Antibiotic resistance infographic in text

How antibiotic resistance happens

1. There are lots of germs; a few of which are drug resistant.
2. Antibiotics kill bacteria causing the illness, as well as good bacteria protecting the body from the infection.
3. The drug-resistant bacteria are now allowed to grow and take over.
4. Some bacteria give their drug resistance to other bacteria, causing more problems.

Examples of how antibiotic resistance spreads

Animals

Animals get antibiotics and develop resistant bacteria in their guts. Drug-resistant bacteria can remain on meat from animals; when not handled or cooked properly, the bacteria can spread to humans. Fertiliser or water containing animal faeces and drug-resistant bacteria is used on food crops; drug-resistant bacteria in the animal faeces can remain on crops and be eaten by people—these bacteria can remain in the human gut.

People

Say a person (let’s call him George), gets antibiotics and develops resistant bacteria in his gut. If George stays at home and in the general community, he can spread resistant bacteria to other people. If George gets care at a hospital, nursing home or other inpatient care facility, resistant germs spread directly to other patients or indirectly on unclean hands of healthcare providers. Alternatively, resistant bacteria spread to other patients from surfaces within the healthcare facility. When patients go home, they take the resistant bacteria with them.

Simply using antibiotics creates resistance. These drugs should only be used to treat infections.