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## Chapter 23

### What we learned

Throughout this whole process, there were several occasions where we stopped and wondered what the real problem was. We asked ourselves, “Have we become so numb to the game of football, that we just cannot see how this practice killed Max?” The answer was “no.” In fact, football practices conducted today are no way like the practices conducted a generation earlier. (That generation ran even tougher practices.)

Many practice tactics acceptable in 70s or the 90s would not be acceptable today. Remember, most people with any experience or knowledge of football said August 20 was an ordinary practice. If there is a problem with football, then change football. Change policies, change procedures, change regulations, change rules, or maybe even change some laws. Change can be achieved in many different ways, but using the criminal justice system to bring about change should not be one them.

The football practice was not the cause of Max Gilpin’s death; it was merely a catalyst. Given all of the factors (medication, supplements, and an illness), this tragedy would have occurred under many other circumstances. Max could have been playing soccer that day and not wanted to come out of the game. (One half of a soccer game exceeds the amount of conditioning at PRPHS on August 20, 2008. Some soccer players run the entire game, and in fact there were soccer players just a few yards away who ran significantly more than Max Gilpin that day.) Max could have been running cross country, or perhaps after-school employment required him to work in the heat. There are many “catalysts” that could be exchanged with the football practice,

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and the result would end the same. The football practice is an “x factor.” Switch out the x factor with many other similar activities, and the final outcome would probably be similar.

The three main ingredients in this formula, however, are not optional. If you remove even one of them (medication, supplements, or illness), it is likely this tragedy wouldn’t have occurred. Everyone agreed that Max died of a heatstroke, but what caused the heatstroke? It is hard to say for sure, but we know what didn’t cause it.

Once we knew we could prove what *didn’t* kill Max (dehydration or excessive exercise), we could begin to focus on what did lead to his tragic death. What we learned is something every parent, coach, and player should know. It was not *one single* factor that caused Max Gilpin’s collapse. It was a series of three different causes that each made their necessary contribution. Until the combination of these factors is addressed, more children are most surely going to die in a similar fashion.

The first thing to understand is medication. Comparing Max Gilpin’s use of Adderall® to others—adolescent football players or anyone else for that matter— is not fair, because the medication was not being taken as prescribed. In the spring of 2009, stories started to circulate about Max’s unwillingness to take his ADD medication. There was a letter in the evidence where Michele Crockett notified the coaching staff that Max didn’t take his medication during the summer and would not be taking the pills during the team’s trip to football camp in early August 2008. She also testified about that note at trial. According to Crockett, the earliest Max would have started back on his medication was August 7, 2008. At the time of his collapse, he would have only been back on his medication 13 days at most. (If he had been back on the medication less than two weeks and taking it sporadically during this time, he would have been susceptible

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to a whole different group of side effects that normally would not be present in older and more tolerable users.)

Jeff Gilpin testified that he found seven to eight pills in Max's sock drawer after his death. This could suggest that Max had only taken the medication about half the time since August 7, 2008. Furthermore, in a deposition for the civil case, one of Max's former classmates stated that Max had been selling his medication to another boy at school. This allegation was confirmed by another student in a separate interview. No one is suggesting that Max was on the street corner pushing pills, but there is substantial evidence that he was selling Adderall® to at least one classmate. By all accounts Max was a great kid, so please do not judge him based on one isolated incident. However, it is important to divulge this information because it adds to what may have *really* killed him. It appears that his infrequent use of the medication, along with other mitigating factors, set off a series of events no one even realized was possible.

An article posted at the website of the American College of Neuropsychopharmacology details the risk of fatal toxicity from intermittent amphetamine use. The article, written by Everett H. Ellinwood, M.D., George King, Ph.D. and Tong H. Lee, M.D. Ph.D. states,

Deaths directly attributable to the pharmacological response to amphetamines relate to several phenomena, including: (1) hypertensive cerebrovascular hemorrhage (confirmed pathologically); (2) cardiovascular collapse secondary to ventricular fibrillation, with the majority of these cases in individuals less than 30 years of age with no evidence of pre-existing heart disease; (3) hyperpyrexia in the range of 40°C (104°), and (4)

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miscellaneous causes, such as septicemia with bacterial endocarditis or necrotizing angitis.

