# OraPath Comprehensive Panel

Patient **Sample Patient** | Date of Birth **08/11/1971** | Gender **Female**

| KIT ID | COLLECTION DATE | CONFIRMATION NUMBER | RESULTS | STAGE | GRADE | BOP % | ORDERING PROVIDER |
|---|---|---|---|---|---|---|---|
| SAMPLE-COMP-BRIDGING | 03/15/2026 | SAMPLE-COMP-BRIDGING | 03/17/2026 | N/A | N/A | N/A | **Sample Provider**<br>Sample Dental Practice |

**WHAT IT MEASURES**

qPCR detection of DNA from 15 oral microorganisms — the species most strongly associated with periodontal disease, an additional set of bridging organisms, early colonizers, and Candida.

**HOW TO READ IT**

The Periodontal Risk Score (1–5) and Pressure Score (0–100) reflect microbial load and pathogen combinations. Patterns highlight synergistic risks.

**HOW TO USE IT**

Pair the focus areas with your clinical assessment to guide prevention, treatment, and retesting cadence.

## PERIODONTAL RISK SCORE

**3** /5

### Moderate Risk

**MODERATE RISK** risk for periodontal disease based on the detection and pattern of key pathogens.

Low | Mild | Moderate | High | Severe

31

*Periodontal Pressure Score (0–100) — continuous burden across the 6 core perio organisms.*

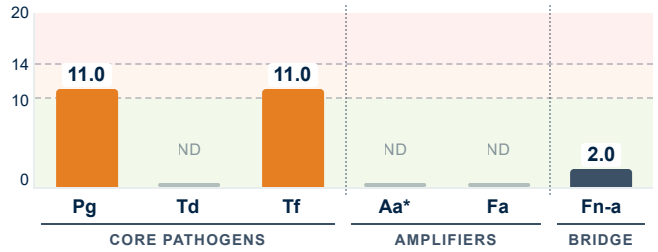
### CLINICAL FLAGS

No significant clinical flags identified.

## Dual Pathogen Profile

PATTERN IDENTIFIED

Two pathogens detected. Combined activity increases inflammatory risk.




**Aa uses different thresholds (≥4 mod, ≥8 high). Color reflects Aa-specific classification.*

## ADDITIONAL MARKERS

**REFERENCE DETECTION**

*Reported for context — does not contribute to the PRS or Pattern classification.*

Fn

11 MODERATE

*F. nucleatum*

**Total Fusobacterium nucleatum** is a commensal that can rise during inflammation but is not pathognomonic for periodontal disease on its own. The PRS and Pattern classification rely on the subspecies-level marker (Fn-a) shown in the chart above.

## ECOLOGICAL PROFILE

### Focal Orange-Complex Burden

One or two orange-complex bridging organisms (Pi/En/Cr/Pm/Pa) detected at high tier alongside an elevated weighted bridging load. The orange complex isn't broadly engaged, but a single organism at very high abundance contributes meaningful disease-driving signal. Consider targeted antimicrobial therapy and mechanical debridement focused on the identified species; retest to verify response.

*Ref: Socransky & Haffajee 1998 (J Clin Periodontol); Hajishengallis 2015 (Nat Rev Immunol)*

**BRIDGING BURDEN SCORE**

Low | Mild | Moderate | Elevated | Severe

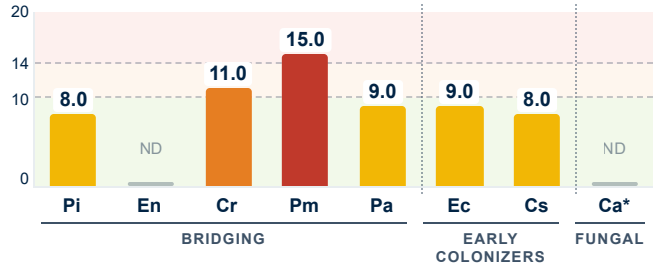
64

*Weighted bridging-organism load — Pi · En · Cr · Pm · Pa · Fn.*

## Extended Organism Profile

BBS 64

Bridging organisms, early colonizers, and Candida — drives the Ecological Profile shown on the left.




**Ca uses different thresholds (≥6 mod, ≥12 high). Color reflects Ca-specific classification.*

## CLINICAL FOCUS AREAS

Perio 3/5 · 3 recommendations

**Red complex + bridging cluster — comprehensive therapy** — HIGH

Core periodontal pathogen detected alongside 3 bridging species. Established disease pattern requiring full-mouth scaling and root planing, antibiotic adjunct (per algorithm below), and 6–12 week reassessment.

**Retest in 90 days** — MOD

Moderate risk profile. Continue current interventions and retest in 90 days to monitor progress.

**Avoid antiseptic mouthwash** — ROUTINE

Chlorhexidine and alcohol-based rinses kill beneficial bacteria indiscriminately, reducing nitric oxide production and disrupting protective microbiome balance. Use a non-antiseptic rinse or water only unless clinically directed otherwise.

