



Athletes Confront New Foe: Drug-Resistant Staph

SAN JOSE, Calif. _ San Jose State basketball player Demetrius Brown thought the small bump on his stomach might be an ingrown hair. Oak Grove High School running back Jerid Ferranti thought the red spot on his right shin was just a spider bite. Jeff Ulbrich, a 49ers linebacker, believed the same about the innocuous-looking bump on his forearm.

All three were wrong. Each had something that was potentially far worse. The athletes were infected with a nasty bug that has invaded the sports world:

Drug-resistant staph.

Public-health officials say that locker rooms and fields of play have become havens for the resourceful bacterium, which can be transmitted by physical contact and the sharing of such items as sports equipment, towels, razors and bars of soap.

"This is the tip of the iceberg," said Dr. Tim McAdams, a Stanford team physician. "The fact that it affects athletic individuals who are the pillar of health is very concerning to us."

These germs, known as methicillin-resistant *Staphylococcus aureus*, or MRSA, do not respond to commonly prescribed antibiotics. In fact, the microbes _ which have earned a grudging respect from infectious-disease experts _ are proving to be as tough and resilient as the athletes they infect.

MRSA has been a scourge in United States hospitals and nursing homes since the 1970s and, in severe infections, can kill. In the late 1990s, health officials discovered a new type of MRSA _ outside of health-care settings _ that begins as an innocuous skin irritation but quickly turns serious if left untreated.

It infects people of all ages but tends to strike those in close quarters, like prisoners in jails...and athletes in locker rooms.

Outbreaks of the community-associated MRSA in the sports world have been reported everywhere from a Colorado fencing club to a Pennsylvania high school football team to the highest level of U.S. sports _ including USC football, the St. Louis Rams and the 49ers.

In most cases _ as with local athletes Brown, Ferranti and Ulbrich _ the infections are successfully treated once they are properly diagnosed. But Brown, SJSU's leading scorer, is a cautionary tale of MRSA's potential to sicken. That small bump on his abdomen became an infection that left him bedridden and forced him to miss five games earlier this season.

"I felt like my stomach was going to explode," Brown said.

Athletes are vulnerable to MRSA, in part, because the bacteria enters the body through breaks in the skin _ and nicks, cuts and turf burns are common in sports. In more than two dozen

interviews, health-care professionals told the San Jose Mercury News they worry that athletes at the grass-roots levels are more susceptible to MRSA because of a general lack of awareness. In a worst-case scenario, some fear, entire teams could be shut down by outbreaks.

"Professional athletes are getting medical care that can be seven days a week, 24 hours a day," said Dr. Elliott Pellman, the medical liaison for the NFL and Major League Baseball. "But what happens to athletes, such as high schoolers, who don't quite get the same attention?"

Dr. Peter Coelho, a physician who works with San Benito High School athletes, thinks he knows the answer.

"This bug scares the daylights out of me," Coelho said. "It's a ticking time bomb in high school sports, especially football and wrestling. . . . It's only a matter of time, like waiting for West Nile Virus to come to California."

How prevalent is the community version of MRSA? According to the Centers for Disease Control, an estimated 32 percent of the U.S. population carries a symptom-less form of staph on their skin or in their nostrils. Of that, one percent has the drug-resistant strain.

But it's difficult to track the number of MRSA infections because the CDC does not require that cases be reported. One CDC study estimated that there were 75,000 cases in the United States in 2001-02. "But we think the numbers are much, much higher," CDC spokeswoman Nicole Coffin said. "Now it's more widespread in the community."

The South Bay is no exception. There were 364 documented cases of MRSA infections in Santa Clara County in 1999, but the figures rose to 850 in 2003 and to 2,545 in 2005. Those numbers do not differentiate between the community and hospital infections, nor do county health officials know how many came from athletic settings.

No deaths locally have been directly attributed to MRSA _ but a Pennsylvania college football player died of the infection in 2003.

And health-care professionals agree that community-associated MRSA is not only spreading but also becoming more resistant to common antibiotics. One strain, said Françoise Perdreau-Remington, the San Francisco General Hospital professor of infectious diseases, "has reached epidemic proportions in this country."

At the same time, Perdreau-Remington stresses that the vast majority of community-associated MRSA cases are routine skin infections that can be easily treated.

The serious problems occur when the infection is misdiagnosed. The bacteria is gaining resistance to antibiotics typically prescribed for skin infections, such as Keflex. The wrong medication allows MRSA to subside for a few days while it gathers strength before returning like "a runaway train, spreading and becoming a potentially lethal infection," Pellman said.

But there are other reasons athletes are susceptible.

Like all drug-resistant microbes, MRSA was created by excessive use of antibiotics. Physicians who treat athletes are among the most guilty, according to Stanford's McAdams, because of the pressure to quickly get the players back on the field. A New England Journal of Medicine article last year about the St. Louis Rams' outbreak in 2003 noted that players were receiving 10 times the amount of antibiotics that people in the general population do.

Another factor is the nature of athletics. Not only do sports such as football, wrestling and rugby

have high levels of contact, but they also share a culture of macho toughness. Athletes often won't report injuries or illnesses for fear of being held out of competition or being viewed as soft _ especially if the source of their discomfort looks like an ingrown hair.

