

Novatretin[®]

acitretin

Acitretin 10 mg and
25 mg Capsules

IT IS IMPORTANT TO
READ AND UNDERSTAND
THIS INFORMATION

YOUR DAILY DOSE OF NOVATRETIN IS:

Number of Capsules per day:

___ x 10 mg Caps / Day

and/or

___ x 25 mg Caps / Day

If you ever need to check what your dose is you can refer to the above information.

Novatretin is a prescription medicine.

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INTRODUCTION

WHO NEEDS NOVATRETIN?

Novatretin is used to treat severe Psoriasis and a number of other conditions where the growth of skin cells needs to be normalized.

WHAT IS NOVATRETIN ?

Novatretin capsules contain a medication known as acitretin. It is a similar substance to Vitamin A, but the action of acitretin is very different. Novatretin works by normalizing skin cell growth.

IMPORTANT

While you are taking Novatretin you will need to follow very carefully all the instructions given to you by your doctor. You should also follow the advice given to you in this booklet, as it will help you to look after your skin during your Novatretin treatment and may give you some information on other ways you can help managed your condition.

HOW LONG WILL I BE TAKING NOVATRETIN?

The course of Novatretin treatment will vary from patient to patient. Your doctor will advise you how long to take your Novatretin. In most cases the treatment takes 6 weeks before an improvement will be noticed. Treatment could last for several months and sometimes needs to be continued for a year or more.

Novatretin is often used together with other products or with UVA or UVB Ultraviolet light. You should follow your doctor's instructions carefully.

The healing process that is started with Novatretin may continue after the treatment has ceased. You will need to keep taking your Novatretin for as long as your doctor has told you to. If you stop sooner you may not get the full benefits of Novatretin. If your condition has not been cleared, a longer course of Novatretin may be considered by your doctor.

ARE THERE ANY SIDE EFFECTS?

As with all medicines, there are side effects with Novatretin. The side effects include dryness in several parts of the body, possible tiredness, and sometimes aching of the muscles and bones. More information on side effects can be found in the Side Effects section of this booklet.

NOVATRETIN AND POTENTIAL BIRTH DEFECTS

Novatretin should NEVER be used by pregnant women or by women who intend to become pregnant, during or for three years after, their Novatretin treatment.

All possibility of pregnancy MUST be ruled out before you start your Novatretin treatment. Strict birth control methods should be used for at least one month before you start your Novatretin, during your whole Novatretin treatment and for three years after you stop taking Novatretin. Three years after you have finished your Novatretin, you can resume your normal practices.

Further information about Novatretin and birth defects can be found in the Contraception section of this booklet. There is no known risk to males who wish to father children.

WHO CAN'T TAKE NOVATRETIN?

People who can't take Novatretin include pregnant women or women who are breast feeding and people suffering from certain medical conditions such as impaired liver or kidney function. Please tell your doctor if you have any other conditions or take any other medications.

LABORATORY TESTS

Sometimes you may be asked to have blood tests done. These establish a baseline for your liver function, blood lipids, and for females can also confirm that you are not pregnant. Follow your doctor's advice before having blood taken.

USING NOVATRETIN

HOW DO I USE NOVATRETIN?

It is very important to follow the instructions given to you by your doctor. These instructions will help to make sure you are getting the right dose of Novatretin. In determining the exact dosage you need, your doctor will have considered the severity of your condition, your weight, and other factors.

It is important not to miss any of your Novatretin capsules, or to take too many Novatretin capsules. If you do miss a dose you should not take a double dose to make up for it, you should wait until it is time for your next dose and take your Novatretin as normal, then continue taking your Novatretin in the usual way.

Your doctor has prescribed a particular dose of Novatretin for you for a specific reason. It is important that you do not change the amount of Novatretin you are taking, if you think it is too strong or too weak speak to your doctor. Your doctor may vary your dose of Novatretin, depending on how your body responds to the treatment. You should continue taking your Novatretin for as long as your doctor instructs you to.

WHAT MUST I DO WHILE TAKING NOVATRETIN?

While taking Novatretin you MUST:

- Take your Novatretin capsules with meals to help absorption.
- NOT chew or suck the capsules.
- Swallow the capsules whole with water or another non-alcoholic drink.
- Take each dose of Novatretin when it is due.
- Follow your doctor's instructions.

If you follow the above instructions as closely as possible your Novatretin will work better.

WHAT SHOULD I EXPECT FROM NOVATRETIN?

When you first start taking Novatretin you may find that your condition starts to get worse. If you have any worries or concerns about this, contact your doctor. This does not mean that the medication is not working. If this happens to you, do not be discouraged; keep taking your Novatretin, as prescribed by your doctor. The worsening of your condition nearly always stops within the first few weeks, and then your condition will start to clear. Within the first four weeks of starting Novatretin you may notice that your skin is much drier than before. You may also find that you need to wash your hair less often. Most improvement in your condition will occur in the first 3 months of treatment and is maintained while treatment continues.

WHEN I HAVE FINISHED MY NOVATRETIN

If you have any Novatretin capsules left when you have finished your treatment, it is very important that you return them to your doctor or pharmacist.

Never give your Novatretin to anyone else, even if they have similar looking condition.

At the conclusion of your Novatretin treatment your condition may continue clearing, possibly for one or two months, but it may also or later recur or worsen after the Novatretin treatment has ceased. Your doctor may recommend taking Novatretin again. The side effects associated with Novatretin treatment will begin to clear at the conclusion of the treatment.

ACITRETIN

Acitretin is an oral retinoid (vitamin-A derivative) used to treat severe psoriasis, usually at a dose of between 25 and 50 mg per day. It is best taken after a meal because fat helps it to be absorbed through the gut wall.

Acitretin is particularly effective for pustular psoriasis, erythrodermic psoriasis and psoriasis affecting hands and feet. It is not effective for psoriatic arthritis.

