



THE DARK SIDE OF SPORTS



Sports/liability consultant Dr. Marc Rabinoff has testified in two litigations involving rhabdomyolysis, one of which concerned an individual who had died.

Iowa Football Versus Rhabdomyolysis

A disturbing look at the dark side of strength coaching

BY DR. MARC RABINOFF


Although sporting events happen through the efforts of numerous people, it's the athletes and head coaches who make the headlines. Sure, the team doctor might get asked for a statement about the health status of a player, although with privacy laws they are much more tight-lipped than in the past. As for the strength coach, well – except for being asked to make a few general comments before the start of a sports season about the team's strength or speed compared to previous years – such support staff are pretty much left alone. However, the coaches involved with the strength and conditioning program of the football players at the University of Iowa were recently at the top of everyone's interview list. But for all the wrong reasons.

The Hawkeyes competed on December 29 in the Insight Bowl in Tempe, Arizona. After that, the players were given workout cards to perform conditioning workouts on their own during the winter break, before returning to regular training at the college. Starting on January 20 and over the next several days, athletes began showing symptoms of a

serious medical condition called rhabdomyolysis, and by January 25 a total of 13 players had to be hospitalized. It was not until January 31 that the last player was released from the hospital.

With the high levels of athletic fitness required of today's Division I football players, it's not surprising that some athletes may get injured in an off-season workout. But having 13 players hospitalized after a single workout raises some serious questions.

Before going any further, let me provide a working definition of rhabdomyolysis. Rhabdomyolysis can be broken down into three Greek root words: *Rhabdo* means rod shaped, *myo* means muscle and *lysis* means breakdown. Thus, rhabdo-myo-lysis = rod-shaped muscle breakdown, or breakdown of striated muscle. During rhabdomyolysis, one of the substances that is broken down and sent to the kidneys is the oxygen-carrying pigment called myoglobin, which is toxic to the kidneys. One reason this condition is treated so seriously is that it can result in kidney failure. Once rhabdomyolysis is diagnosed, one of the treatments is aggressive hydration via IV – in effect, flushing the myoglobin out of the kidneys.



One of the causes of rhabdomyolysis is overexertion; when this occurs, the condition is referred to as *exertional rhabdomyolysis*. What's more, because these particular cases occurred within the off-season, when college football coaches are not allowed to directly coach their athletes, the responsibility for any training that resulted in overexertion would fall on the shoulders of the head strength coach who designed the workouts and the director of football operations, who in this case is Paul Federici.

On January 26 the University of Iowa held a press conference to address the situation. On hand to give statements and answer questions were Federici, Dr. John Stokes – a physician who was not involved in treating the athletes – and Biff Poggi, the father of Jim Poggi, who is one of the athletes who was hospitalized. Absent from the conference were head football coach Kirk Ferentz, who was on a recruiting trip, as well as anyone involved in the administration of the conditioning program. Due to privacy laws, the school could not release the names of the players, but it's a different story when the athletes themselves or the parents of an athlete come forward, as was the case with Biff Poggi.

During the press conference, the media asked for details about the workouts, but Federici was unable to provide details about the protocol used. However, two of the hospitalized players, defensive players Shane DiBona of Duxbury, Massachusetts, and Jordan Bernstine of Des Moines, gave some details through social media outlets. On Facebook, DiBona said, “I had to squat 240 pounds 100 times and it was timed. I can’t walk and I fell down the stairs.” Additionally, based upon Poggi’s comments at the press conference, sled work was involved as well.

Poggi said that the players performed a heavy squat workout for “multiple reps in a certain amount of time with a certain percentage of their max, then they did a sled – kind of a prowler sled – after that.” I heard that the distance the sled was pushed or pulled was apparently 100 yards, but I haven’t read anything more about the number of sets performed.

Despite not having all the details of the workout, many strength coaches subsequently offered their opinions as to why the athletes developed rhabdomyolysis. One coach commented that such problems may be a risk that elite athletes must take, and another suggested that the problem may be more common than is reported. Another coach wholeheartedly endorsed this workout protocol as an example of a superior way to train athletes. Hmmm, you would think that a coach would want to distance himself as far as possible from any workout that put 13 elite athletes in the hospital with a life-threatening condition. But there’s no accounting for some people’s lack of common sense. Consider that one company with a poorly designed energy drink saw its sales skyrocket after it was reported that a dozen high school kids were hospitalized after drinking it, including one young man who was a diabetic.

Although I have been asked on several occasions for my opinion about



Squats are a valuable part of an athlete’s training when prescribed properly.

this particular conditioning program, that won’t happen until the facts are in and we know the details about the actual workout performed that day. Was everyone expected to squat 240 pounds for 100 reps, or were the weights adjusted based upon each athlete’s 1-rep maximum (1RM)? And how far were the sleds pushed or pulled, and how many sets were performed and with how much resistance? I simply don’t know, and it doesn’t appear that anyone wants to officially volunteer this information.

It’s also important to know what these athletes were doing in the weeks prior to this conditioning program, and what type of in-season conditioning they were doing. In other words, were they physically prepared through short- and long-term periodization methods to handle the loading parameters of this workout?

