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Olive Oil Extract/Curcumin-based Capsule

National Cancer Institute

Source

National Cancer Institute. *Olive Oil Extract/Curcumin-based Capsule*. NCI Thesaurus. Code C106234.

A capsule containing an extract of olive oil, rich in polyphenols, and curcumin, the polyphenol derived from the plant *Curcuma longa*, also known as turmeric, with potential anti-neoplastic, -angiogenic, -inflammatory, -oxidant and chemopreventive activities. The olive oil extract/curcumin-based capsule is rich in phytonutrients, especially polyphenols. Upon oral administration, the polyphenols, and other active ingredients in this supplement may exert anti-inflammatory activity by decreasing the production of inflammation mediators, such as TNF-alpha, interleukin (IL) 1-beta, IL-6, IL-10, interferon gamma, thromboxane B2, and leukotriene B4. They also inhibit a variety of pro-inflammatory enzymes, such as cyclooxygenase 1 (COX-1) and COX-2, block the formation of reactive-oxygen species and neutralize free radicals. In addition, curcumin and some other polyphenols disrupt cell signal transduction pathways involved in carcinogenesis. Specifically, curcumin inhibits cell invasion by inhibiting matrix metalloproteinase-9 (MMP-9) expression by suppressing NF-kB and AP-1 activation.