative result. A room that is not dark enough may also alter results. Other materials may also glow. For example, some deodorants, makeups, soaps, and even lint may be visible with the Wood's lamp.

Not all infections can be detected with the light. Some species of fungi and bacteria do not contain fluorescent chemicals

## **Visual examination for lice**

During a visual exam for head lice, the hair on the head is parted with the fingers so that the scalp can be seen. The health professional or child's parent looks for tiny live lice [about 3mm to 4mm long, or the size of a sesame seed]. If you are checking your child or someone else for lice, it may be helpful to use a handheld magnifying glass or have another person help you. The doctor may use a special light called a Woods lamp in a darkened room to see the lice better.

- Lice will move quickly to avoid light, so they may be difficult to see.
- Nits (eggs) are small and white or light brown. They are usually found on the hair shaft close to the scalp. They do not slide up and down the hair shaft.
- If eggs are found farther from the scalp, the person may have been infested with lice for some time. If the nits have already hatched, the empty egg cases may appear white.

Pubic lice may look like yellowish brown or gray specks or small scabs. They are smaller than head lice [about 1mm to 2mm long] and are wider than they are long.

Body lice and their eggs may be seen in the seams of clothing. They are usually not found on the body, although there may be small, red bumps on the skin where the lice have bitten. The lice look like large head lice and may be up to 4mm long.

**Why It Is Done:** People with itching in areas of the body that are commonly infested with lice-the scalp, pubic area, or armpits-or anyone who has close contact with a person who has lice should do a self-exam or have someone help them look for lice and nits. Schoolchildren may be routinely examined for lice.

**Results:** Seeing lice or their eggs (nits) is enough to diagnose a lice infestation. Treatment is always needed to get rid of the lice.

**What to Think About:** People who have pubic lice are strongly encouraged to seek testing for other sexually transmitted diseases. Up to one-third of people who have pubic lice also have some other sexually transmitted disease.

## **Lice**

Lice are tiny insects that live on humans and survive by feeding on blood. Although they cannot jump or fly, they spread easily from one person to another through close contact or shared personal items.

Head lice, pubic lice, and body lice are the three main types that live on humans. When a large number of lice collect and reproduce on a person's body, it is called an infestation. Lice can infest people from all races and socioeconomic backgrounds.

The main symptom of lice infestation (Pediculosis) is itching in the affected areas. The nits (eggs) of hair and pubic lice may be seen on hair shafts, while nits of body lice are most often found in the seams of clothing. Scratching affected areas can make the skin raw, and these areas may become infected. Bites from pubic lice can cause small bruise-like marks on the torso, thighs, or upper arms. Treatment usually begins with application of a cream, shampoo, or lotion to kill lice. Prescription and nonprescription medications are both available. Washing clothes and linens in hot water is generally recommended.