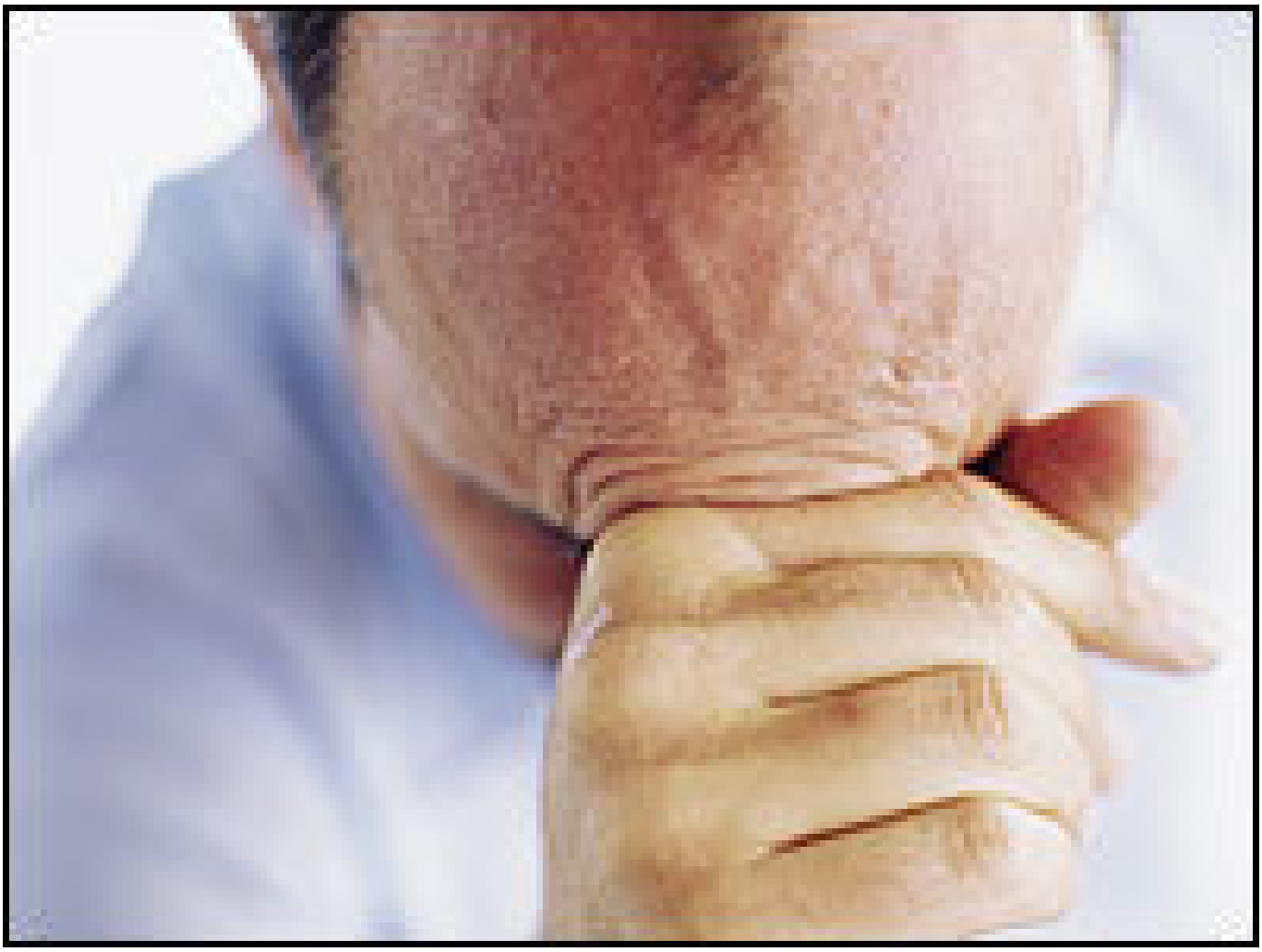
YOUR HEALTH

Q & A: Your Questions on Migraine

May 4, 2006 · 6:00 PM ET

VIKKI VALENTINE



Migraine refers to the swelling of blood vessels in the head. The symptoms include headache, dizziness, nausea and visual disturbances.

