Gingivitis

Gingivitis is an inflammation of the gums (gingivae). Periodontitis is an inflammation of both the gingivae and periodontal tissue that surrounds and supports the teeth. These common conditions are often progressive and can eventually result in loss of the underlying bone that supports the teeth. After age thirty, periodontal disease is responsible for more tooth loss than are dental cavities. Severe periodontitis sometimes requires surgery to repair damaged gum tissue.

**Nutritional supplements that may be helpful:** A 0.1% solution of folic acid used as a mouth rinse (5 ml taken twice a day for thirty to sixty days) has reduced gum inflammation and bleeding in people with gingivitis in double blind studies.\(^1\)\(^2\) Depending on the preparation, the folic acid solution is rinsed in the mouth for one to five minutes and then swallowed or spat out. Folic acid was also found effective when taken in capsule or tablet form (4 mg per day) in one report,\(^3\) though in another trial studying pregnant women with gingivitis, only the mouthwash was effective—not folic acid in pill form.\(^4\)

Dilantin® therapy causes gum disease (gingival hyperplasia) in some people. A regular program of dental care has been reported to limit or prevent gum disease in people taking Dilantin®.\(^5\)\(^6\)\(^7\) Double blind human research has shown that a daily oral rinse with a liquid folic
acid preparation inhibited Dilantin®-induced gum disease more than either folic acid in pill form or placebo.8

Preliminary evidence has linked gingivitis to a coenzyme Q10 deficiency.9 Some researchers believe this deficiency could interfere with the body’s ability to repair damaged gum tissue. In double blind research, 50 mg per day of coenzyme Q10 given for three weeks led to a significant reduction in symptoms of gingivitis.10 Compared with conventional approaches alone, topical coenzyme Q10 combined with conventional treatments resulted in better outcomes in a group of people with periodontal disease.11

People who are deficient in vitamin C have been reported to be at increased risk for periodontal disease.12 When a group of people with periodontitis who normally consumed only 20–35 mg of vitamin C per day were given an additional 70 mg per day, objective improvement of periodontal tissue occurred in only six weeks.13 It makes sense for those who are deficient to supplement with vitamin C in order to improve gingival health.

However, for people who consume adequate amounts of vitamin C in their diet, several studies have found supplemental vitamin C to have no additional therapeutic effect. Research,14 including double blind evidence,15 shows that vitamin C fails to significantly reduce gingival inflammation in people who are not vitamin C deficient. In one study, administration of vitamin C plus bioflavonoids (300 mg per day of each) did improve gingival health in a group of individuals with gingivitis.16 However, there was
less improvement when vitamin C was given without bioflavonoids. Moreover, preliminary evidence has suggested that bioflavonoids by themselves may reduce inflammation of the gums.17

Some,18 but not all,19 research has found that giving 500 mg of calcium twice per day for six months to people with periodontal disease results in a reduction of symptoms (bleeding gums and loose teeth). Although some nutritionally oriented doctors recommend calcium supplementation to people with diseases of the gums, supportive scientific evidence remains weak.

**Are there any side effects or interactions?** Refer to the individual supplement for information about any side effects or interactions.

**Herbs that may be helpful:** A mouthwash combination that includes sage oil, peppermint oil, menthol, chamomile tincture, expressed juice from *echinacea*, myrrh tincture, clove oil, and caraway oil has been used successfully to treat gingivitis.20 In cases of acute gum inflammation, 0.5 ml of the herbal mixture in half a glass of water three times daily is recommended by some herbalists. This herbal preparation should be swished slowly in the mouth before spitting out. To prevent recurrences, slightly less of the mixture can be used less frequently.

A toothpaste containing sage oil, peppermint oil, chamomile tincture, expressed juice from *Echinacea purpurea*, myrrh tincture, and rhatany tincture has been
used to accompany this mouthwash in managing gingivitis.21

Of the many herbs listed above, chamomile, echinacea, and myrrh should be priorities. These three herbs can provide anti-inflammatory and antimicrobial actions critical to successfully treating gingivitis.

Bloodroot contains alkaloids, principally sanguinarine, that are sometimes used in toothpaste and other oral hygiene products because they inhibit oral bacteria.22 23 Sanguinarine-containing toothpastes and mouth rinses can be used in the same way as other oral hygiene products. A six-month, double blind study found that use of a bloodroot and zinc toothpaste reduced gingivitis significantly better than placebo.24 However, a similar study was unable to replicate these results.25 Thus, at present, it is unknown who will respond to bloodroot toothpaste and who won’t.

**Are there any side effects or interactions?** Refer to the individual herb for information about any side effects or interactions.

References: