



PSORIASIS

An Effective & Alternative Treatment

by Madalene Heng, MD, FRACP, FACD, FAAD

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Dr. Madalene Heng, MD, FRACP, FACD, FAAD, is Clinical Professor of Medicine/Dermatology at UCLA School of Medicine. From 1979 to 2003, she was Chief, Division of Dermatology, UCLA San Fernando Valley Medicine Program. She is currently practicing at the Centers for Family Health, Community Memorial Health System, Ventura, California.

Dr. Heng is a reviewer for the Journal of the American Academy of Dermatology, American Journal of Geriatric Medicine, British Journal of Dermatology, Lancet, London, and International Journal of Angiology. With more than 130 scientific publications, including 71 published peer-reviewed articles on topics such as phosphorylase kinase activity and psoriasis, pathophysiology of disease, and wound healing.

She believes that skin health can be achieved by not only making important product choices, but lifestyle choices as well.



An aerial photograph of a dry, cracked lake bed. The ground is a light brown color, split into numerous irregular, polygonal shapes by deep, dark cracks. In the center of the image, there is a small, isolated tuft of dry, brown grass. The overall scene conveys a sense of extreme dryness and isolation.

What Causes Psoriasis?

**"The part can never be well unless the whole is well."
-Plato**



"In this age, which believes that there is a short cut to everything, the greatest lesson to be learned is that the most difficult way is, in the long run, the easiest."

-Henry Miller



THE GENETIC ASPECT

Psoriasis is linked to a gene mapped to the distal end of the 17th chromosome (see article below from Dermatology Times, "Spice Shows Promise as Powerful Skin Disease Treatment"). This gene encodes an abnormal cyclic AMP (Type II) which fails to switch-off the activity of phosphorylase kinase. After injury (trauma, allergic reactions, infections), phosphorylase kinase activity is induced.

Elevated phosphorylase kinase activity not only breaks down glycogen into ATP needed for multiple reactions, but activates I κ B α kinase, a key enzyme responsible for activating NF κ B, a transcription activator. Activation of NF κ B then

goes on to turn on over 200 genes responsible for cell proliferation, cell cycling, inhibition of apoptosis etc, resulting in the formation of PCNA+ (proliferating cell nuclear antigen), detected by the immunocytochemical marker, Ki-67+ . The Ki-67+ cells are capable of producing new cells and their increased numbers in the basal keratinocyte layers of the psoriatic epidermis is responsible for the hyperproliferation characteristic of the psoriatic disease.

Phosphorylase kinase is activated by "injury stimuli", which releases Type I cAMP protein kinase, which further activates the phosphorylase kinase molecule by a conformational change in the molecule, which allows access to phosphorylation sites for reactivity. After the "wound" is healed, the activation of Type II cAMP protein kinase "closes up" the molecule, thus switching off phosphorylase kinase activity by obscuring these phosphorylation sites. The abnormal Type II protein kinase in psoriatic individuals results in an inability to switch-off phosphorylase kinase activity. The psoriatic skin is, therefore, chronically in the proliferating mode.

IDENTIFYING PRECIPITATING FACTORS

Although the psoriatic gene is present at birth, the patient does not develop psoriasis until precipitated by trauma, allergic reactions and infections. The location of psoriasis gives a clue as to what precipitates or aggravates the disease:

1. Scalp

Pityosporum ovale: a lipophilic yeast which feeds on the oils secreted by sebaceous glands (Heng MCY et al. Correlation of Pityosporum ovale density with clinical severity of seborrheic dermatitis as assessed by a simplified technique. *J Am Acad Dermatol* 1990;23:82-86). The population of *P. ovale* is increased by increased oil production, which is aggravated by stress, and by lactose intolerance.

Black/brown hair dyes (paraphenylenediamine)

Nickel from touching nickel filings from coins and keys, brought to the scalp by the fingers
Staphylococcus aureus colonizing the porous skin scales

These patients may have lesions on the face (hair-line, eyebrows, paranasal cheeks), ears and behind the ears.

2. Trunk and Limbs

The affected areas are usually in areas in contact with elastic in clothing (bras areas, around waist, areas in contact with socks/stockings, and in areas in contact with leather products such as upholstery in



cars/chairs, as well as skin in contact with black/brown dyes (hair dyes during showers, black/brown clothing and socks, and black/brown upholstery.