Christoph Gramann/Zefa/Corbis

When fighting a headache, it's natural to want to turn to pain medicine for relief. But neurologist Dr. David Buchholz advises his patients suffering from migraine to avoid

drugs, especially certain prescription medicines sold specifically for migraine relief.

Migraine Triggers

What do a strong latte, a drop in barometric pressure, and soybeans have in common?
April 27, 2006

Buchholz, an associate professor at Johns Hopkins University, thinks that patients have the power to avoid migraine through diet, sleep and the occasional Advil. Here, he answers listeners' questions about different types of migraine, and what he thinks is the best route for treatment:

Tips for Helping Your Migraine

Tables excerpted from Buchholz's book, "Heal Your Headache:"

"Dietary Triggers"

"Potential Sources of MSG"

"What About Soy?"

"Migraine-Preventive Medicine"

Q: How much can barometric pressure contribute to migraines? I work at an acupuncture clinic and we see a steep rise in migraine patients with changes in the weather. -- *Laura Bretton, San Diego, Calif.*

Barometric pressure changes -- especially drops -- are indeed migraine triggers. Examples include approaching storms, air travel and high altitude. Barometric pressure and other aspects of the weather (temperature extremes, humidity) are among the relatively unavoidable triggers for migraine. Stress and hormones trigger migraines, too.

But that doesn't mean you suffer each and every time you're exposed to every one of these influences. In your brain is a control center for migraine that receives input from the many triggers contributing to headaches. These triggers stack up, and the height of that stack reflects not only your level of recent exposure to weather changes, stress and hormones, but also a multitude of other, more readily avoidable triggers -- such as a variety of common dietary items, certain medications, and sleep deprivation.

If this total trigger level rises above your personal limit of tolerance -- your individual migraine threshold -- migraine is set into motion, generating painful swelling and inflammation of blood vessels somewhere around your head, face and/or neck, to

some degree. The degree of headache (or facial pressure and congestion, or neck stiffness) depends on how high above your threshold your trigger level has climbed.

In other words, most headaches are forms of migraine, including those labeled "sinus" and "tension." And all forms of migraine can be controlled, by keeping your trigger level below your threshold.

Q: Both my mother and older sister suffer from frequent migraines, and my younger sister has had migraines, but infrequently. I can remember having one migraine -- several years ago after strenuous exercise. What hereditary factors explain why I have not yet had the migraine trouble that my sisters and mother have? -- *Lindsay Schack, Bozeman, Mont*.

Everyone's migraine threshold is largely hereditary, but as in your case, that doesn't always breed perfectly true. If you come from a headache-prone family, you're more likely to have a low migraine-threshold, which is easily crossed, making you more vulnerable to headaches. Whereas lucky people with high thresholds are relatively resistant and have headaches only once in a blue moon.

Article continues below

Aside from some degree of genetic variability even within families, differences in headache activity among kin also relate to varying trigger loads based on differences in diet, medications (such as hormonal contraception or replacement therapy, and certain antidepressants and anti-reflux drugs), and sleep and exercise habits.

Also, many people -- perhaps including your mother and older sister -- unknowingly aggravate their natural headache tendencies by taking certain headache medications that may seem to help short-term but make your next headache more likely to occur. These drugs gradually depress your migraine threshold, making it easier to cross and thereby leading to rebound: a vicious cycle of worsening headache frequency and severity, and escalating drug dependence (plus decreasing response to the drug).

Q: My wife complains of headaches from time to time. Because she thinks her headaches are sinus headaches, she insists on taking a Tylenol sinus medication rather than just plain Extra Strength Tylenol. Do you think it matters which she takes? -- *Don Cochran, Senoia, Ga.*

Very much so. Sinus medications that contain decongestant ingredients -- Tylenol Sinus, Sudafed, and many others -- produce rebound thereby making headache problems worse, yet most people in this situation don't realize what's happening to them.

It's true to say that allergies cause itchy eyes and sneezing, but the notion that allergies cause headache has largely been debunked. Often so-called "sinus" headaches, such as your wife's, are not due to allergy, or infection, or anatomical blockage, but instead result from migraine, which by generating blood-vessel swelling in turn causes feelings of fullness and pain behind your face and in your head. These uncomfortable sensations are routinely misdiagnosed as a sinus problem, and therefore mistreated as such.

