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Editors



Return to Play in Football

An Evidence-based Approach





Ethical Issues in Return to Play: How to Deal with Parents and Coaches

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must also skillfully navigate potentially complex relationships with an athlete’s parents and coaches. While the underlying principle of “first, do no harm” still applies in sports medicine, medical decision-making and treatment algorithms are oftentimes made more complex by the temporal nature of sports seasons and the societal and economic pressures related to missed sports participation. For these reasons, it is crucial that sports medicine physicians have a clear understanding of sound return-to-play (RTP) principles and adhere to strict ethical standards. By communicating these guidelines early in the treatment process with the player, parents, therapists, athletic trainers, and coaches, all involved entities will be on the same page, and RTP conflicts are less likely to occur.

64.1 Introduction

The field of sports medicine is unique in that the sports medicine professional is not only tasked with treating and interacting with the patient but

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64.2 Principles of Return to Play

Decision-making in terms of RTP following injury is a collaborative effort among the athlete, parents, guardians, coaches, physical therapist, athletic trainers, and team physician [1, 2]. Successful outcome is predicated on clear communication and goal-oriented rehabilitation. There is considerable empirical evidence that both parents and coaches influence psychosocial well-being of youth athletes [3]. As such, there are multiple stakeholders involved in team sports that challenge the traditional notion of confidentiality and autonomy. Ultimately, it is the respon-

sibility of the physician to ensure no harm to the athlete during this process while enabling participation at the highest possible level [1].

Establishing guidelines prior to the outset of the season among all stakeholders can pay dividends as injuries occur throughout the year. While specifics may not be included, informing others of who makes decisions, under what circumstances, and how the safety of the athletes takes priority can minimize unrealistic or harmful expectations [1]. This may help alleviate parents from “doctor shopping” until they find RTP criteria that they believe best suits their youth athletes’ interest [1]. The role of the parent must not be underestimated. Parental support is fundamental to initial participation and ongoing success in team sports. Overly engaged parents might play a disruptive role, however, with regard to medical decision-making.

RTP considerations for musculoskeletal injuries should establish an athlete’s range of motion, strength, and functional athletic ability [1]. Evaluation should be conducted out of plain sight of the crowd attending the sporting event, but in the presence of the coach and/or parent if possible. This may be advantageous so all stakeholders witness the ability or inability of the athlete to perform a task [1]. With regard to concussion, change in baseline psychometric characteristics after injury and clinical practice guidelines for graduated return to play has been established and should be followed [4, 5]. Other factors include but are not limited to the type of sport in which the athlete participates, the timing in the season, the level of competition, the position played, the athlete’s limb dominance, and the efficacy of bracing, taping, or padding.

Goal-oriented rehabilitation includes objective performance parameters in the gym and on the playing field as well as psychological issues. The role of the athletic trainer to this regard is paramount. Given the time spent together during pre-season, practice, and regular season games, athletic trainers have unique insight into the cognitive aspect and personality traits of each athlete.

This may have benefits as it relates to understanding the athlete’s level of pain threshold, normal demeanor, and other personality traits. One common behavior seen is the athlete who sustains an injury and then hides from the athletic training staff for fear of being taken out of competition. In some cases, this behavior may be promoted by the coaches or parents of the athlete. Despite resistance after initial evaluation, the best way to demonstrate that the athlete is unable to return to competition is by adhering to preestablished RTP guidelines and criteria. In other circumstances, athletes may exhibit a lack of emotional preparedness or mental readiness required to RTP safely. These traits must be identified, especially in contact sports, as RTP may predispose the athlete for risk of further injury [1].

Fact Box 1 Importance of patient confidentiality

- Physicians are obligated to maintain their patient’s confidentiality.
- Maintaining patient confidentiality is challenging in a team setting.
- Physicians serving as a team physician should be educated about ethical obligations and challenges, including patient confidentiality, in this unique environment.