It is occasionally used to treat other skin conditions including:

- Palmoplantar pustulosis
- Hand dermatitis (when very thick and scaly)
- Darier disease
- Lichen planus
- Lupus erythematosus
- Cutaneous T-cell lymphoma
- Extensive granuloma annulare
- Severe ichthyosis
- Extensive solar keratoses and skin cancers
- Extensive warts

Acitretin **MUST NOT** be taken in pregnancy; it can damage an unborn child and cause birth defects. Strict birth control measures must be used during treatment and for three years after stopping acitretin. Therefore, acitretin is rarely prescribed to females of child-bearing potential. If it is, they will be asked to have a blood pregnancy test before treatment and regularly during treatment. People on acitretin should not donate blood during treatment or for three years afterwards.

Also, acitretin should not be taken while breast-feeding. It has no effect on male sexual function or offspring.

MECHANISM OF ACTION

Acitretin is thought to work in psoriasis by slowing down the proliferation of skin cells. A response is noted in more than half of treated patients. Improvement begins about two weeks after starting treatment, and is maximum after about twelve weeks. The affected skin either peels off or gradually clears. Some patients are treated for a few months, repeated from time to time, whilst others remain on the acitretin long term.

It is not known how it works in other skin disorders, but it may relate to some effect on immune cells.

In resistant cases, acitretin can be combined with other anti-psoriatic drugs and/or phototherapy.

SIDE EFFECTS

Acitretin has side effects that may limit the dose that can be used.

Dryness of lips: apply lip salve frequently especially when outdoors.

Dry nostrils that may crust and/or bleed: petroleum jelly can help.

Dry eyes: use artificial tear eye drops.

Dry reddened skin: apply moisturizers frequently.

Peeling skin, especially hands and feet; apply moisturisers frequently.

Fragile soft skin: protect it from injury, especially where skin can rub.

Increased susceptibility to sunburn: protect your skin from the sun. Use broad spectrum sunscreen and cover up well. If you are receiving phototherapy, advise your therapist that you are taking acitretin. A reduction in dose may be necessary.

Skin infections, especially with *Staphylococcus aureus* (impetigo, boils or nail fold paronychia).

Aggravation of your skin complaint: this is often temporary and followed by improvement but if a severe flare occurs you should tell your dermatologist and stop taking the acitretin.

Headaches: if these are severe or accompanied by visual problems, inform your dermatologist and stop the acitretin; the symptoms could be caused by an increase in pressure on the brain.

Muscle, joint or bone aches, especially with exercise; reduce exercise if needed.

Generalised hair shedding and thinning may occur; this is usually temporary although permanent thinning has been reported.

Hyperlipidaemia (raised blood fats i.e. cholesterol and triglyceride), detected by blood tests, which are best taken when fasting (on an empty stomach). The level of the blood fats is compared with a pre-treatment test. High blood fats are more likely in diabetics and in those who drink a lot of alcohol. If the blood fats are too high, a special low fat and low sugar diet may be recommended, a lipid-lowering medication may be prescribed or the dose of acitretin may be reduced or stopped.

Rarely, acitretin may result in disturbed liver function (hepatitis). It should be discontinued if this occurs, and it would be unwise to take it again.

Mood changes; high dose retinoids can cause mood change including irritability, aggression and depression.

INTERACTIONS

Acitretin should not normally be taken at the same time as the following medications (there may be rare exceptions):

- Vitamin A or any other retinoid (e.g. isotretinoin).
- Tetracycline or one of its derivatives.
- Methotrexate.
- Phenytoin.

It is best to avoid alcohol, during treatment and for two months after treatment with Novatretin is completed.

CONTRACEPTION

VERY IMPORTANT!

If you are female it is extremely important that you read and understand the information in this section.

WHY MUST I PREVENT PREGNANCY?

Even if you are not sexually active it is important that you understand the effects that Novatretin can have on the unborn child should you become pregnant while taking Novatretin. The medication in Novatretin, acitretin, is teratogenic. This means that it can cause birth defects, that is, the unborn child can become deformed.

Birth defects can only be caused by Novatretin if you use Novatretin while you are pregnant, become pregnant while you are using Novatretin or become pregnant within three years of stopping taking your Novatretin.

Your doctor may give you a pregnancy test to ensure that you are not pregnant before allowing you to start taking Novatretin. Should you become pregnant while taking Novatretin or within three years after the end of your Novatretin treatment you will need to discuss the action that may need to be taken with your doctor. This is a very serious situation. For this reason it is vitally important to follow strict birth control procedures.

WHO NEEDS TO BE REALLY CAREFUL?

ALL women of child bearing potential! This means any woman who is taking Novatretin, who is menstruating needs to follow a strict birth control procedure.

Before you can begin taking Novatretin you may be required to take a pregnancy test.

You **MUST** use strict birth control for at least one month before you start your Novatretin treatment, during the entire Novatretin treatment and for at least three years after you stop taking Novatretin.

You should wait until the 2nd or 3rd day of your next menstrual period before you start taking Novatretin. This is an extra check to make sure you are not pregnant.

If you do become pregnant while you are taking Novatretin, you should immediately stop taking your Novatretin and tell your doctor straight away. Novatretin does not affect your fertility in the long term. So even after taking Novatretin you should be able to become pregnant in the future.

WHO IS RESPONSIBLE FOR MAKING SURE I DON'T GET PREGNANT ?

You are! The only person who can make sure that you do not get pregnant while you are taking Novatretin is you. It is relatively easy to prevent pregnancy. The details of the recommended strict birth control procedure are explained below.

Before you begin taking Novatretin your doctor will go through the risks associated with Novatretin and pregnancy. Your doctor may ask you to sign a Consent Form. Signing this form means that you understand these risks and that you will do everything possible to make sure that you do not become pregnant while you are taking Novatretin or for three years after you stop taking Novatretin.

WHAT IS STRICT BIRTH CONTROL?

Strict birth control or contraception means carefully following a regimen to make sure you do not become pregnant. The most effective form of birth control or contraception is 'the pill' (oral contraceptive) plus a barrier method (condom or diaphragm). You should carefully follow all the directions for the use of these methods of contraception.