Decongestants temporarily constrict the swollen blood vessels, thereby providing temporary relief, but after the constricting influence wears off, the vessels tend to swell again with a vengeance. Over time, and more and more with repeated drug exposure, rebound-causing decongestants in effect depress your migraine threshold, making it easier and easier to cross.

Over-the-counter drugs that lead to rebound also include those containing caffeine (Excedrin and others). But plain acetaminophen or aspirin (without caffeine) and anti-inflammatories (ibuprofen and naproxen) do not cause rebound. A host of prescription quick-fix headache drugs cause rebound, including triptans (Imitrex,

Relpax, Zomig), butalbital compounds (Fioricet, Esgic, Phrenilin), isometheptene compounds (Midrin), ergotamines (Migranal), narcotics (codeine, oxycodone and others) and narcotic-like drugs (Ultram).

Q: My doctor says not to worry about Imitrex for rebound, but your study reflects differently. How can I prevent rebound with Imitrex when I often have a headache for a full week? -- *Susan Barry, New York City, NY*

It's not only headache sufferers who tend to get lost by wandering down paths of least resistance in dealing with headaches -- that is, by taking a quick-fix, painkiller approach (which predictably backfires as rebound develops). Many doctors also find it easier to quickly dispense prescriptions for Imitrex and other such drugs, rather than undertaking the more time-consuming and laborious (though ultimately rewarding) process of educating their patients to prevent headaches. Accordingly, doctors often tend to downplay the problem of rebound, because facing it fully would make their jobs more challenging, at least in the short run.

If you limit your use of rebound-causing drugs to no more than two days per month, you can avoid the vicious cycle of rebound; that safe infrequency of usage allows you to recover from the threshold-depressing effect of your last drug exposure. It's critical to avoid rebound, because rebound undermines your response to migraine-preventive measures.

Q: I was advised in the short run it would be better for me to take, in my case, Frova, to stop my migraines rather than Advil and Tylenol, because with too much use they sort of change your brain and increase rebound headaches. But the long list of side effects for the prescription medicine, including heart attack risks, makes me concerned to use it for the three to four migraines I get each week. What are the real risks of relying too much on the prescription migraine meds? -- *Darcy Carter, South Burlington, Vt.*

The real risk of Frova and other triptans is not a heart attack; it's rebound, especially if used as often as three to four times each week! Advil and Tylenol, on the other hand, are safe (in terms of rebound).

A recently popularized notion promoted by pharmaceutical companies that market triptans is that headache sufferers should take a triptan as early as possible in the course of migraine, the idea being that if you don't quickly put out the fire, migraine will (in effect) burn holes in your brain and thereby beget more migraine. In truth, it's not so much migraine that begets migraine, it's rebound -- from triptans and other such drugs -- that begets migraine.

Q: I have seen two separate neurologists, both well-respected in the San Francisco Bay area and nationally, and received two conflicting views on my migraines. Both said I had migraines with aura, but one claimed that the food I ate and my lifestyle, i.e., exercise, could trigger the migraines. The other said it was purely hereditary and that I could not affect it with diet or lifestyle. Do you believe that all migraines are affected by nutrition? -- *Steve Xeller, San Francisco, Calif.*

I think the second neurologist has it half-right: What's (largely) hereditary is your migraine threshold. But in addition to having the power to avoid depressing your threshold (by avoiding rebound), you can also keep your trigger level down -- below your threshold -- and thereby control your headache tendency, through diet, sleep and exercise.

Dietary triggers are especially important for three reasons. First, they are both prevalent and potent, and collectively make up a major component of your total migraine trigger load. Second, on your own you aren't likely to recognize most of these food items (for good reasons, such as the potential delay of up to a day or two in their impact, and the constantly fluctuating level of other triggers at the time of dietary intake). Third, you can -- for the most part -- choose what not to eat and drink, and thus avoid these influential triggers.

