Performance Technologies Recommendations: Responsible Use in Collegiate Athletics

The NCAA Committee on Competitive Safeguards and Medical Aspects of Sports has provided member schools with health and safety considerations for using performance technologies since 2014. As the use of performance technologies expanded and evolved across the membership, CSMAS recognized the need to develop additional guidance on the responsible use of performance technologies in collegiate athletics.

In May 2025, the NCAA Sport Science Institute hosted the NCAA Summit on Performance Technologies in Collegiate Athletics, commissioned by CSMAS. The summit aimed to: 1) synthesize current evidence and scientific literature about the use of performance technologies in collegiate athletics as it pertains to student-athlete mental and physical health, safety and performance; and 2) inform the development of evidence- and consensus-based recommendations for the responsible use of performance technologies in collegiate athletics.

Summit outcomes provide NCAA member schools with recommendations for developing and maintaining policies and procedures for the responsible use of performance technologies in collegiate athletics. The following foundational, recommendation and strategy statements (see Figure 1) serve the NCAA membership in their efforts to support student-athlete mental and physical health, safety and performance.

CONSENSUS STATEMENT CATEGORIES

Foundational statements: The most important educational takeaways from the summit that provide the basic information needed to understand and implement the recommendation and strategy statements.

Recommendation statements: Overarching considerations for the responsible use of performance technologies in collegiate athletics.

Strategy statements: Implementation considerations to support schools in putting each recommendation into action.

Figure 1

FUNDAMENTALS

- **Performance technologies are devices that enable users to collect and record biometric and/or performance data.** Devices may be directly attached to the individual athlete or their athletic equipment, or they may indirectly monitor athletic performance (e.g., cameras, sensors, surveys, software, mobile apps).
- **Performance technologies are just one tool schools may use to address student-athlete health, safety and performance.** The utility of performance technologies depends on how well they are addressing user needs.
- **The quality of performance technologies can vary based on** several factors (e.g., accuracy, reliability, validity, function). It is important to assess the quality of performance technologies prior to selecting or implementing them.

RIGHTS AND PROTECTIONS

- Understanding **student-athlete rights and protections**, as well as the applicable local and international laws, are important components of responsibly using performance technologies.
- **Performance technologies may have unintended impacts on student-athlete health, safety and performance, including implications for mental health.** Unintended impacts are important considerations for continuous improvement in the responsible use of performance technologies.

WRITTEN PLAN

- Having a **written plan for a school's responsible use of performance technologies** can help establish common standards and procedures, increase transparency and address school-specific needs and resources.
- A written plan for the responsible use of performance technologies in collegiate athletics should **address school-specific considerations**, including how relevant groups will be educated, how the school will manage student-athlete performance technology data, how the school will make decisions about purchasing and implementing new technologies and how the school will approach continuous improvement.

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Performance technologies should be used responsibly. The recommendations below provide schools with an understanding of the responsible use of performance technologies. They also provide strategies schools may consider when implementing recommendations for the responsible use of performance technologies on their campus.

RECOMMENDATION 1

Policy

It is recommended that schools establish a written plan that addresses the responsible use of performance technologies. Having a written plan for the responsible use of performance technologies can help establish common standards and procedures, increase transparency and address school-specific needs and resources.

Strategy 1.1

Engage a multidisciplinary team in developing, routinely reviewing and revising a written plan, leveraging existing campus resources and systems. Key roles on that team may include, but are not limited to, student-athletes, sports medicine staff, coaches, athletics administration, legal affairs and information technology.

Strategy 1.2

Address school-specific considerations, including how relevant groups will be educated, how data will be managed, how decisions will be made about selecting and implementing new technologies and how continuous improvement will be approached.

RECOMMENDATION 2

Education

It is recommended that schools routinely provide education about the responsible use of performance technologies to those involved with their use. Education is foundational for informed consent, and it aids in ensuring schools use performance technologies in a way that maximizes benefits and minimizes harm to student-athletes.

Strategy 2.1

At least once annually, provide education to those involved in selecting, using or accessing data from performance technologies.

Strategy 2.2

Educational needs are likely to vary among different groups and schools should consider tailoring education to meet each group's learning needs. Such groups may include, but are not limited to, student-athletes, coaches, strength and conditioning staff, sports medicine staff and administration.

Strategy 2.3

Address topics such as:
- Limitations and potential harms of performance technologies.
- Data privacy and security.
- Student-athlete rights and protections (e.g., informed consent).
- Departmental policies and procedures for responsible use.

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RECOMMENDATION 3

Data Management

It is recommended that schools establish who owns data from performance technologies, where and how data is stored, who has the authority to access data and how data is permitted to be used. Performance technologies have different use-case scenarios and produce different types of data, and the interpretation and communication of data may benefit from a multidisciplinary approach. Schools may consider using existing campus resources for data management in collaboration with legal and risk management personnel.

Strategy 3.1
Determine who can be involved in interpreting and sharing/communicating data from performance technologies, including considerations for the required competencies and oversight necessary to do so effectively and responsibly.

Strategy 3.2
Determine what rights, if any, the school has with respect to data collection, data use, data access and ownership of the performance technology data, including considerations for transfer student-athletes.

Strategy 3.3
Clarify the school's permissible uses of data from performance technologies. If data might be used to inform medical decision-making, sports medicine staff should be involved. Schools should refer to **independent medical care best practices** to ensure the unchallengeable, autonomous authority of primary athletics healthcare providers to determine medical management and return-to-play decisions of student-athletes.

RECOMMENDATION 4

Selecting and Implementing New Technologies

It is recommended that schools establish a structured process for making decisions about selecting and implementing new performance technologies. A structured process that considers how to use performance technologies in a way that maximizes benefits and minimizes harm is important to ensure student-athlete well-being is prioritized when a school makes decisions regarding use of performance technologies.

Strategy 4.1
Review technologies using existing, evidence-based standards and frameworks that evaluate their value, usability and quality.

Strategy 4.2
Consider and assess the quality of performance technologies. Quality may include, but is not limited to, factors such as accuracy, reliability, validity and function.

Strategy 4.3
Decisions about selecting and implementing performance technologies should be made by a multidisciplinary group. Important roles to consider including are sports medicine staff and individuals with competencies in sports science, coaching staff, information technology, data security, administration and compliance.

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RECOMMENDATION 5

Continuous Improvement

It is recommended that schools routinely get feedback from those using performance technologies (e.g., student-athletes, coaches, sports medicine staff) about how these technologies are being used and how they are working. This feedback can be used to inform changes to the school's written plan to reflect current needs, available resources and evolving technological developments.

Strategy 5.1
Engage a multidisciplinary group to plan, collect and interpret feedback about performance technologies. When possible, this group should include individuals involved in establishing the school's written plan for responsible use.

Strategy 5.2
Understanding student-athletes' experiences with performance technology is critical. Schools should obtain student-athlete feedback to learn about the positive and/or negative impacts performance technology use has on their student-athletes.

Strategy 5.3
Areas for feedback from additional groups could include:
- Technology implementation (e.g., how were technologies used).
- Technology effectiveness (e.g., how did outcomes align with the school's reasons for their use).
- Education (e.g., does education meet learner needs).

Performance technologies are just one tool schools might consider using to address student-athlete health, safety and performance.

Additional guidance and resources related to training and performance topics can be found by scanning the QR code above.