STAY WELL

## The Highs and Lows of CBD

Is cannabidiol a cure-all or snake oil?

Or something in between?

CBD—short for cannabidiol—is a compound extracted from hemp and cannabis (marijuana) plants, touted to relieve everything from chronic pain to anxiety to insomnia. Facilitated by a change in the U.S. Farm Bill in 2018 allowing the farming of hemp for commercial sale, a dizzying array of products that contain CBD began appearing online and on store shelves. These products come in the form of ingestible tinctures (drops), capsules, vaping liquids, oils, lotions, sprays even gummy bears. CBD is in beauty products, chocolate bars, popcorn, peanut butter, and dog treats. You can order a CBD-laced latte or get a CBD-infused massage.

Americans are intrigued: The number of Google searches for "CBD" or "cannabidiol" has increased well over 100 percent annually since 2017 in the U.S., according to a 2019 study in JAMA Network Open led by University of California, San Diego, researchers. There were 6.4 million Google searches in April 2019 alone, the study reported, which far exceeded the number of searches for other health topics like "diet," "exercise,"



and "meditation" during the same period. Do a search today for "CBD," and you will get hundreds of millions of results.

### Is it pot or not?

CBD is one of more than 100 chemical compounds known as cannabinoids that come from marijuana or its close relative hemp (both are varieties of the plant *Cannabis sativa*). But unlike another well-known compound from the marijuana plant, tetrahydrocannabinol (THC), CBD doesn't get users high. THC produces its buzz when smoked, vaped, or consumed (such as in brownies or other "edibles"). CBD doesn't have the same psychoactive effect on the brain as THC.

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Hemp, a source for CBD, is grown for several uses, such as making paper and cloth, and it is used as an ingredient in an increasing number of foods and beverages. By U.S. law, CBD products (sometimes labeled "CBD oil" or "hemp oil") derived from hemp plants can't contain more than 0.3 percent THC by weight, a concentration ineffective for any buzz. Be wary if a product claiming to be pure CBD gets you "high"—it may be contaminated, such as with actual THC or some unwanted drug, or be causing an interaction with a medication you may be taking.

#### **Hazy legal status**

Federal and state laws are at odds continued on next page

over CBD's legal status. The federal 2018 Farm Bill gave U.S. farmers the green light to grow and sell hemp. Yet the U.S. Food and Drug Administration (FDA) has approved the use of only one form of CBD, a proprietary prescriptiononly oral solution called Epidiolex, for the prevention of two rare forms of childhood epilepsy (not for any other convulsive disorder). Because the FDA deems CBD to be an investigational drug, the agency forbids its sale in dietary supplements and foods. (The FDA doesn't regulate ingredients in beauty products, and so far, using CBD in cosmetics isn't restricted.)

To confuse matters further, states often override federal laws, and most allow the sale of products containing CBD oil derived from hemp, though in some states you may need to obtain a note from your doctor and purchase products at a special dispensary. Also, the types of CBD products you can buy depends on where you live. For example, Massachusetts forbids the sale of foods containing CBD, while neighboring New York permits CBD edibles. CBD sometimes falls into a gray area of the law. It's safe to say that state and federal regulators are still sorting out CBD's legal status, so laws throughout the country will likely evolve.

#### What might CBD do for you?

Aside from the use of CBD for two specific childhood epilepsies, other alleged health benefits linked to CBD are unproven. That's despite claims on package labels, in internet ads, and by clerks at stores. Animal studies suggest that CBD has some medicinal properties, such as tamping down inflammation (at least in mice!), but as yet there's no convincing scientific evidence to support most health claims. Moreover, research on CBD has used several hundred milligrams daily, whereas retail products typically provide only a fraction of such doses when used as directed.

The fast-growing market for CBD products is largely unregulated, and not all products may be safe.

Here's what we know about CBD for some of its more common

**Pain.** Some preliminary research suggests that buzz-causing wholeplant cannabis can ease pain, and a proprietary cannabis-based pain reliever containing both THC and CBD called Sativex is available in 27 countries including Canada and the U.K. (not the U.S.) for treatment of pain and muscle spasticity caused by multiple sclerosis. But overall, little research has been published reporting the effectiveness of CBD alone for pain relief. A randomized controlled trial in the Medical Journal of Australia in 2021 found that CBD (400 milligrams) was no better than a placebo when given in addition to pain-relief medication to patients presenting in the emergency department with low back pain. Researchers have also studied CBD's effectiveness in easing nerve pain, but the studies have been too small to be relevant, and results have been inconsistent.

