

PROGRESSION OF PERIODONTAL DISEASE

For years, clinical researchers have been trying to find an answer to the question, “How does untreated periodontal disease progress?” In this context, **disease progression** means that the disease gets worse. Data from ongoing studies suggest that the pattern of disease progression may vary from (1) one individual to another, (2) one site to another in a person’s mouth, and (3) one type of periodontal disease to another.

1. Historical Perspective on Disease Progression

A. Continuous Progression Theory (Historical View of Disease Progression: Prior to 1980). The continuous disease progression theory states that periodontal disease progresses throughout the entire mouth in a slow and constant rate over the adult life of the patient (FIG. 5-8).

1. This theory suggests that
 - a. All cases of untreated gingivitis lead to periodontitis.
 - b. All cases of periodontitis progress at a slow and steady rate of tissue destruction.
2. Research studies conducted in the early 1980s indicated that periodontal disease neither progresses at a constant rate nor affects all areas of the mouth simultaneously. The continuous progression theory does not accurately reflect the complex nature of periodontal disease.

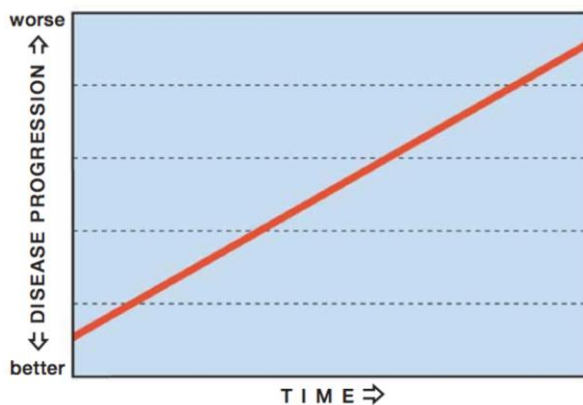


Figure 5.8. The Continuous Disease Model of Disease Progression (Prior to 1980). In the past, clinicians believed that periodontal disease progresses (worsens) throughout the entire mouth in a slow and constant rate over the life of the patient. It was believed that all cases of untreated gingivitis led to periodontitis.

2. Current Theory of Disease Progression

A. Intermittent Progression Theory (Current View). Intermittent disease

progression theory states that periodontal disease is characterized by periods of disease activity and inactivity (remission) (FIG. 5-9).

1. Tissue destruction is sporadic, with short periods of tissue destruction alternating with periods of disease inactivity (no tissue destruction). The period of inactivity with no disease progression may last for months or for a much longer period of time.
2. Tissue destruction progresses at different rates throughout the mouth. Destruction does not occur in all parts of the mouth at the same time. Instead, tissue destruction occurs in only a few specific sites (tooth surfaces) at a time.
3. In the majority of cases, untreated gingivitis does not progress to periodontitis.
4. Different forms of periodontitis progress at widely different rates.
5. Susceptibility to periodontitis varies greatly from individual to individual and appears to be determined by the host response to periodontal pathogens.

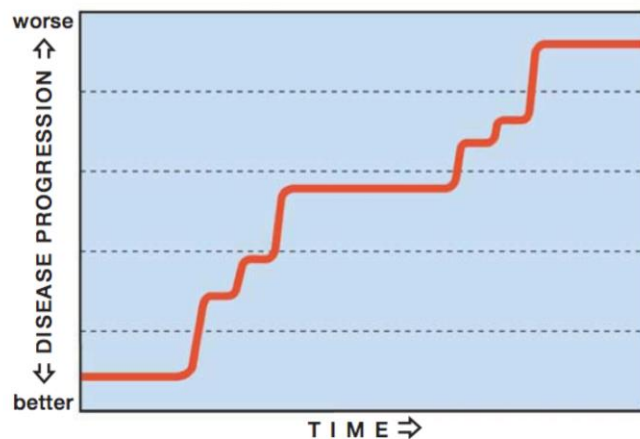


Figure 5.9. Intermittent Disease Progression Theory. Current research suggests that periodontal disease is characterized by periods of disease activity and inactivity. Furthermore, destruction does not occur in all parts of the mouth at the same time.