64.3 Ethical Considerations

Due to conflicts of interest, the team physician faces a unique situation related to ethical principles of autonomy and confidentiality [6]. Confidentiality regarding medical decisions in the traditional sense is an obligation that physicians owe to their patients [7]. In addition, state and federal laws mandate healthcare professionals to uphold these standards. Numerous occasions in sports medicine challenge this framework. As such, it is suggested that prior to any examination or care of an athlete, the team physician has a duty to clarify the nature

of the relationship with the athlete indicating the importance of confidentiality and that the physician will strive to maintain that confidentiality, despite the challenges associated with patient care in a team setting [8]. Most health-care professionals balance ethical principles of the patient's right to autonomy, with fairness, and their obligation to first do no harm. To achieve this goal, it was advocated that physicians pursue team coverage to gain education in the basic principles and concepts of applied ethics [9]. Physicians should also be familiar with current management guidelines, particularly as it relates to sports-related concussion [10].

Fact Box 2 Common ethical considerations among a sports medicine team

- Understanding each persons' role
- Conflict of interest due to divided loyalties
- Acting in the athlete's best interest, despite return-to-play pressure from coaches, parents, or athletes

The myriad of ethical considerations in sports medicine have been well described in the literature. For example, a group of athletic trainers was surveyed and qualitative examination of 154 ethical issues revealed seven common themes [11]. These include miscommunication about roles, conflicts of interest due to divided loyalties, conflicts in acting on the athlete's best interest, and pressure to RTP from the coach, parent, supervisor, administrator, or athlete [11]. Another study reviewed the relationship between management of professional sports teams and team doctors. The researchers reported that team management often places pressure on physicians to return an athlete quickly to competition [12]. Although most sports organizations have the best interest of the athlete in mind, some promote shortened recovery through substandard treatment protocols. Despite pressures by team management, it is pertinent that medical staff on

the sidelines during games remove an athlete from competition if assessment is concerning for further injury. If initial evaluation permits RTP deemed by preestablished guidelines, ongoing close observation of the athlete is necessary to confirm that decision and ensure the athlete's safety. The outcome of a game should never have an effect on RTP decisions despite the culture among athletes, coaches, and parents in some sports that playing through the pain is a sign of toughness [1].

RTP guidelines are multifactorial, and decision-making in terms of long-term goals is best conducted away from the playing field in the office setting. Topics and conversations may vary depending on the current level of participation of the athlete and ultimate goals regarding level of competition. RTP decisions should not be influenced by parents of high school athletes' who pressure RTP based on the potential for earning or losing college athletic scholarship [6]. Furthermore, there is often a discrepancy between patient-reported health status and parent-reported health status, further underscoring the importance of limiting parental influence in the setting of younger athletes [13]. At the collegiate level, judgment cannot be altered by high-salaried coaches and athletic administrators who are under pressure from students, fans, boosters, and politicians to succeed [2]. Perhaps ethical decision-making is most challenged at the professional sports level. Athletes stand to gain economic benefit from their athletic ability, but so do agents, family members, sponsors, team owners, and many others, requiring vigilance by physicians to adhere to RTP guidelines and ethical standards in medical decision-making [1]. The impact of missed games can have a significant impact on the earning capacity of professional athletes. These financial concerns must be weighed against the risk of early RTP to the athlete's current and future health. Despite attempts to uphold ethical standards, studies have shown that there is great variability among team physicians in RTP decisions.

64.4 Psychological Aspects of Return to Play

Numerous studies have shown that psychological characteristics and mental health play a significant role in outcomes after musculoskeletal injury [14–17], and monitoring of these levels may provide insight into readiness for RTP [18]. Moreover, adolescents often respond differently to injury and surgery than adults [19, 20]. For example, one group of researchers found that identification of oneself as an athlete was more important than general self-motivation in adherence to a home rehabilitation program in adolescents, but not in adults [19]. Another study reported greater pain catastrophizing in adolescent patients compared to adult patients [20]. These findings underscore the need for an individualized approach that is focused on treating the patient according to their specific physical, emotional, and mental needs. These needs may differ from parents' and coaches' expectations or understanding, and consideration must be given to bridging these knowledge gaps. Ultimately, effective communication among physicians, coaches, parents, therapists, and athletic trainers is key to optimizing the mental health of the injured athlete.

