

Why are we so afraid of getting a fever?

Did you know that under most circumstances, fever is beneficial, reducing the severity of illness and shortening its length

Among the many measures my local Y is using to prevent the spread of COVID-19, instant temperatures are taken with a forehead scanner before people can enter the building. Curious to know how “hot” I was one cold, rainy day, I asked the attendant what it registered: 35.66 degrees Celsius.

The last time my temperature was checked in a medical setting it was 36.38 degrees Celsius. Whatever happened to 37, the degree Celsius that I and most doctors have long considered normal body temperature?

As if reading my mind, Dr. Philippa Gordon, a Brooklyn paediatrician, sent me an article *People’s Bodies Now Run Cooler Than ‘Normal’* — Even in the Bolivian Amazon by two anthropologists, Michael Gurven and Thomas Kraft, at the University of California, Santa Barbara.

As they wrote in *The Conversation*, “There is no single universal ‘normal’ body temperature for everyone at all times.” Rather, body temperature varies, not only from one person to another, but also over the course of the day — lower in the morning, higher in the evening; rising during and after exercise; varying at different times in the menstrual cycle, and at different ages — lower for old-timers like me. Aha!

Furthermore, researchers who took hundreds of thousands of temperature readings from people in Palo Alto, California, found that 36.38 degrees Celsius was the new normal, down about a degree from what the German physician Dr. Carl Wunderlich established in 1867 in a study of 25,000 people. (Wunderlich’s research did find that “normal” body temperature ranged from 36.22 to 37.5 degrees Celsius.)

In reviewing data from 1862 through 2017, Dr. Julie Parsonnet, a professor of medicine at Stanford University School of Medicine, and



co-authors found a steady decline in average body temperature of about -17.75 degrees Celsius per decade. She has observed that at least 75 per cent of normal temperatures are now below 37 degrees Celsius.

If my body temperature registered 37 degrees Celsius, would that mean I have a fever? Possibly, said Sharon S. Evans, a professor of oncology and immunology at Roswell Park Comprehensive Cancer Centre in Buffalo, New York, even though 38 degrees Celsius, is generally considered the lower end of the fever spectrum.

In a review written with two colleagues, Elizabeth A. Repasky and Daniel T. Fisher, Evans showed that under most circumstances, fever is beneficial, reducing the severity of illness and shortening its length. (She emphasized, however, that patients should follow their doctors’ advice about taking medications to reduce

fever.)

“Fever acts to mobilize multiple arms on the immune system, a function that is remarkably well conserved across many, many species — both warm-blooded and cold-blooded,” she explained in an interview. “Fever affects every aspect of the immune system to make it work better.” For starters, Evans said, fever activates innate immunity — the mobilization of white blood cells: neutrophils that patrol the body for pathogens and macrophages that gobble them up. Macrophages, in turn, send out an alarm that help is needed, prompting adaptive immunity — T cells and B cells — into action. These cells initiate a specific response to the invader: the production of antibodies days later. “Treating fever can prolong or worsen illness,” Dr. Paul Offit, vaccinologist at the University of Pennsylvania, stated in Hip-

ocrates Was Right: Treating Fever Is a Bad Idea, a fascinating YouTube presentation by the College of Physicians of Philadelphia.

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“Fever enhances survival,” Offit reported. That accounts for its persistence throughout animal evolution, even though it exacts a significant metabolic cost. Immunity, both innate and adaptive, “works better at higher temperatures,” he said.

Thus, when you take medication like acetaminophen (Tylenol and its generic forms) or ibuprofen to suppress a fever, you actually work against the inherent protective benefits nature bestowed. Yes, a fever reducer would likely make you feel better, relieving symptoms like headache, muscle aches and fatigue. But, Offit emphasized, “You’re not supposed to feel better. You’re supposed to stay under the covers, keep warm and ride out the infection,” not go out and spread it to others.

“We have fevers for a reason,” he said. Fever helps to reduce viral shedding and shorten the length of illnesses like the flu.