Getting enough sleep (eight hours on a regular basis) is something else you can largely control. And cardiovascular exercise -- 30 minutes or more, at least three to four days a week -- both helps as a stress reliever (thereby reducing that component of your trigger load) and stimulates production of brain endorphins, chemicals that naturally inhibit migraine so as to raise your threshold to where it's not as readily crossed.

Q: I've often noticed that I feel slightly allergic after eating foods like cheese, nuts, veggie burgers and red wine. Can these foods cause allergies and headaches other than migraines? *-- Laura Jones, Takoma Park, Md.*

Your frequent headaches may not be "classic" migraines (with a visual aura of flashing lights), but they are a form of migraine nonetheless. When you feel "slightly allergic," you're really feeling "slightly migrainey." You're quite correct that the food items you mention are triggers, but by acting through the mechanism of migraine, not an allergic process.

(See tables, "Dietary Triggers" and "Potential Sources of MSG," and "What About Soy?", published in Buchholz's book, "Heal Your Headache".)

Q: How long might it take to see results from a diet change? I'd like to commit to an amount of time so that I'll be able to stick with it. *-- Joy Williamson, Austin, Texas*

You can usually determine your response to the diet within the first two months. It works best if you follow the diet as strictly as possible in the beginning. After you've then maintained satisfactory headache control for at least four months, you can carefully experiment with reintroducing potential triggers and see what happens. Caffeine withdrawal may result in a temporary rise in headaches for up to a few weeks at the beginning, and once eliminated, caffeine should not be reintroduced.

You must also eliminate rebound-causing drugs -- or at least limit their use to more than two days total per month -- in order to respond to preventive treatment. If after two months of dietary modification (plus adequate sleep and exercise) you still aren't satisfied with headache control, you should maintain those steps but would then be a candidate for the addition of medication taken on a daily basis in order to prevent migraine.

Q: I see from your list of dietary triggers that less-than-one-day-old homemade bread is not OK. Is homemade bread OK after one day? Are store-bought breads, such as Earthgrains, OK? Also, are there keywords

we should look for on cake-mix boxes, etc.? -- *Ann Phelan Lee, Manhattan, Ks.*

The triggering effect of fresh, yeast-risen baked goods (breads, bagels, donuts, pizza dough, soft pretzels and coffeecake) dissipates after a day out of the oven. Store-bought breads and cake mixes are usually not a problem.

Q: My nine-year-old daughter is being raised vegan and she's been eating soy products and drinking soy milk regularly for years. About once a week she gets a migraine. We haven't tracked soy intake and the occurrence of a migraine. We will now. What would you suggest as a substitute in her intake? -- *Fred Piaskowski, Pinckney, Mich.*

Soybeans contain tyramine, a natural headache trigger, so all soy products have some headache potential. As soy is processed in the manufacture of certain products, and soy protein is thereby broken down (hydrolyzed) into its constituent amino acids, glutamate is released, and monosodium glutamate (MSG) -- a potent migraine trigger -- is formed.

Soy products that are more highly processed (fermented, cultured) such as miso and tempeh -- and "soy protein isolate/concentrate" in protein supplements and energy bars -- are potentially stronger triggers than those at the less-processed end of the spectrum, but even soy milk and tofu can be culprits for some people.

Drinking soy milk every day but not having a headache every day does not mean that soy milk is not a contributing factor. Whether a headache occurs relates to your total trigger load on a given day, which in turn depends on fluctuating levels of a multitude of other, nondietary triggers, most of which are far less avoidable than what you choose to eat and drink.

I think, ultimately, if your daughter cannot successfully control her headaches by avoiding other dietary triggers while continuing to consume soy products (because as a vegan that's her necessary protein source) that you and she will be faced with three choices. First, for her to continue to suffer from headache. Second, for her to relax her vegan restrictions to allow enough other protein sources (such as seafood, eggs, milk,

cottage cheese, seeds and certain beans) in order to avoid reliance on soy. And the third option would be for her to take preventive medication. My vote would be for the second option.

Q: What is the body trying to do when vomiting is associated with migraine and has this anything to do with trigger foods and substances? -- ***Lois Ropar, Bedford, Ohio***

Doctors aren't sure why migraine causes vomiting, just as doctors don't know why migraine causes any of the associated symptoms, including headache. Dietary triggers do serve as contributing factors, but not in the sense that vomiting is an attempt to rid the body of those triggers after the fact. Other common associated symptoms of migraine include sensitivity to light, noise and odors; trouble concentrating; fatigue; and a variety of forms of dizziness and visual disturbance.

