



## Probiotic Perspectives

### No Evidence to Support the Practice of “Rotating” Probiotics

In recent years the concept of “rotating” probiotics has gained considerable attention among both clinicians and patients. Probiotic rotation involves using a particular type of probiotic for a period of time, switching to another strain, species or product for a similar time period, and then returning to the original or even a third probiotic. The concept of rotating probiotics arose more than a decade ago in response to reports of certain types of probiotics

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being ineffectual or losing efficacy over time. Adding new strains of probiotic organisms, it was believed, might increase biodiversity in the gut and more effectively antagonize intestinal pathogens. This theory seemed reasonable at the time, but is no longer relevant in the era of high-potency, multispecies probiotic formulations. When the concept of probiotic rotation first emerged, most probiotic formulations contained relatively low numbers of organisms and many were comprised of only single strains. Even at present the potency of a probiotic product can be significantly compromised by poor quality control during the manufacturing process. In clinical settings it is not unusual for such inferior probiotics to under-perform. Today we understand that the intestinal tract is a stunningly complex ecosystem consisting of up to a hundred trillion microorganisms and thousands of different bacterial species. To be effective,

probiotic products must be rigorously manufactured and deliver much higher numbers and a much broader diversity of organisms than previously thought. Recent studies documenting the efficacy of probiotics in improving clinical conditions ranging from irritable bowel syndrome to inflammatory bowel disease are using probiotic doses up to four orders of magnitude greater than earlier studies in which benefits could not be confirmed. Clinical trials also indicate that combinations of probiotic organisms are considerably more effective at inhibiting pathogen adhesion to the intestinal tract and reducing gastrointestinal disorders such as antibiotic-associated diarrhea than single-strain products. These data indicate that positive clinical results are achieved by using probiotic products with adequate colony counts and a broad spectrum of species. Notably, no published study has ever demonstrated a benefit from rotating different probiotic products. While

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anecdotes of favorable results may appear on the Internet, a significant number of doctors and patients have also reported scenarios in which individuals were doing well on a high-quality probiotic, were told to rotate, and subsequently began to worsen. Rotation of probiotics is not the same as altering formulations to meet specific clinical needs. In some instances, it can be beneficial to add a particular single-strain probiotic, such as *Saccharomyces*

*bouardii*, to a broad-spectrum probiotic regimen for extra support during antibiotic

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therapy or to combat a *Clostridium difficile* infection. It also makes sense to change probiotics to address changing needs, for example moving from an infant’s to a children’s formula as a child ages, or switching from a capsule to a powder if a swallowing problem develops. In general, however, given the lack of objective data supporting a benefit of probiotic rotation, and the potential downside of discontinuing an effective therapeutic regimen, clinicians and patients are encouraged to avoid the practice of rotating probiotics.

*References and further information available on request.*