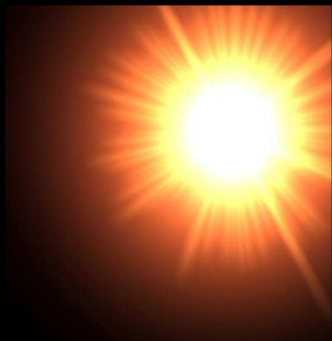


# BURNS & SCARS:

Improvement with Curcumin Gel

Before & After Photographs



by Madalene Heng, MD, FRACP, FACD, FAAD



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Before & After Photographs

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Contact Siana Cutter for more information regarding Omnicure Curcumin Gel ([scutter@omnicureinc.com](mailto:scutter@omnicureinc.com) | 1.888.776-7421)

Dr. Madalene Heng, MD, FRACP, FACP, 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.



# USING CURCUMIN GEL TO IMPROVE THE APPEARANCE OF BURNS

**INJURY!**

**Phosphorylase  
Kinase Enzyme (Ph-K)  
Released**

(phosphorylation)

**Blocked by  
Curcumin Gel**

**Glycogen**

**ATP  
adenosine  
triphosphate**

**T cells**

**New blood  
vessels**

**Scarring**

**Pigmentation**

**Scaling**

**Psoriasis  
Photoaging  
Eczema**

**Rosacea**

**Acne  
Surgical scars  
Wounds**

**Melasma  
Post-Inflammatory  
Pigmentation**

**Psoriasis**

Wound healing in adult skin, a complex process involving many cell types and processes such as epidermal, fibroblastic and endothelial cell proliferation, cell migration, matrix synthesis and wound contraction, almost invariably results in scar tissue formation and wound induration in adult skin. However, wound healing in embryonic skin involves repair processes that results in essentially perfect regeneration of the damaged tissue (Martin P. Wound healing – aiming for perfect skin regeneration. Science 1997;276:75-81).

Scarring is associated with inflammation, resulting in the secretion of inflammatory cytokines, and growth factors. It is believed that transforming growth factor-beta (TGF $\beta$ ), which stimulates the conversion of fibroblasts into myofibroblasts, is predominantly responsible for scarring following injury such as burns and surgical trauma. Wound tension and infections, which increase the secretion of TGF $\beta$ , are also associated with increased scarring. It is of interest that embryos, with immature inflammatory cells, are incapable of producing TGF $\beta$ .

Injurious processes including burns and surgical trauma trigger wound healing processes through activation of transcription activators, such as nuclear factor kappa B (NF-kB). NF-kB is a family of related dimers, which bind to a common sequence on the DNA, the kB site. In the non-activated state these dimers (p50/p65) are located in the cytoplasm. When activated by injurious stimuli,

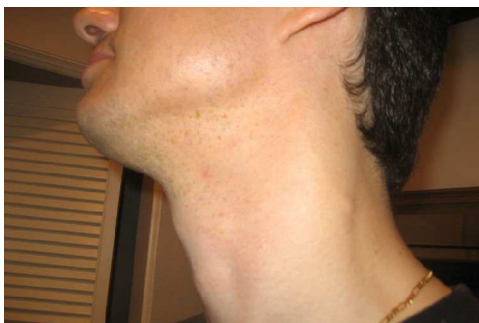
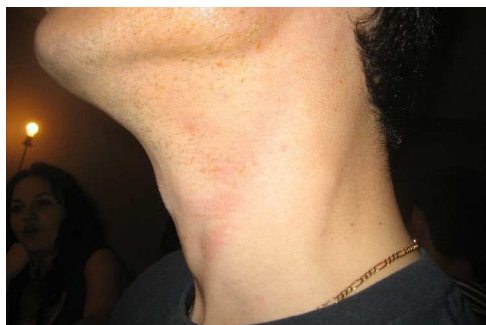
the activated p50/p65 dimers translocate to the nucleus, where they binds to the DNA, resulting in the transcription of over 200 genes involved in the processes of wound healing.

Curcumin, the active ingredient in turmeric, is a potent inhibitor of NF-kB activation. The process of activating NF-kB dimers in the cytoplasm involves the removal of an inhibitory protein (IkB $\alpha$ ) by phosphorylation of its kinase (IkB $\alpha$ ) kinase. This is achieved through phosphorylation of IkB $\alpha$  kinase at its serine/threonine sites by phosphorylase kinase (PhK). Curcumin gel, a potent inhibitor of PhK (Heng MCY. Drug induced suppression of phosphorylase kinase correlates with resolution of psoriasis as shown by clinical, histological and immunohistochemical parameters. British Journal of Dermatology 2000;143:937-949), may thus be used as an anti-scarring topical agent, through inhibition of NF-kB-dependent inflammatory processes, including the secretion of TGF $\beta$ , responsible for scarring following burns and surgical wounds.

I have compiled a series of before and after photographs of burns, scalds, and surgical wounds treated by curcumin gel (regular and concentrated) many of which approach the ultimate aim of “perfect regeneration” set by the British reconstructive surgeon, Dr. Paul Martin.

