

Industry-Relevant Research for  
Camp Professionals from ACA



2009

# Healthy Camp Update



Markel is proud to be an ACA  
Mission Partner and sponsor of  
the ACA Healthy Camp Study.



## Fatigue, MRSA, and the Use of Protective Equipment: New Insights From Year Three of the Healthy Camp Study

With continuing support from ACA Mission Partner, the Markel Insurance Company, the third year of the American Camp Association's five year national study of camp injuries and illness was completed in 2008 with 177 camps providing data. In this issue of the Healthy Camp Update, we explore three topics that have emerged as important in the injury and illness experience of campers and staff: fatigue, MRSA, and protective equipment.

### When Get-Up-and-Go Has Got-Up-and-Went: Fatigue at Camp

Linda E. Erceg, R.N., M.S., P.H.N.

Although fatigue is rarely identified as the cause of an injury or illness, it can be a contributing factor. It shares this fame with elements such as hydration and nutritional status. In combination, this triad — the absence of fatigue plus good hydration and nutrition status — can make a difference in both a person's resistance to as well as recovery from injury-illness events.

Nutrition and hydration have enjoyed attention in the camp community. We take pride in nutritious meals and the ubiquitous water bottle appears everywhere. But fatigue has remained an enigma. Camp professionals anecdotally speak of tired staff and campers but no strategic plan to address fatigue has been developed. It's time to change that.

If one subscribes to the belief that being tired makes it more likely for injury-illness to occur, then one would expect that, as the day wears on and a person tires, one would tend to get ill or injured. Interestingly, summative data from the 2008 *Healthy Camp Study* indicated this was the case for resident camp participants. Only 32 percent of resident camper injuries occurred between 8:00 a.m. – 1:00 p.m. as opposed to 61 percent occurring

from 1:00 – 10:00 p.m., with a spike for both campers and staff between 4:00 – 5:00 p.m. It appears that fatigue may be a factor in the resident camp setting, with illness increasing as week one progressed. This was not the case for day camps. Injury events for day campers and staff were fairly balanced between a.m. and p.m. times. The "hot zone" for injuries in day camps was 10:00 a.m. – 12:00 p.m. (approximately 28 percent for campers and 36 percent for staff).

These data suggest that fatigue may be a factor in the expression of illness in camp. Beginning in 2009, new questions about fatigue will be added to the *Healthy Camp Study*. Once we have a better understanding of fatigue's role, we'll be in a better position to intentionally address its impact. Interestingly, fatigue tends to show up in a given person's demeanor quicker than in any injury or illness event. Campers and staff become short-tempered, and we speak of someone being "more of a beast than a beauty." Perhaps if we'd attend to these early signals and appropriately intervene when they occur, we could change the impact of fatigue much in the same way that we've improved nutrition and hydration states.

### Protective Equipment: What's Really Happening in Camps?

Mary Marugg, R.N.

From goggles and sunscreen to shin guards and helmets, the use of protective gear is a routine part of the camp experience. But the results of the *Healthy Camp Study* paint a different picture. For example, in resident camps, applicable protective equipment wasn't being used in approximately 18 percent of camper injuries and 28 percent of staff injuries. Increasing compliance and consistency in the use of protective gear continues to be

an important strategy for injury prevention.

Protective equipment includes gear for both recreation and the workplace. State law regulates safety equipment for campers and staff, and ACA standards address protective gear as well, so the framework is already established. Our challenge is to increase compliance with protective equipment guidelines. Increasing compliance

*Continued on page 2 of the Healthy Camp Update*

# Methicillin Resistant Staphylococcus Aureus (MRSA): Dispelling the Myths

Edward A. Walton, M.D., F.A.A.P., F.A.C.E.P.

You've seen the headlines about school closings and cancelled athletic events. The media has had a field day reporting on the newest "Super Bug," Methicillin Resistant Staphylococcus Aureus, also known as MRSA. While MRSA can cause serious infections, and has certainly occurred at camp, with a little planning and common sense your camp staff can learn to prevent MRSA infections and recognize and prevent the spread of a MRSA infection if one does occur at camp.

