

# ABSTRACT

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Isoflavonoids are a group of 3-phenylchromen-4-one phenol flavonoids, many of which are biologically active. Isoflavonoids and their derivatives are sometimes referred to as phytoestrogens, because their structure and effect are similar to steroid hormones and are fed to estrogen receptors in the body. Isoflavonoids play an important role in human food as a health promoting plant substance.

Isoflavonoids and their related compounds are used in many dietary supplements and only in one registered phytopharmac (Menofem). Recently, some natural isoflavones have been identified as toxins, eg. biliarasone, which can cause biliary atresia if infants are exposed to this substance. However, with years of research and finding of new isoflavonoids together with understanding of their mechanism of action and their structure they have gained importance. Over the last ten years isoflavonoids have been subject to extensive research and analysis mainly because of their countless effects that were confirmed by studies. Many other *in vitro* and *in vivo* experiments need to be carried out so then isoflavonoids can be used more frequently and in new indications.

**Keywords:** Plants, isoflavonoids, biological activity, studies, identification