Q: What advice would you give when migraines occur regularly with menstrual cycles? Also, do you have any advice for pregnant women who get migraines? -- ***Linda Carolei, Los Angeles, Calif.***

The tendency for women to be headache-prone with menstrual periods is natural, but menstrual headaches can be avoided.

Sometimes hormonal contraceptives are prescribed in an attempt to relieve menstrual headaches by smoothing out cyclical hormonal fluctuations. This may flatten your menstrual headache spikes, but it tends to give rise to increased headaches overall, and so the prescription backfires. A better approach is using diet, sleep and exercise as preventive headache measures, and the degree of required dietary restriction can be adjusted according to where you are in your cycle.

Triptans can be used safely for menstrual headaches as long as doing so is kept below rebound frequency -- no more than two days a month. Plain acetaminophen or aspirin (without caffeine), or ibuprofen or naproxen, can be taken as needed without rebound concern. If necessary, migraine-preventive medication can be added on a daily basis, and the dosage can be increased temporarily around your periods.

Migraine is variably affected by pregnancy, but often in a favorable way (especially after the first trimester). In light of all the more reasons to avoid medication during pregnancy, diet, sleep and exercise are the best tools for preventing headaches in that setting.

Q: It seems as if all of the foods I enjoy eating are on your list! Do those who cut out the migraine trigger foods and have success end up adding foods back in gradually? -- *Joan Newhouse, Corvallis, Ore.*

By doing the right things -- including avoiding rebound and following the diet -- you can not only control your headaches, but in the future be able to relax the diet to at least some degree if you so wish, and find a comfortable long-term balance between livable dietary restriction and satisfactory headache control.

Q: I am a college senior getting ready to graduate and start my career in less than a month. My migraines were pulling me out of classes two-to-three times a week. I have changed my diet with the usual no MSG, chocolate, red wine, etc. I am also currently taking 360 mg of verapamil and 150 mg of Coenzyme Q10 daily. I use Maxalt when I feel a headache coming, but it is not always successful. Is there anything else I should be doing? I'm terrified to start work because it isn't like missing class. -- *Laura Connor, Pullman, Wash.*

If you're taking Maxalt more than two days per month, you're undermining your response to your current dietary modification and preventive medication (verapamil and -- questionably -- CoQ10). Beyond that concern, the optimal migraine diet is more than just "no MSG, chocolate, red wine, etc." A number of seemingly healthy, often overlooked foods contribute to headaches, including citrus, bananas, yogurt, onions, nuts, and many more.

Are you sure you're getting eight hours of sleep on a regular schedule? Exercising routinely? Finally, other preventive medications (a tricyclic antidepressant, Depakote, Topamax, or a beta blocker) might be worth considering, but only if necessary, and it's not clear that you've demonstrated the need.

Q: I've been diagnosed with vestibular migraine, which seems to be worse in the spring and summer. Could it be triggered by a food or plant allergy? Any ideas for treatment? -- *Loretta Siciliano, Los Angeles, Calif.*

Dizziness in various forms -- lightheadedness, wooziness, imbalance, or even vertigo, a spinning sensation -- is often due to migraine, i.e. the swelling of blood vessels, with or without headaches, and is sometimes labeled "vestibular migraine." More often, unfortunately, migrainous dizziness is misdiagnosed as something else altogether (such as an "inner ear" problem, or "Meniere's"), and consequently is mistreated.

Once again, effective treatment for migraine-related dizziness is the same as for any form of migraine. Food does have a lot to do with it, but by means of triggering the mechanism of migraine, not through an allergic process.

Q: I have been diagnosed with cluster migraines, and I found no relief, despite heavy use of drugs and bills totaling $5,000. Then I attended acupuncture sessions from a local Chinese school of medicine. After three sessions I began to realize the timing and pain of my headaches were weakening. Today, I am headache free and have not taken anything out of my diet. My question: Why does Western medicine exclude the use of acupuncture? -- *James Callender, Austin, Texas*

As much as I'm glad you're doing well, and I occasionally hear similar stories, I'm unconvinced that acupuncture is the answer to headaches. I have no strong objection to trying it, except that I worry that going off in such a direction can distract a headache sufferer from successfully addressing what I see as the two key battles: avoiding rebound and reducing exposure to dietary triggers.

