

CONCEPTION, PREGNANCY & PSORIASIS



**NATIONAL
PSORIASIS
FOUNDATION®**

Connect. Control. Cure.

CONCEPTION, PREGNANCY & PSORIASIS

WHAT IS PSORIASIS?

Psoriasis is a noncontagious, lifelong skin disease that affects more than 4.5 million adults in the United States. The most common form, plaque [pronounced plak] psoriasis, appears as raised, red lesions covered with a silvery white buildup of dead skin cells, called scale.

About 10 percent to 30 percent of people with psoriasis also develop psoriatic [sore-ee-AA-tic] arthritis, which causes pain, stiffness and swelling in and around the joints. The hands, feet, wrists, ankles, knees and lower back are most often affected by this type of arthritis.



Three percent to 10 percent of the body affected by psoriasis is considered to be a moderate case. More than 10 percent is considered severe. The palm of the hand equals 1 percent of the skin. However, the severity of psoriasis is also measured by how psoriasis affects a person's quality of life. Psoriasis can have a serious impact even if it involves a small area, such as the palms of the hands or soles of the feet.

To learn more about the types of psoriasis or psoriatic arthritis, contact the National Psoriasis Foundation and request the following booklets:

- *Psoriatic Arthritis*
- *Specific Forms of Psoriasis*

For the most part, people who have psoriasis go through the childbearing phase of their lives just like other people. Psoriasis, in and of itself, does not affect the reproductive system of a woman or a man. Although some women report their psoriasis improves or worsens during pregnancy, the main concern has to do with the treatments needed to keep the disease under control. Many psoriasis treatments require special precautions when it comes to having children.

This booklet covers important general information about psoriasis treatments during conception, pregnancy and nursing, and some hereditary aspects of psoriasis. Because the severity and course of psoriasis are different for each person, it is wise to seek the guidance of your doctor to make sure the treatments you use are safe for you and your baby. Most obstetricians prefer that women who are considering becoming pregnant or those who are expecting avoid most over-the-counter and prescription medications. Many restrictions are also suggested for nursing mothers. In some situations, depending upon the severity of psoriasis, doctors make exceptions to these general treatment guidelines.

HOW PSORIASIS CHANGES DURING PREGNANCY

Women often wonder if their psoriasis will change because of pregnancy. Studies have shown that some women see an improvement in their psoriasis during pregnancy, while other studies have shown that some women's psoriasis gets worse. How a woman's

psoriasis changes during pregnancy seems to vary from individual to individual and can vary from pregnancy to pregnancy.

PSORIASIS TREATMENTS DURING CONCEPTION, PREGNANCY AND NURSING

Many doctors recommend that women avoid psoriasis treatments altogether or use only the safest forms of treatments—some topicals and ultraviolet light B (UVB) phototherapy—during conception, pregnancy and nursing, to avoid the possibility of birth defects. Men have to consider how some psoriasis treatments can affect fertility and/or cause birth defects. Each psoriasis medication has a different set of precautions.

When pregnancies are planned, women may want to time their treatments so that only minimal treatment is required during pregnancy. For example, a woman who experiences remissions that average one year following a course of PUVA (the light-sensitizing drug psoralen plus ultraviolet light A) can plan to finish PUVA just before attempting conception.

When a mother chooses to nurse, treatment precautions are needed. Topical medications should not be used on the nipples. Also, there is a slight chance that some drugs will absorb through the skin and get into the mother’s milk. This is especially true if any large areas of the skin are covered with medications. Work closely with your doctor to determine what is an acceptable topical treatment while nursing.

Table of U.S. Food and Drug Administration (FDA)-approved psoriasis and psoriatic arthritis treatments and pregnancy categories

