

# Achieve Clear Skin For Life

## What You Need to Know About Acne Cause and Treatment Part I

### Acne Skin Condition .....

Contrary to popular notions, acne does not afflict teenagers alone. While it usually first appears during puberty, many men and women in their 20s through 50s also experience sudden onset of acne. While never life threatening, acne can be a source of irritation and frustration. Chronic, persistent acne can even adversely affect one's self-confidence and self-esteem.

### Popular Myths on Acne

#### 1. Dirty Skin Causes Acne

While dirt looks and feels unpleasant on the skin, it does not cause acne. Example, a construction worker can have good skin in spite of being exposed to dust and dirt.

#### 2. You Can Dry Up Pimples

You can dry up water but not pimples. Skin cells contain water and when you attempt to dry up pimples, you are really drying up the water in the skin cells. This can impair your skin's natural barrier function, thus increasing the presence of bacterial in your skin. It can also cause the skin to become dry, flaky and irritated, thus aggravating your skin problems. What you really need to do is to reduce sebum production by using the right product. This process is not the same as merely 'drying up' pimples. You can observe that those who were misled by this myth suffering from dry, flaking surface skin even while they have acne.

#### 3. You Can Spot-Treat Pimples

You can't. The 'making' of a pimple takes at least 2 to 3 weeks before it appears on the skin surface. To treat pimples and acne, you have to understand the multiple causal factors and address them directly.



## **When A Product Says "Oil-Free", Proceed With Caution . . . . .**

*Oil-free does not automatically imply that the product will not cause comedones or pimples. A product may be oil-free but may still contain pore-clogging thickening and emulsifying agents.*

## **The Four Main Causes Of Acne**

### **1. Hormonal Imbalance**

*Male hormones or androgen, in particular, testosterone, can cause the stimulation of the sebaceous glands to produce sebum. Testosterone converts into dihydrotestosterone (DHT), another form of male hormone that switches on the sebaceous glands.*

*Premenstrual acne is an example of acne caused by hormonal imbalances. The elevation of testosterone in the bloodstream begins 8 to 10 days before a woman's period. This elevation is actually not an increase in androgen as much as a decrease in the female hormone, estrogen. Nevertheless, the sudden larger percentage of androgen in the bloodstream leads to an increase stimulation of the sebaceous glands. Other factors that trigger hormonal imbalances include stress, birth control pills, pregnancy, menopause and of course, puberty.*

### **2. Excess Sebum Production (Hyperseborrhoea)**

*Sebum is essential for healthy skin and hair. However, when produced in excess due to hormonal imbalances, the skin takes on an oily and unsightly appearance and may even lead to irritation and inflammation in serious cases.*

*Hyperseborrhoea results from the increases in the size and activity of the sebaceous glands following hormonal imbalances. This is because the activity of sebaceous glands is androgen (in particular, testosterone) dependent. Every target cell (fibroblast) of the sebaceous gland contains an enzyme called 5 alpha-reductase, that converts testosterone into dihydroxytestosterone (DHT). DHT acts on the activity of the hair follicles, causing the stimulation of the sebaceous gland and the resulting increase in sebum production.*

### **3. Irregular Or Excessive Shedding Of Dead Skin Cells On Both The Skin Surface And Inside The Pore**

When dead skin cells on the skin surface and inside the pore are not shed normally, they can join together in blocking up the pore. When combined with excess oil, it solidifies as a soft, white substance that plugs the pore. If the surface of the pore is covered by skin, it is called a whitehead (milia). If the pore is open, without any skin covering, the top of the plug is exposed to air and darkens, causing a blackhead. Whitehead becomes pimples when *Propionibacterium acnes* begin to grow inside the pores, causing irritation and inflammation.

### **4. Bacterial Growth**

Hyperseborrhoea is accompanied by the proliferation of microbial flora in the pores, in particular *Propionibacterium acnes*. This causes irritation and inflammation. Inflammation and excess oil causes the wall of the oil gland to rupture, spilling out the contents (oil, dead skin cells, bacteria etc) into the surrounding skin tissues. The body's immune system then responds, sending lymph to the inflamed area to help with repair (and causing swelling). A pimple develops.

## **What About Food? .....**

This is still a very subjective issue. Some people can consume loads of chocolate and spicy foods without any problem while others experience outbreak of pimples at the slightest intake of such foods. We believe it depends on one's body constitution. If food is the cause, it can likely be linked to hormonal imbalances as no one can deny that food has an impact on the balance of one's body biochemistry.

## **Types of Acne**

### **1. Acne Vulgaris**

Also known as common acne, usually begins during puberty. Symptoms:

- Infection-induced pustules (pus-filled pimples) on the surface of the skin.
- The pustules usually discharge this white pus when squeezed.
- Occurs on the face, upper and lower back, and upper chest.

## **2. Cystic Acne**

Symptoms:

- *Deep infections that are nodule or cyst like*
- *Infections do not surface and do not discharge their waste materials*
- *Infections heal very slowly and permanent scarring is possible.*
- *A slight, reddish and hard bump may appear on the skin surface which does not diminish for a long time. May feel slightly painful.*

## **3. Acne Rosacea**

Symptoms:

- *Should be diagnosed by a physician*
- *Characterized by periodic redness of the skin, usually on the cheeks and spreading across the nose.*
- *Excessive skin flaking and crusting.*
- *Does not respond to usual acne treatment. In fact, ingredients normally used for acne treatment, such as salicylic acid, benzoyl peroxide etc, may worsen the condition of acne rosacea.*