I don't entirely agree with your view that Western medicine currently "excludes" acupuncture; Western medicine historically has not embraced what are considered unconventional methods, but that's slowly changing. I do share your frustration over the failure of generally accepted medical practice to enable headache sufferers to gain headache control -- failure that largely stems from over-dependence on quick-fix drugs, and underestimation of the power that people hold in their own hands to control headaches through personal behavioral changes.

Q: How can we find a doctor to treat migraines in our local area? I live in the greater Louisville, Ky. area. -- *John Jones, New Albany, Ind.*

You may not need a doctor in order to treat migraine. I think doctors sometimes make matters worse, by encouraging the use of rebound-causing triptans and other such drugs, and many doctors are not able or inclined to guide you to prevent headaches.

Your ability to prevent headaches is primarily up to you, by avoiding rebound and reducing your trigger load through diet, sleep and exercise. If you also require the final step, preventive medication, you don't necessarily need to see a headache specialist; your primary doctor can prescribe according to the guidelines in the accompanying table.

NPR: Several listeners wrote in questioning whether soy products actually release MSG. Buchholz's response:

Glutamate -- an excitatory neurotransmitter -- is one of the amino acids that is released when soy protein is broken down (hydrolyzed) as soy is processed into certain products. There's debate as to the relative triggering effect of free glutamate vs. monosodium glutamate, and it's also unclear (at least to me) whether the glutamate liberated by protein hydrolysis doesn't just combine with sodium to form MSG.

NPR: We also received e-mails pointing out that white wine, which isn't on Buchholz's dietary triggers list, can have more sulfites than red wine, which is on the triggers list. Buchholz's response:

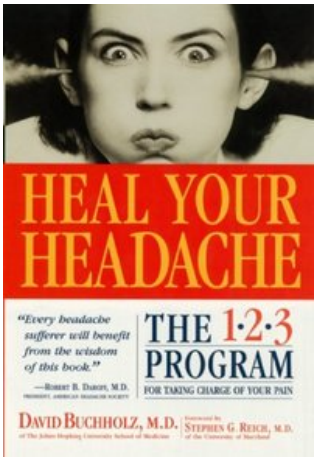
Sulfites are one of the many chemical triggers in wine, and they're not specific to reds. The tendency for red wine to be more headache-provoking than white is because of the higher concentration of phenols, tyramine (and related amines), alcohols other than ethyl, and perhaps other so-called congeners in red vs. white wines.

Dr. David Buchholz is a neurologist and associate professor at Johns Hopkins University School of Medicine. He is also author of ***Heal Your Headache: The 1-2-3 Program for Taking Charge of Your Pain****.*

