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Curcumin-based Gel

National Cancer Institute

Source

National Cancer Institute. *Curcumin-based Gel*. NCI Thesaurus. Code C122708.

A proprietary topical gel formulation containing an extract of curcumin, the polyphenol derived from the plant *Curcuma longa*, with potential anti-inflammatory, antioxidant, and wound healing activities. Upon topical administration to the affected areas, curcumin inhibits a variety of pro-inflammatory enzymes and reduces the production of certain pro-inflammatory mediators. Curcumin also blocks the formation of reactive oxygen species (ROS), neutralizes free radicals and prevents oxidative stress and DNA damage. In addition, curcumin inhibits phosphorylase kinase (PhK) in the skin, which prevents multiple PhK-mediated signal transduction pathways that are induced upon skin injury. This further prevents inflammation, promotes healing and reduces scar tissue formation. The proprietary curcumin-based gel also provides moisture to the skin and contains tetrahydropiperine (THP), which is derived from black pepper fruit and increases skin uptake of curcumin.