Grandma’s proverbial common cold remedy of hot chicken soup likely helps because the steam raises the temperature of nasal passages, repressing reproduction of the virus, he suggested. Evans and colleagues wrote, “The fact that fever has been retained throughout vertebrate evolution strongly argues that febrile temperatures confer a survival advantage.” This is true for invertebrates like insects as well. And when

coldblooded animals like lizards or bees get sick, they try to raise their body temperature by increasing physical activity or seeking a warmer environment, Evans said. So why are we so hell-bent on suppressing fevers? Fear is one reason, said Gordon, the Brooklyn paediatrician, who said frantic parents often call in the middle of the night when a child’s fever spikes. She suggested that doctors warn parents ahead of time to expect a night-time rise in a child’s fever and explain that high fevers

from an infection are not damaging.

“The body has a built-in thermostat — the hypothalamus — that keeps temperatures from getting high enough to cause damage,” she said, and febrile seizures (brief convulsions, shaking and perhaps loss of consciousness that affect some young children) result from how fast temperatures rise, not how high they get. In a genetically susceptible child, a seizure can occur when the temperature rises quickly even at low temperatures, say, from 37.22 to 38.22



Rethink your relationship to alcohol if it causes weight gain, anxiety and sleep impairment



Seven years ago, Laura McKowen started a drinking journal. She knew alcohol was an issue for her — she knew it when her 4-year-old daughter helped her clean up the morning after a blackout, and she knew it the 10th time she drove to work hung over — but she needed to see it.

“Something very interesting happens when we put things on paper,” McKowen said, “because we have a lot of cognitive dissonance around drinking.” She couldn’t deflect around what she saw on the page, though: Two bottles of wine a night. She got sober, and went on to help others do the same through coaching and teaching workshops.

Last January, McKowen published *We Are the Luckiest: The Surprising Magic of a Sober Life* and in March, she began hosting free sobriety support meetings on Zoom. By May, she had 12 employees and a company called *The Luckiest Club*, which offers classes and access to its community.

It’s no surprise McKowen found an eager client base. According to the 2019 National Survey on Drug Use and Health, more than 14 million American adults suffer from alcohol use disorder (AUD), which is a term medical professionals prefer to alcoholism.

You don’t need an AUD diagnosis to find your drinking problematic, though. Alcohol can impair sleep, cause weight gain, exacerbate anxiety, or subtly change your personality. A study conducted by the RAND Corporation in September suggests

Americans are drinking 14 per cent more often in response to pandemic-related stress, especially women, whose heavy drinking days increased by 41 per cent in 2020.

“When we go to work every day during non-pandemic times and don’t have an inordinate amount of stress, it’s fairly easy”



to limit drinking to Friday nights, said James G. Murphy, a psychology professor and researcher at the University of Memphis who published a paper in November about alcohol and drug use during the pandemic. “When all of that structure is ripped away — when you’re worried about finances and your kids’ home-schooling and you don’t have to be anywhere in the morning, so no one will see if you’re hung over — alcohol can be way more difficult to manage.” This is one reason you might be seeing more Dry January hashtags in your social media feeds this year. One month

off from drinking can be an opportunity for the sober-curious to examine their alcohol use.

If any of this sounds familiar, here are some suggestions to help you navigate your relationship with alcohol or bring it to an end.

Take note of how much you’re drinking, as well as the pros and cons of that consumption. Are



you opening that bottle of Riesling because it pairs well with your Chinese takeout, or are you hoping the third glass will drown out those voices in your head that are telling you you’re mediocre? Study your own habits — and be honest about them.

To give you some perspective, the federal government’s 2020-2025 US Dietary Guidelines for Americans recommend no more than one drink per day for women or two for men (though some suggest fewer), and Dr. Murphy suggests the free alcohol screener at the website *CheckUp & Choices*. Take the questionnaire, which is

used by health care providers, and use the score to assess your drinking. Similarly, *Drinks Meter* is an app with a daily calculator that helps put your own behaviour into perspective using an anonymous database of over 6,000 people’s drinking habits worldwide.