Topical CBD products may prove to be of value for treating some types of pain, if adequately formulated and applied, though research is preliminary at present. In a small study in Current Pharmaceutical Biotechnology in 2020 of people with peripheral neuropathy, those who applied CBD oil to their lower extremities for four weeks had greater symptom relief than participants who rubbed on a placebo. Transdermal delivery may impact receptors near the skin surface, unlike smoked, vaped, or ingested CBD. It's unclear how the FDA will proceed with topical CBD products, but for now at least, states are being allowed to sell them as long as manufacturers don't make any health claims.

Anxiety and depression. The few studies to evaluate the effects of CBD for anxiety have been small and short term. For instance, in a Brazilian study in Neuropsychopharmacology in 2011, 24 adults with social anxiety disorder (SAD) were given 600 milligrams of CBD (a hefty dose) or a placebo and then asked to deliver a speech 90 minutes later. Compared to the untreated participants, the CBD users reported less anxiety and discomfort—on par with levels experienced by a group of 12 healthy people without anxiety who also gave speeches but did not take CBD. The authors concluded that "These preliminary results indicate that a single dose of CBD can reduce the anxietyenhancing effect provoked by SPST [simulated public speaking test] in SAD patients, indicating that this cannabinoid inhibits the fear of speaking in public, one of the main symptoms of the disorder."

However, another small study, continued on next page

published in Cannabis and Cannabinoid Research in 2017, found that treating healthy people with varying doses of CBD failed to dampen their emotional responses to upsetting or threatening images and words. There's even less support for the idea that CBD relieves depression.

Sleep problems. A 2019 study published in *The Permanente Journal* reported some sleep benefits in people given 25 to 175 milligrams a day of CBD for anxiety. Sleep scores improved during the first month of use but then fluctuated over time, with 25 percent of participants reporting *worsening* sleep. In addition, the study was open label, meaning there was no placebo or control group, and the participants knew what they were taking. Evidence from better-designed studies is needed.

Other conditions. Limited evidence suggests that CBD could help improve symptoms of Parkinson's disease and might help curb opioid addiction, but more research is needed. Studies have failed to find benefits in other diseases, including Crohn's disease (an inflammatory bowel disorder) and diabetes. Claims that CBD can treat Alzheimer's disease, cancer, and pet anxiety are all unsubstantiated.

### Not to be taken lightly

Reviews of multiple small-scale, short-term human studies have found that pharmaceutical-grade CBD is generally safe, but the high-quality products used in most studies may differ from those in over-the-counter CBD products. The World Health Organization (WHO) stated in a 2018 report that "In humans, CBD exhibits no effects indicative of any abuse or de-

pendence potential" and that there is no evidence of "any public-health related problems associated with the use of pure CBD." However, the FDA says that evidence is insufficient to deem CBD safe when used as an ingredient in human and animal food. If you decide to try CBD, always talk with your doctor first, and bear in mind the following potential concerns:

Adverse effects. In clinical trials, some people treated with Epidiolex reported drowsiness, diarrhea, loss of appetite, and other side effects. Liver damage has occurred, too, and patients who take Epidiolex must have their liver function regularly monitored. Similar side effects and liver injury have been reported in studies of CBD use for other purposes. What's more, it's unknown

whether CBD has long-term adverse effects, especially in older adults with chronic conditions.

**Drug interactions.** CBD can interfere with the breakdown and effectiveness of some common drugs—raising blood levels of the drugs, for instance. And some medications, when taken with CBD, can slow the rate of CBD breakdown. Moreover, these interactions can involve medications often prescribed to treat the same conditions for which CBD is dubiously touted—and taking CBD without medical supervision when using other medications could present an additional health risk.

According to reports, CBD heightens the activity of the anticoagulant warfarin (Coumadin), increasing the risk of bleeding. Using continued on next page

#### The Wild West of Buying CBD

The fast-growing market for CBD products is largely unregulated, and not all products may be safe. It's like the Wild West out there, with many companies trying to cash in. If you're still intent on trying CBD, here are some buying tips:

- Buy from a licensed dispensary if one is available in your state. These establishments, which also sell marijuana, are required to label CBD amounts in their products.
- If that's not an option, look for products that provide key information on the package, including serving size, the amount of CBD per dose, the net weight, the manufacturer or distributor name, a batch or date code, and directions for use. Products should also say whether the CBD is in full-spectrum, broad-spectrum, or isolate form. This information better ensures that the product is reputable but is still no guarantee of safety or effectiveness.
- CBD oil is often labeled as hemp oil, but don't buy hemp *seed* oil—it contains little or no CBD.
- Read the ingredients list. Some CBD products contain ingredients you may want to avoid, such as artificial flavorings and corn syrup.
- Don't vape CBD extracts in pens or cartridges. You won't get high, and there's no evidence it contributes to health. Rather, each inhale exposes your lung tissues to unknown, potentially toxic substances.
- Be sure to check with your health care provider for possible interactions with other medications you may be taking.

