

PROBIOTIC CHEAT SHEET: Offered as a Guide by Your Health Care Provider.

WHAT ARE PROBIOTICS: Natural vs Supplemental

1. Probiotics are not new! First recognized by Russian Nobel Laurette, Ellie Metchnikoff, in 1860's who described a probiotic as "viable bacteria that beneficially affect the host by improving its intestinal balance." Probiotics then were provided by a fermented natural food diet, primarily leafy vegetables. Sauerkraut.
2. Greater than 30% of global population has recently used probiotic supplements, capsules, most notably Northern Europe, at annual expenditure of more than \$85 billion/yr., growing at more than 15%/yr.
3. Most commercial vendors have not requested or need FDA approval, as to date, supplemental probiotics are considered "adjunctive therapy" and not under federal guidelines.
4. Multiple diseases have been studied using either natural or supplemental probiotics with varying results, given that most studies do NOT include double blind clinical trials, the medical standard. Reported studies included, fewest to most: joint, respiratory, endocrine, neurologic, Genitourinary (women), Cardiovascular, oral and Gastrointestinal. Latest focus has been dementia and aging, these brain focused probiotics, called psycho-biotics.

WHY RECOMMENDED AT THIS TIME?

1. An intervention, medical/dental manipulation and or change in life-style may have altered or reduced your existing protective, beneficial microbial population, your natural microbiota defense. These co-partners or "microbial kin" are necessary for good health and should be replenished.
2. Frequent causes are antibiotics, cancer chemotherapy, surgery, change in diet and environmental pressures.
3. Supplemental probiotics replace or supplement your beneficial microbiota over the short term, only, and should be matched to the health issue.

WHICH PROBIOTICS FOR ME? SELECTION GUIDELINES

1. Most common probiotic microorganisms are of 2 Genera, or taxonomic level. *Lactobacillus* and *Bifidobacterium*. Others include: *Bacillus*, *Clostridium*, *Propionibacterium*, *Saccharomyces* (a fungus) and *Streptococcus*. Best if know 3 facts. Genus, species, subtype identified by number or strain. Example: *Lactobacillus acidophilus* HA-122.
2. Highest benefits are usually seen when pre-biotics are available simultaneously, which are fibers acting as an energy source for the probiotics. Recent second-generation probiotics are pre-packaged with prebiotics, called Synbiotics. Check.
3. Top pre-biotic containing natural foods include: chicory roots, artichokes, dandelion greens, garlic, leek onions, asparagus, wheat bran and bananas.
4. Labels are critical. Read them carefully noting these 10 key components:

NUMBERS OR AMOUNT (Potency): 9-11 billion microbes, usually represented by CFUs, viable "colony forming units".

NUMBER OF MICROBES: 3-5 species is considered optimum, but numbers can vary between 1-11.

PRE-BIOTIC: 20-30 grams of fiber/day, either prepackaged (new) or natural diet.

ENTERIC COATED: May be preferential as provides safe passage thru the stomach to GUT.

STORAGE CONDITIONS/SHELF LIFE: Probiotics are living organisms and their CFUs greatly influence by changing conditions. Refrigerated may be preferable, but limited to selected products.

OTHER INGREDIENTS/ADDITIVES/SIDE EFFECTS: Components that cause allergies or side effects, based on individual history should be recognized. Avoid chemical irritants; heavy metals. Check for listed untoward side effects, carefully.

COST PER DAY: \$-----\$\$\$\$

WHO FORMULATED PRODUCT: Was doctor or medical group responsible, a third party, including data, for microbial composition, or commercial vendor. Money back guarantee? Not recommended buying on line.

HOW ADMINISTERED:

1. Multiple routes exist, matched to need of individual including: mouth, enteral and skin.
2. Mouth is most common with gums, swabs, capsules, lozenges, cream, milk and yogurt used as supplemental probiotic carriers, but important to note that “cultured” yogurt does not contain probiotics, unless artificially colonized. Read the label!!!!, not promotional material.
3. TIMING: generally, recommended with food, but not at same time as antibiotics, usually in between antibiotic doses. Some investigators recommend prior to bed (once daily) combined with AM (Twice daily), when GUT function is reduced. Take at same time, routinely.
4. LENGTH: Generally, 15-30 days, given the additional pre and probiotic benefits. Shorter times may not allow the supplemental probiotics to establish with the friendly microbiota.

CONCERNS AND CAUTIONS:

1. Everyone is different and reflects their own microbial population, “microbial kin”. Not every patient will respond to colonization with pre-probiotics (Synbiotics) the same. Comparisons are difficult. What really works for one, may not for the other.
2. Short term, supplemental Pre and probiotics do not replace the benefits of a healthy diet, long term, nurtured with natural food carrying probiotics. The fermented foods, best.
3. Probiotic containing foods, un-natural, have become a “fad”. And a plethora of new probiotic containing beverages, refreshments and other conveniences have recently emerged. Lately, studies have also included infant formulas, animal feed and fecal transplants. RED FLAG!
4. Do NOT take with hot, or caffeinated or carbonated drinks.
5. Large scale pharmacies and food chains list multiple probiotics options on-line. Read the material carefully and insist on information not advertisements. Check against our 10 key questions. Generally, NOT recommended.

GUIDELINES/RECOMMENDATIONS:

1. www.USprobioticguide. 2018. Clinical Guide to Probiotic Supplements.
2. www.ISAPPScience.org. 2016. Probiotics: A Consumer Guide for making Smart Choices
3. www.nccih.gov/health/probiotics. Probiotics: What I need to know.

