microba

Faecal pH

Gastrointestinal Health Marker Guide

What this marker measures

A faecal pH test measures stool acidity or alkalinity. Stool pH is influenced by microbial fermentation, short-chain fatty acid production, diet, and gut transit[1–3]. Low pH may suggest increased carbohydrate fermentation or malabsorption, while higher pH may reflect altered fermentation patterns or slower transit.

Clinical associations*

Consider this marker when your patient presents with:

Altered gut transit

Diarrhoea, rapid transit, constipation, or slow transit where fermentation patterns may be relevant. Studies suggest high pH may be associated with a slower gut transit time, while low pH may be associated with a faster gut transit time.

Dietary fermentation context

Low fibre intake, restricted diet, or altered SCFA-producing capacity. SCFA production and growth of beneficial bacteria tend to lower intestinal and faecal pH.

Carbohydrate malabsorption

Bloating, gas, diarrhoea, or suspected lactose/fructose malabsorption, particularly with low faecal pH. Acidic stool can support suspicion of carbohydrate malabsorption in the right clinical context.

**In addition to the assay's intended use, all clinical associations have been reviewed by the Microba science team to ensure clinical validity supported by Microba's cited literature.*

Interpreting the result

OUT OF RANGE LOW

Below the literature-derived lower threshold of 5.7

May reflect increased carbohydrate fermentation, carbohydrate malabsorption such as lactose intolerance, lactulose use, or faster transit/diarrhoeal states. Lower pH may be associated with higher faecal fermentation acids, including SCFAs, but does not directly measure SCFA absorption.

WITHIN RANGE

Within the literature-derived reference range of 5.7 – 7.3.

Faecal pH is within the literature-derived reference range of 5.7 – 7.3. This suggests stool acidity is not abnormal in isolation. Interpret alongside symptoms, stool form, transit time, diet, and microbiome markers.

OUT OF RANGE HIGH

Above the literature-derived upper threshold of 7.3.

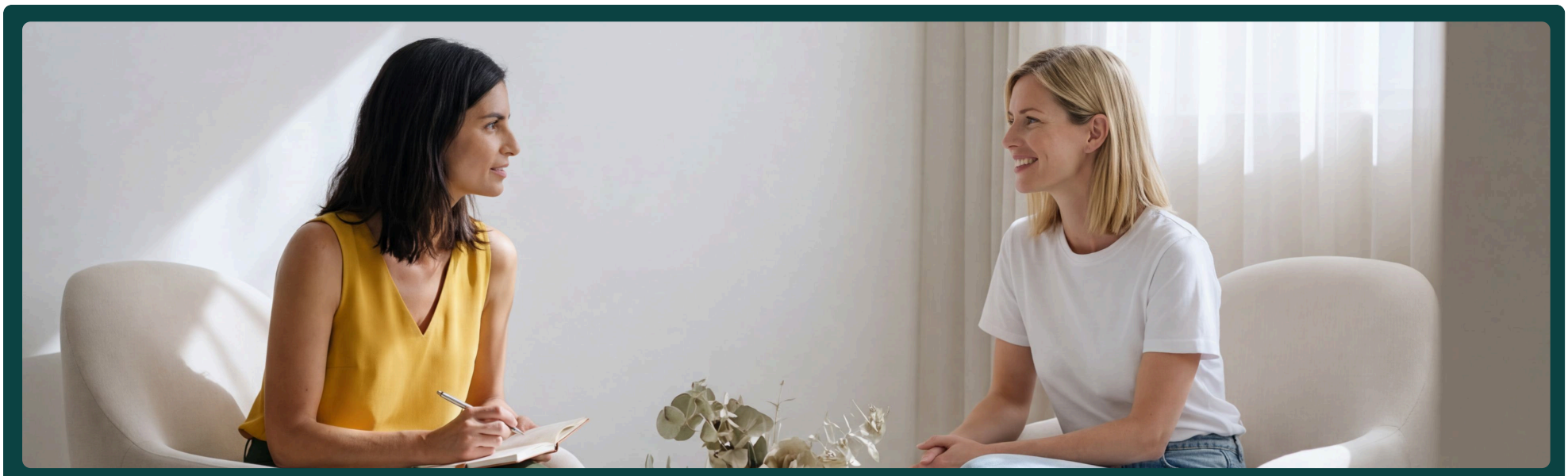
May reflect altered fermentation patterns, lower carbohydrate fermentation, greater protein fermentation, slower transit, constipation, or methane-associated patterns. Interpret alongside stool frequency, Bristol stool type, methane-producing potential, diet, and symptoms.

Treatment guidance

Approach depends on whether pH is low or high.

DIETARY STRATEGIES

- High-dose resistant starch supplementation may reduce faecal pH[4,5]. D
- Increasing dietary fibre may reduce faecal pH[6–9]. D
- NHigh-fibre, vegan (but not vegetarian) diets may be associated with lower faecal pH[10–12]. D



Tips for discussing out-of-range results

Your faecal pH result gives us indirect insight into gut fermentation patterns and stool habits. Gut microbes produce acids, including short-chain fatty acids, that influence pH. Targeted dietary changes, such as adjusting fibre and resistant starch based on your symptoms and tolerance, may help support healthier fermentation patterns."

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.

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

Access references