CBD with drugs that depress the central nervous system, such as benzodiazepines like alprazolam (Xanax) and diazepam (Valium), can induce or intensify drowsiness and sedation. CBD can amplify the potency and side effects of alcohol and other drugs, including the muscle relaxant chlorzoxazone (Lorzone) and the bronchodilator theophylline (Theochron, and others). It can also interact with herbs and supplements, such as melatonin and St. John's wort.

**Quality problems.** Since there's minimal oversight of the CBD market, there's no guarantee the information on the product's labels is ac-

curate, and manufacturers have little incentive to monitor quality closely. Some products have been found to be contaminated with microorganisms and pesticides and other chemicals. An analysis of 84 CBD products purchased online found that 26 percent contained substantially less CBD than stated on their labels, and 43 percent contained significantly more.

Synthetic CBD. Beware of recreational products that add synthetic cannabinoids to plant material, which could make you very sick. These products, which go by names like Spice and K2, have been found to contain contaminants such as rat

poison and have been linked to severe bleeding and several deaths.

And there's another risk to be aware of: If you use a CBD product, you might test positive for marijuana on a drug screening.

enough evidence to recommend CBD for any medical use aside from the rare childhood epileptic conditions it's approved for. More research is needed to establish CBD's safety, including safe and appropriate dosages, interactions with drugs and foods, and other potential side effects. Until then, it pays to approach CBD products with healthy skepticism.

#### SPEAKING OF WELLNESS



John Swartzberg, M.D. Chair, Editorial Board

# Fruits & Veggies—or Veggies & Fruits?

From the time you were sitting around your parents' (or grand-parents') Formica-and-chrome dinette table, you were told to eat

your fruits and vegetables. Nutrition researcher Christopher D. Gardner, Ph.D., a member of our editorial

board, doesn't like that advice. He wants vegetables to be mentioned before fruits because they contain more nutrients and fiber for their calories.

Moreover, when Christopher and some of his colleagues analyzed numerous studies on the relationship between food and health, they

found that while research in general shows both fruits and vegetables help protect against death from such illnesses as cancer, stroke, and cardiovascular disease, vegetables appear to have the edge in warding off disease-related mortality. He even helped prepare a paper on the findings that was published in the *American Journal of Lifestyle Medicine* in 2018. Its takeaway is that

the public would be better served if the produce duo were called "vegetables and fruits," not "fruits and vegetables."

Christopher's message to prioritize vegetables over fruits is getting out. In the 2020–2025 <u>Dietary Guidelines for Americans</u>, vegetables are pretty consistently mentioned before fruits. Furthermore, the Guidelines make clear that while people should eat at least two cups of fruit per day, they should consume a minimum

of two and a half cups of vegetables. (It may not sound significant, but it's a 25 percent difference.)

Even the Guidelines slip up, however, saying at one point that at least half your plate should consist of "fruits and vegetables." Christopher's group says in their paper that some of it boils down to syllable count,

with evidence to back this up from the field of linguistics. It's easier to name the one-syllable word first: fruits and vegetables, rich and famous, time and money.

His point overall is well taken. Vegetables do provide more nutritional bang for their calories than fruits. But to be honest, as the Guidelines show and as

#### SPEAKING OF WELLNESS continued

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Christopher would concur, Americans continue to do pretty dismally when it comes to eating vegetables and fruits. Only 20 percent of us consume enough fruit, while just 10 percent eat enough in the way of vegetables.

So the goal here isn't to swap out fruits for vegetables. It's to add more produce, particularly vegetables, to the repertoire. That might not sound too appealing. For many Americans, "vegetables" means something culinarily austere—a pat of margarine on steamed green beans, perhaps, or frozen mixed vegetables, again with that telltale pat of ersatz butter. But it

doesn't have to be that way.



My wife and I like to cut broccoli and cauliflower into bite-size pieces, put them on a baking pan, drizzle them with olive oil,

and heat them in the oven at 425° F for at least 15 minutes. They come out really crispy and delicious—not limp, soggy, and tasteless like over-steamed or overboiled vegetables.