Your doctor or your local Family Planning Clinic can provide you with more information about contraception. You will need a prescription for 'the pill', which can be provided by your doctor or local Family Planning Clinic.

WHEN CAN I STOP BEING SO CAREFUL?

Three years after the end of your Novatretin treatment the risk of birth defects is no greater than normal. Should you wish to become pregnant, you can do so three years after you have stopped taking Novatretin.

WHERE CAN I GET MORE HELP AND INFORMATION ?

For further information about contraception contact your family doctor or your local Family Planning Clinic.

SIDE EFFECTS

WHY ARE THERE SIDE EFFECTS WITH NOVATRETIN ?

All medicines have side effects. With Novatretin the side effects are closely linked to Novatretin actually working. The side effects relate to its effect on the skin condition, as it reduces scaling and abnormal overgrowth of skin cells. If you are experiencing side effects, tell your doctor about the side effects you are experiencing; the dose of Novatretin may need to be adjusted but this will depend on how well it is working on your condition. The side effects of Novatretin can range from mild to severe. Most of the side effects can be kept under control.

WHO WILL GET SIDE EFFECTS?

Everyone! On the bright side, they can be kept under control with good skin care. Some advice on how to control the side effects that happen while you are using Novatretin can be found in the Skin Care section of this booklet. The intensity of the side effects will vary from patient to patient. Most of the common side effects are not very bad. It is important for you to be aware of the side effects that may occur while you are taking Novatretin. It is also important for you to remember that you will not get all of the side effects mentioned in this section; you may only get one or two mild side effects. If you get side effects while taking Novatretin you may find that they wear off with time.

WHAT ARE THE COMMON SIDE EFFECTS?

You may start to get some side effects with Novatretin before your condition starts to clear. You may also notice your condition starts to get worse at first. If this continues for more than 7 to 10 days, let your doctor know. The dose may need adjusting and/or treatments may be necessary.

Dryness of the skin is the most common side effect with Novatretin. Novatretin may dry up some of the oil in your skin. You may find that your skin will become softer and more fragile. Some skin loss on palms and soles of the feet may occur. Your face may look redder than usual and your skin may start to peel. Usually any discomfort will settle with the use of a moisturizer but it may be needed several times daily. You may find that your lips become dry and cracked.

While you are taking Novatretin you will find that your skin is more sensitive to the sun. You will need to take extra care to avoid sunburn by wearing covering clothing and using sunscreens.

It is important to look after your skin, the instructions in the Skin Care section of this booklet will help you keep the side effects under control. A less common side effect of Novatretin treatment is drying of the inside of the nose and dry eyes. Drying of the nose can be uncomfortable and can lead to nose bleeds. There are ways to prevent and manage this. These are explained in the Skin Care section of this booklet. Dry eyes can be a problem for people who wear contact lenses or people who work in air conditioned areas. You may find that you need to use eye-drops to keep your eyes moist. You may also find that you cannot wear your contact lenses for as long as you did before starting on Novatretin.

Some people can suffer from some hair loss. Hair loss is usually gradual. Reducing the dose or stopping the medicine usually prevents further hair loss and hair should then begin to regrow as normal.

WHAT ARE THE OTHER SIDE EFFECTS?

Most patients will not experience the side effects listed in this section, these side effects are not very common but can be serious. The side effects seen with Novatretin treatment should disappear soon after you have stopped taking Novatretin. There have been reports of people taking Novatretin finding that their joints and muscles feel tender and stiff. This can be a problem if you are intending to do a lot of heavy exercise while taking Novatretin. It is a good idea to discuss this with your doctor.

Other serious but rarely experienced side effects of Novatretin include skin infections especially around fingernails and toenails, bleeding and inflammation of the gums, headaches, blurred vision, dizziness, weight loss, diarrhoea and an abnormal menstrual cycle. You should immediately tell your doctor if you feel that the medication is making you unhappy or depressed.

It is important to remember that the side effects seen with Novatretin treatment are reversible. They should disappear soon after you have stopped taking Novatretin.

The only side effect that is not reversible are the birth defects that can be caused if you become pregnant while taking Novatretin. There is detailed information about how and why you MUST prevent pregnancy while taking Novatretin in the Contraception section of this booklet.

WHAT IS IMPORTANT FOR ME TO TELL MY DOCTOR?

It is important for you to make sure that you tell your doctor:

- If you think you might be pregnant or you need contraceptive advice.
- If you can't tolerate the side effects while taking Novatretin. Your dose of Novatretin may need to be changed.
- If you get any of the serious less common side effects mentioned in the section: 'What Are the Other Side Effects?'

WHEN WILL THE SIDE EFFECTS GO AWAY?

Side effects will reduce when your dose of Novatretin is lowered and should go away when you stop taking Novatretin.

WHERE CAN I GET MORE HELP AND INFORMATION ?

If you have any questions about the side effects that you have, or will get while you are on Novatretin, you can talk to your doctor or call Douglas Pharmaceuticals Ltd (the people who make Novatretin) on their toll free number 0800 436 8452

For even more information on your condition visit our website at www.novatretin.com or the dermatological website www.dermnet.org.nz

CARING FOR YOUR SKIN

WHY DO I NEED SPECIAL SKIN CARE?

While you are taking Novatretin you will have to take a little extra care of your skin as Novatretin will make your skin drier and more fragile. The information in this section will help you to look after your skin and keep the side effects of Novatretin under control. It is a good idea to follow the skin care advice given in this section even before you start to notice any of the side effects related to Novatretin. Prevention is always better than cure.

WHAT NOT TO DO WHILE TAKING NOVATRETIN

It is important to follow this list of things not to do so that your skin remains in good condition.