I’ve testified in over 400 litigations in the field of athletic and fitness training. Two of these cases involved athletes who developed rhabdomyolysis from workouts (one of the athletes subsequently died). So I do have some knowledge about this condition. But for me or anyone else to make a knowledgeable judgment based on facts instead of hearsay, we need to hear the details of the off-season workout from someone involved in implementing this conditioning program.

Good PR, Bad PR

As for the way the University of Iowa handled this high-profile case in regard to

the media, university representatives made several mistakes.

Instead of holding the type of press conference they did, it would have been wiser to have a single spokesperson from the university president’s office or the athletic director’s office give a brief statement that the event did happen to these athletes and that they were immediately taken to the hospital. Specifically, here are five potential problems created in that press conference on January 26:

1. Bringing a doctor to speak

Why did they bring a doctor to comment on this matter? He was not involved in treating these athletes. And if this doctor was associated with the university and is a kidney expert, why wasn’t he involved in treating these athletes?

2. Bringing a father of one of the athletes to speak

I have no idea why the legal counsel of the University of Iowa would endorse the school’s decision to put a non-university employee, the father of a young man who was in the hospital, on a national platform where he could say something that was inaccurate or blown out of proportion. And did his comments violate his son’s privacy?

3. Having these individuals discuss what they *think* happened

Not all the evidence was in about what happened or why it happened or if anybody at all was at fault. This press conference was taped, and there is a transcript available. Some of the comments made in this press conference can come back to haunt them should this matter continue and if any of these athletes are found to have permanent damage.

4. Having the director of football operations say he did not know what was involved in the workout

I would think that the director of football

operations could have immediate access to the workouts that were performed – certainly this workout must have been posted in the weightroom or written down or stored in a computer somewhere. But because he made the comment “I don’t have the details of it” [i.e., the workout], the question is why he didn’t attempt to find out what type of workout was being prescribed by his strength coach that would expose 13 Division I athletes to a life-threatening illness.

5. Admitting that the program would be changed

It was stated that the workout would not be performed again. This equates to admitting there was something wrong with a workout that had been in place and had never caused a problem before.

The mistakes continued. For example, it was announced that none of the players were found to have drugs in their system. Is releasing this information an invasion of privacy? What if drugs *had* been found in a player’s system? Are all football players subject to random drug testing?

Of course, the January 26 press conference didn’t put an end to speculation about what caused the rhabdomyolysis, so the university conducted an internal investigation. Those involved were professor David R. Drake, Dr. Loreen Herwaldt, professor William Hines, professor Kevin C. Kregel and university assistant vice president Deborah Thoman. Here were some of their findings that were released to the media:

- The committee is as certain as possible that the strenuous squat-lifting workout the players did on January 20 caused rhabdomyolysis in the 13 who were hospitalized, as well as serious muscle injuries to players who did not develop advanced rhabdomyolysis symptoms.
- The 13 players were in no way responsible for their own injuries. Rhabdomyolysis was not associated with

use of prescription medications, over-the-counter medications, supplements or energy drinks.

- Heavy workouts of the type done on January 20 had been conducted successfully in June 2004 and December 2007 and were not known to cause rhabdomyolysis. Therefore, the football coaches, strength coaches and athletic trainers did not have reason to suspect that a similar workout in 2011 would cause rhabdomyolysis in 13 players. However, timing of the 2011 workout was different from those performed in 2004 and 2007. The 2004 workout occurred in June, and the 2007 workout was in December after a one-week break. The 2011 workout followed a three-week break.

- There was no evidence to sup-



Sled work has become a key aspect of conditioning programs emphasizing speed and power.

port media and public claims that the workouts were intended to “punish” the football team or that the players had been threatened with harsh treatment if they did not excel in the workouts. At a January 18 meeting, the strength coach did make comments to the effect that last season’s close losses should concern everyone in the football program, including players, and that the workouts would determine “who wants to be here.”

Consider that such conclusions are based upon a report that is extremely subjective, and that a more convincing approach to the situation would be to have an independent investigation by individuals not associated with the university. If this matter continues for even one


player, his family would most likely hire their own representatives to conduct their own investigation. As for the committee’s recommendations to prevent this type of problem from occurring again, here are some of their comments:

- The football program should reaffirm its decision to abandon the intense, high-volume squat-lifting workout conducted on January 20, 2011.
- The football program should develop effective mechanisms for determining when players are experiencing unexpected complications that can result from a specific type of workout.
- Whenever a few members of a team become injured or ill after a strenuous workout, all members of the team should be tested to make sure they are not suffering from the same conditions.

As for the head football coach, Kirk Ferentz, prior to spring practice he met with the media and answered questions about the situation. He said, “I still don’t think we know exactly what happened. I think obviously the exercise was part of the cause.” Ferentz also said he was pleased to hear that the committee concluded that “the players were not at fault and the staff was not at fault.”

Again, we do not know all the facts, and we may never know them unless one of the athletes involved in this matter decides he wants to use his own resources to seek out the truth about what happened. But one thing is for certain, and that is many schools will now be taking a closer look at their athletic conditioning programs.

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