64.4.1 Psychological Health of the Athlete

Pain catastrophizing is arguably one of the most important psychological characteristics affecting RTP outcomes, especially in the short term. Catastrophizing can be described as a sense of helplessness in controlling or responding to pain and is associated with negative outcomes [20]. Tripp et al. demonstrated that adolescents had significantly higher levels of pain catastrophizing at 24-h post-ACL reconstruction than adult patients [20]. Although further research is needed, this suggests that adolescent athletes should receive focused postoperative interventions aimed at controlling these negative emotions. Interestingly, while verbalizing and communicating emotions

related to the injury is associated with better outcomes, many athletes are hesitant to express these feelings to avoid any perception of being “weak” by parents, coaches, or teammates. This is more common in athletes with a poor social support system, and they often express inauthentic “positive” emotions while failing to adequately address their psychological health. A large body of research has shown that these athletes have poor outcomes and a higher rate of reinjury [21]. RTP programs should be tailored according to the psychological needs of the athlete, and adequate buy-in from coaches, parents, and athletic trainers is crucial to optimizing outcomes.

64.4.2 Role of the Parents

Parents play a critical role in athletes' psychological well-being. Both mothers and fathers can facilitate athletic success and reduce emotional stress when involved in the appropriate manner. In fact, parental encouragement of sports participation could potentially help to increase their children's activity levels and decrease the rates of childhood obesity. As these children age, their earlier parental involvement may help to improve the chances that they remain physically active as adults [22]. It is important, however, that parents assess the specific psychological, social, and emotional needs of their child and adjust their involvement accordingly [23–25]. In fact, studies have provided specific guidelines on how athletes prefer their parents behave before, during, and after sports competitions [26]. Notably, athletes reported a preference that their parents encourage them and the rest of the team to focus on effort rather than outcomes, maintain control of their own emotions, and provide positive and realistic feedback [27]. Although this data was collected in the setting of athletic competition and not specifically RTP after injury, the general findings likely translate across athletic settings. Further data supported these findings and demonstrated that structured parental involvement increased youth's perceived enjoyment and

decreased stress levels associated with sports participation [23], and positive parental involvement has been correlated with improved mastery of sport [28].

On the other hand, it is critical to identify parent motivations or perceptions that may be detrimental to the athlete and redirect these to have a more positive impact on the athlete's performance and recovery from injury. There is significant potential for inappropriate parental involvement to result in negative consequences. In many cases, parents encourage or force sports participation past the level that the child is interested or capable of. This type of negative parental involvement results in increased anxiety, higher likelihood of a negative sports experience, and a greater chance of injury [22].

Some parents are overprotective, which has been shown to hamper athlete growth and development. The term "helicopter parent" was first published in 1990 to refer to parents that hover over their children, never allowing them to succeed or fail on their own [29, 30]. Parents must strike a balance between providing protection and security and encouraging their children to learn from experience and gain skills necessary for independent living in the future. Being overprotective in the form of helicopter parenting leads to poorer functioning and worse emotional decision-making [30]. In fact, this hyper-parenting can lead to reduced physical activity in younger children [31].

The nature of parent-athlete involvement becomes even more complicated as the patient reaches the age legal independence (18 years of age in most countries). While the parents are legal guardians of younger children, this relationship changes rather quickly when the adolescent reaches the age of legal independence. However, many parents remain heavily involved in their child's athletic participation and health care even past this age. It is important to realize the legal and medical distinction between a teenager legally under the care of their parents, and a child who may only be days, weeks, or months older, but is legally independent. In many cases, it is necessary for the 18-year-old patient to provide

either a verbal or written consent before medical professionals can discuss personal health information with the parents. Similarly, the 18-year-old athlete, not the parent(s), has the ultimate say in medical treatment and return-to-play decisions [32]. This may be difficult for the parents, athlete, and coaches to accept in athletes that recently were under the care of their parents. While the preservation of true informed consent is difficult in sports medicine at any age [32], it is even more challenging in the case of a young but legally independent athlete, who may be under even more pressure from their parents than older athletes, in addition to that from their coaches, agents, and teammates. In these settings, sports medicine professionals must remember that true informed consent and patient autonomy are cornerstones in medicine, and outside pressures to dilute these principles must be guarded against.

