# HEALTHWISE

News to enrich your lifestyle

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# Weighing in on the Calorie Counting Debate

Conventional wisdom: a calorie is a calorie, and to lose weight, you must take in fewer calories than you expend. Fast forward to today: all calories are not created equal. What makes up that calorie is more important than the calorie itself, emphatically stated by Jim Kirchoff, former CEO of Weight Watchers. "When we have a 100-calorie apple in one hand and a 100-calorie pack of cookies in the other, and view them as being the same, it says everything that needs to be said about the limitations of just using calories in guiding food choices." Whether for weight loss or simply for seeking a balanced diet, the emphasis today has shifted away from calorie counting and toward minimally processed natural foods,

Calories are units of energy, the fuel your body needs to run. Protein, fat and carbohydrates each provide a different number of calories per gram weight. The Atwater system, developed in the 1890s, assigns four calories per gram for protein and carbohydrates, and nine calories per gram for fat.

with high protein and fiber favored over fat and carbohydrates.

Nutritionists explain that carbohydrate-loaded, highly processed foods are more rapidly absorbed by the body and turned into fat. Plant-based, high-fiber foods, however, make the body work harder to digest them. By slowing the rate that sugar is absorbed into the bloodstream, fiber prevents blood glucose levels from rising too fast and then falling rapidly, resulting in that familiar "crash" which causes you to feel hungry again, and overeat.

"If you're focusing only on calories, you can easily be misguided. In a complex organism like a human being, foods influence satiety, metabolic rate, brain activity, blood sugar and the hormones that store fat in very different ways," says Dr. Dariush Mozaffarian, Harvard epidemiologist.

As recently illustrated in the documentary *Fed Up*, the modern food industry tends to maximize the number of calories it takes to feel full, by adding unnecessary sugar to all types of products. High-fiber, high-volume, nutrient-dense foods have the opposite effect, minimizing the number of calories needed to feel satisfied. "Making better food choices offers us ways to feel full on fewer calories and be lean without constantly feeling hungry," explains Dr. David Katz, founder, Yale University's Prevention Research Center.

That forms the basis of Jonathan Bailor's eating plan detailed in *The Calorie Myth*, based on 13 years of nutritional research. The key is to begin with high-volume vegetables (start with a salad, for example), followed by protein, then whole food fats such as nuts and seeds, and end the meal with low-fructose fruits (strawberries, kiwi). "It's nearly impossible to overeat like this, because your stomach would be uncomfortably full," says Bailor.

Other experts agree that a focus on "real food" will naturally lead to consumption of fewer calories. Start your grocery shopping by concentrating on the perimeter of the store, where fresh vegetables and fruits abound. Purchase sparingly from the inner aisles, where highly processed foods are more likely to be located. Additionally, learn how to quickly scan nutrition labels for information that may be hidden. For example, four grams of sugar is equivalent to a teaspoon of sugar, which means that even low-fat yogurts often contain up to six teaspoons of sugar per serving.

**The payoff:** as you eliminate superfluous sugar, salt, trans fat and food chemicals, your taste buds become more sensitive and ultimately prefer unprocessed, more nutritious foods. "This process can be reverse-engineered one step a time, so we can climb a staircase up to the health and vitality we want, and deserve," says Dr. Katz.

## From the desk of John Patrick Stein, MD

### Dear Patient:

Summer can be an ideal time to choose lighter, healthier and more natural foods at grocery stores and farmer's markets. In this issue of *HealthWise*, we discuss what a calorie is and how all calories are not created equal. This is particularly evident when choosing a smoothie, which can be a healthy meal replacement or a highly caloric beverage, as featured in the *Nutrition Corner*. You'll find more ways to optimize

your health as we delve into the importance of taking medications as prescribed, an issue of particular concern for patients of all ages.

Wishing you a safe, healthy and enjoyable summer,

John Patrick Stein, MD





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# Prescription for Health: "Take Exactly as Directed"

Look inside your medicine cabinet at your prescription bottles and ask: Have I read the label, stickered warnings and instructions? Have I discarded medications past their expiration dates? The Centers for Disease Control (CDC) reports that 80 percent of patients do not take their medications as prescribed. The prevalence of non-adherence to prescription directions has been cited as "America's other drug problem" by the CDC. The agency estimates more than 125,000 people die annually from problems related to prescription medications, in part due to failure to read or follow label instructions. This number has the potential to increase dramatically over the next few decades, with the growing numbers of seniors, who are prescribed medication most frequently. Currently, 76 percent of Americans 60 and older use two or more prescription drugs, and by age 65, 42 percent take at least five medications weekly.

At every age, it is crucial to know the details about any medication prescribed to you. Consider these commonly asked questions, and you will understand why reading the fine print is essential.

Why do I need to finish an antibiotic? Probably the most common instance of non-compliance is taking fewer or partial doses of an antibiotic, which may allow the resistant bacteria to not only survive, but thrive. Taking a full course of antibiotics is the only way to kill all the harmful bacteria. Additionally, if the first course does not work, subsequent treatments may be more costly, with possible serious side effects.