- Do not remove any scaly or peeling skin. Since your skin is fragile you can damage your skin by trying to remove scaly and peeling skin, this could lead to skin infections.
- Do not have facials. Because your skin is fragile the potentially harsh treatments involved in a facial can cause damage to your skin.
- Do not have waxes. Waxing while your skin is fragile can actually remove skin as well as hair!
- Do not use other medication. Novatretin is a strong medication and you should not use any other medication unless your doctor has specifically told you to do so.
- Do not have any part of your body pierced. There can be a serious risk of infection of any new piercing while you are on Novatretin.
- Do not have electrolysis. Because your skin is fragile, electrolysis has the potential to damage your skin.
- Do not use hair colouring containing peroxide and do not have a perm or use hair rollers. If you want to get your hair permed it is best to do so at least two weeks before you start taking your Novatretin. While you are taking Novatretin your scalp will be more sensitive and your hair will be more fragile. Because of this it is important to avoid harsh hair treatments such as colours and perms.
- Do not use solariums and sunbeds. Solariums and sunbeds can burn your skin just like the sun, your skin is more sensitive to the sun while you are taking Novatretin and it is also too sensitive to use a solarium and sun bed.
- Do not have overly hot showers. Very hot showers can irritate your skin.

WHAT CAN I DO TO EASE THE SIDE EFFECTS?

The most common side effect of Novatretin, dryness, is relatively easy to treat. The following section contains a list of products that can be used to relieve dryness. If you notice anything unusual about your skin or anything that concerns you, talk to your doctor or pharmacist about it. It is a good idea to write down anything you notice or any questions you have for your doctor. The Notes section at the end of this booklet is a good place to do this.

WHAT PRODUCTS CAN I USE TO EASE THE SIDE EFFECTS?

Dry Skin

Dry skin is the most common side effect of Novatretin treatment. You can expect your skin to become drier all over your body. To help protect your skin it is best to keep your showers shorter than two minutes if possible and use luke warm water rather than hot water.

Face Cleansers

These cleansers are designed for use on the face. You should only use cleansers that are intended for use on sensitive skin.

Body Cleansers

Body cleansers should not be used on the face. It is better for your skin if you try to avoid soaps.

Face Moisturisers

Using a moisturiser on your face regularly will help keep the dryness that may be seen with Novatretin treatment under control. The best type of moisturiser is one designed for sensitive skin.

Body Moisturisers

To keep your skin in good condition you should use a moisturising lotion on your whole body. Even if you don't seem to have any dryness, prevention is always better than cure. For extremely dry areas use a cream, rather than a lotion.

Dry lips

Your lips are particularly sensitive to the drying effects of Novatretin. This makes it important to look after them well. This can be achieved very simply by applying a lip balm regularly. By applying a lip balm every one to two hours you can prevent your lips from becoming dry and cracked. Make sure you also pay attention to the corners of your mouth, this area is prone to cracking. A lip balm that contains a sunscreen is best. You should carry a tube of lip balm with you during the day. You should see your local doctor if your lips become very cracked or begin bleeding.

Dry Nose

The inside of your nose can also become dry while you are taking Novatretin. If this becomes severe it can result in nosebleeds. To keep the inside of your nose moist you should apply a small amount of petroleum jelly a few times a day using a cotton bud. If you suffer from persistent nose bleeds or your nose bleeds are difficult to stop, you will need to see your pharmacist or your doctor. Severe nose bleeds can be treated with prescription products.

Dry Eyes

If you find that your eyes feel dry or sore then you may need to use eye-drops to keep them moist. Dry eyes can be a particular problem for people who wear contact lenses or people who work in air-conditioned areas. If you wear contact lenses you may find that you cannot wear your contact lenses for as long as you did before starting on Novatretin.

Sun Care

Novatretin will make your skin more sensitive to the sun. You will need to make sure that you are well protected from the sun. You should not sunbathe, even with a sunscreen, or use a solarium. The best way to do this is to cover up as much as possible, wear a hat with a brim and wear a sunscreen, preferably one with a 30+ sun protection factor. The best sunscreens are oil free and alcohol free.

Dry Hair and Dandruff

If you find that your scalp and hair are drier than usual you may need to use a mild shampoo designed for dry hair. You should use a conditioner to help protect your hair and scalp. You should avoid using hair dyes, especially dyes containing peroxide, as they may make your hair and scalp drier and can cause irritation.

If dandruff becomes a problem you should use a medicated antidandruff shampoo.

Dry Vagina

You may find that your vagina is dry and this may cause pain during sexual intercourse.

You can use Lubricating Gel to help relieve this problem.

Dry Anus

You may experience some dryness and irritation around the anus. You can help relieve and reduce this problem by applying petroleum jelly several times a day.

Cosmetics

Makeup can sometimes aggravate your condition but if you choose your products carefully you can still wear makeup if you want to.

Powders

Most powders are suitable for use while taking Novatretin.

Lipsticks

All lipsticks are suitable for use while taking Novatretin. The best lipsticks to use are those that contain sunscreens. It is also a good idea to wear a lip balm under your lipstick, because this will provide better protection for your lips.

Lip Balms

A lip balm that contains a sunscreen is best. You should carry a tube of lip balm with you during the day.

HELPING YOUR PSORIASIS

WHAT IS PSORIASIS?

Psoriasis is a common, chronic, scaly rash that affects people of all ages (about 2% of the population). There is a genetic predisposition to psoriasis i.e. it tends to run in families. Psoriasis is also influenced by many environmental factors. It is not contagious and is not due to an allergy.

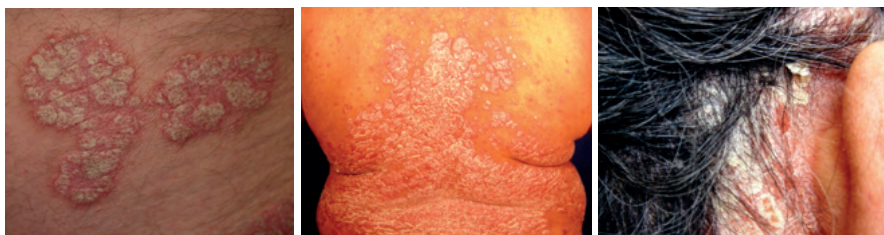
The most common ages for psoriasis to first appear are in the late teens and in the 50s. It affects men and women equally, although in children, girls are more commonly affected than boys.

