

New topical antiseptic kills antibiotic-resistant bacteria

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Ask any young athlete about MRSA (short for the ominous-sounding methicillin-resistant Staphylococcus aureus) and they might have a story to tell about their terrible experience with the disease. Easily spread in contact sports such as football and wrestling, MRSA is a skin infection that starts off as a painful, swollen bump that looks like a bloated spider bite or a pimple gone wrong. If not aggressively treated, this bacterial infection can invade the bloodstream or attack internal organs such as the heart and lungs, sometimes becoming life-threatening.

But athletes aren't the only group that should worry about MRSA. Many MRSA infections also develop in people in hospitals or other healthcare settings such as nursing homes and dialysis centers. According to the journal U.S. Pharmacist, each year, more than 1.2 million people acquire MRSA while in a hospital and, on average, one in 20 inpatients acquires a MRSA infection during hospital care.

To battle super-resilient bacteria, scientists at Los Alamos National Laboratory have developed a new topical ointment designed to kill what were once considered "unkillable" bacteria. Collaborating with Northern Arizona University and Dixie State University, Los Alamos scientists discovered what they have dubbed CAGE, a variation of something called a choline capable of penetrating the deepest skin layers to deliver antibiotics. Choline helps the body improve memory and cognition, protect the heart and boost metabolism, among other things.

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