## PHOTOTHERAPY

The use of light as a therapeutic tool, or phototherapy, is becoming increasingly prevalent but very likely it has not yet been exploited to its fullest potential. Undoubtedly, continued research in this field will uncover the efficacy of this non-invasive technology as an exclusive or adjunct form of treatment for a number of clinical entities. At this point it is obvious that visible light has pronounced effects, both direct and indirect, on the function of the human organism.

Direct effects include those interactions of photic energy with specific cellular components and/ or chemical constituents of the body, e.g., the photoinduction of vitamin D synthesis in the skin. Indirect effects of light are those changes which occur after light is perceived by the retinas where it is transduced into an electrical message; this information induces metabolic events in neurons and can be further changed into neuromodulatory or neurohormonal factors which then influence organismal physiology. An example of the indirect effect of light is that which involves photoperiodic-induced alterations in the production and secretion of the pineal hormone melatonin.

Phototherapy is an exciting and diverse area of research with some of its applications having already been uncovered which are currently being utilized. Definition of the limits of use of phototherapy are far from complete and the future for this sub-discipline looks bright. (No pun intended.)



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