Psoriasis is often so mild it is barely noticed by the affected person, but it can occasionally be so severe the patient must be admitted to hospital for treatment. It may or may not be itchy.

WHAT DOES PSORIASIS LOOK LIKE?

Psoriasis is characterised by red, scaly patches of skin, which usually have very well defined edges. It is often symmetrical, affecting both sides of the body. The scale is typically silvery white. This typical scale may not be so obvious if the psoriasis affects a body fold such as the armpit or the patient is using emollients regularly. Then it is more likely to be smooth and shiny.

Psoriasis is often very minor, causing a few dry patches on the backs of the elbows and knees, some irritation in the umbilicus (belly button) and natal cleft (between the buttocks) or scaling in the scalp. It can, however, affect any area of skin and it may be severe or unusual in appearance.



WHAT CAUSES PSORIASIS?

Exactly what causes psoriasis is not fully understood but there is a lot of active research into this area. The immune system is involved and appears to be overactive in a way that causes inflammation. Specifically, there is excessive production of cell growth compounds. These have many effects, including growth of extra blood vessels within the skin (causing the red colour) and increased turnover of the skin cells (causing the scaling and thickening of the skin).

Genetic influences

Like many diseases, psoriasis is influenced by inherited characteristics. Up to 50% of people with psoriasis will know of another affected family member. Patients with a family history of psoriasis tend to develop psoriasis earlier in life than those without a family history.

Stress

Physical and emotional stress may precipitate psoriasis and are hard to avoid.

Infection

Infections may cause flares of psoriasis. Sometimes, treatment of the infection may result in clearing or improvement of the psoriasis.

Streptococcal throat infections (tonsillitis) may cause guttate psoriasis.

Candida infections (thrush) may aggravate flexural psoriasis.

Malassezia yeasts may have a role in seborrheic dermatitis.

Injury

Psoriasis localises around the site of physical, chemical, electrical, infective and inflammatory injury as it heals (the Koebner phenomenon). Less often, psoriasis may localise to old scars.

Hormones

The relationship of hormones to psoriasis is unclear. Post-puberty is a peak time for the onset of psoriasis. Pregnancy may also have an effect on the severity of the psoriasis; it usually improves with the potential for worsening after the birth of the baby, but the reverse can occur. Psoriasis does not affect the unborn baby.

Medications

Several medications can precipitate or aggravate psoriasis:

- Lithium
- Beta blockers (used to treat high blood pressure)
- Anti-malarials e.g. hydroxychloroquine
- Nonsteroidal anti-inflammatory drugs (NSAIDs)
- Stopping oral corticosteroids
- Stopping strong topical corticosteroids.

Sun and UV Light

- Ultraviolet light can precipitate or aggravate psoriasis.
- Sunlight is usually beneficial for psoriasis (except in sun sensitive / photosensitive psoriasis).

Obesity

Many psoriasis studies have noted many affected patients to be overweight or obese. Recently, it has become clear that the severity of psoriasis is correlated with insulin resistance, a feature of metabolic syndrome. Psoriasis is associated with a greater risk of atherosclerosis resulting in ischaemic heart disease (angina and heart attack), stroke and peripheral vascular disease.

Alcohol and smoking

There is an association between increased alcohol intake and smoking and the development of severe psoriasis. However, whether this is a cause, or effect, is not known.

IS THERE A CURE?

There is to date no cure for psoriasis but satisfactory control of the disease is possible for most patients.

Some people have a single episode of psoriasis that clears after a few months and never recurs, quite likely after acute guttate psoriasis. Most other forms of psoriasis run a fluctuating course with periods of marked improvement and even complete clearance, only to relapse at a later time. There may be several years between relapses. A small group of patients have severe, persistent psoriasis that is very difficult to treat and can be very disabling.

1. Topical therapies

Treatments that are applied directly to the skin are known as topical therapies. They include creams, ointments, pastes and lotions. If your psoriasis is mild, topical therapies will be the mainstay of your treatment and include the following:

Emollients. Emollients reduce scaling and can be used as often as needed.

Salicylic acid. Preparations containing salicylic acid can help heavily scaled plaques.

Topical steroids. Weaker steroids often do not work very well on thick patches of psoriasis, but may do better on the face or in the skin folds. The stronger ones have possible side effects, one of which is to make your skin thinner. Your doctor will monitor their use closely. Psoriasis sometimes comes back quickly when topical steroid treatment stops.

Tar preparations. Taking a medicated tar bath may help to remove loose scales. Tar creams or ointments help most patients but may be messy and can stain clothing.

Vitamin D analogues. There are vitamin D preparations used to treat psoriasis. These are safe, clean to use and do not stain the skin. Treatment is applied twice daily and can go on for as long as required. Irritation may occur, especially on the face, buttocks and genitals, and these treatments should be applied to those areas only on the specific instructions of your doctor.

2. Phototherapy

This term refers to treatment with various forms of ultraviolet light, sometimes assisted by taking particular tablets. It is helpful if the psoriasis is extensive, or fails to clear with topical treatment, or comes back quickly after seeming to clear. Topical therapy will usually continue during the phototherapy.

Two types of ultraviolet (UV) light may be given, using special machines: UVA and UVB. These are different parts of normal sunlight. Treatment with UVA is helped by taking a medication known as a psoralen - a combination known as PUVA therapy. Treatment with UVB does not need tablets.

3. Oral and Injected Treatments

The idea of using a tablet to treat psoriasis is attractive, but the effective ones all have potential risks, so they are not used for psoriasis if it can be kept under control in simpler ways. In addition, you will usually have to continue with some topical therapy even though you are taking the tablets.

Your dermatologist will discuss the risks with you if you start on this kind of treatment. All of the tablets may require blood tests, and many interfere with other medicines. Female patients should not become pregnant whilst on any tablets for psoriasis, and with some of them it is important that male patients should not father a child.

