

Oral species Marker Guide

What this marker measures

The presence of oral-origin bacteria detected within the gut microbiome. These species are normal residents of the mouth but elevated levels in the gut may indicate increased oral-to-gut transfer and colonisation. This pattern has been associated with intestinal inflammation, proton pump inhibitor use, poor oral or periodontal health, and reduced microbial load¹⁻⁷.

Clinical associations

Consider this marker when your patient presents with:

Oral or periodontal concerns

Known or suspected periodontitis, gingivitis, dental plaque burden, or poor oral hygiene

Medication use

Current or recent proton pump inhibitor (PPI) use

Gut inflammation

Intestinal inflammation, IBD-type context, or persistent GI symptoms where oral-to-gut transfer may be relevant.

Interpreting the result

All results are compared to Microba's healthy cohort to determine whether they fall within or outside the expected range.

LOW

Oral-origin species detected at lower than expected

This result does not suggest elevated oral-to-gut microbial transfer via this marker. No intervention needed for this marker.

WITHIN RANGE

Oral-origin species detected is within expected parameters

Interpret alongside dental health, PPI use, symptoms, and inflammatory context.

HIGH

Oral-origin species detected at higher than expected

May suggest increased oral-to-gut microbial transfer or persistence and may be relevant in the context of intestinal inflammation, PPI use, or oral health concerns. Action: see patient management insights below.

Patient management insights

Reduce oral species colonisation of the gut through dental and dietary intervention.

DENTAL HEALTH

- If gum disease is present, periodontal treatment by a dental professional may help reduce oral species in the gut^{8,9}

DIETARY STRATEGIES

- Increasing intake of fermentable dietary fibre may support increased faecal microbial load¹⁰

SUPPLEMENTATION

- A combination of high DHA fish oil and probiotic strains *B. animalis* ssp *lactis* 420 and *L. rhamnosus* HN001 may decrease oral-origin species in pregnant women with BMI ≥ 25 ¹¹



Tips for patients discussion

Your report shows higher-than-expected levels of bacteria in the gut that usually live in the mouth. This may relate to oral health, gum inflammation, reduced stomach acidity, or gut environment changes. Addressing oral health and supporting a fibre-rich diet are key steps.

The community

Oral-origin species are defined by the Human Oral Microbiome Database. Here are some of the most commonly-detected species, however this list is not exhaustive.

<i>Dialister invisus</i>	<i>Fusobacterium animalis</i>	<i>Haemophilus_D parainfluenzae</i>
<i>Haemophilus_D parainfluenzae_K</i>	<i>Haemophilus_D parainfluenzae_L</i>	<i>Haemophilus_D parainfluenzae_M</i>
<i>Haemophilus_D sp001679485</i>	<i>Haemophilus_D sp001815355</i>	<i>Pauljensenia bouchesdurhonensis</i>
<i>Pauljensenia sp000278725</i>	<i>Pauljensenia sp000466265</i>	<i>Streptococcus anginosus</i>
<i>Streptococcus anginosus_C</i>	<i>Streptococcus MIC7033</i>	<i>Streptococcus mutans</i>
<i>Streptococcus parasanguinis_B</i>	<i>Streptococcus salivarius</i>	<i>Streptococcus sp000479315</i>
<i>Streptococcus sp001556435</i>	<i>Streptococcus sp001587175</i>	<i>Veillonella atypica</i>
<i>Veillonella dispar_A</i>	<i>Veillonella parvula_A</i>	<i>Veillonella rogosae</i>

How results are calculated

All microbiome marker results are compared against the Microba Healthy Cohort — a purpose-built group of more than 450 healthy individuals, with samples collected and analysed using the same workflow as patient samples.

Each marker is scored by comparing the patient's relative abundance against the cohort average. The distance from this average is expressed as standard deviations, and determines whether a result is classified as Low, Borderline, or High.

How the result scale works



The patient's relative abundance is compared to the Healthy Cohort average. A **negative** distance from average means the microbial group is less abundant than the Healthy Cohort. A **positive** distance means it is more abundant. Results falling outside the expected range are classified as borderline or high/low (borderline high/low: +/-0.68, and high/low: +/-1.28).

GRADE DESCRIPTION

A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation, but care should be taken in its application
D	Body of evidence is weak, and recommendation must be applied with caution
PP H	Body of evidence is observational only and must be applied with caution
PP IV	Body of evidence is in vitro and must be applied with a high degree of caution

Evidence grading for patient management insights

The letter grades shown next to each patient management insight show the quality of the research behind it. Every insight provided has been through a rigorous review of the scientific literature and graded using the NHMRC Levels of Evidence, so you can see exactly how strong the evidence is before applying it in practice.