90% of People Agree on Antibiotics. New Evidence Says They May Be Wrong

5 MIN READ

SEP. 4, 2026

BY DANN ALBRIGHT, CSCS

Common medical practices around antibiotics might be wrong. Here’s what to ask your doctor.

Think of a piece of health advice you consider set in stone. For a lot of people, one comes to mind immediately: take your full course of antibiotics, and never skip a dose.

A **recent survey** on beliefs around antibiotics published in *Open Forum Infectious Diseases* found that almost 90% of adults believe they should finish their antibiotics, even if they feel better.

Most respondents also preferred longer courses of antibiotics to shorter ones, believing that those courses are both safer and more effective. Less than 20% of respondents said they’d ever been told to stop a course of antibiotics when they felt better.

There’s a reason for this. Messaging around antibiotics has, for a very long time, largely focused on getting people to finish out their prescriptions. “Since penicillin was first used in the 1940s,” the study says, “clinicians and public health campaigns have consistently advised patients to ‘always finish the full course of antibiotics,’ even if they start to feel better.”

But does the research back that idea up?

Increasingly, experts are calling into question whether a longer course of antibiotics is the right course of action, and probing the cases in which patients or populations might benefit from stopping sooner. Here’s how the science is evolving, and what it may mean for your next prescription.

ADVERTISEMENT

How Doctors Decide On the Length of Antibiotic Courses

Let's take a quick detour and consider how most doctors decide the length of an antibiotic course. Some **recommendations** are directly informed by research comparing specific treatment lengths. But as Dr. John Ross, MD, FIDSA, an assistant professor of medicine at Harvard Medical School, writes for **Harvard Health Publishing**, there's less robust research in this area than you might think.

A satirical **article from 2010** — absolutely worth the few minutes' reading — provides a few rules of thumb for calculating the length of an antibiotic treatment. It's written for comedic effect, but also gets at something true: that the specific durations of antibiotics we're assigned are often arbitrary. As often as they're based on evidence, they're based on the rhythms our calendars already follow.

A **2021 scholarly review** corroborates the idea: "Historically, durations of antimicrobial therapy for common infections have been largely driven by habits or cultural norms rather than robust scientific data."

And, you'll notice that the scripts themselves often provide duration ranges rather than a single number of days. That's your first clue that much of what's prescribed really comes down to your doctor's discretion — and potentially your own.

The good news? Experts are increasingly treating the research we have as a starting point, says Dr. Alistair Thorpe, lead author of the survey article mentioned previously. "Clinicians now generally start with an evidence-based duration for that particular infection and then individualize it based on the patient," he tells Super Age.

Debunking the Antibiotic Assumptions

There are two key reasons that so many people agree on finishing antibiotics as prescribed. One affects the patient, while the other affects the population.

The first is the belief that a longer course of antibiotics will be more effective in killing the specific infection it was prescribed to treat. The second is the belief that following a longer course of antibiotics will help prevent population-level resistance.

Are Longer Courses More Effective?

A **2017 review** in *Clinical Microbiology and Infection* explored whether short courses of antibiotics are as effective as longer ones. The answer they came to was simple: yes, they are.

The researchers looked at studies on pneumonia, urinary tract infections, skin and bone infections, pharyngitis, and more, and found compelling evidence that shorter courses of antibiotics worked as well as long ones.

Citing **another study published in *BMJ***, which looked at data on the length of treatment for infections like strep throat, cellulitis, and pneumonia, Dr. Ross agrees that in many cases, short courses of antibiotics tend to be equally effective. He highlights just one exception: kids diagnosed with middle ear infections benefited from 10 days of antibiotics instead of five.

“Today, we know that patients with bloodstream infections may require several weeks of antibiotics for cure, and those with active tuberculosis need many months of multiple antibiotics. But these patients are not representative of most people who receive antibiotics today,” he writes.

Some experts say there could be specific cases in which a longer course of antibiotics is beneficial: “Intuitively, it is entirely conceivable that, at the individual patient level, longer exposure to an effective antibiotic would help ensure that no secondary infection occurs due to pathogens remaining in the body after the treatment phase

ends," says Dr. Rainier-Numa Georges, author of a **journal article on antibiotic resistance**.