Other than Novatretin, the tablets in question include ciclosporin (suppresses the immune system), methotrexate (slows down the rate at which the skin cells are dividing in psoriasis), and hydroxycarbamide (formerly known as hydroxyurea - also slows down the rate at which the skin cells are dividing).

There are also several injectable forms of treatment known as “Biologicals” available for extremely severe forms of psoriasis.

PSORIASIS OF THE PALMS AND SOLES

Psoriasis may predominantly affect the palms and soles in various ways:

- Typical scaly, red patches similar to psoriasis elsewhere
- Generalised thickening and scaling of the palms and soles (keratoderma)
- Sheets of tiny yellow-brown pustules (palmoplantar pustulosis).

Palmoplantar psoriasis



Clinical features

Palms and soles affected by psoriasis tend to be partially or completely red, dry and thickened, often with deep painful cracks (fissures). It can be quite hard to differentiate from hand dermatitis and other forms of keratoderma, but signs of psoriasis elsewhere may help make a diagnosis.

Palmoplantar pustulosis is considered a distinct entity in which there are clusters of pustules on the palms and/or soles, but about 10-20% of those affected have psoriasis on other sites of the body.

Palmoplantar psoriasis tends to be a chronic recurrent condition.

Treatment

Mild psoriasis of the palms and soles may be treated with topical treatments:

- Emollients: thick, greasy barrier creams applied thinly and frequently to moisturise the dry, scaly skin and help prevent painful cracking.
- Keratolytic agents such as urea or salicylic acid to thin down thick scaling skin. Several companies market effective heel balms containing these agents.
- Coal tar: to improve the scale and inflammation. Because of the mess, coal tar is often applied at night under cotton gloves.
- Topical steroids: ultrapotent ointment applied initially daily for two to four weeks, if necessary under occlusion, to reduce inflammation, itch and scaling. Maintenance use should be confined to 2 days each week (weekend pulses) to avoid thinning the skin and causing the psoriasis to become more extensive.

Calcipotriol ointment is not very successful for palmoplantar psoriasis and may cause an irritant dermatitis on the face if a treated area inadvertently touches it. Dithranol is too messy for routine use on hands and feet.

More severe palmoplantar psoriasis usually requires phototherapy or systemic agents, most often:

- PUVA
- Acitretin
- Methotrexate

Biologics are also sometimes prescribed for severe palmoplantar psoriasis.

TREATING DARIER DISEASE

Darier disease is also known as 'keratosis follicularis'. It is a genetic disorder that causes skin changes. Onset of skin changes is usually in adolescence and the disease is usually long term. It is inherited in an autosomal dominant pattern, which means that a single gene passed from one parent causes the condition. The chance of a child inheriting the abnormal gene if one parent is affected is 1 in 2 (50%) but not all people with the abnormal gene will develop symptoms of the disease.

HOW IS IT DIAGNOSED?

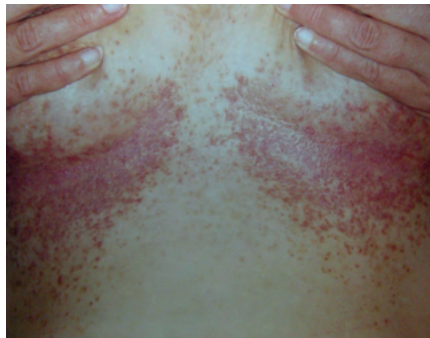
Usually Darier disease is diagnosed by its appearance and the family history, but it is often mistaken for other skin problems.

The symptoms and signs of Darier disease vary between individuals. Some have very subtle signs that are found only on careful inspection. Others have extensive lesions. In an affected person the severity of the disease can fluctuate over time.

SKIN RASH

The skin lesions are greasy, scaly papules (small bumps) which tend to occur over the oily areas of the face (scalp margins, forehead, ears, around the nostrils and sides of nose, eyebrows, and beard area), neck, and central chest and back. The flexures (within natural folds of the skin around joints such as armpits and groins) and skin under breasts and between buttocks are also commonly affected. The papules have a firm, harsh feel like coarse sandpaper and may be skin-coloured, yellow-brown or brown in colour. If several of the small papules grow together they may form larger warty lesions which can become quite smelly within skin folds. The scalp is often affected with a heavily crusted rash which can be similar to seborrhoeic dermatitis but is usually harsher to the touch.

Other presentations of this disease are common. Some patients may have flat, freckle-like lesions. Others may have very large, raised, warty lesions. Cystic acne may occur.



LESIONS AFFECTING THE MUCOUS MEMBRANES

Mucous membranes are the red, moist linings of all body surfaces except the skin (eg. mouth, oesophagus, rectum, vulva, vagina). Patients with Darier disease may uncommonly have a white cobblestone pattern or small papules affecting the mucous membranes. Overgrowth of the gums is also seen.

Most patients will develop signs of the disease (even if subtle) before the age of 30 years. Many patients will have a mild form of the disease that, although present, will go unnoticed throughout life. Patients with more severe disease will notice a chronic relapsing-remitting pattern to their signs and symptoms although cases of spontaneous resolution of signs have been reported. The rash is often exacerbated by sunlight (a reaction which may be delayed eg. on return from holiday), and occasionally by steroid use (although this may be useful for other patients). Bacterial infection can cause flares. Widespread infection of the skin with the herpes simplex (coldsore) virus is a well recognised complication. This can cause a severe flare and patients can feel quite unwell.

In most patients general health remains good regardless of the severity of the disease.

TREATMENT

Treatment is required only if there are troublesome symptoms. For patients with mild disease simple moisturisers, sun protection and selection of the right clothing to avoid heat and sweating are usually sufficient.

Dermabrasion (sanding off the surface of the skin) may be effective in localised disease. Localised Darier disease may also be treated successfully with topical retinoids. Secondary bacterial infection (usually due to *Staphylococcus aureus*) should be treated with antibiotics, and herpes simplex with antiviral agents.

If symptoms are particularly severe then a trial of an oral retinoid medication such as acitretin may be effective.

MANAGING ICHTHYOSIS

WHAT IS ICHTHYOSIS?

