

**BENEFITS & USES OF MILK THISTLE (*SILYBUM MARIANUM* LINN): A REVIEW  
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**ABSTRACT**

Milk thistle or *Silybum Marianum*, is a commonly used herbal medicine in the management of several disorders. Milk thistle is a weed, which grows commonly in California and other parts of the world having a warm climate. The extract of this herb is used to reap its cell regenerating benefits. It possesses potent antioxidant and anti-inflammatory properties. It helps to detoxify the body, especially the blood and liver. Milk thistle is considered a hepatoprotective herb. It helps in the management of liver disorders by protecting it against the effect of toxins. It stimulates the enzyme formation, increases the bile production, decreases inflammation and soothes the mucous membranes. It acts as a cholagogue agent and increases the flow of bile from the gallbladder.

**KEYWORDS:** *Milk thistle, Liver disorder.***INTRODUCTION**

Milk thistles can grow to be 30 to 200 cm (12 to 79 in) tall, and have an overall conical shape. The approximate maximum base diameter is 160 cm (63 in). The stem is grooved and more or less cottony. The largest specimens have hollow stems. The leaves are oblong to lanceolate. They are either lobate or pinnate, with spiny edges. They are hairless, shiny green, with milk-white veins. The flower heads are 4 to 12 cm long and wide, of red-purple colour. They flower from June to August in the North or December to February in the Southern Hemisphere (summer through autumn). The bracts are hairless, with triangular, spine-edged appendages, tipped with a stout yellow spine. The achenes are black, with a simple long white pappus, surrounded by a yellow basal ring.

**Common Name** – Milk thistle**English Name** – Marianum**Botanical classification****Kingdom** – Plantae**Clade** – Angiosperms**Clade** – Eudicots**Clade** – Asterids**Order** – Asterales**Family** -Asteraceae**Medicinal Uses**

The demulcent action of this herb helps to soothe the mucus membranes in the body affected due to the

inflammatory changes. It also acts as a galactagogue and promotes the flow of milk. It can be used in the treatment of cancer. The use of Milk thistle is also beneficial in the management of hepatitis.

**Phytochemistry**

Milk thistle contains several phytochemicals such as flavonolignans, silybinin, silymarin, isosilybinin, betaine, silymarin, silychristin and silydianin. It also offers a rich source of flavonoids. A traditional milk thistle extracts obtained from its seeds contains approximately 4 to 6% of silymarin. It is a complex mixture of several polyphenolic molecules that includes seven flavonolignans (isosilybin A, isosilybin B, silybin A, silybin B, isosilychristin, silychristin and silydianin) and a flavonoid (taxifolin). The milk thistle extract consists of 20 to 35% of fatty acids including linoleic acid. Milk thistle also contains other important nutrients such as vitamin E and vitamin C. It also contains a high amount of lipophilic compounds that act as a bioflavonoid antioxidant.

**Benefits and Uses**

Milk thistle can be used in management of several liver disorders such as cirrhosis. It acts as a hepatoprotective agent and prevents damage to the liver cells. Cirrhosis is a chronic liver condition that develops due to the formation of a scar tissue in the liver, which replaces the normal healthy hepatic tissues. It occurs due to the damage to the healthy hepatic cells over a long period of

time. The common causes of this condition are chronic alcoholism and prolonged exposure to toxins. Liver Cirrhosis is a chronic liver condition that develops due to the formation of a scar tissue in the liver, which replaces the normal, healthy hepatic tissues. It occurs due to the damage to the healthy hepatic cells over a long period of time. The common causes of this condition are chronic alcoholism and prolonged exposure to toxins. It may also occur due to the inflammation of the liver following bacterial or viral hepatitis and the use of hepatotoxic medications. The scar tissue reduces the ability of the liver to function optimally and makes the organ hard and lumpy. As the disease progresses, hepatic failure may set in.

The common symptoms of cirrhosis include jaundice or yellowish discoloration of the skin, recurrent episodes of nausea and vomiting, pain in abdomen, constipation or diarrhea and loss of appetite. There may also be an enlargement of the liver in the initial stages of cirrhosis. However, as the disease progresses the liver shrinks in size. Milk thistle helps to treat cirrhosis by acting as an anti-inflammatory and hepatoprotective agent. Milk thistle can also be used to prevent the complications of cirrhosis such as hepatic failure and liver carcinoma.

Milk thistle possesses hepatoprotective properties. It protects the liver cells against the damage caused due to chronic alcoholism and toxins. The active complex of this herb is a lipophilic extract obtained from the seeds of the plant. It is composed of 3 isomer flavonolignans including silybin, silychristin and silydianin that are collectively called Silymarin.

Silymarin act as an antioxidant and reduces the free radical production in the body. It also inhibits lipid peroxidation. This helps to prevent the oxidative degradation of the lipid thus preventing the damage to the hepatic cells. It also helps to inhibit the free radical chain reaction mechanism.

Milk thistle helps in treating in Milk thistle possesses anti-angiogenic property. It prevents the formation of new blood vessels in the tumor mass. The results in the starvation of the abnormal cancer cells as the supply of oxygen and nutrients to them is affected. This results in an inability of the cancer cells to survive thus leading to their destruction.

## REFERENCES

1. Srivastava S, Srivastava AK, Srivastava S, Patnaik GK and Dhawan BN, Effect of picroliv and silymarin on liver regeneration in rats, *Indian J Pharmacol*, 1994; 26: 19-22.
2. Das SK and Vasudevan DM, Protective effects of silymarin, a milk thistle (*Silybium marianum*) derivative on ethanol-induced oxidative stress in liver, *Indian J Biochem Biophys*, 2006; 43: 306-311.