Another way to incorporate more vegetables into your meals is to mix up more interesting salads. Don't just toss greens, tomatoes, and carrots. Add some chopped, marinated artichoke hearts, bamboo shoots, or baby corn (if canned or jarred, look for low-sodium versions or rinse them first). Or toss in water chestnuts (very low in calories) to add more crunch, or some avo-

cado, sliced mushrooms, or seeds. You can make almost any sandwich more interesting and delicious by adding lettuce leaves, sliced tomato, and even some grilled eggplant.

Vegetables can be for breakfast, as well. A friend of mine likes to fry a sunny-side-up egg in oil that he has seasoned with red pepper flakes and oregano; while the egg is cooking on the stove top, he throws some spinach or kale into the pan. Sautéed and seasoned, almost any green tastes delicious.

Yes, the oil used for sautéing or roasting contains calories you wouldn't otherwise consume. But if you enjoy your vegetables, you might be inclined to eat a little less meat, or fewer sweets like cakes, cookies, and ice cream, which offer relatively few nutrients for the calories they provide. It can more than even out.

As for fruit, that's easy. What about a fig or two after dinner? Or a snack of frozen berries or mango mixed with a dollop of nonfat yogurt or whipped up in the blender for a smoothie? Dried fruit can also go



toward your fruit goal, but be aware that the calories are concentrated (so don't eat too many), and sugar is sometimes added (check the labels).

Taste is the name of the game. If you enjoy it, you will gradually incorporate it into your eating pattern. That's true whether you eat "vegetables and fruits" or "fruits and vegetables."

#### **GET WELL**

## Is the End of Presbyopia Near?

A look at the new prescription eye drops that claim to improve close-up vision

If you've seen the eye-catching commercials for eye drops that claim to improve close-up vision, you may think this sounds too good to be true. Can you really toss your reading glasses, you wonder? The answer to this question, in short, depends

on what your expectations are and how much you are willing to pay for what might be limited improvement.

Last October, the FDA approved <u>Vuity</u> for presbyopia, the blurry near-vision that just about



everyone over 40 is familiar with or will become familiar with eventually. Presbyopia develops with age as the lens of the eye continued on next page continued from previous page becomes less elastic and loses the ability to focus on close-up objects.

#### Say what?

The active ingredient in Vuity—developed by AbbVie, a subsidiary of the pharmaceutical company Allergan—is pilocarpine, which has long been used to treat glaucoma. Though Vuity is the first eye drop approved to treat presbyopia, other products are in the pipeline, including another pilocarpine formulation, MicroLine, which will come with an applicator to deliver a lower volume of medicine in a more consistent manner.

The FDA's approval for Vuity was based on its review of two industry studies, which included a total of 750 middle-aged people (ages 40 to 55) with presbyopia. In GEM-INI 1, a randomized clinical trial published in JAMA Ophthalmology in April 2022, the researchers assigned 323 participants to use either Vuity (one drop a day in each eye) or a placebo for 30 days. Overall, the Vuity group showed greater improvement in close-up vision than the control group at day 30, with 31 percent versus 8 percent being able to read at least three more lines on an eye chart when the light was low, without any change in distance vision. The difference between groups was greatest three hours after using the drops, with no differences seen after eight hours.

According to Marlon Maus, M.D., an ophthalmologist and adjunct professor at UC Berkeley and a member of our editorial board, "Being able to read three more lines may be beneficial for many people. It could, for example, mean going from reading the larger print in a newspaper or magazine without glasses to reading

the smaller print of the article at a comfortable distance. But three lines for you is not the same for everyone—it depends on how 'bad' your vision is to start." If you have significant presbyopia (you wear +2.00 or higher readers), Vuity may not be enough for you to see very small print, such as the standard font size of text messages on your phone. Moreover, some people have no improvement. Dr. Maus added, "The two clinical studies found that only one-quarter to one-third achieved the goals set."

Some people experience better near-vision for a few hours with Vuity—but others get no benefit.

#### Say how?

The eye drops work in two ways. Pilocarpine shrinks the pupil (the opening in the eye that allows light in), which increases the depth of field. This accounts for almost all the vision improvement. This active ingredient also contracts the ciliary muscles in the eye—the muscles that affect the shape of the eye's lens to enable light to focus on the retina—so that the lens becomes more curved.

The changes occur within 15 minutes of applying the eye drops and are strongest for up to six hours, after which the effect diminishes. But there's much variability in the outcome—some people experience better near-vision for just a couple of hours, while others, as noted above, get no benefit. Be aware also

that once you start the medication, it can take about 30 days to achieve the best results, though the effects with each application still last only about six hours.