What happens if I take more or less than prescribed? If you miss a dose, or take less because you feel better, the effectiveness may be reduced and can result in flare-ups of the condition—only if the prescription indicates 'as needed" should you modify the dose. In most cases, experts advise returning to your regular



medication schedule, but not to take two doses to make up for the dose you missed, as that can cause unintended side effects. Be careful not to take an extra over-the-counter pain relief pill (acetaminophen) for an intractable headache, as the narrow safety margin places many people "close to a toxic dose in the ordinary course of use," according to the FDA.

Why do some medications need to be taken with food and others on an empty stomach? Stomach upset, a common side effect, can be lessened by taking a drug with meals, as indicated. For some medicines, the opposite is true, and ingesting food beforehand can delay or decrease absorption of the drug. If 'take on an empty stomach' is directed, take the medication first thing in the morning and wait 30 minutes before eating to give the body time to absorb it.

Why is the time of day important? Certain drugs are more effective or better tolerated with specific timing, according to new AARP research. Taking statins at bedtime is advised as cholesterol production in the liver is highest after midnight and lowest in the morning and early afternoon. Pain medications used for osteoarthritis are best swallowed four to six hours before the pain is anticipated to be at its worst. Asthma patients gain the most relief by taking oral medication in the mid-afternoon and

inhaled steroids in late afternoon to prevent attacks most commonly experienced at night.

Why can't I have alcohol with prescription medication? Consumption of alcohol when taking a prescription medication may cause nausea, headaches or fainting. It can also exacerbate medication's effects, causing you to feel sleepy or lightheaded, and making it harder to concentrate and perform certain tasks.

Why can't I drive or operate heavy machinery? Some drugs, like those for anti-anxiety, can dull alertness and slow reaction time, while stimulants can impair judgment. Common side effects of medication—drowsiness, dizziness, blurred vision, excitability—all point to the need to stay off the road.

Why should certain foods be avoided? Some medications may not work as well when taken with specific foods. For example, grapefruit contains a compound that affects the way a number of medications are metabolized by the liver and should be avoided or limited as indicated. When taking the frequently prescribed blood thinner warfarin (Coumadin), doctors recommend keeping your diet consistent, particularly with regard to your intake of leafy green vegetables which may impact blood levels.

Can I take drugs after the expiration date? Discard outdated drugs, which may not have full potency, particularly ones in solution or that require refrigeration. Take particular note of medications such as insulin, oral nitroglycerin, biologicals, blood products and epinephrine. Medications with preservatives, such as eye drops, may be unsafe past expiration, as bacterial growth can occur.

New technology can help, such as electronic pillboxes and smartphone apps, or simply use the tried and true pillbox.



# **Nutrition Corner**

# Nutrition that Goes Down Easy: Stir Up a Healthy Smoothie

Freeze the fruit and boot up the blender—summer is the perfect time to develop a taste for smoothies. With the right ingredients, a day's worth of vitamins and minerals can be packed into a remarkably healthy breakfast or working lunch. Smoothies can be found everywhere from juice bars to yogurt shops, but the best way to ensure nutritious value is to make them yourself.

Be mindful of your choices...calories can add up despite healthy ingredients, and even if used as a meal substitute, smoothies containing liberal amounts of fruits and nuts can be more caloric than you may suppose. Check your totals on one of the many calorie tracking apps available online (<a href="www.myfitnesspal.com">www.myfitnesspal.com</a>) to make certain you stay within your ideal amount. Ideally, all well-balanced smoothies should include the following:

**Fruit:** Berries are a wonderful source of antioxidants. Try blueberries, strawberries, raspberries, and blackberries for variety. Including half a banana not only adds thick texture, but also generous amounts of potassium known for normalizing blood pressure and heart function. Kiwi is a powerful source of Vitamins C, E, A and fiber. Avocado makes a creamier smoothie while also adding healthy amounts of Vitamin E. Avoid high sugar fruits such as grapes, oranges and dates, and limit the pineapple.

**Vegetables:** The founders of Simple Green Smoothies.com recommend a ratio of 40 percent greens to 60 percent fruit. Green your smoothie

with a generous handful of nutritional powerhouses such as spinach, kale, chard or arugula. These dark leafy greens contain phytonutrients that support your immune system, heart-healthy omega-3 fatty acids, and virtually every ingredient found in a daily multivitamin.

**Liquid:** Use between ½ to one cup of liquid. Healthy options may include coconut water, high in potassium and electrolytes, or calcium-rich, low-fat almond or soy milk. Go easy on the fruit juice because of the high sugar content and added calories. Ice

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**Proteins:** Greek yogurt and low-fat cottage cheese are natural protein ingredients. Additionally, protein powders can be added to boost nutritional levels.

**Fiber:** Add healthy crunch with nuts and seeds. Raw walnuts and seeds such as flaxseed, sunflower seeds, and chia seeds are loaded with fiber, protein and essential fatty acids. Try a spoonful of uncooked steel cut oatmeal or a teaspoon of nut butter, both containing plenty of fiber to keep you full.

**Spices:** A healthy flavorful addition to the smoothie—try cinnamon, cumin, vanilla, ginger, or even cayenne pepper.

For smoothest blending of the nuts and veggies, top-end commercial models make the process effortless, but less expensive models work too—look for one with an 800-watt or higher motor.

Smoothies are incredibly versatile and are only limited by your imagination and willingness to experiment.