

Skin and its role in providing nourishment to the body - Pungent principles of black pepper, alkaloid piperine, and tetrahydropiperine (THP) as Enhancers of Nutrient and Drug Bioavailability

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Maintaining good health: nutrition a central concept in Indo-Tibetan medicine

For centuries, humans have been aware of the subtle influence of seasonal changes on their physical and emotional well-being. The ancient systems of medicine therefore addressed the specific needs of the human body in its process of adapting to seasonal changes as a means to maintain the state of good health and prevent disease. In the traditional Indian and Tibetan systems of medicine, good health was ensured through appropriate nutritional support which was thoughtfully adjusted to different seasons of the year. The concept of “food as medicine” was thereby exploited to maintain the body in a state of optimal health.

It is logical to assume that continuous care throughout the year for nutritional well-being is essential for overall health. Imbalanced and unsuitable diets impose prolonged periods of stress on the body, weakening its natural immune systems and making it more susceptible to disease. Adjustment of the seasonal menu, on the other hand, aims primarily at preventing or minimizing nutritional errors that may otherwise give rise to pathology and disease.

Traditional Indian and Tibetan diets were devised for compatibility with seasonal changes. They sometimes include a plethora of foods which are “taboo” in the modern nutritional sense; such as saturated fats or ghee (clarified butter), usually associated with high cholesterol levels. However, the diet in totality is a balanced one, providing carefully thought out seasonal nutrition. The proof is manifested in the good health and longevity of people who consume these traditional diets.

By traditional knowledge, selected foods are believed to be beneficial to general health at certain times in the year. Foods with thermogenic properties are more suited to the

winter and consumed only in moderation during the warmer months. “Cooling” foods are more compatible with warmer temperatures. At times of the year when there is excess of surface moisture, such as during the monsoon or thaw in early spring, raw foods likely to be contaminated with soil or water borne microbes are best avoided. Traditional practices imposed special restrictions on food intake during these periods. Although these beliefs had religious attributes, the underlying scientific principles are noticeable. These dietary practices are now being validated by science.

One of the emerging concepts in scientific analysis of Indo-Tibetan nutritional practices is that gastrointestinal tract is considered there as only one system nourishing the body. Skin and the central nervous system (CNS) are considered equally important in receiving and processing “nutrients” and supporting healthy functioning of the body. This article will discuss skin as nutrient delivery system to the body and provide examples of traditional herbal ingredients in assisting the nourishing role of the skin.

Skin, the complexity of a simple concept

If we were to ask the question, “what is the basic function of the skin?” most of us would simply answer that it covers and shelters our body. But looking up-close at this very basic organ one may be humbled in discovering how complex this structure really is. Human skin and its appendages, i.e. sweat glands, sebaceous glands (skin lubricant producing glands), hair and hair follicles and nails are referred to as integument. Skin has many layers which translate to two basic components; one directly in touch with the outside environment called the epidermis, and the other made of elastic connective tissue underneath which is known as the dermis. The outermost layer of the epidermis is called the stratum corneum. Made of cornified or keratinized cells, this layer covers skin like a disposable glove ready to be shed off