In general, acute fatal drug reactions to amphetamine are more common in the occasional user than in the tolerant, chronic, high-dose abuser. This is particularly true of the hyperthermic and convulsive cascade that precedes many fatalities.

If Max Gilpin was running a temperature from some form of septic shock prior to practice or if instead he was hyperthermic (which his medical records suggest), then the amphetamine's role cannot be denied. The denial becomes even more difficult, especially if any of these side effects were coupled with other well known side effects, such as vasoconstriction. It was stated in trial testimony that Max's pediatrician had moved his dosage up from 20 mg to 30 mg, but Michele Crockett testified that she never picked the new medication up after dropping off the prescription. Typically a doctor will increase a dosage of amphetamines because the user has built a tolerance to the drug. Testimony and witness interviews, as well as other documentation, confirmed Max Gilpin was far from the tolerant category. Like many of the unknown factors, Max's irregular pattern of prescription drug use wasn't entirely confirmed until the trial.

Max Gilpin's irregular use of prescribed amphetamine certainly was a factor in causing his death. If Max had been taking the medication regularly, it is unlikely that he would have gained 35 pounds in thirteen months. (If he had been taking the amphetamine regularly, then his weight gain would show that something else was wrong.)

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Questions surrounding Max Gilpin's weight gain leads to the second factor: his use of the body-building supplement Creatine. This supplement is sold at many nutritional or herbal supplement stores. However, in the Commonwealth of Kentucky, many stores require the purchaser to be at least 18 years of age or older. At different times, both of Max's parents admitted to purchasing Creatine for him, but both claim he discontinued use months before his collapse. However, two of Max Gilpin's friends stated they had witnessed him take Creatine within two weeks of his collapse.

In October 1994, the supplement industry was deregulated by the Food and Drug Administration (FDA). Once the Dietary Supplements Health and Education Act (DSHEA) passed, heat-related deaths began to spike. After Corey Stringer, an NFL player, died from a heat-related collapse tied to a supplement in 2001, the opinions about these enhancers began to change. In an AP article posted on [espn.com](http://espn.com) on July 21, 2002, Frederick Mueller (Professor and Chair of Physical Education, Exercise and Sport science at North Carolina), spoke about the spike in heat-related deaths. The article stated,

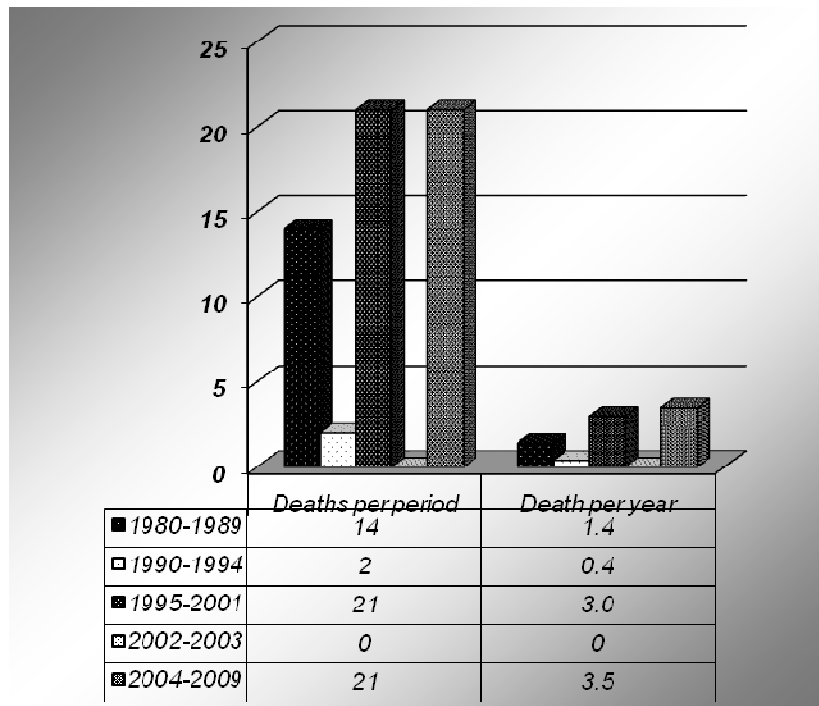
Mueller is also the chairman of the American Football Coaches' Committee of Football Injuries and directs the National Center for Catastrophic Sports Injuries, based at North Carolina.

