

# STRENGTH MATTERS IN COLLEGE ATHLETICS



## *Consider the Evidence-based Benefits of Strength & Conditioning in College Athletics*

Collegiate athletic programs elevate a school's enrollment, reputation, and even revenue. Successful programs attract athletes and non-athletes alike, create lifelong fans, and earn national level attention. Invest in a quality strength and conditioning program and achieve these outcomes and deliver your student-athletes the quintessential college sports experience.

### STUDENT-ATHLETE BENEFITS

*Improve Athletic  
Performance<sup>1</sup>*

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*Reduce the Risk  
and Severity of  
Musculoskeletal Injury<sup>2</sup>*

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*Grow Motivation and  
Mental Performance<sup>3</sup>*

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*Enhance Nutrition and  
Body Composition<sup>4</sup>*

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*Instill Healthy Lifestyle  
and Sleep Habits<sup>5</sup>*

### ATHLETIC DEPARTMENT BENEFITS

*Elevate Student-Athlete  
Resources and Facilities<sup>6</sup>*

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*Demonstrate a Strong  
Commitment to Health  
and Safety<sup>7</sup>*

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*Reduce Institutional  
and Professional  
Liability Concerns<sup>8</sup>*

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*Promote an Inclusive  
and Supportive  
Training Environment<sup>9</sup>*

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*Support Performance and  
Sport Science Initiatives<sup>10</sup>*

## 1 Improve Athletic Performance

**"The strength and conditioning field is one that has been proven to help increase athletic performance." (Elder et al., 2014)**

Baur, D.A, Johnson, J., Giron-Molina, L.G., Caterisano, M., Shaner, C. Caterisano, A., & Gentry, M. (2023). Career-Best Changes in Body Mass and Physical Fitness Test Performance Among Division I College Football Players Encompassing 28 Years at the Same Institution. *Journal of Strength and Conditioning Research*, 37(4), 806-815.

Elder, C., Elder, A.S., & Kelly, C. (2014). Collegiate athletes' perceptions on the importance of strength and conditioning coaches and their contribution to increased athletic performance. *Journal of Athletic Enhancement*, 3(4).

Suchomei, T.J., Nimphius, S., & Stone, M.H. (2016). The Importance of Muscular Strength in Athletic Performance. *Sports Medicine*, 46(10), 1419-1449.

## 2 Reduce the Risk and Severity of Musculoskeletal Injury

**"The role of the strength and conditioning coach can extend beyond observing exercise technique and prescribing training to develop a robust and resilient athlete." (Talpey & Siesmaa, 2017)**

Case, M.J., Knudson, D.V., & Downey, D.L. (2020). Barbell Squat Relative Strength as an Identifier for Lower Extremity Injury in Collegiate Athletes. *Journal of Strength and Conditioning Research*, 34(5), 1249-1253.

Lauersen, J.B., Bertelsen, D.M., & Andersen, L.B. (2014). The effectiveness of exercise interventions to prevent sports injuries. *British Journal of Sports Medicine*, 48(11), 871-877.

Lauersen, J.B., Andersen, T.E., & Andersen, L.B. (2018). Strength training as superior, dose-dependent and safe prevention of acute and overuse sports injuries. *British Journal of Sports Medicine*, 52(24), 1557-1563.

Talpey, S.W., & Siesmaa, E.J. (2017). Sports Injury Prevention: The Role of the Strength and Conditioning Coach. *Strength and Conditioning Journal* 39(3), 14-19.

## 3 Grow Motivation and Mental Performance

**"Strength and conditioning coaches can benefit the development of relationships and rapport with athletes based on trust and fostering athletes' motivation and performance during training sessions." (Quartiroli et al., 2020)**

Quartiroli, A., Moore, E.W., & Zakrajsek, R.A. (2020). Strength and conditioning coaches' perceptions of sport psychology strategies. *Journal of Strength and Conditioning Research*, 36(5), 1327-1334.

Radcliffe, J.N., Comfort, P., & Fawcett, T. (2015). Psychological Strategies Included by Strength and Conditioning Coaches in Applied Strength and Conditioning. *Journal of Strength and Conditioning Research*, 29(9), 2641-2654.

Tod, D., & Lavallee, D. (2012). *The Psychology of Strength and Conditioning*. Routledge.

## 4 Enhance Nutrition and Body Composition

**"These findings are consistent with our results that athletes felt most comfortable seeking nutrition advice from athletic trainers and strength and conditioning specialists. This might be due to the relationships developed through everyday contact and the responsibilities these people have for the athlete's overall well-being." (Torres-McGehee et al., 2012)**

Torres-McGehee, T.M., Pritchett, K.L., Zippel, D., Minton, D.M., Cellamare, A., & Sibilia, M. (2012). Sports nutrition knowledge among collegiate athletes, coaches, athletic trainers, and strength and conditioning specialists. *Journal of Athletic Training*, 47(2), 205-211.

Trexler E.T., Smith-Ryan, A.E., Mann, J.B., Ivey, P.A., Hirsch, K.R., & Mock, M.G. (2017). Longitudinal Body Composition Changes in NCAA Division I College Football Players. *Journal of Strength and Conditioning Research*, 31(1), 1-8.

Walters, P.H. (2002). Sleep, the Athlete, and Performance. *Strength and Conditioning Journal*, 24 (2), 17-24.