## The Emergence of MRSA

The emergence of MRSA is the result of antibiotic overuse since the development of penicillin in the 1920's. Antibiotics were requested by patients and prescribed frequently by doctors for infections for which they had no effect, including the common cold and the flu. The old saying is still true; there is no cure for the common cold. As a result of this overuse, common bacteria that live on our bodies all the time no longer respond to routine antibiotic treatment. One of these organisms is Staphylococcus Aureus. Staph lives on our skin and in our noses all the time. However, as a result of inappropriate antibiotic use, this common bug has become resistant to methicillin, an antibiotic that it was killed by in the past. Hence the emergence of Methicillin Resistant Staphylococcus Aureus, or MRSA.

## Recognition of Infection

The classic description of a MRSA infection as a "spider bite" is inaccurate. Most parts of the country don't have spiders that bite. The infection starts as a small red bump that is swollen, red, and painful and may fill with pus or drain. The infection may start in a hair follicle on as the back of the neck, groin, buttock, armpit, or inner thighs, or in the area of a scrape or cut. In most cases the infection stays localized. Despite being resistant to some kinds of

antibiotics, MRSA, if recognized early, is easily treated by other classes of antibiotics. It isn't as scary an infection as you may believe.

## Prevention of MRSA Outbreaks

MRSA is spread by direct human-to-human contact in contact sports such as wrestling and football. MRSA can linger on surfaces for hours to days depending on the surface and environmental conditions. Common athletic equipment which allows the spread of MRSA, including helmets, athletic pads, exercise machines, and gymnastic mats, need to be treated frequently with disinfectants that kill MRSA and other types of Staph. An easy disinfection recipe is ¼ cup of regular household bleach in 1 gallon of water. Disinfection efforts should be concentrated on surfaces that come in frequent contact with skin. You don't need to "fog" entire buildings to kill MRSA, in fact these efforts are just silly. As soon as humans return to the space that has been disinfected, MRSA has returned as well.

## Control of Infection

Despite good hand washing and infection control measures, MRSA may still appear as it lives naturally on many people. If a MRSA infection occurs the infected person should:

1. Be treated with antibiotics that treat MRSA.
2. Keep the infection covered.
3. Refrain from contact sports or activities which require close contact until the infection is healed.
4. Wash all laundry at regular temperatures with detergent, do not share towels.
5. Wash hands frequently with soap and water or alcohol-based hand sanitizer.

In many areas of the country MRSA has become the most common cause of skin infection. However, with good hand washing and thoughtful infection control and disinfection practices, you can keep your camp from becoming a "MRSA mess."

## Enroll Your Camp Today!

The *Healthy Camp Study* is a unique opportunity for camps to take advantage of a powerful risk management tool. Camp directors who have joined the study are in a great position to implement specific strategies to keep kids safe and in good health. Improve your camp by signing up today at: [www.ACAcamps.org/research/healthycamp.php](http://www.ACAcamps.org/research/healthycamp.php).

### Don't forget:

- Participation is FREE!
- Any U.S. day or resident camp can participate. No special affiliation is required.
- You'll be asked to enter weekly data throughout the summer.
- Each year, your camp will receive a camp-specific report as well as a national report so that you can compare your results with other participating camps.
- All information you provide as a part of this study is confidential and is aggregated with data from other camps for summary report purposes. No sponsoring organization ever sees data from individual programs.
- Your camp health staff (or other designated reporter) will receive detailed training.

Appreciation is expressed to Markel Insurance Company for their support of the Healthy Camp Study.

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Continued from page 1

involves staff awareness of the equipment available, how to use it correctly, how to store and care for it properly, and the importance of consistent use.

Structured camper activities should include routines involving helmets, shin guards, and other protective gear written as policy. Monitoring the use of protective gear by campers should be part of the routine as well. When areas of noncompliance are identified, staff training can be targeted to those areas where protective equipment is not routinely used. Consistency in using the gear is the hallmark to preventing injury.

Staff work areas such as maintenance and the kitchen should be a high priority for training staff in the availability and use of safety equipment and monitoring the use of that gear. Train staff to understand that a quick job requires the same safety routines as a lengthy project. Although it's easy for staff to downplay the importance of eye protection, gloves, boots, and other gear when the task is "just" a short five-minute job, establishing protocols for the use of protective equipment and monitoring these protocols will help reduce injuries.