Ichthyosis is characterised by persistently dry, thickened, rough, fish scale skin. There are at least 20 varieties of ichthyosis, including inherited and acquired forms.

Ichthyosis vulgaris, accounts for 95% of all ichthyosis cases. Inheritance is autosomal dominant i.e. it is passed from a parent to about half their children. Signs and symptoms of ichthyosis vulgaris usually become apparent within the first year of life.

Acquired ichthyosis is not inherited and occurs for the first time in adulthood. It is usually associated with some general disease, such as underactive thyroid states, sarcoidosis, lymphoma, generalised cancer or HIV infection. It may be provoked by certain medications (such as kava, nicotinic acid and hydroxyurea).

WHAT CAUSES ICHTHYOSIS?

Inherited forms of ichthyosis occur as a result of a genetic mutation. The mutated gene causes an abnormality in the normal lifecycle of skin. Whilst in most people, the growth, dying and shedding of skin happens unnoticed, people with ichthyosis reproduce new skin cells at a rate faster than they can shed it, or reproduce at a normal rate but the rate of shedding is too slow. Either way there is a build up of dry scaly skin.

WHAT ARE THE SIGNS AND SYMPTOMS OF ICHTHYOSIS?

Although the signs and symptoms may vary amongst the different types of ichthyosis, they all show the characteristic dry, rough, scaly skin. Key characteristics of the four main types of inherited ichthyosis are listed in the table below.

Type of ichthyosis	Features
Ichthyosis vulgaris	Face and scalp. The bends of arms and legs usually spared. Palms are excessively lined Associated with atopic dermatitis
Lamellar ichthyosis	Scaling occurs over the whole body, including creases and bends May result in drooping lower eyelids
Epidermolytic hyperkeratosis	Skin is moist, red, and tender at birth Fluid filled blisters may occur which may become infected and give rise to a foul skin odour Thick, generalized scaling occurs within a few days Pathology shows epidermolytic hyperkeratosis
X-linked ichthyosis	May be associated with testicular disease

How common is ichthyosis and who gets it?

Apart from ichthyosis vulgaris all other forms of ichthyosis are rare. Ichthyosis vulgaris affects about 1:250 individuals. Ichthyosis occurs worldwide and affects people of all races.

What problems does ichthyosis cause?

People with ichthyosis have a normal lifespan. However they may need to spend several hours each day caring for their skin so they can lead as much of a normal life as possible. At some point during their life people with severe ichthyosis may come up against some of the following problems:

Overheating: ichthyosis may affect normal temperature control by reducing the ability to sweat

Limited movement: dry, scaly skin may make it too painful to move some parts of the body

Secondary infection: cracking and splitting of the skin may lead to skin infections and sometimes systemic infections

Impaired hearing or eyesight: skin may build up over the ears or eyes

What treatment is available?

There is no cure for ichthyosis. The main goal of treatment is to moisturise and exfoliate. This helps prevent dryness, scaling, cracking and build-up of skin.

People with ichthyosis need to bathe, moisturise and exfoliate their skin on a daily regular basis. Your dermatologist may prescribe or recommend moisturising creams and ointments to keep the condition under control. In severe cases they may prescribe oral retinoids such as acitretin or isotretinoin. This can help to reduce scaling. Oral antibiotics may be prescribed if secondary infection occurs.

The following skin care tips may help:

- Apply lotions and creams to wet skin to trap in the moisture (within 3 minutes of showering/bathing)
- Rub gently a pumice stone on wet skin to help remove thickened crusty skin
- Brush washed hair to remove scales from scalp
- Lanolin creams and products containing urea, lactic acid and other alpha hydroxy acids may help to exfoliate and moisturise skin.

MANAGING PALMOPLANTAR DISORDERS

PALMOPLANTAR PUSTULOSIS

Palmoplantar pustulosis is a chronic pustular condition affecting the palms and soles.

What is the cause of palmoplantar pustulosis?

The exact cause of palmoplantar pustulosis is unknown. It appears to be a disorder of the eccrine sweat glands, which are most numerous on palms and soles.

Palmoplantar pustulosis is probably autoimmune in origin ('self allergy'), as there is an association with other autoimmune diseases particularly gluten sensitive enteropathy (celiac disease), thyroid disease and type 2 diabetes.

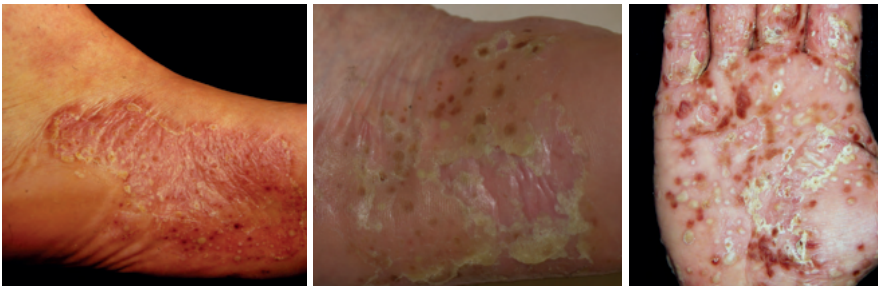
Palmoplantar pustulosis was previously considered to be a localised form of pustular psoriasis but about 10-20% of patients with palmoplantar pustulosis have psoriasis elsewhere. It is now known that they are distinct conditions with different genetic backgrounds.

Genetic factors account for family members having the disease. However, it rarely occurs before adulthood. It is more common in women than men.

Palmoplantar pustulosis is much more common in current smokers (and in those that have smoked in the past). It is thought that activated nicotine receptors in the sweat glands cause an inflammatory process.

Dermatitis, particularly pompholyx, and tinea pedis (a fungus infection) may appear similar, but require different treatment.

Palmoplantar pustulosis



Palmoplantar pustulosis presents as crops of sterile pustules occurring on one or both hands and/or feet. They are associated with thickened, scaly, red skin which easily develops painful cracks (fissures).