## 5 Instill Healthy Lifestyle and Sleep Habits

**"The strength and conditioning professional sees the athlete on nearly a daily basis and is able to recognize the changes in performance and behavior an athlete may exhibit." (Lopes Dos Santos et al., 2020)**

Kroschus E., Wagner J., Wyrick D., et al. (2019). Wake up call for collegiate athlete sleep: narrative review and consensus recommendations from the NCAA Interassociation Task Force on Sleep and Wellness. *British Journal of Sports Medicine*, 53(12), 731-736.

Lopes Dos Santos, M., Ufring, M., Stahl C., Lockie, R.G., Alvar, B., Mann, J.B., & Dawes J.J. (2020). Stress in Academic and Athletic Performance in Collegiate Athletes: A Narrative Review of Sources and Monitoring Strategies. *Frontiers in Sports and Active Living*, 2, 42.

Walters, P.H. (2002). Sleep, the Athlete, and Performance. *Strength and Conditioning Journal*, 24(2), 17-24.

## 6 Elevate Student-Athlete Resources and Facilities

**"Strength and conditioning staff possess the knowledge required to establish a safe and effective facility that can also be attractive to potential student-athletes." (Judge et al., 2014)**

Elder, C., Elder, A.S., & Kelly, C. (2014). Collegiate athletes' perceptions on the importance of strength and conditioning coaches and their contribution to increased athletic performance. *Journal of Athletic Enhancement*, 3(4).

Judge, L.W., Petersen, J.C., Bellar, D.M., Craig, B.W., Cottingham, M.P., & Gilreath, E.L. (2014). The current state of NCAA Division I collegiate strength facilities: size, equipment, budget, staffing, and football status. *Journal of Strength and Conditioning Research*, 28(8), 2253-2261.

Petersen, A., Wagner, K., & Greener, T. (2012). Recruiting. *Strength and Conditioning Journal*, 34(1), 87-88.

## 7 Demonstrate a Strong Commitment to Health and Safety

**"The NCAA and school administration must ensure that strength and conditioning coaches possess appropriate credentials from legitimate organizations such as the National Strength and Conditioning Association (NSCA)." (DeMartini & Casa, 2011)**

Casa, D.J., Anderson, S.A., Baker L., et al. (2012). The inter-association task force for preventing sudden death in collegiate conditioning sessions: Best practices recommendations. *Journal of Athletic Training*, 47(4), 477-480.

Caterisano, A., Decker, D., Snyder, B., et al. (2019). CSCCA and NSCA Joint Consensus Guidelines for Transition Periods: Safe Return to Training Following Inactivity. *Strength and Conditioning Journal*, 41 (3), 1-23.

DeMartini, J.K., & Casa, D.J. (2011). Who Is Responsible for Preventable Deaths during Athletic Conditioning Sessions? *Journal of Strength and Conditioning Research*, 25(7), 1781-1781.

## 8 Reduce Institutional and Professional Liability Concerns

**"Strength and Conditioning professionals have a duty to the participants they serve to take reasonable steps to prevent injury and to act prudently when an injury occurs." - NSCA Strength and Conditioning Professional Standards and Guidelines**

DeMartini, J.K., & Casa, D.J. (2011). Who Is Responsible for Preventable Deaths during Athletic Conditioning Sessions? *Journal of Strength and Conditioning Research*, 25(7), 1781-1781.

National Strength and Conditioning Association. (2017). NSCA Strength and Conditioning Professional Standards and Guidelines. *Strength and Conditioning Journal*, 39(6), 1-24.

NCAA Sport Science Institute. (2019). Interassociation Recommendations: Preventing Catastrophic Injury and Death in Collegiate Athletes. National Collegiate Athletic Association.

## 9 Promote an Inclusive and Supportive Training Environment

**"Strength and conditioning coaches have the responsibility of providing a safe learning environment that promotes optimal athletic performance potential." (Jones & Newland, 2022)**

Carson, F., Blakey, M., Foulds, S.J., Hinck, K., & Hoffmann, S.M. (2022). Behaviors and Actions of the Strength and Conditioning Coach in Fostering a Positive Coach-Athlete Relationship. *Journal of Strength and Conditioning Research*, 36(11), 3256-3263.

Jones, D., & Newland, A. (2022). Implementing Effective Coaching Behaviors and Pedagogical Practices Into Strength and Conditioning. *Strength and Conditioning Journal*, 44(3), 80-87.

Radcliffe, J.N., Comfort, P., & Fawcett, T. (2018). The Perceived Psychological Responsibilities of a Strength and Conditioning Coach. *Journal of Strength and Conditioning Research*, 32(10), 2853-2862.

## 10 Support Performance and Sport Science Initiatives

**"The most impactful, innovative, and efficient way to support an athlete or team is through an interdisciplinary athlete-centered organizational approach." - NSCA's Essentials of Sport Science**

French, D.N. (2022). Interdisciplinary support. In: D.N. French & L. Torres-Ronda (Eds.), NSCA's Essentials of Sport Science (pp. 447-460). Human Kinetics.

Hornsby, W., Gleason, B., Dieffenbach, K., Brewer, C., & Stone, M. (2021). Exploring the Positioning of Sport Science Programs within Intercollegiate Athletics. *NSCA Coach*, 8(3), 6-11.

McMahon, E., & Soileau, J. (2022). Exploring New Frontiers in Strength and Conditioning and Sport Science. *NSCA Coach*, 9(2): 6-11.

Petosa, P.S. (1996). A Sport Science Model for Enhancing Intercollegiate Performance. *Strength and Conditioning Journal*, 18(2): 58-64.



The National Strength and Conditioning Association is committed to providing resources and guidance to help members of our campus communities understand the benefits and value that strength and conditioning professionals add to university athletic departments. We look forward to working with you.

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