64.4.3 Role of the Coaches

Coaches also play a crucial role in young athletes' sports careers. Their actions, words, and even nonverbal communication can have dramatic effects on the psychological well-being of their players. In fact, studies have reported that the manner in which a coach delivers verbal feedback can have as significant of an effect as the actual words that were spoken. Additional studies have suggested that optimal coach-player communication could decrease the number of sports injuries, or at least those that are attributable to poor technique [33], and that even basic communication training for coaches can improve young athletes' performance and psychological health [3, 33]. While most coaches are not medical professionals, they play an arguably equal, or perhaps even more important, role in guiding the injured athlete's psychological health than the treating physician. As such, the coach should be considered an important part of the sports medicine team, and discussions regarding the emotional and mental well-being of the patient should ideally include the coach (with proper patient permissions).

64.4.4 Role of the Athletic Trainers and Physical Therapists

During the road to recovery, athletic trainers and/or physical therapists will likely spend more time with the athlete than any other medical professional. Perhaps no one in the sports medicine team will be more qualified to gauge the athlete's psychological status and provide appropriate feedback than their athletic trainer or therapist. Furthermore, the athletic trainer provides a critical link between the coaches and the sports medicine physician. For these reasons, optimal psychological rehabilitation and successful RTP will revolve around the athletic trainer or therapist.

64.5 Objective Return-to-Play Criteria for Soccer: Injury-Specific Examples

As return-to-play decisions become increasingly more complex, objective return-to-play criteria help to provide unbiased and consistent guidelines in assessing injured athletes. These guidelines help to assure patient readiness and prevent potentially risky premature return to sport.

64.5.1 Concussion

Likely the most complex return-to-play decision and most concerning for all parties is head injuries. Understandably, much anxiety can exist among the parents as recovery and severity are difficult to predict and visualize. Involving parents in all aspects of evaluation and treatment is key to educate and ease anxiety among loved ones. Although less common, education is also key for parents pushing for quick return to play. This can be difficult to address as symptoms are not as easily definable or observed. Comprehensive evaluation and buy-in by all, including the athlete, parents, and coaching and medical staff, is paramount in proper treatment of concussion.

Concussions commonly can have serious effects on young athletes including irritability, memory loss, confusion, and difficulty with concentration. This is obviously problematic in school-aged children. Any athlete with concern for a concussion should be removed from play immediately and be evaluated by a medical professional. If the player is found to have signs or symptoms of concussion such as dizziness, headache, confusion, or memory loss, they must be removed from play for the entirety of the day, and if any question exists, one should err on the side of caution. If the athlete sustains a second event, they are at risk for second-impact syndrome which carries risk of prolonged recovered and worsened symptoms. Further evaluation regarding symptoms must be continually done, and gradual return to play is recommended only after these symptoms cease [34]. It is key to involve parents, particularly in this aspect of data gathering and treatment, as they can provide accurate assessments of their child's symptoms and behavior which helps the physician to treat the child more appropriately.

Currently, it is recommended that the student athlete slowly returns to normal daily activities without prolonged absence. This typically begins with a walk a few times a day and slow return to school activities. Return to sport is handled in the same manner with gradual return in a stepwise progression without advancing to the next level until the previous activity is successfully completed without symptoms [34]. Many societies have published return to activity guidelines. However, practitioners must realize one size does not fit all, and concussion treatments must take an individualized approach, with involvement of the parents being key [34].

Current consensus guidelines, clinical examination, and objective testing are used in concert to determine safe return to play after concussion. Neurocognitive tests such as Immediate Post-Concussion Assessment and Cognitive Test (ImPACT™) and Standardized Concussion Assessment Tool (SCAT™) are useful when used in conjunction with clinical evaluation to provide a score which can be compared to the patient's baseline and allow object measures of head

injury. Again, in the increased pressure with return to play in many environments, these objective measures allow medical professionals to provide hard data to parents and coaches [34, 35].