The common allergens are:

elastic antioxidants in elastic, latex, spandex underwear, clothing and socks
paraphenylenediamine dyes in black/brown clothing and hair dyes

nickel from jewelry, coins, and keys

leather products

Staphylococcus aureus/MRSA bacterial superinfection.



3. Hands and Feet

Hands

Fingers, especially around the nails (nickel from coins/keys contacted by putting hands in pockets containing coins and keys. Web spaces and dorsum of hands and fingers: latex gloves, nickel, detergents, trichromates in gasoline/leather products/printer's ink/ motor oils/ brake fluid/ lubricating oils/ cement. Palms: leather/black steering wheel cover, handles of tennis rackets, golf clubs, paints, varnishes, glues etc.

Feet

Dorsum: trivalent chromates in leather shoes/foot-wear, black or elastic material in shoes
 Soles: leather insoles, neoprene glues that glue insoles to sock lining.
 Treatment: use plastic wrap to insert between foot-wear and skin of foot.

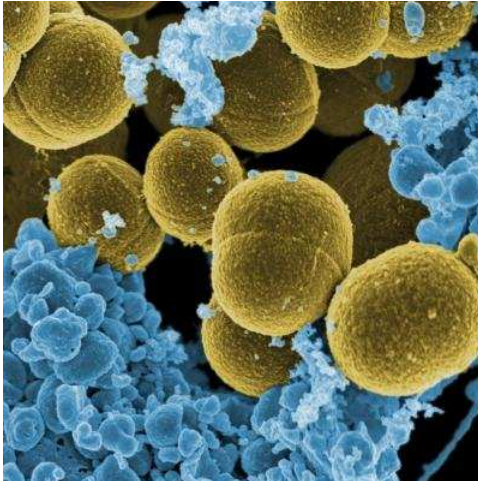
Flexural areas (axilla, groin, perianal)

Aggravating factors are *Candida albicans*. Flexural psoriasis may be aggravated by obesity, diabetes, but also by lactose intolerance, which results in zinc deficiency (Heng MCY. Acrodermatitis associated with zinc deficiency: features and postulated mechanism. *Australas J Dermatol* 1988;39: 169-193). Since human mother's milk contain galactose and cow's milk, lactose, we cannot secrete enough lactases in the small intestine to digest the lactose we ingest. As a result, the

lactose spills into the colon, and, through increasing the osmotic pressure in the colon, interferes with the colonic bacteria. The interaction of the colonic bacteria with undigested lactose in the colon results in the death of colonic bacteria, which release lipopolysaccharides (L:PS) from the bacterial membranes. LPS is a potent superantigen, which activates large numbers of T lymphocytes, and stimulates the formation of high levels of TNF-alpha, which causes worsening of psoriasis.

The patients should substitute soy products for lactose containing foods, and take calcium and vitamin D supplements instead. They may also have goat cheese, which does contain lactose, but is more digestible.





The Staphylococcus aureus bacteria lives inside the holes in the porous psoriatic scales just like bacteria inside the "pumice" stone. This is the reason why we give some form of oral antibiotics to every psoriatic patient. However, the bacteria within the porous psoriatic scales are not killed by the oral Keflex® alone. They also need a topical treatment e.g. chlorox baths. The chlorine water soaks into the scales, and kills the bacteria within.

BACTERIAL SUPERINFECTION

Staphylococcus aureus is present in plaque psoriasis, especially if the lesions are red and itchy. This is due to superantigens (Protein A, enterotoxin A, B and C) released from the cell wall of Staphylococcus aureus by the presence of proteases in serum, causing erythroderma and dissemination of the psoriatic lesions just like poison oak (Heng MCY et al. Erythroderma associated with mixed lymphocyte-endothelial interaction and Staphylococcus aureus infection. British Journal of Dermatology 1986; 115:693-705; Heng MCY et al. Predominance of CD8+ subset in id eruption of poison oak dermatitis. Australas J Dermatol 1991; 32:93-100).

