

New Probiotic Therapy Tables – Why?

Microbiome diagnostics have advanced considerably – and with them the possibilities for **targeted probiotic therapy**. The previous table focused mainly on the intestinal milieu, inflammation and leaky gut, as well as on pathogenic microorganisms and Candida. With extended microbiome and, in particular, **metabolome diagnostics**, additional **therapeutically relevant axes** are now becoming visible.

New therapeutic axes

Therapeutic Axis	Particular Relevance
Histamine	Histamine intolerance (HIT) and histamine-associated complaints
Neurotransmitters	Irritable bowel syndrome (IBS), stress, depressive symptoms and the gut-brain axis
Butyrate production	Intestinal mucosa, barrier and metabolic regulation
Microbial toxins	p-Cresol, indoxyl sulfate; particularly relevant in metabolic disorders
Aryl hydrocarbon receptor (AhR) agonists	Barrier, immune and tryptophan-dependent regulation
Diversity	Stability and resilience of the intestinal microbiome

From general to functional probiotic selection

Previously: “Which probiotic is generally good for the gut?”

Today: “Which probiotic best covers the disturbed axes actually present in this patient?”

Goal: To translate microbiome and metabolome test results directly into a targeted therapeutic decision.

How Were the Probiotics Rated and the Product Groups Formed?

How were the probiotics rated?

The new probiotics table is based on extensive scientific research and a systematic functional assessment of the selected preparations. The aim was to make the highly heterogeneous probiotic landscape comparable according to uniform criteria and usable for therapeutic practice.

Where available, studies on the respective finished product were taken into account. However, for many well-formulated multispecies probiotics, only limited studies on the finished product are available. In these cases, the scientific data on the individual strains contained were also reviewed and their documented functional properties assessed.

In addition, composition, strain combination and product matrix were considered and matched against the defined therapeutic axes and indications. These levels of information result in an overall functional profile for each probiotic.

What matters is not which product is generally regarded as the “best probiotic”, but which activity profile best matches the axes that are actually disturbed in the patient.

Translating scientific evidence into a therapeutic axis logic

The available evidence is not equally extensive for all products and strains. Studies differ in quality, study population, dosage and endpoints. In addition, the perception of individual products is sometimes strongly shaped by manufacturer communication.

The table therefore does not attempt to create a false sense of precision. Rather, it combines the available scientific information into a structured overall assessment based on uniform functional criteria.

The result is an activity profile along defined axes such as intestinal milieu, diversity, butyrate production, inflammation, leaky gut, pathogens/Candida, histamine, neurotransmitters, microbial toxins and AhR agonists. The focus is thus on targeted, indication-based use – not on the unspecific use of a supposed all-round probiotic.

How are the product groups formed?

The starting point of each product group is a **main indication or leading therapeutic axis**. A group combines probiotics that have a particularly strong activity profile with regard to this indication.

The remaining therapeutic axes are then also rated for all preparations in this group. This shows which additional effects can be expected, at a minimum, from the group as a whole.

Example: Individual ratings	Group value
Leaky Gut: +++++ · +++++ · +++	+++ = minimum effect of all group members

The number of plus signs for a group is always determined by the lowest-rated probiotic within that group. A group value of +++ therefore means: every probiotic included reaches at least +++ on this axis. Individual preparations within the group may well be rated higher.

The group rating is deliberately conservative: it does not show the best value of the strongest preparation, but the shared minimum functional coverage of all members of the group.

What the table is intended to do – and where its limits lie

The table is neither an advertisement nor a ranking, but a scientifically grounded, functional decision aid for the indication-based use of probiotics. It is intended to help identify abnormal axes from the microbiome and metabolome, find a suitable product group and, within this group, select the preparation best suited to the individual situation.

The table does not claim to be complete. Other high-quality probiotics may exist that have not yet been considered. Likewise, new product studies or strain-specific findings may lead to additions or re-evaluations. The underlying knowledge base is therefore continuously expanded and updated.

Our aim is not to create a definitive ranking of all probiotics, but to translate the available evidence – as soundly and transparently as possible and according to uniform criteria – into a clinically usable axis logic.

Quick guide – how to work with the table

1

Identify abnormal axes

The starting point is always the individual microbiome and metabolome test results. Consider only the axes that are actually abnormal. The graphical result summary serves as a quick navigator and helps to identify the relevant changes without having to reread the entire report in detail.