Anyone with persistent symptoms and deficits should be referred to a concussion specialist who can provide multimodal therapies such as ocular, vestibular, and cognitive treatments. A multidisciplinary approach should be utilized in the treatment of concussion, and parents must be included, updated, and consulted to provide accurate assessments of their child's recovery [34].

64.5.2 Anterior Cruciate Ligament (ACL)

Knee ligament and ankle sprains are the most common injuries in adolescent football [36]. Proper education of the parents and realistic return-to-play estimates should be discussed with the understanding that continued evaluation may change the return-to-play timing. Many parents, athletes, and media seem to equate earlier return to play after ACL reconstruction to a better surgeon and technique. However, the surgeon must resist being influenced by this notion. Return to play too early may lead to higher graft rupture rates due to insufficient healing and lack of psychological and physiologic readiness [18].

Like concussions, objective measures can assist the therapist, surgeon, and athlete, and parent agree on a safe return to play. Close correlation with a trusted physical therapist can be beneficial for the athlete, parent, and physician. More standardized techniques such as biometric testing can be useful and should be discussed with the athlete and parents so both are aware of the required milestones that must be reached to move on to the next level rehabilitation. This can be helpful in athletes and parents who push for earlier return to play as well as in patients who require more confidence in their reconstructed knee. If a well-outlined plan is discussed pre- and postoperatively, return to play is less likely to be questioned until milestones are met. A trusted physical therapist can aid and provide helpful input in this process. Specific football-based

return-to-play guidelines and milestones also exist and can be helpful [37].

Psychological readiness and confidence in return to play is important and must be assessed. This can be done by private conversation between the athlete and surgeon outlining that commonly after ACL reconstruction, patients may not feel mentally prepared for return to play even after the medical team determines they may return. After discussion of the athlete's thoughts, a conversation with the physical therapist can be helpful as they spend more time evaluating the athlete's physiologic preparedness and clues related to their psychological preparedness can be observed, all in a less threatening atmosphere. The importance of physiological preparedness should be discussed with the parents as well as an unprepared athlete could lead to further injury and inferior performance. When athletes are determined not to be ready either psychologically or physiologically, the physician must be the athlete's liaison if parents and coaches are anxious for their return to sport [18].

64.5.3 Ankle Injuries

Although usually less severe than ACL reconstruction, ankle injuries are very common in football. Less controversy typically exists in return-to-play timing; however, due to their incidence, it is important to be well versed in their treatment and return to play. Like most injuries, successful sport-specific activities must be performed before return to play is allowed after a proper physical exam and, if indicated, imaging [1]. Rest, ice, compression, and taping or bracing can be effective. In young athletes with recurrent ankle sprains, potential causes must be ruled out so long-term ligamentous laxity and cartilage damage do not occur leading to early ankle dysfunction from injury at a young age. Like all injuries in young athletes, expected outcome and the process to get there, including return to play, must be discussed realistically with the patient and their parents.

Concussion, ACL injury, and ankle injuries are common in football with differing incidences,

severities, and therefore controversies in return to play. Education of the athlete, parents, and coaches is key, and buy-in of the process is essential for the safety of the player. This may require more time from the surgeon, but is imperative for optimal outcome.

Fact Box 3 Key factors to successful return to play

- The entire sports medicine team is needed to ensure successful and appropriate return to play.
- Objective criteria help to provide accurate return-to-play assessments and limit emotional or self-serving influences.
- Effective communication with the athlete, parents, and coaches is crucial.

Take-Home Message

A comprehensive RTP program involves engagement and collaboration by the sports medicine physician, coaches, athletic trainers and therapists, and—in the setting of younger athletes—parents. While there are many societal and economic pressures associated with RTP decisions after sports injury, objective RTP criteria and effective communication help to minimize conflict and ensure athlete well-being. Not only should parents and coaches understand RTP criteria, but they should also be actively engaged in providing psychological and emotional support to the rehabilitating athlete. Keys to success include setting realistic expectations early, encouraging a culture that facilitates open athlete discussion with constructive feedback, and always placing the athlete's well-being first, regardless of external economic or societal pressures.

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