Unstoppable? Antibiotic resistance worldwide


Foto: © Dietmar Rabich

WHO'S GOT DIRT ON THEIR BOOTS?

Soil contaminated with antibiotic residues or resistant germs contributes to the spread of antibiotic resistance.


Photo: Vincent van Gogh: Three Pairs of Shoes

Anyone can clean dirty shoes, but invisible dirt is not so easy to remove.

"Of course we have to fight antibiotic resistance worldwide! If we don't, the whole thing will become a time bomb."
Richard Valimba, pharmacist, Tanzania

WATER, SOIL, AIR AND GERMS


Photo: © Gerhard Gebhardt

Antibiotic residues and resistant pathogens can be found all over the world in the soil, in the water and also in the air. The effects on human and animal health have hardly been studied up to now.

GLOBALLY RESISTANT

In poor countries, many water bodies are heavily contaminated with resistant germs. Technical standards and controls that are common in industrialized nations are a distant dream here


Photo: © US Department of Agriculture

"I can see that the environmental aspect has been neglected up to now. It should be paid much more attention than it is at present."
Erick Venant, pharmacist, Tanzania

CARRIED ON WINGS

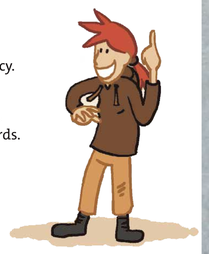
Waterfowl living on water bodies pick up resistant germs and spread them over long distances.

RESISTANT – DUE TO THE AIR IN THE BARNS

Ventilation systems in factory farms don't only transport intrusive smells outside: resistant bacteria can still be detected in the air over a kilometre away.

Photo: © Chares J. Sharp

WHAT CAN WE DO?



Don't throw antibiotics into the trash; take unused leftovers back to the pharmacy.

Support calls for a supply-chain law that requires companies to comply with social, environmental and human-rights standards.

Use fewer antibiotics to minimize their entry into the environment as much as possible.

Dispose of unused antibiotics properly.

Heavy metals also promote resistance! Don't spread manure on soils treated with biocides such as zinc and copper.

Avoid overfertilizing the soil.

Avoid discharging manure into water bodies.

"Antibiotic resistance is not a problem that a single country or region can solve on its own. We live in a globalized world where people, animals and food travel long distances [...] and microbes travel with them."
Jim O'Neill, British economist

GLOBAL ACTION PLAN


Photo: © Leif Jørgensen

In 2015, WHO member states agreed to a comprehensive Global Action Plan against antimicrobial resistance. In many poor countries, however, implementation fails because of a lack of financial and human resources or inadequate infrastructure.

THE SOLUTION: ONE HEALTH

Human, animal and environmental health are closely intertwined. Physicians, vets and environmental scientists are working together internationally to prevent health problems. The 'One Health' approach is key to combatting antibiotic resistance. Resistant pathogens know no national borders, nor do they distinguish between humans, animals and the environment.

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This exhibition is a project of BUKO Pharma-Kampagne Gesundheit und Dritte Welt e.V.
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Our partners: Jagruti (India), Health-e (South Africa), RBA Initiative (Tanzania)
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Sponsored by Engagement Global with financial support from the
Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung

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