But for the vast majority of common infections, the new evidence appears to point in the other direction.

Are Longer Courses of Antibiotics Best for Public Health?

Beyond how they impact the individual patient, we should also consider how longer courses of antibiotics may affect us all in the big picture.

"At the population level, patients should not be overexposed to antibiotics, meaning beyond the duration of their own infections, without creating the risk to counter-select pathogens that are resistant to the given drugs," notes Georges.

As one study calling for the end of "finish the course" messaging puts it: "Most of us were taught that terminating antibiotics prematurely can lead to the development of bacterial resistance. This has proven to be a myth as mounting evidence supports the opposite. In fact, it is prolonged exposure to antibiotics that provides the selective pressure to drive antimicrobial resistance; hence, longer courses are more likely to result in the emergence of resistant bacteria."

How to Make Sure You're Taking the Right Course of Antibiotics

A shorter course can reduce side effects, conserve valuable medications, and have potential benefits for larger populations. But what is a "shorter course" and when should you advocate for one?

Unfortunately, it's all very relative. For some infections, a three-day course may be considered both short and effective. For others, it could be seven. That's why Dr.

Thorpe suggests talking to your doctor whenever you're being prescribed a course of antibiotics.

Here are four questions he recommends:

- "What is the shortest effective antibiotic course for my infection?"
- "Can you explain how often I should take this antibiotic and how many days I should take it for?"
- "Should we set a date to check to see whether we need to adjust or reconsider anything?"
- "What should I do if I experience side effects?"

Dr. Thorpe adds that it's also worth inquiring about the latest research, noting that oftentimes there's a delay between big conceptual breakthroughs and changes in clinical settings.

"Historically, many antibiotic durations were based on expert opinion and relatively weaker clinical evidence rather than on the randomized trials we have now. That's why we ended up with so many familiar 7-, 10-, and 14-day courses," Dr. Thorpe tells Super Age. "Over the past 25 years though, that has changed dramatically. More than 120 randomized controlled trials have compared shorter with longer courses for common infections, and again and again we've found that shorter courses work just as well when the patient is improving and receiving the right treatment," he adds.

By agreeing to a plan before you leave your provider's office and understanding what's informed your doctor's recommendation for prescription length, you can then stick to that plan with a little more confidence.

The Most Important Thing to Remember About Antibiotics

Antibiotics can be lifesaving. When you need them, nothing will get you back on your feet and prevent complications faster. But as with many other interventions, how

antibiotics are used should be tailored to your situation.

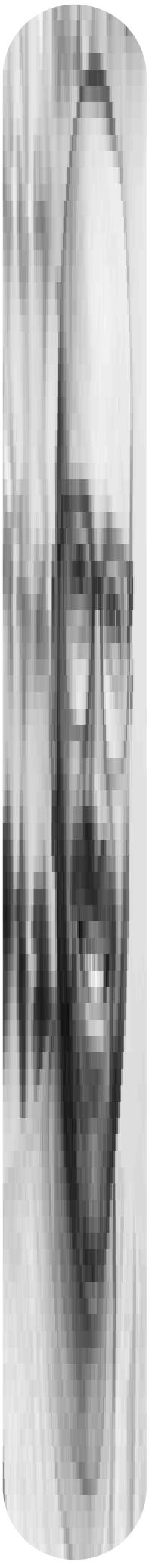
That merits a thoughtful conversation *before* you leave your doctor's office with a script in hand. But from there, the recommendation is simple: "If there's only one piece of advice to remember, see your doctor, take your drugs as prescribed, and get regular medical follow-up," says Dr. Georges.

And, if we may add just one more step: Keep an eye out for new developments in the research world as this fascinating field continues to evolve.

Read This Next:

*The information provided in this article is for educational and informational purposes only and is not intended as health, medical, or financial advice. Do not use this information to diagnose or treat any health condition. Always consult a qualified healthcare provider regarding any questions you may have about a medical condition or health objectives.**Read our disclaimers**.*

WRITTEN BY:



Dann Albright, CSCS