How Vaccines Cause Disease to Evolve

Two of the pillars of modern medicine are in trouble and it's for the same reason – ignoring microbial evolution. Conventional medicine charged ahead with rampant antibiotic use without a full understanding of the microbiome and how our immune system works or taking into account the additional impact of eating antibiotic-treated animals regularly. Bacteria consistently exposed to low-level antibiotics has evolved past those treatments, requiring doctors to prescribe increasingly strong antibiotics to conquer these incredibly resilient bacteria. For years we've been treating harmful pathogens like elite athletes, giving them increasingly difficult hurdles that only the strongest survive. Now, antibiotic-resistant superbugs will kill 10 million people a year by 2050 if the way we use antibiotics doesn't change.

Now we are finding that vaccines do the same thing with complex pathogens. The vaccine suppresses the host's response to the pathogen but doesn't kill it. This gives more virulent, more quickly replicating bacteria a chance to multiply without killing the host. No one dies…but the bacteria evolves to the point that the vaccine is no longer effective.

Whooping Cough

People vaccinated for pertussis are carriers of the whooping cough bacteria, even if they never contract the illness. In that respect, the vaccine succeeds…but only in the short term. Since the host of the pathogen doesn't expire from it, the bacteria develop into a stronger version of pertussis. Caused

by the bacteria *Bordetella pertussis*, whooping cough has never been eradicated and the number of cases has been slowly increasing for years. Conventional news outlets are quick to blame anti-vaxxers every time there's an outbreak of whooping cough, an easier solution than examining the effectiveness of the vaccine.

The whooping cough vaccine was first modified in 1992 on a recommendation from the Centers for Disease Control after it was linked to seizures. The new version targets specific proteins in the bacteria, which is the perfect opening for other proteins to fill the power vacuum. Like antibiotics, microbes that don't get targeted are able to thrive. While research has periodically called for an examination of the vaccine as reported cases of pertussis increase, a 2014 study from Australia confirms that the strains of whooping cough not targeted by the vaccine are thriving. Ruiting Lan, senior author of the latest study on whooping cough and associate professor at School of Biotechnology and Biomolecular Sciences at the University of New South Wales says, "It's like a game of hide and seek. It is harder for the antibodies made by the body's immune system in response to vaccination to 'search and destroy' the whooping cough bacteria which lack pertactin. This could mean that these pertactin-free strains have gained a selective advantage over bacterial strains with the pertactin protein." In the course of four years, the percentage of whooping cough samples that lacked the protein targeted by the vaccine jumped over 70 percent. And that's just in Australia. Lan also commented that "The fact that they have arisen independently in different countries suggests this is in response to the vaccine. More studies are needed to better understand the effects of vaccination on the evolution of the organism…"

Marek’s Disease

Another example of disease evolution in relation to vaccines is Marek’s Disease, a deadly ailment affecting chickens that has evolved enough to render two vaccines irrelevant and costs the poultry industry more than 2 billion dollars a year. Andrew Read, a scientist Pennsylvania State University Center for Infectious Disease Dynamics, believes that the vaccine may be causing more harm than good. He’s been researching how vaccines allow bacteria and viruses to evolve and gain virulence for over 15 years and is also associated with the concept of “leaky” vaccines. Leaky vaccines, also called imperfect vaccines, save the vaccinated individual from death but turn them into a disease incubator. In his study of Marek’s Disease, Read linked leaky vaccine and increased microbe virulence.

> *When vaccines prevent transmission, as is the case for nearly all vaccines used in humans, this type of evolution towards increased virulence is blocked. But when vaccines leak, allowing at least some pathogen transmission, they could create the ecological conditions that would allow hot strains to emerge and persist. This theory proved highly controversial when it was first proposed over a decade ago, but here we report experiments with Marek’s disease virus in poultry that show that modern commercial leaky vaccines can have precisely this effect: they allow the onward transmission of strains otherwise too lethal to persist. Thus, the use of leaky vaccines can facilitate the evolution of pathogen strains that put unvaccinated hosts at greater risk of severe disease. The future challenge is to identify whether there are other types of vaccines used in animals and humans that might also generate these evolutionary risks.”*

Marek’s Disease affects chickens, which doesn’t sound scary. The disease isn’t going to just jump to humans…that’s not how

things work. But if we're learning anything, it's that science's refusal to seriously consider and investigate vaccines mean that we don't know exactly how things work.

Related:*How To Detoxify and Heal From Vaccinations – For Adults and Children*

We Cannot Keep Up

Vaccines are designed to target a specific strain of a bacteria or virus and encourages the immune system to defeat it. The vaccine and its response are frequently victorious. But that focus has ignored the realities of infection and the way microbes evolve. The defeating a particular pathogen or strain of bacteria leaves room for another one to take its place. In the case of Marek's Disease, the third iteration of the vaccine still works, but there isn't a new one in the works.

In its success, the vaccine has opened the door to a host of other issues that modern medicine won't be ready for until it's too late. Of course, we won't be ready. You can't fix something until you admit there's a problem, and admitting that vaccination causes serious issues is too costly an error to cop to.

Sources:

- *Vaccines Are Pushing Pathogens to Evolve* – Quantas Magazine
- *Imperfect Vaccination Can Enhance the Transmission of Highly Virulent Pathogens* – PLOS Biology
- *Whooping cough bacterium evolves, mutation makes existing vaccine less effective* – TechTimes
- *Leaky vaccines could lead to more virulent pathogens* – PLOS Blogs
- *'Leaky Vaccines' Could Spur More Dangerous Disease* – Mercola.com