



# The Food Safety and Inspection Service

*The Regulatory Agency in the United States Department of Agriculture that Ensures Meat, Poultry, and Egg Products are Free of Illegal Antibiotic Residues*

## Questions & Answers

### Background

The Food Safety and Inspection Service (FSIS) is the public health agency in the U.S. Department of Agriculture (USDA) responsible for ensuring that the nation's supply of meat, poultry, and egg products is safe, wholesome, and correctly labeled and packaged. As part of its mission, the FSIS uses guidance from the U.S. Food and Drug Administration (FDA) to routinely verify that meat, poultry, and egg products intended for human consumption are free of illegal antibiotic residues (i.e., fall below the maximum levels allowed by law).

The FDA approves new animal drugs, including antimicrobials and antibiotics, for use in food-producing animals. To ensure that the use of approved antibiotics does not cause harm to human health through the consumption of animal-derived food products, the FDA establishes animal-specific conditions of use for antibiotics, acceptable antibiotic withdrawal periods, and tolerance levels (i.e., the maximum levels allowed by law) for antibiotic residues in animal tissues or products. The following questions-and-answers are intended to raise awareness of antibiotic-related terms and highlight the safeguards that prevent meat, poultry, and egg products contaminated with illegal antibiotic residues from entering the food supply.

#### **Q: What is an antibiotic?**

A: Antibiotics are drugs that kill or prevent the growth of bacteria.

#### **Q: What is the difference between antibiotics and antimicrobials?**

A: Antibiotics are drugs that only kill or prevent the growth of bacteria. Antimicrobials are drugs that kill or prevent the growth of a variety of microorganisms, including bacteria, viruses, fungi, and parasites. All antibiotics are antimicrobials, however, not all antimicrobials are antibiotics.

#### **Q: Why are antibiotics used in food animal production?**

A: Antibiotics can be critical in the treatment of ill animals and in limiting the potential spread of infections.

#### **Q: Are antibiotic residues the same as antibiotic resistance?**

A: No. An antibiotic residue is a small amount of leftover drug, or parts of the drug that are not completely broken down by the animal's body. These residues can be identified in animal products or tissues. Antibiotic resistance is a process where the bacteria that the antibiotics are intended to kill or inhibit have adapted to them, making the drugs less effective. The presence of antibiotic residues in an animal doesn't necessarily mean that the animal is infected with antibiotic resistant bacteria, and vice versa.

## **Q: What is an illegal antibiotic residue?**

A: An illegal antibiotic residue is a potentially harmful amount of an antibiotic that remains in an animal's system at the time of slaughter. For animals intended for human consumption, testing for residues occurs after the animal is humanely slaughtered for processing.

## **Q: If an antibiotic is used in food animal production, what safeguards are in place to ensure that meat, poultry, and egg products on the market are free of illegal antibiotic residues?**

A: For each antibiotic used in livestock or poultry production, an FDA-approved withdrawal period is observed before the food animals go to slaughter and products from these animals enter the food supply. This is known as the "withdrawal time." Withdrawal times reflect the amount of time necessary for animal tissue to process a drug so that the amount remaining in the tissues has decreased to a safe level. Every FDA-approved drug for food animals has a withdrawal time printed on the product label. Additionally, withdrawal time charts for different species and antibiotics are widely available from producer groups and cooperative agricultural extension websites. To ensure compliance with these guidelines and provide confidence in the food supply, each year, FSIS tests thousands of meat, poultry and egg products under the U.S. National Residue Program (NRP).

## **Q: What is the U.S. National Residue Program (NRP)?**

A: The NRP is an interagency program carried out by the FSIS, the FDA, and the Environmental Protection Agency (EPA) that was developed to identify, rank, and test for chemical residues (including antibiotics) in meat, poultry and egg products. The NRP is designed to: (1) provide a structured process for identifying and evaluating chemical compounds of concern in food animals; (2) analyze for chemical compounds of concern; (3) report results; (4) investigate drug residue violations; and, (5) if required, implement enforcement action at the farm/producer level. Under the NRP, FSIS verifies that meat and poultry processing plants throughout the United States monitor residues through sampling and testing products. Overall, very few animal products are found to have residue violations. For example, in 2017, FSIS found residue violations in less than 1% of routinely scheduled domestic samples. Meat, poultry, and egg products found to contain illegal antibiotic residues are condemned and do not enter the food supply.

## Food Safety Questions?

### **Q: How can consumers help keep their food safe and reduce the chance of illness from bacteria in meat and poultry products?**

A: FSIS recommends that consumers cook all meat and poultry to proper internal temperatures to kill bacteria and other foodborne pathogens. Consumers should also practice four simple food safety tips: [clean, separate, cook, chill](#).

<sup>i</sup><https://www.fda.gov/AnimalVeterinary/GuidanceComplianceEnforcement/ComplianceEnforcement/ucm264049.htm>

<sup>ii</sup><https://www.cdc.gov/drugresistance/index.html>

<sup>iii</sup><https://www.fsis.usda.gov/wps/wcm/connect/1808d9c3-414f-4019-a31c-8454854ab66e/2017-Blue-Book.pdfMOD=AJPEREs>