# PerioMonitor™ – A Game-Changer in Chairside Oral Inflammation Detection

## Overview

**PerioMonitor™** is a rapid, non-invasive, point-of-care test designed to detect oral inflammation through the measurement of neutrophil enzyme activity (NEA) in saliva. Developed by Oral Science, the test empowers clinicians with real-time, objective data on oral inflammatory load (OIL), transforming how periodontal disease is screened, diagnosed, and monitored.

## The Clinical Challenge

Traditional diagnostic tools such as visual exams, radiographs, and bleeding on probing (BOP) are retrospective and often detect inflammation only after significant tissue damage has occurred. These methods are also subject to clinician variability and fail to quantify the active inflammatory burden or predict progression.

Key limitations include:

- Retrospective nature of BOP and probing depth measurements.
- Inability to detect early-stage inflammation.
- Operator-dependent variability in technique and interpretation.
- Lack of real-time inflammation tracking, especially in asymptomatic patients.

As periodontal disease is not only a leading cause of tooth loss but is also linked to systemic conditions like cardiovascular disease, diabetes, and Alzheimer's, timely and accurate diagnosis is vital.

## PerioMonitor™: The Solution

**PerioMonitor™** fills a critical gap in periodontal diagnostics. It delivers:

- Chairside results in under 4 minutes through a simple saliva test.
- Semi-quantitative colorimetric analysis of neutrophil presence—categorized as negative, low, medium, or high.
- Validated sensitivity (80%) and specificity (82.5%) in clinical studies for detecting inflammation thresholds.
- Regulatory endorsement from Health Canada for aiding gingivitis detection.

## Mechanism of Action

The test strip detects leukocyte esterase from oral neutrophils via a color reaction. The darker the strip, the higher the inflammation. Results are immediately interpreted using a proprietary color chart, allowing clinicians to correlate inflammation with clinical signs or flag subclinical conditions for further assessment.

## Clinical Value and Applications

**PerioMonitor™** supports a wide array of applications:

- Early Detection: Identifies inflammation before clinical signs emerge.
- Treatment Monitoring: Measures the efficacy of periodontal therapies by comparing pre- and post-treatment neutrophil levels.
- Disease Grading Support: Aids in determining the likelihood of disease progression based on active inflammation levels.
- Surgical Readiness: Confirms absence of inflammation before procedures like implants or orthodontics.
- Systemic Health Screening: Acts as an indicator for referrals in patients with systemic risk factors or conditions.

## Key Benefits

- Real-time, actionable data.
- Simple, non-invasive, and well accepted by patients.
- Reduces inter-operator variability.
- Enables individualized treatment planning and risk stratification.
- Supports integration with systemic healthcare, offering a bridge to medical referrals when high inflammatory burden is detected without oral etiology.

## Strategic Value for DSOs

Dental Service Organizations (DSOs) stand to benefit significantly from PerioMonitor's integration:

- **Standardization of Care:** Enables consistent clinical decision-making across multiple providers and locations, reducing diagnostic variability.
- **Operational Efficiency:** Rapid test times and simple administration allow integration into routine visits without disrupting workflow.
- **Performance Metrics:** Provides DSOs with objective, data-driven tools for tracking treatment effectiveness and patient outcomes.
- **Increased Case Acceptance:** The visual, patient-facing nature of results enhances communication, boosting acceptance of preventive and therapeutic interventions.
- **Revenue Growth:** Introduces a billable, value-added service that aligns with preventive care models.
- **Quality Assurance:** Supports evidence-based care delivery and compliance with evolving healthcare quality standards.
- **Scalability:** Easily administered by all levels of clinical staff with minimal training, making it ideal for high-volume practice environments.

In short, **PerioMonitor™** supports DSOs in driving **clinical consistency, operational efficiency, and business performance**—while enhancing patient outcomes across large networks.

## Conclusion

**PerioMonitor™** represents a **paradigm shift** in periodontal disease management. By offering real-time insights into oral inflammation, it advances the dental profession's capacity for early detection, individualized care, and improved patient communication.

For DSOs, it provides a scalable, cost-effective tool that enhances operational excellence and elevates the standard of care across all locations. It is not just a test—it is a strategic asset for transforming modern dental practice.