

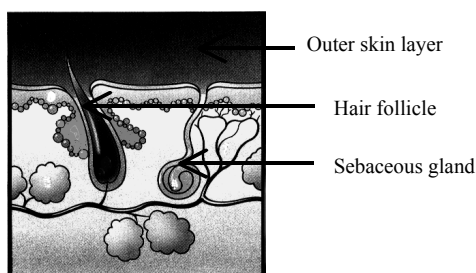
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UPDATE

ACNE TREATMENT

ACNE VULGARIS IS A COMMON CONDITION AFFECTING MAINLY YOUNG ADULTS FROM EARLY TEENS UP TO THEIR MID-TWENTIES. NUTRITIONAL MEDICINE IS EFFECTIVE AGAINST ACNE-PRONE SKIN AND CAN PLAY A SIGNIFICANT ROLE IN CALMING THE SKIN AND REDUCING ACNE ERUPTIONS. BE INFORMED OF THE LATEST IN NUTRITIONAL TREATMENTS AVAILABLE TO HELP YOU UNDERSTAND AND CONTROL WHAT MAY OTHERWISE BE A MOST FRUSTRATING CONDITION.

ACNE is a multifactorial disease of the pilosebaceous unit in the skin.



The sebaceous or oil-secreting gland at the base of hair follicles is connected to the surface of the skin by the sebaceous duct through which the hair passes. The most common form of acne is acne vulgaris affecting mainly those in their teens and mid-twenties. Other forms include acne cosmetica due to the heavy use of cosmetics. Cloracne is the result of the action of industrial oils and chlorinated hydrocarbons. Acne conglobata is a severe form of acne which occurs in later life causing multiple blackheads and extensive scarring leaving keiloid lesions. Acne fulminans is an immunological condition which affects mainly adolescent males. Acne rosacea leads to erythema and telangiectasia with or without acneiform components. It is a chronic type of acne affecting adults usually over the age of 40. Rhinophyma (thickening of the nose) is a known complication due to glandular hyperplasia.

ACNE VULGARIS

What causes acne?

Acne is the result of overactivity of the oil glands of the skin particularly those located on the face, neck, back and shoulders. These glands become clogged by skin cells that block the opening of pores. It is now known that

there are 3 key factors which play a role in acne:

- The typical teenage outbreak of acne is due to the hormonal stimulation of the oil glands which causes them to be overactive. These glands will then secrete excessive amounts of sebum, a mixture of oils whose function is to lubricate the skin and prevent water loss. Thus the skin becomes more oily.

The male hormone, testosterone is the major hormonal factor in acne. Although primarily a male hormone, in puberty, there is a dramatic increase in testosterone levels in males and also females, making girls equally susceptible to acne.

Although acne is considered to be a hormone-dependent condition, high levels of testosterone is not the single cause. It is well known that blood testosterone levels do not necessarily correlate with the severity of the disease. It appears that the activity of the enzyme 5-alpha reductase which converts testosterone to its more potent form, dihydrotestosterone, has a more significant role to play in the activity of the skin.

- Secondly, skin cells lining the oil glands or pores produce more keratin, this results in abnormally large numbers of cells which when combined with sebum tend to stick together, forming a thick layer, clogging the opening of pores. If the blocked pore is closed, it can be white (whiteheads) or if they are open and contain mixtures of skin cells plus skin pigment, they can be darker in colour (blackheads).
- The presence of bacteria on the skin promotes the production of enzymes which breakdown sebum liberating proinflammatory free fatty acids and lead to infection. This produces inflammation and pus formation and in more serious cases infection may spread into deeper skin layers and cause cysts. Cystic acne is more likely to lead to permanent scarring.

NUTRITIONAL TREATMENT

Dietary factors;

- A healthful diet rich in natural whole foods is the first recommendation. The Western refined diet is associated with an increased

incidence of acne while there is less acne seen in communities eating a traditional diet.