Generic name	Brand name	FDA category	Comments
Acitretin	Soriatane	X	Causes birth defects. Absolutely avoid.
Adalimumab	Humira	B	Long-term animal studies showed no harm. No human studies conducted. Avoid unless necessary.
Alefacept	Amevive	B	Long-term animal studies showed no harm. No human studies conducted. Avoid unless necessary.
Anthralin		C	No clear evidence of birth defects. Avoid unless necessary.
Calcipotriene	Dovonex	C	No clear evidence of birth defects. Avoid unless necessary.
Calcipotriene and betamethasone dipropionate	Taclonex	C	No clear evidence of birth defects. Avoid unless necessary.
Cyclosporine		C	No clear evidence of birth defects. Avoid unless necessary.
Efalizumab	Raptiva	C	No clear evidence of birth defects. Avoid unless necessary.
Etanercept	Enbrel	B	Long-term animal studies showed no harm. No human studies conducted. Avoid unless necessary.
Infliximab	Remicade	B	Long-term animal studies showed no harm. No human studies conducted. Avoid unless necessary.
Methotrexate		X	Even small doses can cause defects in first trimester. Absolutely avoid.
PUVA		C	No clear evidence of birth defects, although PUVA affects DNA. Avoid unless necessary.
Tazarotene	Tazorac	X	Risk of internal absorption. Absolutely avoid.
Topical steroids		C	No clear evidence of birth defects. Avoid unless necessary.
UVB		-	Safe during pregnancy. May cause skin discoloration.

Key to FDA categories

B	Studies with animals have not found risk to the fetus but no studies have been done in humans.
C	Safety is not substantiated by animal or human studies.
X	Risk in pregnancy outweighs any benefits.

If a mother has psoriasis on her nipples, it is important to moisturize the nipples with thick emollients or moisturizers. Psoriasis on the nipple will not harm a nursing infant. However, it may cause enough discomfort to the mother to make breast-feeding difficult.

Systemic medications (drugs taken orally or by injection) should be avoided when nursing because of the potential for passing the drugs' active ingredients to the infant through the breast milk.

Topical medications

For pregnant women with mild psoriasis or a few localized plaques, over-the-counter topicals such as petroleum jelly or mineral oil may be the best choice.

Potential absorption of topical medications through the skin must be considered, particularly when medications are applied under occlusion (wrappings), over large areas of skin or in large quantities.

Steroids, anthralin, Dovonex and Taclonex

Topical steroids, anthralin, Dovonex (also known by its generic name calcipotriene), and Taclonex (also known by its generic names calcipotriene and betamethasone dipropionate) are classified by the FDA as category C, which means safety is not substantiated by animal or human studies. The package inserts advise that these treatments should be used only if their benefits outweigh potential risks in pregnant women.

If topical steroids are required, the amount should be limited. Topical steroids should be used with caution on the breasts to avoid passing the medication to the baby while nursing. Superpotent steroids should be used only as a last resort. Occlusion of any steroid medication should only be done under a doctor's supervision. It is noteworthy that studies of pregnant women treated with systemic steroids (those given orally or by injection) have not found an increase in birth defects, despite animal studies suggesting they cause an increased incidence of cleft palate.

No animal or human studies have examined the potential birth defects associated with the use of anthralin; however, anthralin has been used safely for decades in pregnant women.

Studies of Dovonex have shown that high doses administered orally cause birth defects in some animal models but not in others. There are no adequate studies of the topical use of Dovonex in pregnant women.

Animal studies of Taclonex have shown that high doses administered orally cause birth defects. There are no adequate studies of the topical use of Taclonex in pregnant or nursing women.

Tazorac

Pregnant women and those trying to conceive should avoid Tazorac (a topical retinoid, also known by its generic name tazarotene). Women of childbearing potential should use reliable methods of birth control

during treatment with Tazorac. The medication should be stopped immediately if a woman becomes pregnant while using it.

Large doses of Tazorac caused fetal abnormalities in some animal studies, although no problems occurred in human clinical trials. However, retinoids in their oral form cause birth defects, and if Tazorac were to be used in large quantities or over large areas of skin, the drug could be absorbed internally and be harmful to the fetus.

Tazorac has no known effects on male sperm or on the ability of men being treated with the drug to father healthy children.

Phototherapy

PUVA

PUVA is an acronym for psoralen (a light-sensitizing medication) combined with exposure to ultraviolet light A. Both components in PUVA treatment—the oral medication psoralen and the UVA light—are potentially mutagenic (affecting the genes) and should be avoided during conception and pregnancy. They can cause birth defects if used by a man or a woman during the time a child is conceived. This also applies to bath PUVA, where the entire body is immersed in a tub of water that contains psoralen.

Nursing women should avoid PUVA, because psoralen in breast milk could cause light sensitivity in the infant.

Ultraviolet light B (UVB)

Treatment with UVB is generally safe, but sunscreens should be applied on the face to prevent melasma (a condition common in pregnant women that causes the appearance of brown spots).

UVB is generally acceptable as a psoriasis treatment for women who are nursing.

