

Why taking fever-reducing meds and drinking fluids may not be the best way to treat flu and fever

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As flu season progresses, so does the [chorus of advice](#), professional and otherwise, to drink plenty of fluids and take fever-reducing medications,

like acetaminophen, ibuprofen or aspirin.

These recommendations, [well-intentioned and firmly entrenched](#), offer comfort to those sidelined with fever, flu or vaccine side effects. But you may be surprised to learn the science supporting these recommendations is speculative at best, harmful at worst and comes with caveats.

[I am an exercise physiologist](#) who specializes in studying how the body regulates fluids and temperature. And based on a wide body of evidence, I can tell you that increased [fluid intake](#) and taking fever reducers, whether aspirin, acetaminophen or ibuprofen, may not always help in your recovery. In fact, in some cases, it could be harmful.

There's a reason why people say fevers should be lowered when sick or after a vaccine. Both aspirin and acetaminophen, such as Tylenol, [reduce fever, headaches and muscle aches](#). But at the same time, [seminal and newer studies](#), including broad meta-analysis studies, show that [these medications](#) may weaken the [immune response](#) to infection or [have unwanted side effects](#).

What is a fever?

First, some background: Fevers are a regulated increase in [core body temperature](#) as a response to unwanted microbial invaders. The more [severe the infection, the higher the fever](#).

Having a fever is not all bad; it's how the body has evolved to recuperate from an infection. For many species, [fevers are advantageous](#) and beneficial for survival.

But fever comes with a cost. A body temperature that's too high can be deadly. For every increase of 1.8 degrees Fahrenheit, metabolism goes

up 10%; the body begins to burn more calories than normal, temperature continues to rise and the [body releases hormones](#) to keep fever under control.

Many studies demonstrate what can happen when fever reducers are thrust into this complex dance. It turns out aspirin or acetaminophen may cause infected people to feel better, but they also spread more virus while suppressing their own immune response to the infection.

In one double-blind, placebo-controlled study, healthy people infected with a cold virus [who took aspirin or acetaminophen](#) for a week had a reduced immune response and an increase in viral shedding—meaning producing and expelling virus particles from the nose. Another study showed that taking aspirin effectively reduced fever symptoms but [increased shedding](#).

Although some of those traditional studies took place decades ago, their results still hold up today. A recent study warned that if everyone took fever suppressants, there would be even [more flu cases and flu-related deaths](#). Furthermore, elevated body temperature—or fever—can help fight COVID-19 by reducing the [growth of the virus within the lungs](#). In other words, fevers can help the body fight viruses while reducing the rate of death and disease.

Drinking fluids

To prevent dehydration, the Centers for Disease Control and Prevention recommends drinking more fluids when one [has a fever or infection](#), or has received [a COVID-19 vaccine](#). But there is [scant scientific evidence](#) to support this recommendation.

It's true that drinking fluids when dehydrated is [necessary to reduce fever](#). But not everyone with a fever is dehydrated. For those who aren't

thirsty, forcing fluids [beyond thirst](#), which is often unpleasant, may not be advisable.

A study [that evaluated the advice](#) to "drink plenty of fluids" determined that increasing [fluid](#) intake when sick may not offer benefits, and that more high-quality studies are needed. Indeed, there was a potential [risk from overhydration](#). For some people, three liters, or about 12 eight-ounce glasses, is too much. Overhydration can cause nausea and vomiting, headaches and cramps; in severe cases, [excessive fluid intake](#) can cause seizures or coma.

Here's why this happens. To stop dangerous escalations in fever, the body releases antidiuretic hormones. Urination is diminished, so [the body retains water](#) through the actions of the kidneys. So if someone with a fever drinks more water than necessary, water intoxication—or hyponatremia, a potentially fatal medical condition in which a patient's blood sodium levels are too low—could follow.

One study found that nearly a quarter of patients who came to the hospital with COVID-19 had [hyponatremia upon admission](#). In that study, hyponatremia increased the need for breathing support in the form of ventilation. And another study showed that the condition can lead to [poorer outcomes in COVID-19 patients](#).

So maybe it's time to rethink the conventional wisdom. If the fever is mild or moderate, stay warm, even use blankets, rather than try to actively reduce it. Rest, so your [body](#) can fight the fever. Conserve energy because your metabolism is already on overdrive. Use fever-reducing medications sparingly. Drink fluids, but only to tolerance, and preferably when thirsty.

And one final suggestion that should be soothing: When fighting a fever or vaccine side effects, consider sipping warm liquids that contain

sodium. Broths containing sodium, like bullion, [may help avoid hyponatremia](#). And although the actual scientific evidence is sparse and conflicting, [chicken soup](#) may be a better antidote than water when fending off a [fever](#) or flu symptoms.

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