- Eat plenty of vegetables, fruits, whole grains and beans. Avoid highly refined foods especially those with high sugar content.
- Avoid fried foods and foods containing trans fatty acids such as margarine and shortening.
- Avoid iodine and foods containing iodised salt as iodine is known to aggravate the condition.
- Drink 2 litres of water daily, more in summer.
- If acne appears in your late twenties onwards, food intolerance is a likely causative factor. Seek professional help to identify the factors.
- Constipation or bowel irregularity can contribute to acne. Gastrointestinal problems must be treated appropriately.
- To reduce bacterial population, include good amounts of garlic and onions in the diet and supplement with lecithin granules (or capsules).
- Increase the intake of vitamin A or betacarotene rich foods
- If you have taken antibiotics (like tetracyclines) over a period of time you must commence a program to reduce the effects of *Candida albicans*. The resultant intestinal dysbiosis from the use of antibiotics may be a significant problem. (see sheet on Overcoming Candida).

Medications which aggravate acne:

Corticosteroids, progesterone, testosterone, drugs containing bromides or iodides, dilantin, lithium, isoniazid. If you are taking these medications **do not** stop taking them. First discuss with your doctor the possibility of alternative drugs. Acne induced by the use of anabolic steroid is very resistant to treatment.

NUTRIENTS WITH PROVEN ROLE IN ACNE TREATMENT AND CONTROL:

ZINC

One of zinc's important role is to inhibit the conversion of testosterone to its more active form dihydrotestosterone. Zinc is well known for its function in immune stimulation, inflammatory control and wound healing. Thus its contribution to healthy skin is most significant. Clinical studies have confirmed that it has a direct role in the

treatment of acne. Zinc gluconate and zinc citrate have been particularly beneficial yielding results comparable if not superior to that seen in trials using tetracyclines (an antibiotic and the common 'drug of choice' for acne). At least 12 weeks of supplementation may be required before good results are obtained. Be patient! Good skin is worth the effort.

ANTIOXIDANTS

Antioxidants such as Vitamin C, E, betacarotene, selenium have a role in regulating vitamin A. As well as this, its other important role is to normalise the enzyme glutathione peroxidase which inhibits the formation of toxic fatty acid derivatives in the sebum. Increasing dietary sources will do much to improve acne, if this is not possible take a supplement.

CHROMIUM

The relationship between acne and insulin and sugar metabolism is an interesting one. Patients with the condition known as 'skin diabetes' should avoid concentrated carbohydrates and supplement with chromium to improve glucose tolerance.

VITAMINS B5, B6

Pantothenic acid (B5) is beneficial to decrease sebum production. Pyridoxine (B6) is particularly important for those with premenstrual acne through its effect on normalising the metabolism of steroid hormones.

IMMUNE SUPPORT

To reduce bacterial population , nutritionally support the immune system with Vit C, zinc, B vitamins, garlic, echinacea, hypericum.

Supplement options:

Zinc, Chromium, Acidophillus
Antioxidants: vitamins E,C,
betacarotene, selenium; B5, B6,
echinacea, garlic.

SKIN CARE

Daily skin care is important. Use an anti-bacterial face wash. Avoid oily cosmetics and hair greases. Topically applied, tea tree oil is effective in reducing bacterial activity. B5 applied to the skin is also of significant benefit.

Source:

Rosenberg E.W. and Kirk B.S. Acne diet reconsidered. Arch. Dermatol. 117:193-95, 1981.
Abdel KM et al. Glucose intolerance in blood and skin of patients with acne vulgaris. Ind. J. Derm. 22:139-49. 1977
Michaelsson G et al. Serum zinc and retinol binding protein in acne. Brit. J. Dermatol.96:283, 1977.

Snider B and Dieteman D. Pyridoxine therapy for premenstrual acne flare. Letter to the editor. Arch Dermatol 110:130-31, 1974.

The information in this leaflet is not presented as a substitute for professional treatment. Please consult your health practitioner for specific individual health needs.