Combination treatments of UVB with tar or anthralin (called Goeckerman or Ingram regimens, respectively) are both considered safe and effective treatment options for pregnant women with widespread psoriasis. They have been used for decades without any evidence of significant harm to pregnancy.

Systemic treatments

To be absolutely safe, women should generally avoid the use of systemic medications (those taken by mouth or injection) for psoriasis when trying to conceive a child. Men should avoid internal medications as well.

All systemic medications for psoriasis should be avoided when nursing. These agents could be secreted in the breast milk and ingested by the infant.

Biologics

It is unknown what effect biologics may have on pregnant women or a developing fetus—or if the medication passes into breast milk in nursing women. Long-term animal studies conducted with Enbrel (also known by its generic name etanercept), Humira (generic name adalimumab), Remicade (generic name

infliximab) and Amevive (generic name alefacept) revealed no evidence of harm to the fetus. Raptiva (generic name efalizumab) has not been used in any animal reproduction studies. Because of limited information, these drugs should be used during pregnancy only if there is a clear medical need, and if this decision is reached by a patient and doctor together.

Women considering pregnancy, and pregnant women who use these drugs, should talk to their doctor about enrolling in a pregnancy registry. See page 13 for information about pregnancy registries.

Cyclosporine

Cyclosporine is a systemic medication generally used to treat moderate to severe psoriasis. A worldwide registry of transplant patients (cyclosporine is used in organ transplant patients) treated with the drug during pregnancy did not show an increased rate of birth defects, although low birth weight and premature birth were traced to cyclosporine use.

Cyclosporine should only be used during pregnancy if the potential benefit outweighs the potential risk. The drug is not known to affect a man's fertility.

Methotrexate

Methotrexate is a systemic medication generally used to treat moderate to severe psoriasis. It is capable of causing miscarriages or fetal malformations. Both men and women should discontinue using methotrexate at least 12 weeks before trying to conceive.

Methotrexate poses little or no risk to pregnancies that occur after it is discontinued. There have been studies on hundreds of women who were treated with high doses of methotrexate for uterine cancer. The women gave birth to healthy babies after having discontinued their use of methotrexate.

Methotrexate does not harm a man's or a woman's long-term potential of conceiving a healthy child; however, men treated with methotrexate are cautioned not to father a child for at least three months after treatment is stopped, and women should not become pregnant for at least 12 weeks.

Methotrexate also may lower sperm count temporarily, but it then returns to normal.

Oral retinoids

Oral retinoids are synthetic derivatives of vitamin A used to treat psoriasis and other dermatologic diseases. While effective in many cases, all retinoids also carry a very high risk of causing birth defects if taken by a woman who is pregnant or trying to conceive.

Soriatane (also known by its generic name acitretin) is approved for the treatment of psoriasis, however it should never be taken during pregnancy. Women of childbearing potential who take Soriatane must use reliable methods of birth control during treatment, but they have the option of becoming pregnant three years after they stop taking the medication.

Both during treatment and for two months after, women taking Soriatane must avoid consuming any alcohol (including cough syrups, etc.) because it can cause acitretin to convert into a substance called etretinate in the bloodstream that stays in the body indefinitely. Etretinate is known to cause birth defects. It's not certain how much alcohol will trigger this reaction, how much acitretin is converted or how long the etretinate will stay in the body. Given these uncertainties, many doctors avoid prescribing Soriatane for women of childbearing potential.

Isotretinoin is a member of the retinoid family that is sometimes used to treat psoriasis. It is better known as a treatment for severe cystic acne, and it is not usually as effective for psoriasis as other oral retinoids.

Isotretinoin can cause birth defects if a woman takes it at the time of conception, so reliable birth control must be used for one month before treatment, during treatment and for at least one month after. But isotretinoin leaves the body more quickly than acitretin, so a woman may safely get pregnant two months after she stops taking this drug. The iPLEDGE program is a risk-management program designed to eliminate fetal exposure to isotretinoin. The doctor prescribing isotretinoin must enter patient information in the iPLEDGE system before a pharmacist can dispense medication.

Oral retinoids for men

Oral retinoid treatment does not appear to have any effect on male fertility. Soriatane is not a mutagen for men. No reports have indicated changes in a man's ability to father healthy children, either while taking the drug or afterwards.

