Common Nonantibiotic Drugs May Contribute to Antibiotic Resistance

Findings show that nonantibiotic medications can also affect the bacterial balance in our gut.

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The human gut houses many microorganisms that are affected by antibiotic drugs. Now, findings published in the journal Nature suggest that many common nonantibiotic medicines could also change the makeup of bacteria in the stomach and trigger antibiotic resistance, reports HealthDay.

For the assessment, researchers at the European Molecular Biology Laboratory in Germany tested more than 1,000 medicines on 40 species of gut bacteria. Results revealed that 250 of 923 nonantibiotics tested affected the growth of at least one strain of gut bacteria. (While scientists noted that modifications in the genetic makeup of gut bacteria contribute to a drug’s side effects, these transformations can also play a beneficial role in the action of the med.)

This phenomenon raises concerns because people routinely take many nonantibiotic drugs and often for long periods. Still, not all of these medications will affect gut bacteria in negative ways. “In some cases, resistance to specific nonantibiotics will trigger sensitivity to specific antibiotics, opening paths for designing optimal drug combinations,” said Nassos Typas, PhD, a researcher and one of the study’s coauthors.

Scientists stressed that they still have a long way to go in understanding direct interactions between drugs marketed to consumers and the bacteria in their tummies. But investigators proposed that this area of research could possibly lead to personalized drug therapies in the future.

Click here to learn how antibiotic resistance forced the World Health Organization to update treatment for sexually transmitted infections.