

## Acne and dairy products

Madam, acne also known as Acne Vulgaris is a widespread disease of the skin affecting a large figure of adolescents. It is just not limited to teenagers it can affect people from ages 10 through 40 years. No one factor causes acne, it usually occurs around puberty. It can be categorized in many different forms, like it can be cystic, nodular or just inflammation.<sup>1</sup> A lot of factors can trigger acne but specifically hormones play the most vital role in its progress, then elements like stress, bacteria etc. are all secondary. Acne is also classified by non-inflammatory open or maybe closed comedones and by inflammatory papules and pustules.<sup>2</sup> And repeatedly it affects those areas of our skin where we have copious sebaceous follicles.

According to statistics 85% of the teenagers are likely to suffer from acne outbreaks between the ages 12 to 24, 25% among this population will generate permanent scarring that will range from light to severe conditions. It was also found out that although acne can be completely treated by various methods only 11% of the acne afflicted individuals will seek physician's help, 20% will ultimately go to the dermatologist, 30 % will try different self medications and 40% would not do anything about their acne.

The role of diet in the development of acne has been controversial. Recent studies have proved that our diet and acne are very closely related.<sup>3</sup> Researchers have conducted researches and trials and it was then established that people consuming dairy products have higher prevalence of acne than otherwise normal people. However, intake of dairy products such as milk, leads to acne in many adolescents. This association nevertheless was more marked for skim

milk than normal milk indicating that the fat content of the milk is not interrelated with acne.

Milk has hormone like substances and insulinotropic effects with high glycaemic index. During puberty the insulin like growth factor; IGF-1 rises along with growth hormone, dehydroepiandrosterone and dihydrotestosterone and these all correlates with acne.<sup>4</sup> IGF-1 is a forceful mitogen that binds with its receptors and then initiates cell proliferation and inhibits apoptosis. Not only its affects are profound on the sebaceous glands present on our skin but it also generates overproduction of androgens which too helps exaggerate acne all mediated by excessive dairy product utilization.

Not just the IGF-1 growth factor but also other food related derivatives like oncogenic phosphoinositide -3-kinase which on the other hand increases the activity of androgenic receptors result in acne. Thus, a whole cluster of elements contained in the dairy products engender acne. In conclusion it should be pointed out that acne has a strong association with the dairy products.<sup>5</sup>

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