The Izun PeriActive™ oral rinse:

A new solution for the reduction of gingival inflammation

PeriActive™
A Breakthrough Treatment for Gingivitis
The Izun PeriActive™ oral rinse:
A new solution for the reduction of gingival inflammation

Gingivitis

Gingivitis and periodontitis are chronic inflammatory conditions of the oral cavity. Gingivitis is a reversible inflammatory reaction to plaque accumulation on the marginal gingiva, which may develop after several days of inadequate oral hygiene.\textsuperscript{1,2} Periodontitis is a serious condition characterized by bone and periodontal ligament loss which can lead to tooth loss if allowed to go untreated.\textsuperscript{1,2}

Gingivitis and chronic periodontitis represent two of the most common periodontal conditions.\textsuperscript{2} The Centers for Disease Control and Prevention (CDC) estimate that one in every two American adults has significant periodontal disease. The prevalence increases to over 70% in people aged over 65 years.\textsuperscript{3,4}

Gingivitis is considered a physiological response to plaque deposition; however, if left untreated, the resulting inflammatory cascade can lead to more serious and destructive periodontal disease such as periodontitis.\textsuperscript{1,2} Periodontal disease is considered to be a chronic inflammatory condition which is associated with the progression of other systemic conditions. Current research suggests that gingival inflammation may be a risk factor for cardiovascular disease and is also associated with adverse pregnancy outcome, respiratory disease, kidney disease and certain cancers.\textsuperscript{5,6}

There is also a strong association between gingival inflammation and diabetes. A meta-analysis of 18 studies found that people with diabetes have a significantly higher rate of more severe periodontal disease compared with healthy subjects. Despite the increased risk of periodontal disease in people with diabetes, gingival inflammation may also have an effect on the progression of diabetes by aggravating existing cardiovascular risk factors and by influencing glycemic control. A meta-analysis of 10 studies which involved a total of 456 patients reported that periodontal treatment led to a significant reduction of absolute HbA1c in people with type 2 diabetes.\textsuperscript{7}

Chronic gingival inflammation may have serious implications for systemic health. Therefore it is important to intervene and treat the underlying periodontal disease as early as possible to prevent the progression of inflammation throughout the body (Figure 1).\textsuperscript{9}

Current guidelines for the treatment of gingivitis recommend mechanical removal of plaque (through tooth brushing, flossing, dental scaling and root planing procedures), topical and systemic antimicrobial therapy and chemical removal or inhibition of plaque formation using oral rinses.\textsuperscript{9}
Oral rinses are an integral aspect of periodontal treatment and are particularly useful for patients with severely inflamed gums who are unable to effectively brush due to pain and discomfort. Oral rinses are also particularly effective for people with physical and/or cognitive disabilities, such as the elderly who are at increased risk of periodontal disease.

PeriActive™

PeriActive™ is a unique oral rinse that has been shown to help reduce gingival inflammation, dental plaque formation and gingival bleeding. This novel, film-forming, alcohol-free oral rinse works together with a combination of three botanical ingredients, *Centella asiatica*, *Echinacea purpurea* and *Sambucus nigra*, to provide a significant anti-inflammatory effect, while enhancing natural oral healing.

Reviewing the evidence for PeriActive™

A prospective, double-blinded, randomized, placebo-controlled trial investigated the efficacy and safety of PeriActive™ oral rinse. During a two-week period, 62 patients were randomized to receive (i) PeriActive™ oral rinse, (ii) a cetylpyridinium chloride (CPC) rinse, (iii) an essential oils (EO) rinse or (iv) a water-only preparation taste and color-matched to PeriActive™. Patients were instructed to rinse their mouths with 15mL of the given solution three times a day. Moreover, patients were instructed

