

## Alternative Treatments Available for Vitiligo

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### Abstract

Vitiligo has long been recognized as a difficult disease to treat as most treatments throughout history have been inadequate. In addition to traditional medical practices, alternative treatments have been used for centuries to help with the disease.

**Keywords:** Vitiligo; Alternative treatments; Ginkgo biloba; Dead sea therapy

Vitiligo has long been recognized as a difficult disease to treat as most treatments throughout history have been inadequate.

Current treatments available include a two month trial of mid-high potency steroids for focal/limited disease, topical calcipotriene daily to help increase efficacy of steroids, tacrolimus (0.1%) ointment to cosmetically sensitive areas, PUVA (phototherapy): topical application of 8-methoxypsoralen to affected areas followed by UVA for focal disease and methoxsalen capsules two hours before UVA in systemic disease, narrow band UVB twice weekly (may take up to 200 treatments), surgical therapy such as minigrafting for limited, stable disease unresponsive to therapies, and total depigmentation for severe disease with 20% monbenzyl ether of hydroquinone applied twice daily for 9-12 months [1].

Although these traditional medical practices have been able to help treat this disease, no cure has been discovered. Vitiligo is a disease that dates back many centuries and even before the era of modern medicine various remedies have been tried worldwide.

One of the most popular and most studied “natural” treatments for vitiligo is Ginkgo biloba. The therapeutic effects of Ginkgo biloba are related to its unique polyphenol compounds. Studies have shown that extracts of G. biloba can have an antioxidant effect by decreasing oxidative stress in macrophages and endothelial cells [2]. While the exact reason Ginkgo biloba helps treat vitiligo is unknown, there have been several theories proposed. The anti-inflammatory, immunomodulatory, antioxidant, and anxiolytic effects of Ginkgo biloba all are proposed mechanisms for contributing to its effectiveness [2]. In one study, Ginkgo biloba 40mg given 3 times a day orally was found to significantly affect repigmentation and arrest of the disease [3]. The treatment is cheap and has relatively few side effects making it an appealing treatment option.

Vitamin E, Vitamin B12, vitamin C, and folic acid have also been used for their antioxidant effects in the treatment of Vitiligo [4,5].

Many different oral herbal combinations have been recommended for vitiligo. The oral herbal therapies are thought to be effective by stimulating melanoblastic cells. Liquid extract of Acacia catechu bark is one treatment that has been shown to be effective. Other herbs that have been used include Psoralea corylifolia leaves with psorlanes, Usheer tea prepared from Vetivexia zizanioidis, and Brahmi tablets containing Eclipta alba. Despite their effectiveness, some of these herbs may be associated with side effects such as hepatotoxicity [6].

Bathing in the Dead Sea, specifically Dead Sea Climatotherapy, is another treatment that has been used for years. For best results, it is recommended that patients go for several weeks sometime between late February and mid-November. The high salt concentration, high MgCl<sub>2</sub> concentration of water and solar radiation have all been proposed as

mechanisms for the efficacy of treatment [7]. Dead Sea Climatotherapy is relatively safe and lacks long term side effects. Unfortunately, it may be impractical for patients due to its high cost, long distance, and time required for travel.

In China, several different remedies have been used to aid in the treatment of Vitiligo. A mixture of Xiaobai, 160 mL, orally daily has been found to be effective. It contains 30 g walnut, 10 g red flower, 30 g black sesame, 30 g black beans, 10 g zhi bei fu ping, 10 g lu lu tong, 5 plums. Chinese herbal mixtures and corticosteroids have been shown to improve Vitiligo as well [8]. Additionally, the practice of Chinese cupping, which involves providing suction over the skin, can be used to induce blisters on the thigh whose roofs are subsequently used for epithelial grafts in the treatment of Vitiligo [9].

Kalawalla® is another herbal product used in vitiligo. It that contains Polypodium leucotomos and works as a natural immunomodulator. P. leucotomos works by increasing lymphocyte levels and regulating the CD4/CD8 levels to a normal ratio. Pruritus has been reported as a side effect [10].

Melagenina (now Melagenina Plus) uses animal placental tissues [11]. It is applied topically and thought to work by stimulating the proliferation and differentiation of immature melanocytes and melanoblasts [12]. There are claims of high success rates, but these cannot be verified.

Alternative and complementary medicine has been used for centuries. Although, there have not been many strong formal studies, the therapeutic benefit of many of these treatments must not be overlooked. These historical and cultural treatments should not replace the conventional medical therapies, but they can expand our treatment options for this difficult to treat disease.

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