#### **Vuity caveats**

Here are some other things to know about Vuity before you toss your readers:

- Older adults, especially if they have some cataract development, will probably not benefit at all from the drops. And the drops won't prevent progression of presbyopia.
- The most common side effects are eye redness and headache. In some cases, the redness doesn't resolve until the product is stopped. The drops may also burn, mostly when you put them in. Vuity uses a special medium to decrease the eye burning, but many people will still have discomfort that they never get used to, which can be a reason to stop using the product.
- Pilocarpine is in a category of drugs referred to as miotics, which increase the risk of retinal detachment. According to Dr. Maus, "In high-risk people—including those who have extreme nearsightedness, an eye injury, a previous retinal detachment, or a family history of one—there's a small increased risk of retinal detachment. It's small, but it's there, as noted by the company in its materials."
- There are no published longterm studies on Vuity. "Though it's not a totally new product, we don't really know what the long-term effects of this new use for an older drug will be, particularly in older age groups," said Dr. Maus. "In a perfectly healthy eye (in early presbyopes), the risk is probably minimal, however."

■ Vuity and driving may not mix, as the company cautions. Because the drops work largely by contracting the pupils, you may have problems seeing and navigating in low-light conditions until the pupils enlarge again—and that can take longer than six hours, after the drug's strongest effects have worn off. That is, for some people, being on Vuity means making the choice

between reading without glasses and driving.

■ Vuity is not covered by insurance, and its price varies depending on where in the country you buy it and what pharmacy you use. Its average retail price is about \$95 for a 30-day supply. Prescription drug discount cards and apps, provided by such companies as GoodRx, may bring down the price a little (about \$85).

**BOTTOM LINE:** If you want to

try Vuity, you should consult with an ophthalmologist or optometrist to make sure you don't have contraindications. "If you're not at risk and want to give it a try, go ahead," advises Dr. Maus. But he's not completely sold on the product, either. The rather steep price, along with side effects, lack of long-term studies, limited benefits, and potential increased risk when driving at night, may not make it worth it.

#### WELLNESS **NEWS**

### **Aspirin Gets Demoted for Heart Attack and Stroke Prevention**

New guidelines no longer recommend this drug for certain age groups

Before there was widespread use of statins to lower blood cholesterol, before the medical community found better strategies for treating high blood pressure, and before the

public understood the cardiovascular benefits of eating less saturated fat and engaging in more physical activity, aspirin stood out as a way to prevent heart attacks and strokes. A 1989 study on men, for instance, showed that taking an aspirin every other day reduced heart attack risk by 44 percent. That was no small thing, as heart attacks and strokes

have long been the leading cause of death in the U.S.

But more recent <u>research</u> analyzed by the U.S. Preventive Services Task Force suggests that daily low-dose aspirin (sometimes called baby aspirin, which contains a quarter of the aspirin in a regular aspirin tablet) reduces the risk of a heart attack or stroke by a relatively modest 12 percent, on average. The Task Force says that the high rate of statin and antihypertensive use diminishes aspirin's contribution to cardiovascular health. At the same time, the Task Force points to studies that show aspirin use increases the risk for major gastrointestinal bleeding by 58 percent, while the risk for hemorrhagic stroke (bleeding in the brain) more than doubles. Aspirin has an anti-clotting effect, making bleeding more likely.

Because of numbers like that, which make it much more

important to weigh benefits against risks, the <u>Task Force</u> recently revised its 2016 recommendations on taking aspirin to reduce the risk of heart attacks and strokes. It now gives

this practice a lower grade for several age groups.

Here are the changes. But first, bear in mind that these recommendations are for primary prevention, meaning they are intended for people who have never had a heart attack or stroke. Aspirin recommendations differ for secondary prevention—that is, for trying to avoid

another cardiovascular event. People who have already had a heart attack, stroke, or coronary artery bypass surgery, as well as those who have a high coronary calcium score (as measured by a special CT scan) or angina, should have a conversation with their doctor about taking aspirin.



#### Ages 40 through 49

**2016:** Six years ago there was no recommendation on aspirin for people in this age group. There was not enough evidence to support one.