He said 20 football players suffered heat-related deaths since 1995. In the previous five years (1990–1994), only two football players' deaths were attributed to heat. From 1980 to 1989, 13 players died of heatstroke.

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“The trend is really up for those, and it’s a real concern,” he said Wednesday. “Coaches, players and even parents need to remember how to prevent these tragedies, and that’s not hard to do.”

I contacted Dr. Mueller in May, 2010, to confirm the figures. He reported 14 deaths from 1980–1989, 2 deaths from 1990–1994, 21 deaths from 1995–2001, and 21 deaths from 2002–2009. These figures were almost the same as what was being widely reported elsewhere. According to those figures, 1980–1989 saw 1.4 deaths related to heat per year. Nine out of the fourteen deaths in this decade took place from 1980–1984. This was the decade that the need for hydration and water breaks became a top safety issue, and by the end of the decade, most coaches had received the message. This newfound vigilance might help explain the exceptionally low death rate from 1990–1994 when only .4 heat- related deaths per year occurred.



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The seven years following the passage of the DSHEA saw a significant spike in these types of fatalities. The period 1995–2001 registered 3.0 heat-related deaths per year, which is over seven times higher than the previous five-year period. The period 2004–2009 experienced 3.5 fatalities per year, yet the period of 2002–2003 is an anomaly because there were no *football* heat-related deaths. (This could be contributed to the negative publicity Ephedra received after NFL player Corey Stringer’s death.) A couple of years went by and everyone forgot about Stringer’s collapse, so the death rates began to spike again. An additional 21 football players, including Max Gilpin, succumbed to heatstroke during period 2004–2009. To find that many heat-related deaths in a six-year period, we had to go back to 1968–1973 when 32 deaths were recorded.

Whether DSHEA is entirely responsible for this increase in heat-related deaths is impossible to know for sure, but it cannot be ignored that it played a significant role in this case. Max Gilpin’s use of a body-building supplement was another smoking gun that the witch hunters wanted to ignore.

With any medication you should check with your doctor before beginning a regimen of sport supplements or any other dietary supplements, because there could be side effects that are not commonly known. Whether Max Gilpin’s use of Creatine is a minor or major factor in his death may remain a mystery, but something was indeed different that day and Max’s medical records supported that theory.

Tests done on blood drawn shortly after 7 PM on August 20, 2008, showed that Max had a high creatinine level of 1.9 (normal range 0.3–1.2) at that time. That figure could suggest kidney failure was occurring or was inevitable. (An aspect that is important to know is that it takes kidneys being in failure a minimum six to eight hours to reach a creatinine level of 2.0. That

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indicates Max Gilpin was either overloaded on the body-building supplement Creatine or his kidneys had begun to fail around lunchtime on August 20, 2008, or maybe even both. It is highly unlikely that a high protein diet accelerated that figure to a number suggesting kidney failure.