The condition varies in severity and may persist for many years. It is not known what causes exacerbations or remissions. Palmoplantar pustulosis is not infectious to other people and does not influence one's general health. However the discomfort can be considerable, interfering with working and leisure activities.

Walking for prolonged periods may cause exacerbations on the feet. If the palms are involved, manual activities may be uncomfortable, and injuries may aggravate the disorder. Certain occupations are therefore inadvisable for affected individuals.

TREATMENT

Treatment does not cure the disorder and is not always successful. The following may be helpful.

General Measures

- If you smoke, try to stop: however, palmoplantar pustulosis may take several months to improve.
- Choose comfortable footwear made from natural fibres.
- Avoid friction and minor injuries.
- Cover deep fissures with a waterproof dressing.
- Rest the affected area.
- If flares appear related to tonsillitis, consider tonsillectomy.

Emollients

- Use plenty of grease or other thick emollient to soften the dry skin to prevent fissures.
- Soak in warm water with emulsifying ointment for 10 minutes.
- Apply white soft paraffin liberally
- Use salicylic acid ointment or urea cream (heel balm) to peel off dead skin (may sting).
- Wash with bath oil or soap substitute.

Topical Steroids

Topical steroids are anti-inflammatory agents which range in potency and vehicle. Only the strongest ointments are effective in conditions affecting the thick skin of the hands and feet. However the very potent products such as clobetasol propionate should be used only for limited periods or else side effects and loss of efficacy become a problem.

A thin smear should be applied twice daily to the affected area. The effect may be enhanced by using plastic occlusion for a few hours or even overnight - use polythene gloves, plastic bags or cling film. Do not use occlusion for more than 5 days in a row.

Coal Tar

Crude coal tar is very messy but applied directly to the pustules every five days or so can stop them occurring. Paint on carefully and cover. It can be mixed in an ointment base for easier application.

Acitretin

Novatretin capsules, derived from Vitamin A, can control palmoplantar pustulosis in the majority of users.

PUVA

Ultraviolet radiation, especially in combination with psoralens taken as tablets or applied topically (bathwater PUVA), can be effective. PUVA particularly in combination with Novatretin (Re-PUVA) can also be effective. Careful medical supervision is necessary to avoid burning.

Other

A variety of other medications can help some subjects including:

- Colchicine
- Dapsone
- Methotrexate
- Tetracycline antibiotics
- Ciclosporin

Biologics are occasionally effective when used for severe palmoplantar psoriasis.

PALMOPLANTAR KERATODERMA

What is keratoderma?

'Keratoderma' is a term that means marked thickening of the skin.

'Palmoplantar' refers to the skin on the soles of the feet and palms of the hands; these are the areas keratoderma affects most often. Palmoplantar keratoderma is also sometimes known as 'keratosis palmaris et plantaris'.

Classification of keratoderma depends on whether or not it is inherited, and its clinical features.

Diffuse keratodermas affect most of the palms and soles.

Focal keratodermas mainly affect pressure areas.

Punctate-type keratodermas result in tiny bumps on the palms and soles.

Most often the abnormal skin involves only the palms and soles (non-transgradient) but sometimes it extends on to the top of the hands and feet as well (transgradient).

In some rare forms of keratoderma, other organs in the body may be affected in addition to the skin, and the keratoderma can be a marker of this internal abnormality.

Palmoplantar keratoderma



What causes palmoplantar keratoderma?

Keratoderma may be inherited (hereditary) or, more commonly, acquired.

Hereditary keratoderma: the condition runs in families and is passed down from one or both parent(s) to their children

Acquired keratoderma: the condition is not inherited and occurs as a result of a change in the health or the environment of the affected person

The hereditary keratodermas are caused by a gene abnormality that results in abnormal skin protein (keratin). They may be inherited either by an autosomal dominant or autosomal recessive pattern.

Autosomal dominant keratodermas are likely to occur in every generation of a family. If one parent is affected there is a 50% chance that each child will be affected.

Autosomal recessive keratodermas occur less commonly within an affected family. This is because both parents need to pass on an abnormal gene to the child for it to be affected. People with one affected gene only do not have the condition themselves but carry the abnormal gene and are referred to as 'carriers' of the disease. They may pass on the abnormal gene to their children but the children will only be affected if their other parent also carries an abnormal gene and passes it on to the same child.

Treatment of palmoplantar keratoderma

The following treatments soften the thickened skin and make it less noticeable.

- Emollients
- Keratolytics (e.g. 6% salicylic acid in 70% propylene glycol)
- Topical retinoids
- Topical vitamin D ointment (calcipotriol)
- Systemic retinoids (acitretin)NOVATRETIN

CONFIRMATION OF RECEIPT OF INFORMATION ON TREATMENT WITH NOVATRETIN® (acitretin)

Female Patients

I understand that I must not be pregnant in order to start this medicine.

I understand that I must not become pregnant while being treated with Novatretin and for three years after the end of Novatretin treatment.

I understand the risks associated with becoming pregnant while on Novatretin as explained by my dermatologist. I am aware that significant harm may be caused to my unborn baby should it be exposed to Novatretin during pregnancy.

As a precaution I agree to undergo a pregnancy test if necessary and have my doctor confirm that I am not pregnant immediately before starting treatment with Novatretin. I am aware that methods to avoid pregnancy are absolutely essential during my treatment on Novatretin. The safest option is an oral contraceptive plus a barrier. If there is any risk that pregnancy may have occurred, I agree to consult my specialist or GP to discuss the need for emergency contraception.

I agree to avoid the possibility of pregnancy for one month before commencing treatment with Novatretin, during the whole period of treatment and for three years after completion of treatment. Should I become pregnant, I agree to inform my doctor immediately.

All Patients

I understand that I must not give Novatretin to any other person.

I understand that while Novatretin may help my skin, it may cause a number of side effects that have been explained to me.

I confirm that I have been fully informed of the above by:

Doctor: _____

Patient Name: _____

Patient or Guardian Signature: _____

Date of Birth: ____ / ____ / _____ Today's Date: ____ / ____ / _____

Patient's Address:

