

Ayoob, associate clinical professor at Albert Einstein College of Medicine in New York, told AFP. "Consumers want to feel that they're doing healthier things and eating a healthier diet." >>

eating healthy plant-based foods

Those consumers are your clients. In essence, they want a modern version of their grandparents' eating habits, but what does that mean in practical, specific terms? You should be prepared to field questions about seven key dietary trends: plantbased eating; prebiotics and probiotics; pre- and post-workout fuels; prepackaged healthy foods; food as medicine, and customized nutrition; healthy snacking; and superfoods.

Read on to learn the essentials of these trends.

1. PLANT-BASED EATING

Eating a plant-based diet is more than the "Eat your spinach so you'll grow up to be strong like Popeye" edict of yesteryear. Tempeh, quinoa, seitan, lentils, kale, flax, chia, almonds and, yes, spinach regularly appear in mainstream grocery stores.

First, it's important to note the distinction between a plantbased diet and a vegan or vegetarian diet. A plant-based diet "encourages plant foods in their whole form, especially vegetables, fruits, legumes, and seeds and nuts (in smaller amounts). For maximal health benefits this diet limits animal products. Total fat is generally restricted," while a vegan (total vegetarian) diet "excludes all animal products, especially meat, seafood, poultry, eggs and dairy products. [It] does not require consumption of whole foods or restrict fat or refined sugar" (Tuso et al. 2013). Simply put, the difference is whole foods.

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"I am always going to promote plant-based sources of nutrients before anything else," says Jennifer Gill, MPH, running coach, nutritionist and personal trainer with Sole Health and Wellness in San Diego. "Plant-based foods are typically whole grain; high in fiber, carbohydrates, protein, healthy fats, vitamins [and] minerals; with minimal artificial anything. I don't think one necessarily has to be a vegetarian or vegan, but I think for much of this country's dietary history, much focus has been placed on animal-based

products and packaged foods. With obesity rates the way they are, we need to shift back to whole foods."

Research supports Gill's assertion. Berkow & Barnard (2006) reviewed 87 studies and concluded that a vegan/vegetarian diet is highly effective for weight loss. Of course, even a cookie diet can be a weight loss diet if calories are low enough, but the authors also found that plant eaters have lower rates of heart disease, high blood pressure, diabetes and obesity. The statistics also suggested that weight loss in vegetarians is not dependent on exercise and occurs at a rate of approximately 1 pound per week.

Research from Farmer et al. (2011) showed that vegetarians consume more magnesium, potassium, iron, thiamin, riboflavin, folate and vitamins, and less total fat than do nonvegetarians. Clients looking for a nutrient-dense weight loss plan may want to consider a plant-based diet.

2. PREBIOTICS AND PROBIOTICS

If you're thinking of kombucha and yogurt, you're on the right track. A current applicable definition of probiotic is an organism or substance that contributes to intestinal microbial balance (Schrezenmeir & de Vrese 2001). Researchers coined the term *prebiotic* in 1995, defining it as "a non-digestible food ingredient that beneficially affects the host by selectively stimulating the growth and/or activity of one or a limited number of bacteria in the colon" (Gibson & Roberfroid 1995).

Mary Hartley, MPH, RD, resident nutritionist for DietsInReview.com, with her own website at AskMaryRD.com, translates probiotics into actual foods and categories:

- Dairy: yogurt, kefir, natural/ traditional cheese
- Asian: miso, fermented tofu, tempeh, nattō, kimchi
- Alcoholic: microbrewed beer, wine, saki
- Traditional: sourdough >>





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• Other varieties: raw honey, raw foods, brine-salted fermented vegetables, pickles, sauerkraut, fermented fruits; fermented rices of India, Asia, Indonesia and Africa

To help avoid confusion, Hartley prefers the natural ferments listed above over foods with added probiotics.

As nondigestible carbohydrates that act as food for probiotics, prebiotics are found in whole grains, bananas, onions, garlic, honey and artichokes. When probiotics and prebiotics are combined, they form a synbiotic. Yogurt and kefir are considered synbiotic foods because they contain live bacteria and the fuel they need to thrive, according to the Mayo Clinic (Zeratsky 2014).

Clients may ask for your thoughts on fermented food if they are searching for "good bacteria" to combat diarrhea, vaginal yeast infections, urinary tract infections, irritable bowel syndrome, certain intestinal infections, or severe colds or flu.

3. PRE- AND POST-WORKOUT FUELS

Preworkout nutrition is all about carbohydrates for exercise performance. The key word is energy. Postworkout nutrition has three main purposes: replenishing glycogen, increasing protein synthesis and decreasing protein breakdown. In one word: recovery.

Gill says drinks or bars that emphasize simple carbohydrates are the best option for exercise fuel. "Companies are popping

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YOPLAIT GREEK 100 WHIPS is a Greek yogurt mousse with 100 calories and 9 grams of protein per serving in a light and airy whipped texture. Available in eight flavors including Black Cherry, Strawberry, Strawberry Cheesecake, Vanilla Cupcake, Blueberry, Raspberry, Lemon Meringue and Tropical.



up everywhere that offer minimally processed bars and drinks that are free of preservatives, artificial products and fillers," Gill says.

"I feel comfortable recommending products that use nuts and seeds, dried fruits, and whole grains and vegetables."

For preworkout fuel, consider fruit, cereal, toast with nut butter or eggs, or fruit-based smoothies, says Rebecca Scritchfield, MA, RD, a Washington, DC based ACSM-certified health and fitness specialist.

Though staggering numbers of nut (and seed) butters are now available (sunflower, almond, macadamia, flax, etc.), the most popular is still peanut butter. According to the National Peanut Board (2014), peanuts have more protein, niacin, folate and phytosterols than any nut; contain over 30 essential nutrients and phytonutrients; and are naturally cholesterol-free. Given that nut butters are being consumed in over 94% of U.S. households, exercisers are likely to respond well if you recommend a squeeze pack and fruit.

As to beverages, chocolate milk is (to many) a surprising recovery choice. No longer relegated to the kids' section, chocolate milk can aid in "performance, indices of muscle damage and muscle glycogen resynthesis" (Pritchett & Pritchett 2012). This dovetails nicely with the news that organic milk has up to 62% higher concentrations of the desired omega-3 fatty acids than conventional milk—of particular interest, perhaps, to those who are worried about drinking milk or about the current imbalance in the Western diet between omega-6 and omega-3 intake (Benbrook et al. 2013).

4. PREPACKAGED HEALTHY FOODS

We've come a long way from the days of nutritionally suspect TV dinners and prepackaged kids' meals. Premade and frozen meals and snacks using fresh and minimally processed ingredients are the updated versions, with health being a greater priority than it was in the past. From yogurt with almonds in a portable container to the frozen kale ricotta ravioli that are now offered as an airline meal (and in your grocery store), today's selections combine ease and health. Want gluten-free paleo pasta made with almond and tapioca flours? You can get it. What about organic garbanzo beans, sweet tomatoes, and peas paired with Indian cheese and basmati rice? No problem. >>





Lentil vegetable soup and a samosa wrap? Coming right up. All for under 400 calories and ready in less than 10 minutes. Have your clients do a computer search using keywords such as "organic, healthy, frozen, premade meals," and they'll find myriad options.



PROPEL HAS INTRODUCED a new product to its portfolio: Propel Electrolyte Water - a clear, unflavored, premium water with Gatoradelevel electrolytes, including sodium. Designed for people that are passionate about exercise, this water is formulated for fitness and has added hydration benefits.

The idea behind this trend is to eat for immunity—foods that are specific to each person's needs can boost the body's ability to prevent, rather than treat, disease. Teri Mosey, a holistic nutrition educator from New York, lectures often on the benefits of eating to create health: "Nutrition is personal," Mosey says. "A key aspect to understand is the synergistic relationships of food constituents to the whole food and to the entire dietary pattern of that individual. Each of our needs is dependent on our constitution and current life circumstances. For instance, plantbased eating can have tremendous benefits to promote health and vitality. However, that doesn't mean everyone should become vegan. We would need to dissect the possibilities for that specific person."

Mosey supports developing personal nutrition plans, but cautions that eating based on DNA testing requires a concomitant conversation about epigenetics.

FOOD AS MEDICINE

Known for many years as a pediatrics author, Dr. William Sears cowrote the book *Prime-Time Health* (Little, Brown 2010) after he was diagnosed with prostate cancer. Looking to the edict of Hippocrates to "let food be thy medicine and medicine be thy food," Sears has become known for recommending food rather than pills—as a pathway to health, and he includes the health benefits (i.e., anticancer, cholesterol lowering, stroke risk reducing) of each food he favors.

6. HEALTHY SNACKING

"The quality and quantity of snacks is important, so that the snacks are not negating the benefits of eating healthy food at mealtime," says Gill. "Going too long between meals is hard on hormone regulation and metabolism."

But what constitutes a healthy snack? Hartley says a healthy snack is tied to protein, natural foods and superfoods. She sees a move toward snacks that contain fiber and protein (to promote feeling full); dehydrated vegetables; and green-colored snacks (think kale or algae). Here are a few examples of snacks that are said to be healthy choices: organic blue-corn tortillas made with non-GMO safflower and sunflower oil; sriracha carrot hummus; black-pepper pomegranate chips; and, of course, kale chips. In very basic terms, the first ingredient on a snack's label should be what's advertised: If a protein bar is sold as a beef bar, then the first ingredient should be beef.

Paul Albrecht, owner of Simply7, wants healthy snacks to hit seven standards:

- 1. zero grams of trans fat and no cholesterol
- 2. no artificial colors or flavors
- 3. no preservatives
- 4. gluten-free ingredients
- 5. all-natural recipes >>

PROTEIN FOR RECOVERY



PROTEIN STRUCTURES

Protein structures in the body are constantly turning over, breaking down and rebuilding with new amino acids from the diet.



FXFRCISE

Exercise accelerates this process and promotes the creation of new muscle proteins, a process that is most effective when the Individual eats protein to deliver new amino acids.



the recovery process as soon as possible after workout or training session helps to rebuild muscle tissue as well as promote training adaptations.

TYPES OF PROTEIN

Consume high-quality, complete protein sources that are rapidly absorbed and rich in leucine



WHEY AND MILK PROTEIN ARE GREAT CHOICES

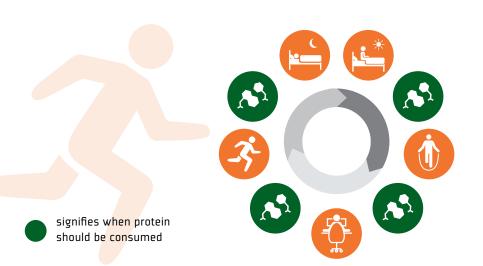


WHEY AND MILK PROTEIN

- meet all the criteria
- have been shown to be effective for recovery

LEUCINE

- one of the amino acid building blocks for new muscle
- acts as a signal for the muscle to start the process of assembling new muscle proteins



EXAMPLE PROTEIN CONSUMPTION CYCLE

To get the most out of their workout, exercisers should consume protein regularly throughout the day.

RECOMMENDED AMOUNT

MORE ISN'T BETTER.

Research shows that ~20 g of protein is the right amount to stimulate post-exercise muscle protein synthesis for most individuals.

If you want to get specific for your client, calculate 0.25 g/kg.





A Century of Food Trends

according to National Public

a 40-year period, "the per-

centage of 24-hour energy

between lunch and dinner or

snacks that displaced meals

breakfast and lunch were later

and intervals between dinner

and after-dinner snack were

shorter" (Kant & Graubard

2014). In other words, we are

eating fewer meals and more

snacks than we did in 1974.

piled by the National Health

and Nutrition Examination

Surveys, the percentage of

energy derived from snacks in

from 12% to 24% during those

the American diet increased

40 years. Sadly, that 100%

increase in snacks has not

come from fruits and vege-

tables, as the percentage of

people who reported eating

no fruits and veggies (on the

was also 12%, while three

was 25% (Watson 2013).

previous day) in the late 1970s

decades later that percentage

According to data com-

increased; clock times of

from snacks reported

In a study of trends over

Radio (NPR 2009).

With fast-food restaurants on every corner and snacks so thoroughly ingrained into our diets, it's hard to imagine a time when Big Macs and Oreos were retailing innovations and culinary novelties. In a review of American snacking habits, BonAppetit.com has noted that waffle cones, hot dogs and cotton candy were introduced in 1904, Oreos in 1912, Lay's potato chips in the 1930s and Cheetos in the late 1940s (Bon Appétit 2012). Fast-food restaurants emerged in the 1950s, and TV dinners arrived soon after, ushering in dramatic changes in American diets.

By the year 2000, a huge snack trend was cupcakes; the gooier, the better, according to a decade-long review at the website Delish.com. In 2004, the documentary Super Size Me came out, which perhaps coincidentally was the same year McDonald's discontinued its supersizing menu (Delish 2011). And in the recession of 2009, people turned to comfort foods with an updated twist—mashed potatoes with artisan cheese, noodle bars, and all-day breakfast served at more restaurants,

6. simple ingredients

7. delicious flavor (Watson 2014)

While you may not fully agree with Albrecht about all seven of these principles, they are helpful for clients who want specifics.

7. SUPERFOODS

What makes a food "super"? While there's no legal definition, a superfood is generally thought to be nutrient-rich and especially beneficial to health and well-being. In general, look at nutrient density, nutrient diversity, phytonutrient content and the absence (or presence) of toxins.

For a well-known, lighthearted example of the power of superfoods, just watch an old Popeye cartoon. Spinach did wonders for him! Other foods that fall into this category are berries, salmon, açai, broccoli, oats, pumpkin, tea, tomatoes, walnuts, pomegranates, kefir and beans. Hartley is careful to distinguish between "indigenous seasonal foods that are highly nutritious and highly nutritious foods from South America or Africa with a huge carbon footprint." She also notes the differences between whole superfoods and extracts.

In a December 2014 post on its *Fitnovatives*[™] blog, the American Council on Exercise predicted the spotlight in 2015 would be on amaranth, fermented foods, dandelion greens and black rice. If you want to be "au courant," talk to your clients about these four.

FUTURE DIRECTIONS

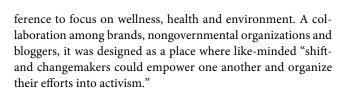
Our clients trust our advice, so we have to stay current and research based. Mosey cautions us about "getting lost in the marketing and the reductionist lens that the majority of trends take," while staying aware of the trends and keeping them in context. She continues, "Trends bring topics to the forefront and require education on our parts as fitness professionals so that we can best serve our clients' needs without falling into the next health craze. We need to be willing to explore a trend and at the same time have the courage to act in our own best interests regardless of what has hit the mainstream."

Hartley notes that these trends are related to cultural mass movements. For example, she says the move toward food as medicine is based on our desire for personal responsibility, and believes the women's movement—with its time demands—led to the rise in prepackaged foods and healthy, quick snacks.

As awareness about our food increases, so does our level of expectation, according to Gill. "As more people become aware of what the ingredients are in packaged foods, they are making the switch to products that are less processed and contain fewer ingredients." However, she sees this less as a trend than a desire to get back to basics.

It seems inevitable that politics, food and activism will intersect at an incrementally more rapid rate. Just as 2014 was the year of ballot initiatives for food labeling and soda taxes, with some successes and some failures, it's likely that 2015 will be a year of organization and activism in preparation for the 2016 elections.

In 2014, Leah Segedie founded and held the inaugural ShiftCon Social Media Conference, the first international con-



Segedie is a strong, active and popular advocate of changing the way we eat in the U.S. Her mission is to "shift how we eat, raise our families and impact the environment. As bloggers create content online, it trickles down into popular media and becomes mainstream." Based on her experience working on the California Right to Know campaign in 2012, Segedie believes that the shift has begun, and that it's "now time to come together and leverage our collective influence to accelerate that shift."

As fitness professionals, we will be part of that acceleration because of our knowledge, passion, influence and reliance on science-based solutions to our bodies' needs. ■

Alexandra Williams, MA, is a vegetarian who likes her food to be as close to the ground as possible. When she isn't blogging about healthy, active aging at FunAndFit.org, she can be found teaching at the University of California, Santa Barbara, and haranguing her children about the benefits of cooking from scratch.

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