

Stippling of the gingival tissue

Inflammation, bleeding upon probing, and pocket depths are the **most important** diagnostic aids or signs of gingival or periodontal disease. Gingiva may or may not be stippled whether healthy or inflamed. The presence or absence of stippling is **not** diagnostic.

Clinical criteria used for diagnosing gingivitis:

- **Color:** normal gingival color ranges from coral pink to various stages of pigmentation.
*** **Erythema** refers to an intense red color. Probably the **most common** color change noted with periodontal disease is **cyanosis** (*bluish-purple hue*).
- **Contour:** has a range of normal. This is influenced by missing teeth, position of teeth, etc. Papillae should fill the interproximal spaces. Gingival margins should be **scalloped** in form.
- **Tone (or Consistency):** the normal consistency of the gingival tissue should be **resilient** and **fibrotic** in nature from the free gingival groove apical to the mucogingival junction. **Texture**, stippling of the attached gingiva (*the so-called orange peel appearance*) may or may not be present.
- **Size:** the healthy gingival tissues should be **well-contoured** to the underlying osseous architecture with the free gingival margin being of such thinness to allow for a "**knife edge**" thickness at the dentogingival margin.
- **Plaque, calculus:** the best way to evaluate the amount and distribution of plaque is by the utilization of disclosing solution. **Remember:** Without bacterial plaque there **would be no** gingivitis.

Important: The impact of **nutrition** on periodontal disease — there are **no** nutritional deficiencies that **by themselves** can cause gingivitis or periodontitis. However, nutritional deficiencies **can affect the condition** of the periodontium.

- **Vitamin A deficiency:** vitamin A may play an important role in protecting against microbial invasion by maintaining epithelial integrity. A deficiency can impact the barrier function of epithelial cells.
- **Vitamin D deficiency:** vitamin D is essential for the absorption of calcium from the GI tract and the of the calcium-phosphorus balance. No human studies demonstrate a relationship between vitamin D deficiency and periodontal disease. **Note:** Vitamin D deficiency can contribute to osteoporosis of alveolar bone in young dogs.
- **Vitamin B-complex deficiency:** vitamin B complex includes thiamin, riboflavin, niacin, pyridoxine, biotin, folic acid, and cobalamin. Deficiency of these as a group **may** contribute to gingivitis.
- **Vitamin C deficiency:** severe deficiency of vitamin C results in scurvy. Bleeding, swollen gingiva and loosened teeth are common features of scurvy.