

Scabies: Procedure for Skin Scraping

(Source: IDPH)

A physician, or a nurse or other healthcare professional under the direct supervision of a physician who has been trained to perform the procedure, should only do skin scrapings.

1. Obtain the following equipment:

- Gloves and gowns
- Slides and cover slips
- Magnifying lens and light source such as a goose neck lamp Alcohol impregnated wipes
- Felt tip pen (water-soluble or alcohol-soluble ink, black or green in color) Clear nail polish
- Mineral oil and dropper Potassium hydroxide Applicator sticks
- Disposable hypodermic needles (18-20 gauge X 1.5-2.0 inches)
- Surgical blade handle and #15 surgical blade
- Sharps container
- Compound microscope

2. Procedure:

- Observe patient's skin with a magnifying lens and look for lesions suggestive of scabies infestation. The shoulders, back, abdomen, hands, wrists, elbows, buttocks, axillae, knees, thighs and breasts are common sites for burrows.
- Using a hand-held magnifying lens and a strong light, look for new burrows or papules. If the burrow or papule is very fresh, a tiny speck (the scabies mite) may be visualized at either end of the burrow or in the papule. The mite will not be found in excoriated, scabbed or infected skin lesions. Preserved, unscratched papules may sometimes be found in a grouping of scratched papules.
- Visualize burrows using the "burrow ink test." This test requires a strong light source, magnifying lens and a black or green felt tip pen. (The ink should be either water-soluble or alcohol-soluble, to facilitate removal.) After an unexcoriated, intact wavy, red line (the burrow) is located, ink is rubbed directly over the suspect burrow. The ink will penetrate the burrow very quickly. The ink is then wiped off with a water- or alcohol-impregnated sponge, as appropriate for the ink used. After removing the excess ink, the ink which has penetrated the burrow will remain and appear as a wavy black or green wavy line under magnification.
- Select an unexcoriated burrow or papule.
- Prepare slides by dipping an applicator stick into mineral oil and transferring 2-3 drops to the center of several clean slides.

- Dip a hypodermic needle into the mineral oil and transfer a drop to the site selected for scraping and spread the oil evenly over the intended scraping site.
- Hold the skin taut with one hand and hold the hypodermic needle at about a 5-10-degree angle with the other hand. If a surgical blade is used, hold the blade at a 90- degree angle.
- Apply light pressure and scrape the lesion making several movements across the site. Increase the pressure slightly while scraping. A small amount of blood may be visible; however, there should be no frank bleeding.
- Transfer the skin scraping to the prepared slide and place a cover slip over the scraping.
- Obtain at least 4-6 scrapings per patient, if possible.
- Examine the entire slide preparation under low power magnification for evidence of mites, eggs or fecal pellets. If a compound microscope is not available at the facility, secure the cover slips with clear nail polish and transport to a clinical laboratory or physician's office.
- Care should be taken to prevent infection of the scraped skin. Patients with extremely thin skin or skin prone to tearing should not have their skin scraped.