- Digestive system

How antibiotics and other meds can affect gut health

Experts offer advice on maintaining a healthy microbiome. Katy Gillett reports

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The gut – often referred to as the body's second brain – houses trillions of microorganisms that influence everything from digestion to mental health. However, this delicate balance can be easily disrupted by external factors, especially medication. While pharmaceutical intervention can be life-saving, experts have told The National that the effects of meds on gut health can sometimes result in long-term challenges.



Pills and other medication interact with the gut in various ways, whether beneficial or detrimental, according to Dr Maria Alonso, the UAE's first Dubai Health Authority-licensed preventative doctor, who works at Maison Sante, a gut-focused clinic.

These include commonly prescribed meds, such as antibiotics, antacids and certain diabetes treatments, which are among the biggest culprits behind gut issues.

"Whatever you take, will get into your gut and it might have an effect," Dr Alonso says. "It could be a good one or a bad one, depending on what is in there and what is the way of action, so it's important to be aware of that."

A vicious cycle

This was UAE resident Tia Maher's reality for years. She was diagnosed with irritable bowel syndrome, had seven stomach ulcers and chronic fatigue and found herself caught in a cycle of medication that ultimately exacerbated her condition. Her symptoms included skin issues, chronic thrush and a significant decline in energy. "I kept going to gastroenterologists and gynaecologists, and wondered what was happening to my body," she recalls. Doctors prescribed antacids for her ulcers and antifungals for the recurring yeast infections, but the root cause of Maher's symptoms – gut dysbiosis – remained unaddressed, she says.

Maher has since become a holistic health coach, working with people who, like her, have experienced first-hand the effects of medication on their gut. “I was on a lot of antibiotics and then I would have the probiotics thinking I’ve repopulated with the good stuff, whereas what actually happened was the entire microbiome had shifted,” Maher says. “I kept leaning on more meds to the detriment of my health.”

How antibiotics affect the gut

Antibiotics, often necessary for treating infection, are particularly disruptive, wiping out not only harmful pathogens, but also the beneficial bacteria that help maintain a balanced microbiome, says Dr Alonso.

“You get them when it’s necessary and nobody can question that the benefits of taking antibiotics are more than the side effects, and sometimes you have to tolerate this.”

Professor Giovanni Leonetti, a general surgeon at Dubai’s Cornerstone Clinics and teacher of gastroenterology at Unicamillus Health University of Rome, says antibiotic use has become particularly problematic because it “unintentionally upsets the delicate equilibrium of the gut microbiota”. This antibiotic-induced gut dysbiosis can set off a series of adverse reactions that result in a decline in microbial diversity and the creation of an environment that allows for the establishment of antibiotic-resistant strains, he says. “These disturbances impair immunity, colonisation resistance and metabolic homeostasis. They may also put people at risk of a number of illnesses such as diabetes, obesity, liver problems, cardiovascular disease and gastrointestinal disorders such as inflammatory bowel diseases.”

Supplementation and vitamin deficiencies

Dr Alonso says antacids and proton pump inhibitors (PPIs), which are used to manage acid reflux and heartburn, can similarly hinder the gut’s function. While PPIs suppress stomach acid, they also block the absorption of essential nutrients such as vitamin B12, magnesium and iron that, over time, can lead to fatigue, nerve issues and even cognitive problems, she says.

Metformin, a medication commonly prescribed for diabetes, can similarly impair vitamin B12 absorption, says

Dr Alonso. “Patients often come in wondering why they feel fatigued or have tingling in their hands, only to find that their B12 levels are critically low,” she says.

This can be challenging to rectify since such medication will also hinder nutrient absorption from oral supplements. “If B12 absorption is compromised, oral supplements won’t work,” she says. “You have to give it as an intramuscular shot or in a liquid form that, partly at least, is absorbed in your mouth and goes directly into the bloodstream, bypassing the gut.”

Oral supplements can also sometimes contribute to gut irritation, Dr Alonso adds. “People don’t realise that, for example, you take a multivitamin, or whatever, with all good intentions, and then it has magnesium stearate or silicon dioxide in it as well. And because you’re going to take it over a long period of time, that will irritate your gut,” she explains, adding that certain colourants and preservatives can also have an impact.”

Looking for brands that are ‘cleaner’ is always important, especially if you’re going to take something long-term.”

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UAE resident

Despite the challenges meds pose, solutions exist for maintaining a healthier gut while still addressing underlying medical issues. Experts advocate for a two-pronged approach: informed decision-making and proactive gut support.

Recognising the signs of gut issues early can prevent long-term complications, says Prof Leonetti. Symptoms such as persistent bloating, gas, constipation, diarrhoea and heartburn are clear indicators. Low energy, frequent infections, poor sleep and even mood disturbances such as anxiety and depression can also signal an unhealthy gut.

Dr Alonso advises patients to monitor nutrient levels closely when on long-term medication. If you're on a PPI, for example, or other meds that inhibit nutrient absorption for more than a month or two, she says you must check your vitamin levels and supplement appropriately under medical supervision.

Probiotics can also support gut health during antibiotic treatment, although the choice of probiotic matters. "Probiotics are not all made equal," Dr Alonso says, adding it should include a combination of bifidobacterium and lactobacillus.

"It's not only about the numbers – as you see these products with billions of bacteria – but how that probiotic will settle in your gut. That's why it's also recommended that it's already combined with a prebiotic, which is the food for that specific bacteria, so it sticks better in your gut." She adds it's also important that this combination doesn't contain fillers and additives, which can cause further irritation.

Lifestyle factors are key

While popping pills is unavoidable for many people, lifestyle adjustments can play a pivotal role in maintaining a healthy gut. "Our gut bacteria are influenced by what we eat," explains Prof Leonetti, who says the best way to maintain a healthy microbiome is to eat a range of fresh, whole foods, mainly from plant sources such as fruits, vegetables, legumes, whole grains and nuts. "It is also important to drink water, to eat slowly and limit ultra-processed foods such as ready-made meals, sugary desserts and packaged snacks such as chips," he adds.

Regular exercise is another powerful tool. Activities such as brisk walking or cycling can stimulate movement in the digestive system. "This mobility causes the stomach and intestines to contract, pushing food and waste throughout the system more efficiently," says Prof Leonetti. He's also an advocate of yoga. Not only can certain poses aid optimal digestion, but the practice is also proven to reduce stress – another contributor to gut imbalance.

While more information is continuously coming out about the role our gut plays in overall well-being, Dr Alonso is careful to emphasise that navigating gut health requires expert input. Gut issues can sometimes be symptoms of serious underlying conditions, and it's important patients work with trained medical professionals to rule these out before implementing treatment.