**2022:** Enough evidence has come in that on a scale of A through D, the Task Force has assigned a passing (but not high) grade of C to the practice of taking a daily baby aspirin for those in this age group who have at least a 10 percent

#### WELLNESS **NEWS** continued

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chance of having a heart attack or stroke within the next 10 years (see box below). But the advice, which it says will result in a "modest net benefit," comes with a caveat: No one in their 40s should start taking baby aspirin daily if they have an increased risk for bleeding due to such conditions as diabetes or high blood pressure or because they have a history of any one of a variety of gastrointestinal disorders. Nor should they ingest aspirin daily if they regularly take a non-steroidal anti-inflammatory drug (NSAID) like ibuprofen or naproxen. NSAIDs are commonly taken by people who have arthritis or other inflammatory or painful conditions, but like aspirin (itself an NSAID), they increase the risk of gastrointestinal bleeding. The cumulative risk of taking two or more drugs that increase the risk of bleeding outweighs the cardiovascular protection afforded by the aspirin.

Even for those who do not have a bleeding issue, it's not a blanket recommendation to take aspirin. It's an individual decision, the Task Force says; if you're in your 40s, you should discuss the idea with your doctor before making low-dose aspirin part of your daily routine.

#### Ages 50 through 59

**2016:** Initiating low-dose aspirin as a preventive therapy was assigned the grade of B for anyone in this age group who had at least a 10 percent risk of having a heart attack or stroke within the next 10 years. It was a blanket recommendation, in fact, as long as the person did not have an increased risk for bleeding. Those with such a risk were not advised to begin an aspirin regimen.

**2022:** The Task Force's grade for starting a low-dose aspirin regimen in your 50s has been downgraded to a C. And it's no longer a blanket recommendation but an individual decision to be discussed with your doctor. Even for those without a bleeding risk, the benefit of preventing heart disease must be weighed against the possibility of internal bleeding; advancing age alone increases bleeding risk.

#### Ages 60 through 69

**2016:** Initiating a daily low-dose aspirin regimen if you had at least a 10 percent risk of suffering a heart attack or stroke over the next 10 years had a grade of C. It was not automatically supposed to become part of your daily life. Rather, the decision needed to be made in conjunction with your physician.

**2022:** The Task Force now recommends against starting an aspirin regimen, giving it a grade of D for people in this age group. The bleeding risks are simply too high.

#### Ages 70 and older

**2016:** The assumption was that if you started an aspirin regimen in an earlier decade of life, you would continue taking it for the rest of your life.

**2022:** The Task Force now recommends that if you began taking low-dose aspirin daily when you were younger, you should consider discontinuing the practice in consultation with your doctor because of the increased bleeding risk. "There is generally little incremental lifetime net benefit in continuing aspirin use beyond the age of 75 to 80 years," the Task Force says.

### **Determining Your 10-Year Risk**

The U.S. Preventive Services Task Force consistently says that anyone considering an aspirin regimen to lower the risk for heart attack and stroke should have at least a 10 percent chance of having one of those events in the next 10 years. So, how do you figure out your risk?

You should discuss the odds with your physician, of course, but you can also use this online Heart Risk Calculator, issued jointly by the American College of Cardiology and the American Heart Association. You plug in information that includes your sex, age, race, total cholesterol, HDL cholesterol, and systolic blood pressure (the top number in a blood pressure reading), and the calculator shoots out a number.

For instance, if you're a 48-year-old white man with a total blood cholesterol count of 200, HDL of 40, and systolic blood pressure of 130 and do not have diabetes or a smoking habit, your risk for having a cardiovascular event within the next 10 years is 3.7 percent. If you're that same man with the same numbers at age 50, your risk goes up to 4.5 percent. In both scenarios, you are not a candidate for daily low-dose aspirin. But if you're 59 with those numbers and now need medicine to keep your systolic blood pressure down to 130, your risk for having a cardiovascular event over the next 10 years rises to 11.2 percent.

#### **ASK THE EXPERTS**



Q I see "Net Carbs" prominently listed on some energy bars, frozen meals, cereal boxes, tortillas, and other packaged foods. What does the term mean, and is it something to consider when choosing between products?

A The notion behind this marketing term—which came into vogue with the low-carbohydrate Atkins Diet and similar eating plans—is that only certain carbs (i.e., "net carbs") are fully absorbed in the body and affect blood sugar and body weight. Thus, these are the only carbs you would need to keep track of if you are trying to follow a low-carb diet or if you have diabetes and need to limit your carbohydrate intake. But we don't advise paying much heed to the label.

Net carbs are typically determined in a serving of a given food by subtracting the grams of fiber from the total grams of carbohydrates, as listed on the Nutrition Facts label. If any sugar alcohols are present, half their grams are also typically subtracted from the total carbohydrates. Sugar alcohols—which include sorbitol, erythritol, xylitol, and glycerin—are a type of carbohydrate (but are chemically different from sugars). Referred to as polyols, they are used in processed foods to add sweetness, but they also add texture and bulk, keep products moist, and prevent browning when heated. Other ingredients, such as allulose—a low-calorie sugar alternative—may also be subtracted in net carb calculations.