With medication and supplements identified as two contributing factors, a pre-existing illness is all that is left to complete the deadly trio of causes. Medical records, doctor's testimony, and eyewitness testimony confirmed that Max did not feel well that day, and more than likely he was running a fever. Jeff Gilpin stated Max had a headache the night before, and Lois Gilpin described Max as hot to the touch on August 20, 2008. Classmates described Max Gilpin as unusually lethargic, including him resting his head on a table during lunch.

It was always strange that external cooling methods used by the coaches and the EMS technicians were not able to lower Max's body temperature by very much. In fact, his body temperature did not return to normal until after he was given a blood transfusion. The coaches may have been facing the same problem as the hospital. It appears that Max's blood had some form of bacteria in it that was preventing them from lowering his body temperature. Once the blood transfusion was complete, his temperature began to regulate.

In short, the evidence strongly suggests that a prescribed amphetamine, body-building supplements, and an illness all contributed to Max Gilpin's death.

When does a tragedy get to be *just* a tragedy? Basically this story snowballed because of a seemingly endless list of unique circumstances. Since the trial, JCPS— along with other school districts around the country—are trying to be proactive by addressing unknown circumstances with the student athlete. One of the new requirements calls for parents to disclose any supplements used by a player. It also attempts to educate parents and students to some of the medical issues that could cause serious injury or even death. But these new requirements will not

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matter if the parents do not educate themselves. Until the FDA intervenes or parents understand what risks their children face from mixing medicine and supplements, these tragic deaths will continue.

Parents and players need to be honest. They may not realize what their child is ingesting. Distribution of ADD/ADHD medications from one student to another student for whom it was not prescribed happens more often than most parents realize. Do these children realize that a nontolerant user's body temperature could rise from taking this medication? What if you have a student who doesn't feel good, but wants to get through practice? He gets an ADD/ADHD pill from his buddy to get him through. He doesn't know that the fever he was already running is going to get higher or even worse, once he starts practicing.

There are millions of children who are prescribed Adderall® and similar medication containing amphetamines, and if the medication is not monitored it could lead to disastrous consequences. Many kids mistakenly think if one pill is good, then two have to be better. They must be made aware of the dangers of amphetamines. Popping a second pill to get through the day or a practice could cost a student his life. No one is saying that is what happened with Max Gilpin, but it surely is a possibility.

Parents need to discuss sports and dietary supplements with their children. If parents purchase these types of products for their child, they should read the labels and warnings closely. They should also let their doctor know, especially if the child is already on prescription medication.

Just because parents do not buy a body-building supplement and performance enhancer for their child, does not mean the child is not taking such drugs. Teens can obtain such supplements from other children, or in some cases, they can walk into a store and buy the

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enhancers on their own. Rules and regulations concerning most dietary and sports supplements vary widely from state to state. Some states have laws regarding purchase by minors, but most do not. Some stores have policies about sales to minors, while others do not. I believe it is time for one standard across the entire country.

In February 2010, the Dietary Supplement Safety Act (DSSA) was introduced before Congress. It would have required all manufacturers of dietary supplements to register with the FDA, among other regulations. It was sponsored by John McCain (R-AZ) and Byron Dorgan (D-ND), but John McCain withdrew his support shortly after he backed the bill. (I didn't feel that the bill would accomplish much, but I was glad it was getting attention. I personally wrote a letter to John McCain offering to share what we have learned about sport supplements, but as of June 2010, neither he nor anyone from his office responded.)

If we cannot get our lawmakers to do something about this, then the only effective option is education. At the beginning of each season, if we could have a campaign reminding parents and athletes of the dangers they face, it might make a difference. It might even start putting zeroes back in the column of heat-related deaths. (It has been proven when people discuss how these deaths occur and how to avoid them, the death rate drops dramatically.) It appears we may not be able to get the government to intervene, because lobbyists for drug manufacturers and dietary supplement manufacturers own the lawmakers, so we may have to sponsor this campaign ourselves. Much like water breaks in the 70s and 80s made a difference, a continuing awareness campaign could become the way we eliminate medication plus supplement plus heat-related deaths.