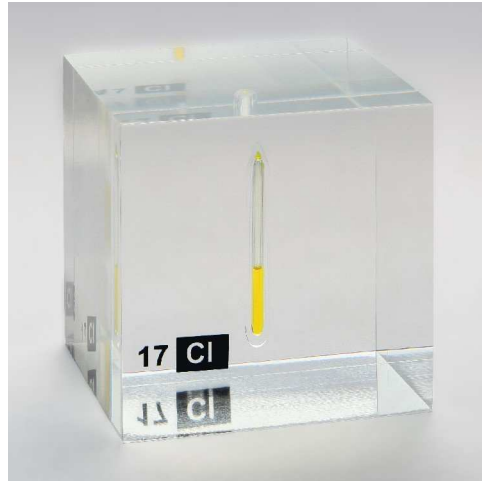
Chlorox Baths

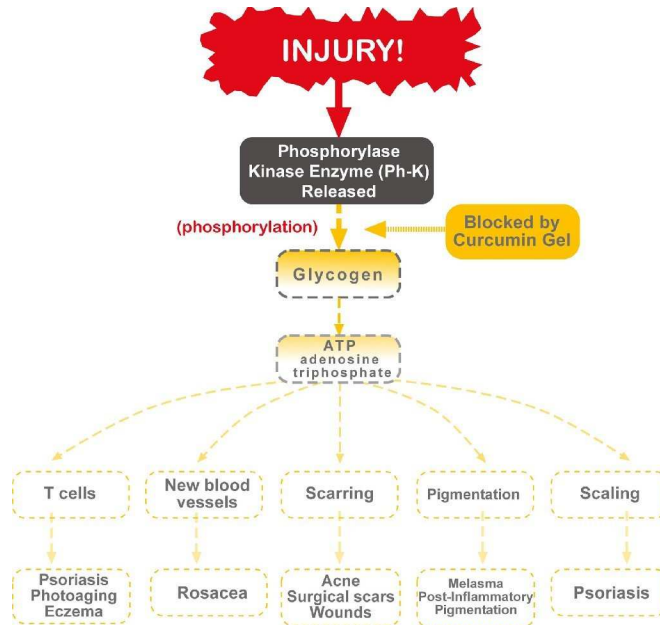
The chlorine concentration in the chlorox baths resemble that within the swimming pool, and should not be harmful, even for babies.

Add one eighth of a cup of chlorox bleach to a half-filled full bath tub of tepid water. The water must not be too warm or the chlorine will irritate. Mix in the chlorox with the fingers. Then the patient gets into the bath tub and soaks for 5 mins, pouring the chlorine water over the head and trunk that is not under water.

This is because *Staphylococcus aureus* can be cultured from normal skin (in 14% of patients based on studies). The patient should keep his head down (i.e. chin to chest), so as not to get the water into his ears. While in the bath tub, there should be no soap as this interferes with the action of the chlorine, which soaks into the pores of the psoriatic scales and kills off the bacteria. Since *Staphylococcus aureus* has been cultured from the nares in 50% of patients, the nose should be rinsed with chlorine water as well.

After the bath, the patient showers off the chlorine with soap and water, and shampoos his hair. He then uses a fresh towel daily, changes into fresh clothes and socks daily, and changes his bed sheets and pillow cases daily as these are full of bacteria.





BLOCKING PHOSPHORYLASE KINASE ACTIVITY

Since Psoriasis is due to the psoriatic patient's inability to "switch off" phosphorylase kinase (Ph-K) activity, it is important to investigate how to block Ph-K activity, and slow down the energy supply to the rapidly dividing cells. If the epidermal turnover is too rapid, the barrier function is compromised, and sheds as much as every 4-6 days, as opposed to every 60 days in normal skin. An effective phosphorylase kinase inhibitor is curcumin gel.

It has been found that curcumin gel (Psoria-Gold®) is a selective phosphorylase kinase inhibitor (Reddy 1994) which switches off phosphorylase kinase activity, thus allowing the Ki-67+ psoriatic cells to undergo apoptosis, leading to normalization of its proliferative activity, and resolution of the psoriatic epidermis (Heng MCY et al. Elevated phosphorylase kinase activity in psoriatic epidermis: correlation with increased phosphorylation and psoriatic activity. British Journal of Dermatology 1994;130:298-306; Heng MCY et al. Drug-induced suppression of phosphorylase kinase activity correlates with resolution of psoriasis as assessed by clinical, histological and immunohistochemical parameters. British Journal of Dermatology 2000;143:937-949.

ORAL TREATMENT

Keflex® or appropriate antibiotic for the bacterial superinfection until clear (usually in 4 months, longer for palms and soles). If skin cultures are positive for MRSA infection (methicillin resistant *Staphylococcus aureus* infection, other appropriate antibiotics, or even intravenous vancomycin may be necessary. Diflucan® (Fluconazole) 200 mg once a week for scalp and groin until clear (usually 4 months for the scalp, about 2 months for groin and axilla).

