

Dandelion



Applications

- Liver Support
- Detoxification Support
- Metabolic Support
- Antioxidant Support
- Healthy Inflammatory Response Support
- Microbial Support
- Mood Support

Introduction

NutraMedix Dandelion is a hydro-ethanol extract made from **dandelion leaf** (*Taraxacum officinale*). It belongs to the Asteraceae family and is native to Europe, though it is widespread throughout the northern hemisphere. The common name of dandelion comes from the French *dent de lion*, or lion's tooth, because of the serrated leaf edges.¹

The constituents of **dandelion leaf** include polysaccharides such as PD1-1;² phenolic compounds such as monocaffeoyltartaric and dicaffeoyltartaric acids, the latter of which is more widely known as chicoric acid; sterols such as beta-sitosterol and stigmasterol; flavonoid glycosides such as quercetin; triterpenoids such as alpha-amyrin; coumarins such as cichoriin and aesculin; and sesquiterpene lactones.³⁻⁶ The main sesquiterpene lactone in the leaf is taraxinic acid beta-D-glucopyranosyl ester.⁴ Dandelion leaf contains many amino acids, though primarily L-Asparagine and L-Proline; the only essential amino acid not present in dandelion leaf is L-Methionine.⁷

NutraMedix Dandelion is made at our U.S. manufacturing facility using a specialized proprietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because NutraMedix's extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial

testing, and heavy-metal testing. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

Liver and Detox Support

Mouse studies have shown that **dandelion leaf** (*T. officinale*) may help with liver support,⁸ helping maintain aspartate transaminase (AST), alanine aminotransferase (ALT), and alkaline phosphatase (ALP) already within the normal range.^{9,10} It may also help maintain hepatic triglyceride levels already within the normal range.¹⁰ Rat studies have shown that *T. officinale* may help support and maintain liver health.^{11,12} One rat study found that liver support from the ethanol leaf extract was dose-dependent.¹² Much of the liver and detoxification support may be due to antioxidant support and healthy inflammatory response support, helping maintain superoxide dismutase (SOD) and glutathione (GSH) already within the normal range.⁹

Metabolic Support

Dandelion leaf (*T. officinale*) may help with metabolic and cardiovascular support.¹³ In a study with rats, dandelion leaf helped support normal vasodilation.¹⁴ It may also help maintain nitric oxide (NO) and endothelial nitric oxide synthase (eNOS) already within the normal range.¹⁵ Dandelion leaf may help with healthy lipid support, maintaining cholesterol and triglyceride levels already within

the normal range.^{14,16,17} In addition, in vitro studies have shown that several constituents, particularly chicoric acid, may help maintain alpha-amylase and alpha-glucosidase levels already within the normal range.^{3,18} The sesquiterpene lactone taraxacolide-beta-D-glucoside may help maintain healthy blood glucose levels already within the normal range.³

Antioxidant Support

Dandelion leaf (*T. officinale*) may contribute antioxidant support, as measured in vitro by thiobarbituric acid reactive substances (TBARS) in human plasma, which is attributed to the phenolic compounds.¹⁹ Antioxidant support was also confirmed by cobalt protoporphyrin (CoPP) for the water extract; by tin protoporphyrin (SnPP) for the ethanol extract;²⁰ and by ABTS, DPPH, and FRAP assays.¹⁵ Dandelion leaf's antioxidant support may contribute to the maintenance of Nrf2 function already within the normal range,²⁰⁻²² which may assist with neurological support.²¹ In a rat study, rats were given leaf or petal fractions of dandelion for four weeks; antioxidant support was quantified by TBARS assay.¹⁴ Compared to the root extract, dandelion leaf extract has significantly higher polyphenol and flavonoid content.⁴

Healthy Inflammatory Response Support

Antioxidant support and healthy inflammatory response support are often related. According to in vitro studies, **dandelion** (*T. officinale*) polysaccharides TOP 1 and TOP 2 may help with both antioxidant and healthy inflammatory response support by maintaining iNOS and TNF-alpha already within the normal range.^{23,24} Dandelion may help maintain IL-1beta and IL-6 already within the normal range.^{9,10} Dandelion may also help influence cytokine expression, maintaining NF-kappaB and Nrf2 already within

the normal range.^{25,26} The sesquiterpene lactone taraxinic acid beta-D-glucopyranosyl ester, found in the leaf extract, may help maintain Nrf2 function already within the normal range.⁴

Other Support

Microbial Support

In vitro studies have shown that oligosaccharides from **dandelion** may help with microbial support,²⁷ including support for organisms of varied gram status and with a variety of morphological forms.^{28,29} Dandelion may also help with support for diverse organism types.^{29,30}

Mood Support

In mouse studies, the water extract of **dandelion** leaf and root helped support a dose-dependent healthy mood, attributed to neuroendocrine support and maintenance of BDNF and MKP-1 already within the normal range.^{31,32}

Safety and Cautions

Dandelion (*T. officinale*) is generally well tolerated, with the most common side effect being gastrointestinal symptoms such as heartburn, stomach discomfort, or diarrhea.¹ It may have additive effects with anticoagulant, antiplatelet, and hypoglycemic drugs; may increase levels and reduce excretion of pharmaceutical lithium; may increase the risk of hyperkalemia when taken with potassium-sparing diuretics; and may lower blood levels of quinolone antibiotics.¹ Dandelion may increase levels of drugs metabolized by CYP1A2 and CYP3A4.^{1,33}

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.

References

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NutraMedix.

SHAKE WELL BEFORE EACH USE:
Put 30 drops in 4 oz (120 mL) of water and wait one minute before drinking. May be taken 2-3 times per day or as directed by your physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop. Keep out of reach of children.

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

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DANDELION

DETOX SUPPORT †

Dietary Supplement

2 fl oz. (60 mL)

Supplement Facts

Serving Size 30 drops
Servings Per Container 40

Amount Per Serving	
Dandelion leaf extract	1.5 mL*

*Daily Value not established

Other ingredients: mineral water, ethanol (20-24%)

NutraMedix.

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Lot #
Exp.