ANTIBIOTIC RESISTANCE 101

How Antibiotic Misuse on Factory Farms Can Make You Sick

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www.foodandwaterwatch.org
About

• This presentation has been put together by Food & Water Watch to inform the public about the increasing threat of antibiotic resistance being bred on factory farms.

• Food & Water Watch is a leading consumer advocacy group based out of Washington, D.C., with 16 field offices across the country. We work to ensure that the food and water we consume is safe and sustainable, that corporations are held accountable, and that our government works to protect the public, not special interest profits.

• Our goal is to educate the public about an increasingly urgent public health threat — antibiotic-resistant bacteria being bred on factory farms — in order to drive lawmakers to act.
Section 1

THE WRITING ON THE WALL
“There is the danger that the ignorant man may easily underdose himself and by exposing his microbes to non-lethal quantities of the drug make them resistant.”

– Alexander Fleming, 1945
Antibiotic Use in the U.S.

- 80% are used in Human Medicine
- 20% are used in Agriculture

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The science is clear

• Center for Disease Control and Prevention Report, fall 2013.

  -- Over two million people per year suffer from antibiotic-resistant infections, and at least 23,000 people die from them.

  -- "Simply using antibiotics creates resistance. These drugs should only be used to treat infections.”
Who else thinks it’s a problem?

• American Medical Association
• American Academy of Pediatrics
• Infectious Disease Society of America
• American Public Health Association
• World Health Organization

And the list goes on…
FACTORY FARMS HAVE A DIRTY SECRET
How Antibiotic Misuse On Factory Farms Can Make You Sick

1. Factory farms use feed that's pre-mixed with antibiotics to promote faster animal growth and prevent infections.

2. Giving low doses of antibiotics to groups of animals over extended time periods fuels the development of antibiotic-resistant (AR) bacteria.

3. Waste is stored in lagoons and used as fertilizer. AR bacteria in the waste continue to reproduce and share genes with other bacteria in soil, streams, ponds and groundwater, creating "reservoirs of resistance."

4. AR bacteria in livestock can spread to farmers, farmworkers, meat plant workers and the general population.

5. Consumers encounter AR bacteria while handling raw meat and eating undercooked meat.

6. AR bacterial infections have become increasingly common. Doctors are concerned that some antibiotics no longer work to treat sick people.
Factory farms use feed that’s pre-mixed with antibiotics to promote faster animal growth and prevent infections.
Antibiotics

Susceptible bacteria

Dead susceptible bacteria

Resistant bacteria
Giving low doses of antibiotics to groups of animals over extended time periods fuels the development of antibiotic-resistant (AR) bacteria.

The digestive tract contains many bacteria.

Low doses of antibiotics kill some bacteria.

AR bacteria survive and reproduce, passing along the resistance genes.

AR bacteria also share resistance genes with other bacteria through "horizontal gene transfer."
Waste is stored in lagoons and used as fertilizer. AR bacteria in the waste continue to reproduce and share genes with other bacteria in soil, streams, ponds and groundwater, creating “reservoirs of resistance.”
AR bacteria in livestock can spread to farmers, farmworkers, meat plant workers and the general population.
5 Consumers encounter AR bacteria while handling raw meat and eating undercooked meat.
AR E. coli in 2010
NARMS Retail Meat Samples

- Ground Turkey: 70%
- Chicken Breasts: 60%
- Pork Chops: 20%
- Ground Beef: 10%

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AR *Salmonella* in 2010
NARMS Retail Meat Samples

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<th>Ground Turkey</th>
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AR bacterial infections have become increasingly common. Doctors are concerned that some antibiotics no longer work to treat sick people.
From Factory Farms to People

• Foodborne pathogens

• Livestock-associated MRSA

• E. Coli causing urinary tract infections
SAVING ANTIBIOTICS FOR MEDICINE, NOT FACTORY FARMS
Too little, too late from FDA

• In late 2013, FDA released guidelines for drug companies to attempt to limit some uses of antibiotics in factory farming.
  – The guidelines only apply to growth promotion uses of antibiotics.
  – Factory farms will still use most of those drugs in the same way, feeding daily low doses to prevent disease in filthy, crowded living conditions.
So why haven’t we fixed this?

• Lack of public awareness

• Powerful opposition from special interests

• We need a groundswell of public support in order to spur action
Proven Success in the EU
(And they’re still producing food!)

• The European Union banned the use of all antibiotics for growth promotion in 2006

• Results:
  – Antibiotic-resistant bacteria has since declined in livestock, meat and people in the EU.
  – Denmark, the second country to implement such a ban, has seen substantial growth in its pork industry, growing more pigs with lower antibiotics use per pig.

• The real economic threat is the cost of antibiotic-resistant infections that are harder to treat.
We Need Federal Action

• Legislation has been introduced in Congress to ban the misuse of antibiotics on factory farms.

  – The Prevention of Antibiotic Resistance Act (PARA) in the Senate, S. 1256

  – The Preservation of Antibiotics for Medical Treatment Act (PAMTA) in the House, H.R. 1150

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40 Cities Have Passed Resolutions in 4 Months

- San Francisco, CA
- Berkeley, CA
- Seattle, WA
- St Paul, MN
- Madison, WI
- Chicago, IL
- Cleveland, OH
- Pittsburg, PA
- Alexandria, VA
- Providence, RI
- Cambridge, MA
Our Austin Coalition

Local Groups
• Beyond Coal Austin
• Public Citizen Texas
• Austin Eco Network
• TexPIRG
• Environment Texas
• Texas Drought Project
• Enviro Media
• Whole Life Learning Center

• Sustainable Food Center
• Hope Farmers Market
• Go Local Austin
• Food is Free Project
• March Against Monsanto – Austin
• Austin Organic Gardeners
• Local Business
• Intelliroof
• Counter Culture Restaurant
• Vital Eggs Farms
• Boggy Creek Farm
• Countryside Farm
• Austin Honey Company
• Smith & Smith Farms

• Wendy Town Farms
• Windy Hill Farm
• Foreign & Domestic
• Concha’s Salsa
• Cocoa Puro
• Curious Confections
• Oat Cuisine

And over 20 doctors & medical professionals

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And over 1,200 Austin area residents have signed our petition!

Please support, sponsor, and approve this resolution to commit Austin to a healthier food system that keeps our medicine working.

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