**Thymol and Thyme Essential Oil-New Insights into Selected Therapeutic Applications**

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**Abstract**

Thymol (2-isopropyl-5-methylphenol) belongs to the phenolic monoterpenes and mostly occurs in thyme species. It is one of the main compounds of thyme essential oil. Both thymol and thyme essential oil have long been used in traditional medicine as expectorant, anti-inflammatory, antiviral, antibacterial, and antiseptic agents, mainly in the treatment of the upper respiratory system. The current search for new directions of biological or therapeutic activities of natural plant substances with known structures includes thyme essential oil and thymol. Novel studies have demonstrated their antibiofilm, antifungal, antileishmanial, antiviral, and anticancer properties. Also, their new therapeutic formulations, such as nanocapsules containing these constituents, can be beneficial in medicinal practice and create opportunities for their extensive use. Extensive application of thymol and thyme essential oil in the healthcare sector is very promising but requires further research and analysis.

**Keywords:** new therapeutic applications; thyme essential oil; thymol.