For instance, a serving of a food that has 10 grams of total carbohydrates, 5 grams of fiber, and 1 gram of sugar alcohols would have just 4 net carbs because you subtract 6 (for the fiber and sugar alcohols combined) from the total carbs (10).

To appeal to carb-focused consumers—many of whom are trying to lose weight—some food companies replace carbohydrates with sugar alcohols or other ingredients to be able to boast "low net carbs." Or, they may add fiber for the same purpose.

But here's the catch: The term "net carbs" is not recognized by the FDA, and the government considers it misleading on labels and in advertising (for alcoholic beverages). The American Diabetes Association (ADA) recommends using not net carbs but rather total carbohydrates if you need to track your carbs. (Note: If you have diabetes, the ADA has this advice about carb counting.) That's because, contrary to what net carb proponents assert, some soluble fiber and some sugar alcohols can be at least partially absorbed and metabolized and therefore can provide some calories and may also affect blood sugar. According to the ADA, some sugar alcohols can slightly increase blood sugar.

Moreover, foods low in net carbs may not be particularly low in calories—or high in fiber (and when fiber is added to processed foods, it's debatable whether such fiber is as good for you as naturally occurring fiber). Plus, because these products tend to be heavily processed, they may be high in saturated fat, sodium, and other undesirable ingredients. Bear in mind also that excess intake of sugar alcohols can have unwanted gastrointestinal effects, including bloating, gas, and diarrhea, especially if consumed on an empty stomach.

**BOTTOM LINE:** The term "net carbs" is controversial and unreliable, and it's not necessary to track these carbohydrates. Though foods low in net carbs may overall be better choices for people with diabetes, this characteristic does not automatically make them healthy foods by other measures.

Q How often should I get dental X-rays? I want to minimize my radiation exposure.

A It depends largely on your dental health and history, but generally speaking, most people don't need them every year.

Here are the joint <u>recommendations</u> for adults from the American Dental Association and U.S. Food and Drug Administration (FDA), which are designed to limit

#### ASK THE EXPERTS continued

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radiation: New patients should get posterior "bitewings" (of molars and premolars) with either a panoramic exam (which images the whole mouth) or with

selected periapical images (which show the whole tooth from crown to root).

After that, if you're at low risk for cavities, you can get bitewings every 24 to 36 months. If you're at increased risk for cavities (for instance, because you have many fillings or crowns, dry mouth, or poor dental hygiene), bitewings are recommended

every six to 18 months. If you have periodontal disease, implants, root canals, or other dental problems, your dentist will determine when various X-rays are needed.

For children and adolescents, there is a different schedule of X-rays after a more-extensive initial series, depending on their stage of tooth development.

Though the radiation exposure from today's dental X-rays is very small, you can wear a lead apron over your neck and chest during the procedure. A lead thyroid collar can also be worn to protect the thyroid gland from radiation, if it doesn't interfere with the primary X-ray beam. Also, ask whether your dentist is using the

> fastest film (E or, even better, F—the faster the film, the less exposure time required) or digital technology, both of which greatly reduce radiation; the FDA has encouraged dentists to use these.

> Of course, even with these precautions, no amount of radiation is 100 percent safe, and thus some dentists and

patients may decide that routine X-rays should be done less frequently than the official recommendations.

If you have a question you would like to see answered in the Wellness Letter, email us at editors@wellnessletteronline.com. We regret that we are unable to publish answers to all questions or respond to letters personally.



### WELLNESS MADE EASY

### New Flu Shot Recommendations for Seniors

If you are 65 years or older, the CDC recommends that you get one of three specific flu vaccines this year: Fluzone High-Dose Quadrivalent, Fluad Quadrivalent, or Flublok Quadrivalent. Based on its review of studies, the agency concluded that these vaccines are potentially more effective in older people, who have less of an immune response to standard-dose flu vaccines. Previously, the CDC had not indicated a preference for one type of flu vaccine over another for seniors.

Quadrivalent flu vaccines protect against four different flu viruses compared to the previous trivalent vaccines, which protected against three. (All flu vaccines are now quadrivalent, not just for seniors). Fluzone High-Dose Quadrivalent contains four times



more antigen than standard-dose vaccines; antigens are the vaccine component that helps you build antibodies to protect against viruses. Fluad Quadrivalent

#### WELLNESS MADE EASY continued

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contains an adjuvant (MF59), an ingredient added to

create a stronger immune response to the vaccine. These two vaccines may cause slightly more side effects that are mild and temporary than standard-dose, unadjuvanted flu shots. Flublok Quadrivalent is a recombinant vaccine that was developed to provide an enhanced immune response in older people.