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“You don’t have to have things figured out, aside from wanting to make a change,” said Holly Whitaker, the author of *Quit Like a Woman: The Radical Choice to Not Drink in a Culture Obsessed with Alcohol* and creator of an online AUD recovery program called *Tempest*. “You’re doing it right now, by being brave enough to read this article.”

Reimagine your relationship with alcohol. **CABINET**

If you’ve decided alcohol is having a negative impact on your life, try distancing yourself from it for a while. Remove bottles from your physical spaces and booze-related content from your virtual ones. Cleanse your phone and computer of anything that might tempt you to drink.

It’s not about having a siloed existence or avoiding anything that creates an urge to drink, said McKowen, it’s about dismantling the myth that drinking is what makes life fun. “You want your online world to reflect the energy of where you’re going,” she said.

Then try not to drink for a month. Pick a date and stick with it. Experts say this is the best way to evaluate your alcohol use, and it’s a jump start on reducing your consumption, if that’s what you decide to do. “Detoxification literally means removing the toxin,” said George F. Koob, director of the National Institute on Alcohol Abuse and Alcoholism. This can be done on your own unless you have moderate to severe AUD, in which case you should seek medical help. Untreated severe alcohol withdrawal can be fatal. —AFP

Here’s how teens are using COVID-19 downtime to connect, distract or reflect

When pandemic-weary adolescents get to take a break, what should they do with themselves? The main aim, of course, should be to feel better after the break than before it. But different downtime choices lead to

different kinds of relief. Adolescents (and adults) might want to reflect on the options for how they spend their free time — whether they’ve got 20 spare minutes today or can anticipate more unscheduled time in the weeks ahead.

Here’s a look at three ways teenagers tend to spend their downtime, and the particular benefits and challenges that come with each.

CONNECTING WITH THE WORLD DIGITALLY

Young people often use their downtime to text with friends or check their social media accounts — and with good reason. Particularly under the restrictions of the coronavirus pandemic, teenagers rely on these platforms to connect with peers and to keep up with headlines.

Spending time online might deliver the boost of an amusing exchange with a friend, a clever meme or good news about a favourite sports team. If it does, that makes for a restorative break.

But, of course, it can go another way.

Checking in on social media or the 24-hour news cycle is the psychological equivalent of sidling up to a slot machine. Hitting the jackpot — receiving digital love from a friend or finding an encouraging update about a vaccine — feels good. Pulling the lever and losing — whether that’s your messages being “left on read,” meaning the recipient doesn’t respond, or catching a depressing headline — is pretty much bound to happen from time to time.

For teenagers, especially in the context of the pandemic, turning to social media as a way to recharge can be a high-stakes gamble. Jill Walsh, a Boston University sociologist who studies technology use among adolescents, finds that having fewer in-person interactions has left many teenagers feeling “incredibly uncertain about their friendships.” Previously tolerable ambiguity in communications can now be highly distressing. Walsh notes that “getting a text that simply reads ‘k,’” — shorthand for OK that can be read as friendly, curt or angry — “can create a huge amount of emotional labour as a kid tries to figure out what it means.”

Before defaulting to downtime scrolling, teens might weigh the possibility of seeing a mood-lifting post against the chance that they’ll run into something distressing. A well-spent break should help to ease the mind; it shouldn’t open new tabs to worry over in our mental browsers.

GETTING LOST IN DISTRACTIONS

There’s a lot to be said for taking occasional, all-consuming mental vacations, especially during a pandemic. Research on chronic stress shows that engaging, happy distractions, such as competing in a sport or losing oneself in a movie or a book, can help young people weather persistently difficult circumstances.

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In fact, transporting diversions can be useful in two ways at once. According to Zoccola, they both draw our minds away from negative events that can trigger our biological stress response and at the same time pull them toward positive experiences that may prompt the release of natural mood-improving substances in the body that work much like opioids to help us feel better. That said, it’s possible to have too much of a good thing. While pleasant distractions provide valuable mental and physiological breaks from stressful conditions, “my hesitation with recommending distraction,” Zoccola said, “is that while it can get people out of the moment, if it goes on too long, that might prevent folks from addressing an issue, or might create a new one.” —AFP