Zinc supplements: These are useful since psoriasis uses up your zinc reserve. At least 40 mg daily of zinc may be helpful.





TOPICAL TREATMENT

Face and Flexural areas

Ketoconazole cream 2% mixed with triamcinolone cream 0.1% once or twice a day.
Psoria-Gold® curcumin gel after a bath at night.

Scalp

Clobex® spray (Clobetasol solution) 0.05% in the mornings between the hair roots.
Ketoconazole shampoo 2% at night.
Psoria-Gold® curcumin gel after drying hair in the evenings.
Trunk and Limbs, Hands and Feet
Ketoconazole cream 2% mixed with clobetasol cream 0.05% morning and noon

Psoria-Gold® curcumin gel after a bath at night.

You may refer to the National Institute of Health website for more information on the drugs mentioned above.

How to apply Psoria-Gold® curcumin gel

This is used every night after the bath/shower. The following method will help the curcumin gel penetrate the psoriatic scales and improve results:

Because the psoriatic scales are full of air-filled holes, these prevent the curcumin gel from penetrating through and under the psoriatic scales. Soak the psoriatic scales with rubbing alcohol so that the scales no longer have a white appearance, then massage the curcumin gel into the wet alcohol. The wet alcohol will help the curcumin gel through and under the psoriatic scales. Curcumin gel is only soluble in alcohol but not water, so that water cannot be used as a substitute. The two elements for success is the pretreatment with alcohol, and then MASSAGING the curcumin gel into the wet alcohol. **DO NOT ALLOW THE ALCOHOL TO DRY OUT BEFORE MASSAGING IN THE CURCUMIN GEL, OR THE AIR BUBBLES WILL REFORM AND PREVENT THE PENETRATION OF CURCUMIN GEL THROUGH THE SCALES.** Use a clean cotton swab tip to transfer the curcumin gel onto the skin. Do not "double dip" in order to keep the gel sterile. Remember to close the lid of the jar tightly after use.

OTHER TYPES OF PSORIASIS

Guttate Psoriasis

If you get spots about the size of a dime or nickel, without large spots, you may have Guttate psoriasis. This is usually precipitated by streptococcal infection, among other causes, such as herpes simplex infection, hepatitis, and penicillin allergy. To get streptococcal infection you need to have a specific gene present (HLA-B16). Psoriasis, in addition, is due to yet another specific gene (mapped to the distal end of the 17th chromosome). Those who have the genetic combination often develop Guttate psoriasis.

Streptococcal infection may originate from the scalp, or the throat, ears, sinuses. Keep your head down so that no water may enter the ears, as this is a common site for streptococcal infections. The scalp may also be infected by *Staphylococcus aureus*, by a yeast called *Pityosporum ovale*, and aggravated by nickel from coins and keys by touching with your fingers.

If you have lesions in your groin, axilla and/or between the buttocks, you may be lactose intolerant. 95% of the Asian population is lactose intolerant (lactase deficient), 80% among Native Americans and Hispanic decent, 75% among African Americans, 50% among Mediterranean decent, and 20% among Northern European decent. The lactose in the colon causes stress to the bacteria in the colon



which are trying to digest cellulose since human beings are incapable of digesting cellulose. The inflammation in the bowel causes colitis, which causes zinc deficiency, which causes proneness to yeast and bacterial infection. In the scalp and face, the yeast is *Pityosporum ovale*; elsewhere (groin, axilla, between the buttocks, between the fingers and toes etc, the yeast is *Candida albicans*).

Treatment

Go on a lactose free diet (including cheese, ice cream, yoghurt, cream soups containing milk, pastry containing milk, sauces containing milk etc). Substitute soy products and goat cheese instead. You probably will need calcium and vit D supplements. You may also benefit from zinc



supplements (40-60 mg daily).

Oral antibiotics to treat your streptococcal infection and Staphylococcal infection. Oral Keflex® 500 mg, two capsules twice daily until clear i.e. 4 months.

Oral antiyeast treatment e.g. oral Diflucan® 200 mg tabs - one tablet per week until clear i. e. 4 months.

Scalp Treatment

Ketoconazole shampoo 2% for the yeast in the scalp.

