## MYPERIOPATH MOLECULAR ANALYSIS OF PERIODONTAL AND SYSTEMIC PATHOGENS

### Result: PATHOGENIC BACTERIA DETECTED, 5 ABOVE THERAPEUTIC THRESHOLD

**Bacterial Risk:** HIGH - Very strong evidence of increased risk for attachment loss

**Result Interpretation:** Periodontal disease is caused by specific, or groups of specific bacteria. Threshold levels represent the concentration above which patients are generally at increased risk for attachment loss. Bacterial levels should be considered collectively and in context with clinical signs and other risk factors.

### Legend

- **Aa** = Aggregatibacter actinomycetemcomitans
- **Pg** = Porphyromonas gingivalis
- **Fn** = Fusobacterium nucleatum
- **Pi** = Prevotella intermedia
- **Cs** = Capnocytophaga species (gingivalis, ochracea, sputigena)
- **Cr** = Campylobacter rectus
- **Pm** = Peptostreptococcus (Micromonas) micros
- **Ec** = Eikenella corrodens

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Result</th>
<th>Clinical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aa</td>
<td>High</td>
<td>Very strong association with PD: Transmittable, tissue invasive, and pathogenic at relatively low bacterial counts. Associated with aggressive forms of disease.</td>
</tr>
<tr>
<td>Pg</td>
<td>High</td>
<td>Very strong association with PD: Transmittable, tissue invasive, and pathogenic at relatively low bacterial counts. Associated with aggressive forms of disease.</td>
</tr>
<tr>
<td>Fn</td>
<td>High</td>
<td>Strong association with PD: adherence properties to several oral pathogens; often seen in refractory disease.</td>
</tr>
<tr>
<td>Pi</td>
<td>High</td>
<td>Strong association with PD: virulent properties similar to Pg; often seen in refractory disease.</td>
</tr>
<tr>
<td>Cs</td>
<td>High</td>
<td>Some association with PD: Frequently found in gingivitis. Often found in association with other periodontal pathogens. May increase temporarily following active therapy.</td>
</tr>
<tr>
<td>Cr</td>
<td>Low</td>
<td>Moderate association with development of PD: usually found in combination with other suspected pathogens in refractory disease.</td>
</tr>
<tr>
<td>Pm</td>
<td>Low</td>
<td>Moderate association with PD: detected in higher numbers at sites of active disease.</td>
</tr>
<tr>
<td>Ec</td>
<td>Low</td>
<td>Moderate association with PD: Found more frequently in active sites of disease; often seen in refractory disease.</td>
</tr>
</tbody>
</table>

### Not Detected:

- (Tf) Tannerella forsythia, (Td) Treponema denticola, (En) Eubacterium nodatum

### Methodology:

Genomic DNA is extracted from the submitted sample and tested for 10 species-specific bacteria and 1 genus of bacteria known to cause periodontal disease. The bacteria are assayed by real-time quantitative polymerase chain reaction (qPCR). Bacterial loads are reported in log copies per mL of sample (e.g. 1x10^3 = 1000 bacteria copies per mL of collection). *Modified from: Microbiological goals of periodontal therapy; Periodontology 2000, Vol. 42, 2006, 180-218. This test was developed, and its performance characteristics determined by OralDNA Labs pursuant to CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary.

Additional information is available from [OralDNA.com](http://OralDNA.com)
CLINICAL CONSIDERATIONS

Doe, John
Date of Birth: 09/20/1980
Gender: Male

Sample Information
Specimen#: 3022131004
Accession#: 201611-08469
Specimen: Oral Rinse(P)
Collected: 11/12/2016

Result: PATHOGENIC BACTERIA DETECTED, 5 ABOVE THERAPEUTIC THRESHOLD
Bacterial Risk: HIGH - Very strong evidence of increased risk for attachment loss

Treatment Considerations

- Office Periodontal Therapy: Protocols to disrupt biofilm and reduce pathogens.
- Systemic Antibiotic Option to Augment Therapy at Clinician's Discretion:
  Clinician to determine if local antimicrobials (e.g. Chlorhexidine) and/or local antibiotics (e.g. Arestin) are sufficient to resolve infection. Published guidelines suggest (subject to allergy, drug interaction, and other medical considerations) the following as a possible adjunct to treatment based on patient's bacterial profile: Amoxicillin 500 mg tid for 8-10 days AND Metronidazole 500 mg bid for 8-10 days, depending on the severity of infection.
  Note: The prescribing doctor is responsible for patient therapy. Consider the patient's dental and medical history (e.g. pregnancy/nursing, diabetes, immuno-suppression, other patient medications) when evaluating the use of antibiotic medications. Many antibiotics may impact/interact with other medications and may produce adverse side effects. Review the manufacturer warnings for any contraindications, or consult with the patient's physician if there are concerns with the selected antibiotic regimen.
- Home Care: Office recommended procedures to daily disrupt biofilm and reduce pathogens.
- Reassessment: Compare clinical signs and bacterial levels pre- and post-treatment.
  - A 2nd sample should be collected six to eight weeks post-therapy.

Additional Risk Factors

<table>
<thead>
<tr>
<th>Clinical</th>
<th>Diagnostic</th>
<th>Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOP</td>
<td>Localized</td>
<td>Family History of PD</td>
</tr>
<tr>
<td>Inflammation/Swelling</td>
<td>Generalized</td>
<td>Pregnant/Nursing</td>
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<tr>
<td>Bone Loss</td>
<td></td>
<td>Immunosupressed</td>
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<tr>
<td>Redness/Discoloration</td>
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<td>Diabetes</td>
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<tr>
<td>Halitosis/Malodor</td>
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<td>Cardiovascular Disease</td>
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<tr>
<td></td>
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<td>Current Smoker</td>
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</tbody>
</table>

Antibiotic Allergies: None Reported

Tooth Numbers
- 3
- 9
- 14
- 19
- 24
- 30
Pocket Depths
- 4mm
- 4mm
- 5mm
- 4mm
- 3mm

Additional information is available from OralDNA.com

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Medical Director