When Ferranti, the Oak Grove running back, contracted MRSA on his lower leg, he played a game even though he felt like "I had been poisoned." He finally went to a hospital emergency room the next day.

A teammate and friend, receiver Mohamed Marah, developed an MRSA infection on the bottom of his foot five weeks later. Marah said he played through the pain for several days _ until the bottom of his foot turned green. Once the infection was diagnosed, it had to be drained daily for almost a week; he missed several practices and one game.

A more serious case occurred in 2003, when UC-Davis starting quarterback Ryan Flanigan was hospitalized for a week and missed several games because of a MRSA infection in his throwing hand.

No MRSA case has generated more attention in the sports world than the Rams' outbreak, in which five unnamed linemen and linebackers were infected. (Three suffered recurring infections, which is common with MRSA.)

In each instance, the staph attacked skin that had been damaged by turf burns, according to the CDC. One former Rams player, however, told Sports Illustrated that the germ initially baffled CDC investigators, who quarantined the team's hot tub, only to discover the MRSA instead was present in the training room cold tub, too.

The New England Journal of Medicine article also made mention of "Team A," which suffered an MRSA outbreak after playing St. Louis, and suggested that squad was infected in that game. The 49ers were "Team A."

That season, nine 49ers _ and the child of one player _ contracted MRSA. Ulbrich's case was the most serious. He was treated for a spider bite until, after a few days, "my forearm was so swollen it was bigger than my bicep," he said.

At that point, doctors cut his arm and drained the infection. A culture revealed MRSA. He was placed on an intensive antibiotic regimen and played that week against Minnesota, his arm heavily bandaged and protected by a brace.

"I got through it," said Ulbrich, who lives in Morgan Hill. "But I felt sick and weakly."

While none of the infected players missed games, the outbreak did set off a flurry of activity. The Santa Clara County Public Health Department took nasal swabs of players and tested the team's facility. One player, two coaches and one front-office employee were found to be symptom-less carriers of MRSA, but no source point was found for the bacterium, said team internist Dr. Barry Bryan.

"It was very strange, but fortunately it's very easy to treat when you know what you have," Bryan said. "I would have bet my house that they were garden-variety spider bites. But I've since learned that it's very characteristic of MRSA."

The 49ers replaced community benches in the locker room with stools, changed to liquid soap and became more vigilant about covering all wounds. But Dr. Stanley Deresinski, a clinical professor of medicine in infectious disease at Stanford, is not convinced that the Rams transmitted MRSA to the 49ers.

"It could have been two separate outbreaks," said Deresinski, a 49ers consultant. "This has become so ubiquitous that it's hard to know where it's coming from."

For that reason, he doesn't believe there should be a stigma associated with the community version of MRSA. Even so, many coaches, teams and athletes are reluctant to discuss infections.

"I can imagine when this first cropped up, the NFL might have worried that one team might refuse to play another team if they knew this was happening," Deresinski said. "But I don't think that's an issue anymore."

Yet the very treatment of MRSA can lend itself to the possibility of athletes feeling stigmatized.

When Stanford receiver Marcus McCutcheon developed an MRSA infection on his thigh last summer, he was isolated from the team. He lived in a separate dorm room during training camp and had his clothes washed separately. He believes the potential for feeling ostracized is highest where familiarity with MRSA is lowest.

"I didn't feel it, but I can understand how that would happen," said McCutcheon, who had shooting pain in his leg until the infection subsided. "Not many people know about this stuff."

Based on reported cases, the greatest risk for sports outbreaks is at the level with the least amount of knowledge about MRSA: high schools.

Officials at the state California Interscholastic Federation and, locally, the Central Coast Section said MRSA has not appeared on their radar. But many national outbreaks have involved high school wrestling and football programs.

In wrestling, MRSA can be present on mats that aren't cleaned after practices and meets. High schools are replacing the grass football fields with artificial turf, increasing the chance of turf burns. And athletes in wrestling and football may wear the same unwashed clothes day after day simply because they don't understand the importance of good hygiene. The same sometimes can be said of their parents.

"They don't have a clue," San Benito High School trainer David Tari said. "A good portion of parents say, 'It's just a cut. You'll be OK.' . . . And if we're uneducated as trainers, then coaches are really uneducated."

But it's not just high school athletes (and their parents) who need education. About 18 months ago, after some MRSA cases began to appear among Cal athletes, the program's medical staff decided to meet with teams. Jack Clark, the coach of Cal's rugby powerhouse, said it was an eye-opener for his squad.

"It's a bit scary," Clark said. "It's a topic that gets the guys' attention. When you start talking about resistant infections, that hits home with college kids. They get that it doesn't sound like something they want to get. Every guy on the team has drank the Kool-Aid."

That's important, because MRSA is not going away.

"When it comes to emerging infectious disease, this one is par excellence," Deresinski said. "We've been in evolutionary competition with micro-organisms for millennia, and that will never stop. Sometimes they get the upper hand, and we have to prevent that."

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