**Madalene C.Y. Heng MD, FRACP, FACD, FAAD**  
**Professor of Medicine/Dermatology**  
**UCLA School of Medicine**

## BURNS & SCARS: Improvement with Omnicure Curcumin Gel



**CASE 1:** 32 year old male with exposure to flame

(Above)

First Row: After 30 mins of using curcumin gel, After 1.5 hours of using curcumin gel every 15 minutes

Second Row: After 3 hours, and after 4 hours of using curcumin gel every 15 minutes

(Right) After 3 weeks follow up of using curcumin gel two times a day



## BURNS & SCARS: Improvement with Omnicure Curcumin Gel



**CASE 1 (cont):** 32 year old male with exposure to flame

(Above)

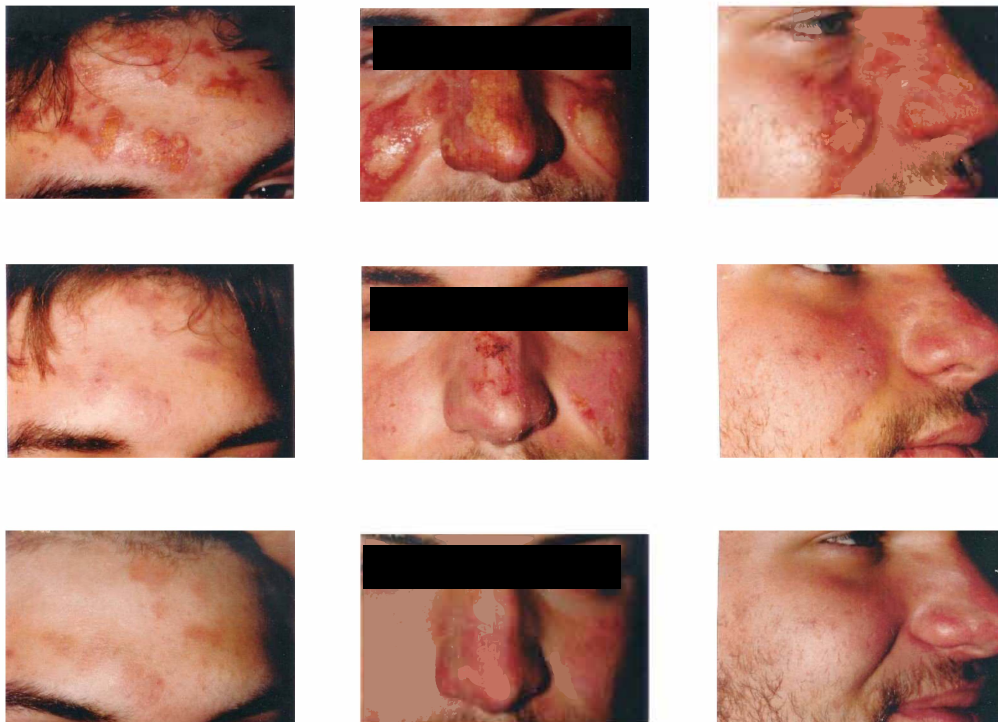
After 30 mins, 90 mins, 4 hours of using curcumin gel every 15 minutes

(Right)

After 3 weeks follow up using curcumin gel four times a day after the first week



## BURNS & SCARS: Improvement with Omnicure Curcumin Gel



**CASE 2:** 21 year old male with exposure to flame with accelerant

First Row: Before treatment

Second Row: After 9 days using curcumin gel

Third Row: After 2 weeks using curcumin gel



**CASE 3 (Above):** 19 year old male with exposure to flame and accellerant

Left Column: Before treatment

Right Column: After 2 weeks using curcumin gel

**CASE 4 (Next two pages):** 8 year old male with exposure to flame and accellerant

First Column: Upon treatment

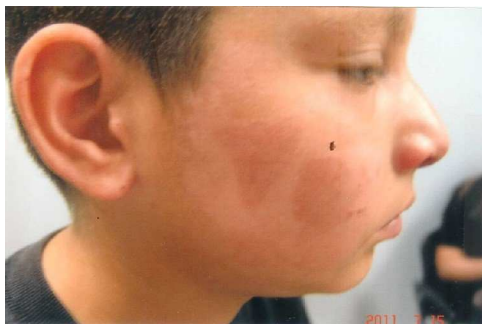
Second Column: After 5 days of using curcumin gel

Third Column: After 10 days of using curcumin gel

Fourth Column: After 1 month follow up of using curcumin gel

BURNS & SCARS: Improvement with Omnicure Curcumin Gel









**CASE 5:** 5 year old male with exposure to flame  
(Previous page)

First Row: Before treatment

Second Row: After 24 hours using curcumin gel every 15 minutes

Third Row: After 1 week using curcumin gel

(Above)