PSORIATIC ARTHRITIS AND PREGNANCY

Although medications should be limited during conception and pregnancy, this may be impossible for those who have psoriatic arthritis. Some pain medications can be used safely during pregnancy. Talk with your doctor about all over-the-counter and prescription medications you take before conception, during pregnancy and while nursing.

PREGNANCY REGISTRIES

Some pharmaceutical companies maintain pregnancy registries to track women who are on a drug while pregnant. If you get pregnant while on one of the medications listed below, either you or your doctor can call the company to add your name and information to its database. The Psoriasis Foundation is aware of the following pregnancy registries:

Generic name	Brand name	Contact number
Adalimumab	Humira	877.311.8972
Alefacept	Amevive	800.811.0104
Cyclosporine	Neoral	888.522.5581
Efalizumab	Raptiva	877.727.8482
Etanercept	Enbrel	877.311.8972
Infliximab	Remicade	800.457.6399

GENETIC ASPECTS OF PSORIASIS

Psoriasis is believed to be a genetic disease, but it does not follow a typical dominant or recessive pattern of inheritance. No one can predict who will get psoriasis. Researchers do not completely understand how psoriasis is passed from one generation to another. The pattern of inheritance probably involves multiple genes or combinations of many genes, and the search is on to find those genes.

There is clearly a familial component: About one out of three people with psoriasis report that a relative had psoriasis. If one parent has psoriasis, a child has about a 10 percent chance of having psoriasis. If both parents have psoriasis, a child has approximately a 50 percent chance.

Studies of genetically identical twins with psoriasis have shown that psoriasis is at least partially genetic. But those same studies also reinforce the complexity of psoriasis. In about one-third of identical twin pairs where psoriasis is present, only one twin has the disease, indicating that environmental factors probably play a role in who develops psoriasis. The theory that psoriasis is triggered by a combination of genes and external forces is called “multifactorial inheritance.” Once the genes responsible for psoriasis are discovered, the inheritance pattern may be better understood.

STAY INFORMED AND INVOLVED. TAKE ACTION.

The National Psoriasis Foundation is committed to improving the lives of people with psoriasis and psoriatic arthritis. Join the Psoriasis Foundation to make a difference in the lives of millions of people with these diseases. Donate today!

Call **800.723.9166**

Visit **www.psoriasis.org**

E-mail **getinfo@psoriasis.org**

The following educational materials are available from the National Psoriasis Foundation:

- Alternative Approaches
- Biologic Medications for Psoriasis & Psoriatic Arthritis
- Conception, Pregnancy & Psoriasis
- Genital Psoriasis
- Phototherapy: Light Treatment for Psoriasis
- Psoriasis: How It Makes You Feel
- Psoriasis Research: Progress & Promise
- Psoriasis on Specific Skin Sites
- Psoriatic Arthritis
- Scalp Psoriasis
- Specific Forms of Psoriasis
- Steroids
- Sun & Water Therapy
- Systemic Medications: Internal Drugs for Moderate to Severe Psoriasis
- Topical Treatments for Psoriasis
- You & Your Doctor: Things to Consider
- Your Diet & Psoriasis

More updated information may be available at

www.psoriasis.org

CONCEPTION, PREGNANCY & PSORIASIS

MISSION STATEMENT

Our mission is to improve the quality of life of people who have psoriasis and psoriatic arthritis. Through education and advocacy, we promote awareness and understanding, ensure access to treatment, and support research that will lead to effective management and, ultimately, a cure.

The National Psoriasis Foundation, a charitable 501(c)(3) organization, depends on your tax-deductible donations to support more than 5 million people affected by psoriasis and/or psoriatic arthritis. The Psoriasis Foundation is governed by a volunteer Board of Trustees and is advised on medical issues by a volunteer Medical Board. For more information, or to obtain a copy of the Foundation's Annual Report, call 800.723.9166.

National Psoriasis Foundation educational materials are reviewed by members of our Medical Board and are not intended to replace the counsel of a physician. The Psoriasis Foundation does not endorse any medications, products or treatments for psoriasis or psoriatic arthritis and advises you to consult a physician before initiating any treatment.

©2006 National Psoriasis Foundation



**NATIONAL
PSORIASIS
FOUNDATION®**

National Psoriasis Foundation

6600 SW 92nd Avenue, Suite 300

Portland, Oregon 97223-7195

Toll Free 800.723.9166

www.psoriasis.org

June 2006—MR

Connect. Control. Cure.