Clobetasol solution 0.05% in the mornings - massage between the hair roots. Psoria-Gold® curcumin gel at night after a shower, and after drying your hair. Wet the scales with a little

rubbing alcohol, and while the scales are still wet, massage curcumin gel into the wet alcohol in order to get the curcumin gel to penetrate under the scales. You may do this for the trunk/limbs as well at night after the shower.

Trunk and Limbs

Use a combination of clobetasol cream 0.05% mixed with ketoconazole cream 2% on the palm of your hand, and then apply to the patches on the trunk and limbs. Do this morning, and if possible during the day as well. After a shower at night, apply Psoria-Gold® curcumin gel, massaging it into the wet alcohol to get the gel to penetrate the psoriatic scales.

Psoriatic arthritis

Psoriatic arthritis is aggravated by factors that lead to the formation of antibodies in the blood stream - called circulating immune complexes. Streptococcal infection is the most common cause of circulating immune complexes that worsen psoriatic arthritis. See “guttate psoriasis” for details on the source of streptococcal infection, its prevention and treatment.

Other factors that may lead to the formation of circulating immune complexes include herpes simplex infection, penicillin allergy and hepatitis. The condition is also worsened by a tendency to lupus erythematosus. This condition is more difficult to treat with topical medication. Please see your doctor, as this is a serious condition and requires frequent medical evaluation.

RESOLUTION

My patients usually are 65-70% improved in 4 weeks, 85% improved in 8 weeks, 95% in 3 months, and almost totally clear in 4-6 months. The palms and soles take longer because they have 200 layers of stratum corneum instead of 10 layers of stratum corneum to replace. It takes 60 days to replace the first layer of stratum corneum.

Note that the usual treatment of steroids (both oral and topical) do not suppress phosphorylase kinase, and do not kill off the Ki-67+ epidermal cells that cause the skin to grow rapidly. The disease often recurs when treatment is stopped unless used with curcumin gel.

As long as the precipitating factors are treated and removed, it is my experience that if patients use the protocol in this website correctly, and are treated until the Ki-67+ cells are normalized, the disease does not recur after the treatment is tapered off.

These are my suggested methods of treatment based on over 35 years of research and practice. See your doctor before applying any psoriasis treatment methods.

Please let me know if I may be of further help. For questions, email me directly at madaleneheng@omnicurecosmetics.com.



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BEFORE & AFTER PICTURES

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5-26-05



8-18-05



1-22-04



2-18-04



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2-18-04



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11-7-03



12-5-03



11-7-03



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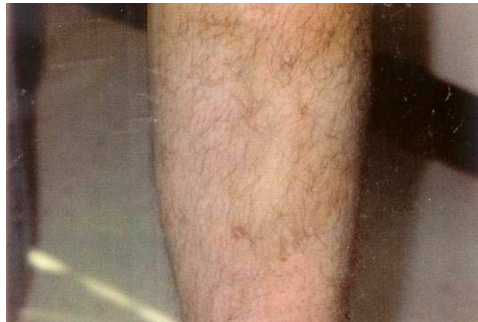
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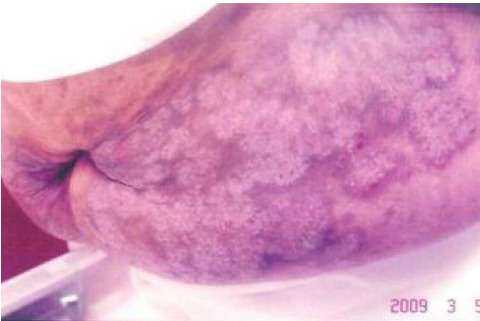
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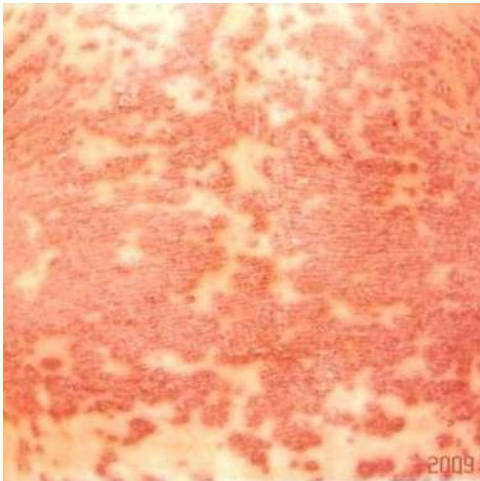
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