After 3 weeks follow up using curcumin gel two times a day after the first week



**CASE 6 (Above):** 13 year old male with exposure to flame

First Row: Before treatment

Second row: After 24 hours using curcumin gel



**CASE 7:** 49 year old female with contact with heated object

Left: Before treatment

Right: After 1 week using curcumin gel



**CASE 8 (Above):** 78 year old female with photo-exposure

Left: Before treatment

Right: After 3 days using curcumin gel

**CASE 9 (Next page):** 38 year old female with photo-exposure

Left Column: Before treatment

Right Column: After 48 hours using curcumin gel



Warning: Some  
pictures may be  
graphic as they  
document patients  
after surgery

**USING CONCENTRATED CURCUMIN GEL  
TO IMPROVE THE APPEARANCE OF SCARS:  
POST SURGURY BEFORE AND AFTER  
PICTURES**

BURNS & SCARS: Improvement with Omnicure Curcumin Gel





5-11-09



11-18-09

(Left)

Row 1: Post Surgery 5-9-08

Row 2: After 3 weeks of using concentrated curcumin gel applying twice daily

Row 3: After 2 months of using concentrated curcumin gel applying twice daily until improved



2-4-09



12-18-09



1-3-08



1-17-08



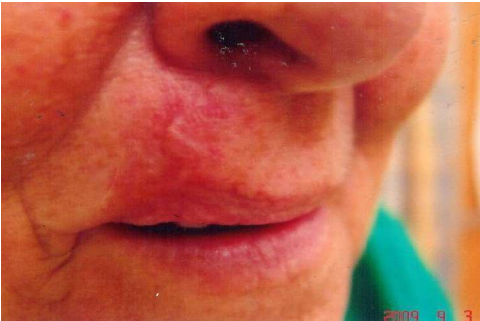
5-21-08



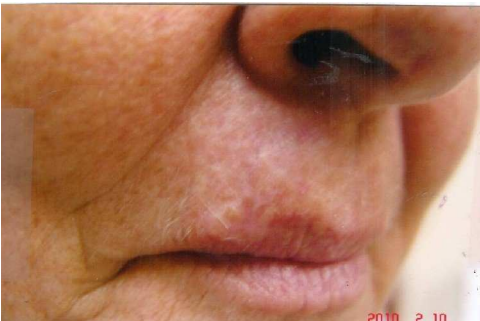
7-8-09



7-30-09



9-3-09



2-10-10



3-26-08



5-20-08



2-21-08



3-20-08



4-24-08



11-12-08



2-26-09



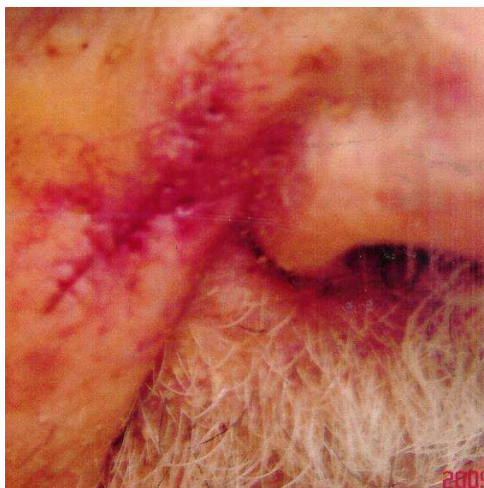
4-1-08



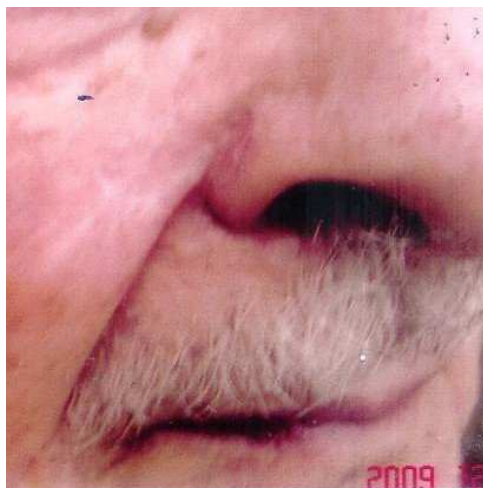
4-15-08



5-15-08



5-7-09



12-4-09



8-11-09



1-20-10



4-10-08



10-8-08



4-10-08



10-8-08



10-1-11



1-7-11



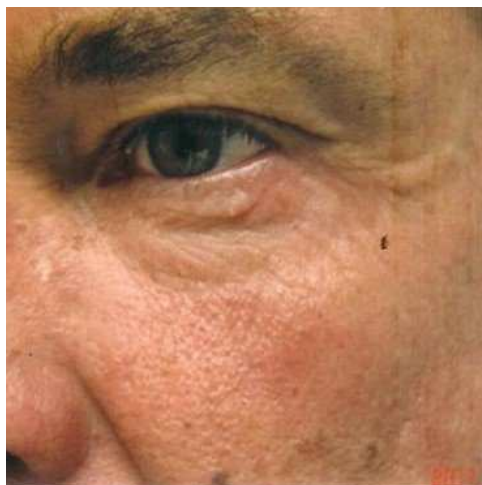
8-22-09



12-4-09



2-20-11



6-24-11