Related NPR Stories

Ah, My Aching Back! March 20, 2006

Books Featured In This Story



Heal Your Headache

The 1-2-3 Program for Taking Charge of Your Pain

by David, M.D. Buchholz and Stephen G., M.D. Reich

Paperback, 246 pages

purchase

More Stories From NPR

SCIENCE

'It's Going To Get Worse': How U.S. Countertop Workers Started Getting Sick

HEALTH

The Loudness Of Vowels Helps The Brain Break Down Speech Into Syl-La-Bles

Popular on NPR.org

ANALYSIS

5 Takeaways From The 5th Democratic Debate

POLITICS

Impeachment Hearings Wrap As Fiona Hill Slams GOP's 'Fictional' Ukraine Account

ANALYSIS

Key Takeaways From Gordon Sondland's Watershed Impeachment Hearing

ELECTIONS

Democratic Debate: Live Fact Check, Analysis Of November's Faceoff

NPR Editors' Picks

POLITICS

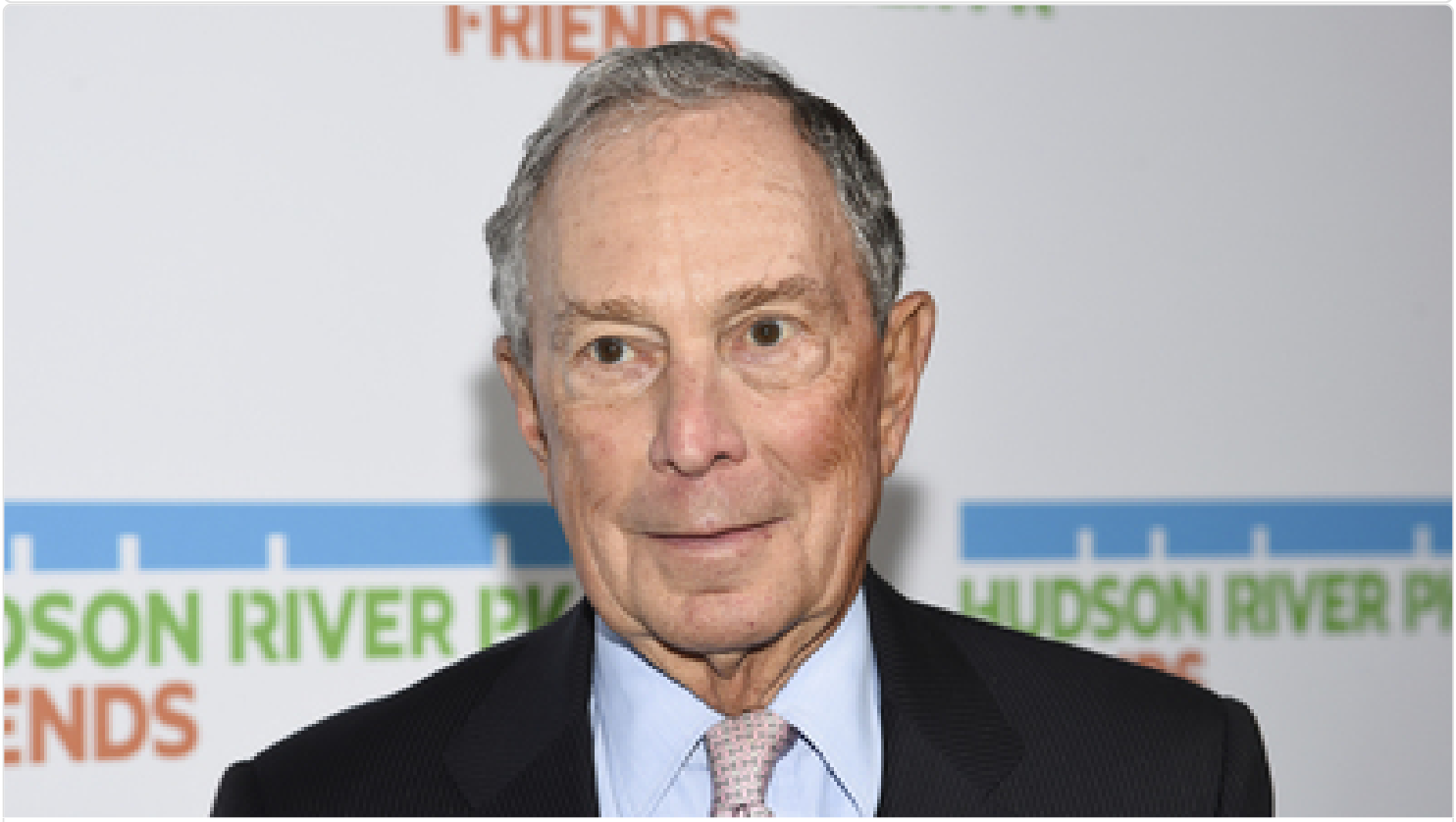
Senate Sends Short-Term Funding Measure To President Hours Before Government Shutdown

INVESTIGATIONS

Jury Acquits Aid Worker Accused Of Helping Border-Crossing Migrants In Arizona

TECHNOLOGY

Twitter Adds 'Hide Reply' Function To Try To Improve Online Conversation



POLITICS

Michael Bloomberg Takes New Step Toward Possible 2020 Presidential Run

READ & LISTEN

Home

CONNECT

Newsletters