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### Be Wary of Stronger Bacteria

Bacteria are small one-celled organisms that generally live in harmony with their human hosts, and in many cases actually contribute to our well-being.

However, the types of bacteria familiar to most people, strep and staph, have reemerged across the country, as a cause of serious illness affecting all age groups, from newborns to the elderly, but children are often most susceptible.

Bacteria causes illness when it multiplies uncontrollably and begins to invade the body's tissues. When this happens in the skin--causing swelling, redness, tenderness, and occasionally fever--it is called cellulitis. A similar infection, that appears as clusters of small bumps with white puss-filled centers-- is called impetigo and in a larger form, an abscess. In the lungs, the bacteria invasion is called pneumonia; in the throat, it's tonsillitis or strep throat; and in the urinary system, it becomes a urinary tract infection.

Antibiotics are chemicals that kill or inhibit the growth of certain types of bacteria. These miracle drugs, discovered in the 1930s, changed the practice of medicine and the course of civilization. Strep throat, rheumatic fever, urinary tract infections, and meningitis are but a few examples of what doctors were able to effectively treat and cure with these new miracle drugs.

Remarkable as it may seem, today, many of our most sophisticated antibiotics are no longer effective in the treatment of bacterial infections. Many of these tiny creatures, visible only through a microscope, have become immune to antibiotics, rendering many of these miracle products useless.

Over the past few years, we have seen the emergence of flesh eating strep. Called streptococcal necrotizing myositis, this infection was previously known to cause simple impetigo or cellulites.

Recently, we've also seen the evolution of a staph infection known as MRSA (methicillin-resistant staphylococcus aureus) that has become resistant to treatment with any of the common and readily available antibiotics. Since

about a third of us are “colonized,” meaning that we are carriers of staph on our skin, we are all at risk of this infection.

Each year, millions become infected with routine staph or strep, but children are most at risk because they have thinner skin that they regularly pick, poke, and scratch, allowing portals of entry. MRSA, once transmitted only in hospitals, is now present within the general community, causing alarming numbers of acquired infections, locally as well as nationally.

MRSA infections look like any other skin infection. It is more aggressive, however, and very persistent, contagious, and responds slowly, if at all, to antibiotic intervention. The infection can be family members, close friends, or acquaintances, and MRSA can also be spread through skin to skin sports contact, such as wrestling, and in locker facilities where towels or personal items are shared.

However, there are many protective measures that are effective in avoiding infection. Washing hands frequently or using alcohol-based hand sanitizers are the most important protective steps that anyone can take. Not sharing personal grooming items, towels or washcloths that can transfer bacteria from one person to another, is fundamental. Being observant and careful to avoid physical contact with anyone with signs of skin infection, and covering infected sores on your own skin are essential factors in warding off MRSA.

If you are concerned about the possibility of MRSA, seek treatment and specifically ask your physician about the need for additional testing.

Parents who would like to know more about infections and antibiotics can contact their pediatrician or the American Academy of Pediatrics website at [www.aap.org](http://www.aap.org)

Feel free to contact me at NSMC North Shore Children’s Hospital, 57 Highland Ave., Salem, MA 01907 or at [ebailey@aap.org](mailto:ebailey@aap.org) with your questions or comments.

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