All three of these vaccines give a good immune response, so you don't have to worry about which one to get.

Vaccination in this older age group is especially important since, as immune defenses generally decline with age, seniors are at higher risk of developing serious flu complications and account for 50

> to 70 percent of flu-related hospitalizations and 70 to 85 percent of flurelated deaths, according to the CDC.

> Whatever age you are, it's generally recommended that you get your flu shot in September or October though if you miss that time period, getting vaccinated by November or even later is still advised. The CDC recommends flu shots for almost everyone ages six months and older.

People under 65 can get any age-appropriate flu vaccine that is available to them.



### Heed the Mind to Treat the Back

Adding psychological interventions to physiotherapy (aka physical therapy) may help manage chronic low back pain better than physiotherapy alone, according to a systematic review in BMJ of 97 randomized controlled trials involving more than 13,000 people.

Participants had low back pain of at least 12 weeks' duration and with no known anatomical cause. Combining physiotherapy (mostly structured exercise) with behavioral therapy was deemed best for reducing pain intensity, while co-delivery of physiotherapy with cognitive behavioral therapy or with pain education improved physical functioning and fear avoidance behaviors most. (Behavioral therapy and cognitive behavioral therapy differ in that the former focuses on altering behaviors to improve outcomes, while the latter challenges thoughts to lead to healthier behaviors and mood.)

Although clinical effectiveness lessened over time, the authors propose that such psychological interventions be integrated with physiotherapy at the onset of treatment for low back pain.

What's the connection between back pain and the mind? Psychological factors play a large role in how back pain is experienced and how it impacts daily



functioning and overall well-being. Chronic pain is often accompanied by depression, anxiety, and catastrophic thinking, for example, which can lead to avoidance of usual activities and diminished quality of life. Psychological interventions can help change negative beliefs, attitudes, and behaviors, and thus have "strong potential to help patients with building resilience and psychological flexibility to better cope (that is, self-manage) with the physical and psychosocial challenges of living with chronic pain," the authors wrote.

#### RECIPE CORNER

#### **Neoclassic Corn Chowder**

A classic corn chowder would have heavy cream and lots of bacon, so a neoclassic version is one that has had a health makeover: Instead of cream, it uses flour-thickened low-fat milk; instead of pork bacon, turkey bacon. Although turkey bacon is sometimes colored to resemble pork bacon, with its white streaks of fat, it's actually nothing but lean. So to cook it, you need to use a nonstick pan and sometimes a little oil. Here we "stretch" the oil by using some water to keep the bacon from sticking. And we've reduced the salt, so each serving provides less than 300 milligrams of sodium. Lastly, if you want to go vegetarian, skip the turkey bacon or substitute it with "fake bacon" (made with wheat protein, soy protein, tempeh, or other meat substitutes).





- 1 teaspoon olive oil
- 2 cups water
- 1 medium onion, finely chopped
- 3 slices (1 ounce total) turkey bacon, coarsely chopped
- 1 red bell pepper, diced
- ½ pound red potatoes, cut into ½-inch chunks
- 1/4 teaspoon salt
- 1/4 teaspoon black pepper
- 1 cup low-fat (1%) or fat-free milk
- 2 tablespoons flour
- 1 package (10 ounces) frozen corn kernels
- 1 teaspoon dark sesame oil



- 1. In a nonstick Dutch oven or large saucepan, heat the oil and ½ cup of the water over medium heat. Add the onion and bacon, and cook, stirring frequently, until the onion is soft and the water has evaporated, about 7 minutes.
- **2.** Add the bell pepper and cook, stirring frequently, until the pepper is soft, about 5 minutes.
- **3.** Stir in the remaining 1½ cups water, the potatoes, salt, and black pepper, and bring to a boil. Reduce to a simmer, cover, and cook until the potatoes are tender, about 10 minutes.
- **4.** In a small bowl, blend the milk into the flour. Add to the soup, bring to a simmer, and cook, stirring, until slightly thickened, about 3 minutes.
- **5.** Stir in the corn and cook until heated through, about 3 minutes. Stir in the sesame oil and serve.

**Makes 4 servings;** per serving: 215 calories, 5g total fat (1.5g saturated), 4g dietary fiber, 37g carbohydrate, 8g protein, 290mg sodium.

From The Wellness Kitchen

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