
THE JUNCTION BOYS SYNDROME

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ABSTRACT

Anderson, SA. The junction boys syndrome. *J Strength Cond Res* 26(5): 1179–1180, 2012—Strength and conditioning training for football has become year-round in virtually all levels of play, but none so much as contemporary NCAA DI football. Football players spend more off-season months and weeks in preparation for sport than is given to in-season practice, let alone play. A present peculiarity to NCAA Football Bowl Subdivision is conditioning and off-season football training is the sole setting for non-traumatic death in its participant players. Training regimens are too often built on tradition versus based on science and place players at-risk.

KEY WORDS nontraumatic death, football, training

The Junction Boys” are the so-named survivors of a renowned 10-day preseason football ordeal orchestrated by the legendary “Bear” Bryant. Although Coach Bryant achieved unqualified success, the Junction Boys did not. Those boys went 1–9. It was not until 2 seasons later, another “generation” in college football, that Texas A&M saw success with the core of the Junction survivors having departed the program because of graduation or exhausted eligibility. Nonetheless, Bryant’s failed field experiment in football training, extreme activity in a punishing environment, remains a practiced pattern for “success.” Just as it placed those players at peril in 1954, the “Junction Boys syndrome” is killing kids today.

In a recent Listserv thread themed at keeping living football players from converting to dead ones, James Moriarity, MD, past president of the American Medical Society for Sports Medicine stated, “I support the broad concept of having better fire trucks; but I would champion even more that we not have houses made of straw. And I truly believe that football conditioning, or what passes for football conditioning in this country, is a house of straw. Conditioning as practiced in many high schools and colleges, including elite college programs is antiquated, scientifically unstudied, and

can be, obviously, dangerous” (8). Review of recent off-season football training practices reflects the described “danger” with allegation of workout guidelines dismissed, individual risk factors denied, relentless driving by coaches, deprivation of fluids, dependence upon junk science as justification for workout construct, and “discipline, accountability, and toughness” as the designed endgame vs. science-based strength and conditioning.

The Junction Boys syndrome’s true trait is *intensity*—too much, too fast, too long, and often-but-not-always too soon in a workout regimen—and is the thread that ties all known recent nontraumatic deaths in NCAA football. “Just remember, gentlemen, the body is a wonderful machine. You will pass out before you die. If you pass out, the [athletic] trainers will take care of you” (9). Absent science, sport specificity, and safety, neither success nor failure in sport, is reflected in the drills.

The 4 leading causes of nontraumatic death in the working athlete are cardiac, exertional heat stroke (EHS), exertional sickling in the athlete with sickle cell trait (SCT), and asthma (10). These causes are reflected in nontraumatic NCAA football deaths, 2000–2011: 6 cardiac, 4 EHS, 1 asthma, and 10 exertional sickling.

Although asthma death is rare in NCAA football, the lone case study is telling, “... Wheeler and his teammates were running a series of gut-busting sprints—10 100-yard dashes in 15 seconds or less, then 15 seconds of rest; eight 80s in 13 seconds or less, then 13 seconds of rest; and so on. Wheeler had four 40s left when he collapsed, unable to find his breath, and died an hour later” (4). If the NCAA college football conditioning template reflects scripted and progressive daily or weekly or monthly progressions of volume, density, intensity, and periodization with work to rest ratios representative of sport ... wherein, then, does 2,160 yards of serial sprinting with a 1:1 work to rest ratio in approximately 12 minutes gain justification?

While in a relative and historical sense, EHS in football is epidemic; NCAA football players have suffered 4. One EHS death occurred in a summer workout and the remaining 3 in either day-1 or day-2 football practice with a tie to “conditioning.” The evidence is clear that EHS is mainly a consequence of *exercise* rather than *environment*. The preseason model adopted by the NCAA in 2003 has, undoubtedly, improved safety for our athletes in reducing risk for EHS but cannot offset the too much, too fast, too long, and too soon inherent in initial practice days. EHS practice deaths occur at no other time.

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An aura of inevitability envelopes sudden cardiac death as it is deemed “unknowable” and thus “unpreventable.” However, Maron, in his 1986 retrospective review of sudden death in young athletes noted, “... cardiovascular collapse was clearly associated with intense physical activity ...” (5). All NCAA football cardiac deaths since 2000 occurred either in day-1 conditioning or off-season workouts.

The number one cause of nontraumatic death in NCAA football is currently exertional sickling. There is no evidence that any player has ever died an exertional sickling death as SCT status is known, athlete and staff are educated, and precautions are heeded. The primary product of precaution is mitigated intensity.

The common thread of ‘cause’ becomes evident but the solution seems, so far, stymied by a ‘culture’ willingly excusing the inexcusable. Referencing again the lone NCAA asthma death, in what seemed to be contrived cover for the irrational intensity in off-season football performance enhancement, subsequent to his athlete’s death, his coach said, “I don’t think it was the workout that was extraordinarily difficult. It probably was the easiest day of summer workouts” (6). Another institution sought an independent investigation, as, within months, there were 2 collapses in their off-season football workouts with 1 dead and 1 survivor. The investigator abdicated the opportunity to elucidate and educate and instead offered the summary excuse, “The conditioning activities and requirements for football student-athletes are rigorous, but within the range normal to other Division I programs” (3). In training for sport, intensity—or “rigor”—is a double-edged sword in that it builds, but it also breaks. The construct of our conditioning is killing athletes, and the critical component is intensity.

“People just aren’t aware. Coaches and ... Doctors and [athletic] trainers are a whole lot better ... [but] the way we’re conducting conditioning at this time is putting some people at risk” (2). The answer is as evident as the cause, “Extreme conditioning drills and endurance activities that focus more on creating mental toughness than on developing proper ... techniques should be eliminated” (1). NCAA guidelines have addressed preseason practices and the athlete with SCT. However, the NCAA football population remains at risk from inappropriate conditioning sessions. “It makes much more sense to modify or eliminate these inappropriate and

unnecessary drills for the safety of all NCAA football players, before there are more needless conditioning-related football deaths” (7).

One writer opined, “Only a fool would call it [collapse and death of working athletes] an aberration, the freakiest of flukes Human tragedy, one case after another, deserves a better and deeper explanation” (4). Of the 21 nontraumatic deaths in NCAA football, only 3 have occurred in practice; all 3 occurred, based on known evidence, in either day-1 or day-2 practices. All 16 NCAA Division I nontraumatic deaths have occurred in strength and conditioning activity. There have been, in NCAA Division I, no deaths in practice and no deaths in games. Since January 1, 2000, were one to start a clock at the conclusion of the Bowl Championship Series National Championship game and stop the clock approximately 100 hours into August preseason football practice, one will have accounted for the window of occurrence for virtually every nontraumatic death in NCAA football, save 2 September conditioning deaths. It is past time to stop the clock on these deaths.

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