

# Health Ministry has banned animal food industry from using antibiotic Colistin: What it means for you

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The Health Ministry has issued an order banning the use of antibiotic colistin in food-producing animals. The move has been hailed by experts as a massive victory in the fight against antimicrobial resistance.

**New Delhi:** Antibiotic resistance continues to pose a serious threat to global health. While antibiotic resistance can evolve naturally, misuse of antibiotics in humans and animals has been blamed for accelerating the process. In an attempt to help reduce and prevent the spread of deadly infectious diseases, the Health Ministry has issued an order banning the use of antibiotic colistin in food-producing animals, including poultry. The World Health Organisation (WHO) said colistin is a 'reserve' antibiotic that should be considered a 'last-resort' option and used only in the most severe circumstances when all other alternatives have failed.

The Health Ministry's move to ban colistin has been hailed by experts as a massive victory in the fight against antimicrobial resistance (AMR). In its notification, the ministry said that it prohibits manufacture, sale, and

distribution of colistin and its formulations with immediate effect for food-producing animals, poultry, aqua farming and animal feed supplements. The notification stated that the Drug Technical Advisory Board (DTAB), India's apex drug advisory board, recommended prohibiting colistin's use in animal farming industries after it was brought to the Centre's notice that the drug may pose risk to human's health.

## **Colistin banned in animal food industry: What it means for you**

Basically, colistin or polymyxin E is an old antibiotic first introduced in 1952. The drug has been used since 1959 for treating infections caused by Gram-negative bacilli, which are responsible for various diseases such as plague, cholera and typhoid. The drug has demonstrated excellent activity against various Gram-negative rod-shaped bacteria, including multidrug-resistant *Pseudomonas aeruginosa*, in vitro, according to a review published in the [Medscape](#).

However, it was revealed that colistin has side effects of nephrotoxicity and neurotoxicity, prompting to restrict the use of the drug and replace it with other antibiotics which were considered safer at that time, said another review published in the [NCBI](#). Hence, colistin's use declined from the early 1970s to the early 2000s. Yet, researchers have found that colistin along with other antibiotics holds promise for increased antibacterial efficacy. It is likely that colistin may have an essential and reliable role as future antibiotics for the treatment of multi-resistant Gram-negative infections. The drug could also be used as an alternative to other antibiotics that have been available so far.

The problem is that this potent antibiotic (meant for therapeutic purpose in veterinary) is highly misused in the livestock industry in India to prevent diseases and as a growth promoter for prophylactic purpose, said a ministry official. The misuse of colistin in the poultry industry is said to be a major reason for the increase in antibiotic resistance in India.

“One of the reasons for antibiotic resistance in India is due to unwanted use of Colistin in the poultry industry. This notification will prevent the use of the drug for prophylactic use,” the official added.

Earlier, a [2017 study](#) published in *Environmental Health Perspectives* found high levels of antibiotic-resistant pathogens in chickens raised for both meat and eggs on farms in India, raising serious health concerns. The study led by researchers from the Center for Disease Dynamics, Economics & Policy (CDDEP) suggested that the findings have serious implications, not only for India but globally.

Earlier studies done by CDDEP studies have projected that the consumption of antibiotics through animal food sources will rise globally by 67 per cent by 2030, including more than a tripling of use in India.

A 2017 global study published in the scientific journal *Science* reported that India (which ranked 4<sup>th</sup> largest consumer of antibiotics in food animals in the world after China, US and Brazil) is expected to see an 82 per cent rise in antibiotic consumption in food animals during 2013-2013. This means the country’s antimicrobial resistance problem will get much worse.

The WHO has warned that AMR is 'jeopardising' global health and is of particular concern for a country like India, where the burden of infectious disease is high and healthcare spending is low. Since antibiotics have a critical role in limiting mortality and morbidity here, the Health Ministry's ban on colistin is being seen as a significant step in combating AMR.