



## MELISSA OFFICINALIS L. EXTRACT – AN EFFECTIVE REMEDY

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Lemon balm is the popular name of *Melissa officinalis* L. *Melissa* comes from the Greek word *Mélissa* meaning honeybee. Within the species were distinguished three subspecies: *M. officinalis* ssp. *altissima* Arcangeli, *M. officinalis* ssp. *officinalis*, and *M. officinalis* ssp. *indora* Boran. These are the plants from Lamiaceae group, native to the Mediterranean, but also widespread distributed in moderate and subtropical climate regions.

*M. officinalis* is commonly used for nervous complaints, lower abdominal disorders and more recently in the treatment of Herpes simplex lesions. Leaves are pharmacopeia material. In the fresh herb a content of balm oil is 0.01-0.10% and in the dried leaves from 0.1% up to 0.3%. The main components of *M. officinalis* usually are: citronellal (approximately 40% of content of balm oil), citral, neral, linalool, flavonoids, chlorogenic, ferulic, rosmarinic (4% of content of balm oil) and caffeic acid.

The aim of the study was to analyze the literature date about the application of balm extract and oil in the contemporary medicine. The latest studies showed the evidence that the alcoholic lemon balm leaves extract has

antihyperlipidemic and antihyperglycemic effects. Thus could be used for the treatment of diabetes mellitus type 2 or dyslipidemia by the activation of receptors PPAR playing the major role in glucose and lipids metabolism. Another importance of the lemon balm leaves extract is its antiviral activity, owes to rosmarinic acid. *Melissa* extract demonstrates high virucidal activity even at very low concentrations; it demonstrates low toxicity and inhibits HSV-1 attachment to host cells *in vitro*. The volatile oils included in lemon balm inhibit the replication of HSV-2. Moreover, the rosmarinic acid found out to be cytotoxic against Human Colon Cancer Cell Line. The substance contained in an alcoholic extract from *M. officinalis* turned out to be anti-proliferative and decrease in cell number neoplastic cell population.

For all these reasons, lemon balm is a natural herbal and effective remedy to heal disease units. Although lemon balm has traditionally been used due to its effects on nervous system, it might be suitable for widespread application in modern medicine giving the chance to exploit the natural potentials of herbs.