**Figure 2.** Change in GI scores in experimental gingivitis (between baseline and final GI scores).
to abstain from any dental hygiene intervention, including tooth brushing, flossing or use of any other oral rinse or breath mints during the trial period. The study demonstrated that PeriActive™ oral rinse is an effective anti-inflammatory oral rinse, which showed a statistically significant reduction in each of gingival index (GI) and plaque index (PI). As illustrated below, patients who received PeriActive™ oral rinse had the lowest rates of gingival inflammation (Figure 2), plaque accumulation (Figure 3) and bleeding sites (Figure 4).5

Another evaluation of this study, looking at the use of PeriActive™ mouth rinse in comparison to placebo in 54 patients, confirmed the reduction in gingival inflammation. The alternate evaluation reaffirmed that PeriActive™ is a safe and effective anti-inflammatory rinse, which has been proven to decrease the incidence of gingivitis and dental plaque formation and the number of spontaneous bleeding sites in an experimental gingivitis model.10

**Figure 3.** Change in PI scores in experimental gingivitis (between baseline and final PI scores).

**Figure 4.** Change in number of bleeding sites in experimental gingivitis (increase in # of bleeding sites after treatment). PeriActive™ prevented the increase in bleeding normally seen in patients with gingivitis.5
Another study by Levine et al published in 2013 investigated the use of PeriActive™ oral rinse in combination with PerioPatch®, a patch infused with a botanical mixture similar to that formulated into the oral rinse. The study followed 18 patients with gingival recession. Gingival recession is a common problem in the general population that may result from inflammation due to an accumulation of dental plaque biofilm, mechanical trauma and poor oral hygiene. Following treatment involving scaling, root planing and oral hygiene, patients were instructed to use two courses of PerioPatch® treatment (3 days each) and use the PeriActive™ oral rinse twice daily. The study demonstrated a decrease in gingival recession and gingival index and an increase in gingival thickness (GT). Patients treated with this combination also showed lower rates of inflammation and improved rates of healing. Another head-to-head study of PeriActive™ oral rinse and a 0.12% chlorhexidine oral rinse in the post-operative setting found both rinses to be clinically equivalent in preventing plaque accumulation (Fig. 6); PeriActive™, however, was shown to be more effective in reducing inflammation (Fig. 5). In contrast to chlorhexidine oral rinse, PeriActive™ did not cause any staining of the teeth (Fig. 7).
As demonstrated by the studies discussed above, PeriActive™ oral rinse has anti-inflammatory properties, which are effective in reducing gingival inflammation. Recent studies suggest that PeriActive™ oral rinse may be as effective as traditional oral rinses containing chlorhexidine for controlling plaque and may indeed be more effective in reducing rates of inflammation in the post-operative setting.\textsuperscript{5, 10, 11, 16}

Figure 6. Change in PI score after 2 weeks and 4 weeks of treatment.

PeriActive™ had equal effectiveness compared to chlorhexidine in the prevention of plaque.\textsuperscript{11}

Figure 7. Change in staining of the teeth after 2 weeks and 4 weeks of treatment.

Use of PeriActive™ resulted in dramatically lower staining levels than did use of chlorhexidine.\textsuperscript{11}
PeriActive™ natural technology

Izun scientists have designed a unique polymolecular material based on natural plant extracts that is carefully monitored, using chemical analysis and bioassays, from plant harvest to the finished product. Izun products capture the beneficial activity of each component, capitalizing on synergistic interactions that emerge from the unique combination within. Izun products amplify and enhance the body’s own potential to reduce inflammation in tissue, while activating and orchestrating the natural healing process.

As demonstrated by the range of studies to date, PeriActive™ is the treatment of choice in a number of scenarios, including the reduction of gingivitis and gingival recession, and in the post-operative setting. In comparison to conventional oral rinses, PeriActive™ oral rinse is the only rinse which has been shown to prevent dental plaque accumulation and gingival inflammation while enhancing natural healing.5, 10, 11, 16

References

Recommended uses for PeriActive™:

1. for all patients who have a tendency to gingivitis and/or periodontitis

2. post surgically after implants or periodontal surgery

3. post extractions

4. for reduction of inflammation under dentures or around implants