A Cure for Bacterial Infections Without Using Antibiotics?

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Researchers have high hopes that a new technique might be effective against antibiotic-resistant infections, according to findings published in Nature Biotechnology and reported by CBS News.

The innovative method of treatment, developed at the University of Bern in Switzerland, uses artificial nanoparticles made of lipids, called liposomes, to attract and then neutralize bacterial toxins. After these toxins are destroyed, the immune system can rid the body of the bacterial intruders.

The studies, in which researchers used liposomes to treat mice infected with septicemia—a dangerous blood infection also known as sepsis—showed high survival rates.

What's more, "Since the bacteria are not targeted directly, the liposomes do not promote the development of bacterial resistance," said study author Annette Draeger, MD, the head of the university's cell biology unit.

The Centers for Disease Control and Prevention estimates that 75,000 patients in the United States die each year as a result of antibiotic-resistant infections, a phenomenon experts believe is on the rise because of overuse of antibiotics.

For more information about antibiotic resistance and bacterial super infections, click here.