2

Look at the matching table rows

Transfer the abnormal findings axes to the corresponding rows of the probiotics table. What matters is not the highest individual rating, but a product group that covers ideally all relevant axes together with at least +++. The group values already show the minimum effect of all preparations included in that group.

3

One probiotic, if sufficient

If there is a product group that adequately covers all relevant main axes, one probiotic from this group is usually sufficient. Within the group, the most suitable preparation can then be selected based on the clinical picture, symptoms and individual priorities.

4

Two probiotics, if one is not sufficient

If at least one important axis remains inadequately covered by every eligible product group, a second probiotic with a complementary effect can be added. The goal is not to use as many preparations as possible, but to specifically cover the effect that is still missing.

5

Using two probiotics flexibly

Two preparations can be used in parallel but staggered, for example in the morning and evening. Alternatively, a sequential approach is possible, e.g., preparation 1 in weeks 1–4 followed by preparation 2 in weeks 5–12 – depending on the test results, symptoms and therapeutic goal.

Special Cases, Decision Rules and Outlook

Not every axis with lower coverage automatically requires a second probiotic. In particular, **diversity** and **butyrate production** can often be specifically supported through prebiotics; in cases of butyrate deficiency, direct butyrate supplementation may also be considered, depending on the situation.

Special case 1 – reduced diversity

A diversity axis of only ++ does not automatically mean that a second probiotic is necessary.

If the other relevant main axes are well covered, **diversity can be specifically supported with a suitable prebiotic.**

The reason: diversity is shaped substantially by diet and the available substrate supply and can therefore often be addressed more effectively through suitable prebiotics than through the additional administration of a second probiotic.

Often sufficient: 1 probiotic + suitable prebiotic

Special case 2 – reduced butyrate production

An inadequately covered butyrate axis does not necessarily require an additional probiotic either. Suitable **prebiotics** can promote **microbial butyrate production** and functionally complement the selected probiotic.

The reason: prebiotics promote the existing butyrate-producing bacteria and thus the body's own microbial butyrate production. Direct butyrate supplementation, by contrast, replaces the metabolite without promoting the underlying microbial function to the same extent.

Alternatively or additionally – depending on the clinical situation – **butyrate can be supplied directly.**

PREBIOTIC	DIRECT BUTYRATE
promotes microbial butyrate production	supplies the metabolite directly

Note: In cases of pronounced abnormal intestinal fermentation, SIBO (Small Intestinal Bacterial Overgrowth) or mucosal inflammation, the selection and tolerability of a prebiotic must be considered individually.

The three decision rules at a glance

All relevant main axes $\geq$ +++	→ 1 probiotic
One or more main axes not adequately covered	→ 2 complementary probiotics
Only diversity and/or butyrate production not adequately covered	→ Often 1 probiotic + prebiotic

Consider age groups

Infants, toddlers, children and adolescents

Separate age-specific probiotics tables are available for these age groups. Selection is therefore made using the appropriate age table.

Older adults without a specific indication

OmniBiotic Aktiv, BactoGena Long Vital and Lactobact 60 Plus are suitable here. However, the age assignment is not an exclusion rule. In principle, all other preparations listed in the probiotics table with a rating of ++ can also be used. If there is a specific therapeutic indication, selection should be based primarily on the affected axes – other probiotics may then be more targeted and, in some cases, better suited than the general preparations for older adults. With a clear specific indication, the functional activity profile takes precedence over age assignment alone.

Key principle: Age determines the basic selection – the specific indication determines targeted therapy.

Outlook – Probiotics engine

In parallel, we are developing a **probiotics engine** that automatically assigns the relevant changes from the microbiome and metabolome to the therapeutic axes and selects the most suitable preparations on this basis.

In future, it will include around **80 probiotics for adults** and about **30 preparations for infants, children and adolescents**.

Test results → relevant axes → compare activity profiles → optimal probiotic selection

The **probiotics engine** is expected to be available in **a few months**.

If the table is too elaborate for you

You can also continue to use the **therapeutic flowchart** at the beginning of the therapy section. For each set of test results, it already lists the personalized probiotics and prebiotics relevant to the **five most important findings axes**.

This already allows a sound, results-based **basic therapy** to be implemented. The probiotics and prebiotics tables are the **next step**: when needed, they allow greater individualization and the targeted consideration of **additional functional axes**.

Simple start: therapeutic flowchart. | More individualization: probiotics and prebiotics tables.