Results should be interpreted with clinical findings and patient history. This test is not intended to diagnose or treat disease.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## ORAL BACTERIA PROFILE | 03/17/2026

### PERIODONTAL PATHOGENS (DRIVING PRS + PATTERN)

| | Pg | Td | Tf | Aa | Fa | Fn-a |
|---|---|---|---|---|---|---|
| CORE PERIO PATHOGENS | 11 MODERATE | Not Detected | 11 MODERATE | | | |
| | *P. gingivalis* | *T. denticola* | *T. forsythia* | | | |
| AMPLIFIERS | | | | Not Detected | Not Detected | |
| | | | | *A. actinomycete…* | *F. alocis* | |
| BRIDGE | | | | | | 2 TRACE |
| | | | | | | *Fn-animalis* |

### ECOLOGICAL PROFILE ORGANISMS (DRIVING BBS + ECOLOGICAL PROFILE)

| | Pi | En | Cr | Pm | Pa | Ec | Cs |
|---|---|---|---|---|---|---|---|
| BRIDGING | 8 LOW | Not Detected | 11 MODERATE | 15 HIGH | 9 LOW | | |
| | *P. intermedia* | *E. nodatum* | *C. rectus* | *P. micra* | *P. anaerobius* | | |
| EARLY COLONIZERS | | | | | | 9 LOW | 8 LOW |
| | | | | | | *E. corrodens* | *C. spp.* |

| | Ca | Fn |
|---|---|---|
| FUNGAL | Not Detected | |
| | *C. spp.* | |
| REFERENCE | | 11 MODERATE |
| | | *F. nucleatum* |

## UNDERSTANDING YOUR DETECTION LEVELS

DL = 40 − Ct · each +1 DL doubles DNA quantity

**DL uses a log₂ scale** — each +1 DL doubles the bacterial DNA quantity. So the gap between DL 10 and DL 14 isn't "4 more" — it's **16× more**. Use the ruler and table below to interpret a value in context.

| DL 0 | DL 3 | DL 6 | DL 9 | DL 12 | DL 15 | DL 18 | DL 21 | DL 24 |
|---|---|---|---|---|---|---|---|---|
| ≈ 5 | ≈ 40 | ≈ 317 | ≈ 3K | ≈ 20K | ≈ 161K | ≈ 1.3M | ≈ 10.2M | ≈ 81.4M |

Trace | Low | Moderate | High

| Category | Organisms | Trace | Low | Moderate | High |
|---|---|---|---|---|---|
| **Periodontal Profile*** | *Pg, Td, Tf, Aa**, Fa, Fn-a* | >0–<3 | 3–<10 | 10–<14 | ≥14 |
| **Ecological Profile*** | *Pi, En, Cr, Pm, Pa, Ec, Cs, Fn* | >0–<3 | 3–<10 | 10–<14 | ≥14 |
| **Fungal** | *Candida (Ca)* | >0–<3 | 3–<6 | 6–<12 | ≥12 |

* The DL ruler above shows the shared bacterial cutpoints (3/10/14) — the Core Perio and Ecological Profile rows use the same thresholds. Fungal (Ca) uses different thresholds (see table).

** Aa (*A. actinomycetemcomitans*) is pathogenic at much lower abundance: **Moderate ≥4**, **High ≥8**. Trace and Low ranges match the other periodontals.

Total *F. nucleatum* (Fn) shares the bacterial cutpoints above but is reported as a Reference Detection — it does not contribute to the PRS, Pattern, or BBS scoring (see page 2).

Trace (DL < 3) is below the noise floor for individual risk scoring. All values are semi-quantitative.

This qPCR test was developed and its performance characteristics determined by IMMYLabs, 133 Ed Noble Pkwy, Norman, OK 73072 (CLIA# 37D2236199; COLA# 32679), validated per CLIA 42 U.S.C. § 263a. Not cleared/approved by FDA; clearance not currently required. Results are adjunctive and must be interpreted by a qualified healthcare provider with clinical findings and history. Not intended to diagnose or treat disease. **Periodontal Risk Score (1–5):** Microbial risk pattern based on pathogen detection levels and combinations across the 6 core perio organisms (Aa, Pg, Td, Tf, Fa, Fn-a). **Periodontal Pressure Score (0–100):** Continuous weighted burden across the same 6 organisms, complementing the 1–5 PRS. **Bridging Burden Score (0–100) + Ecological Profile:** Weighted load across the bridging organisms (Pi, En, Cr, Pm, Pa, Fn) paired with a literature-grounded pattern catalog spanning bridging, early colonizers, and Candida. All scores are semi-quantitative. **Lab Director:** Jeff McCormack, PhD, HCLD (ABB).

## REFERENCES


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