



## **A Unique National Initiative to Enhance Performing Artist Health and Performance**

[www.athletesandthearts.com](http://www.athletesandthearts.com)

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*"I believe music is healing and if you want to heal other people, you've got to heal yourself first. The healthier we are as musicians and the arts community in general, the better the world will be."*  
- Jon Batiste, jazz musician, artist ambassador, Athletes and the Arts

### ***Introduction***

- The quality of our performance as musicians is directly influenced by the condition and our ability to efficiently use of our bodies and minds
- A pervasive, systemic culture of “no pain, no gain” exists among musicians
- Performing artists, in general, and musicians, in particular, are an underserved population with unique needs when it comes to medical care, injury prevention and wellness
- By the Numbers
  - 45% of student musicians (18-25 years) have Noise-Induced Hearing Loss (NIHL) compared to 11.5% in the general population (Phillips et al., 2010)
  - Up to 88.6% of orchestral musicians reported pain during the previous year and an average of 84.2% of orchestral musicians indicated pain interfering with playing during their lifetime (Silva et al., 2015)
  - 75% of orchestra instrumentalists will develop at least one musculoskeletal disorder from playing during their lifetimes (Leaver et al., 2011)
  - 70.6% of undergraduate students, 64.6% of graduate students, and 54.9% of professors reported playing/singing related pain (Stanek et al., 2017)
  - 67% of school age musicians reported pain when playing (Ranelli et al., 2011)
  - 64% of members of a World Class Drum Corps reported stress fractures in 2013
  - 50% of undergraduate music majors reporting pain while playing sought out their music teacher for assistance, 30% report going to nobody, and only 11% report going to a medical professional (Stanek et al., 2017)

➤ Policies in Music Education driving more engagement in health and wellness:

- National Association of Schools of Music (NASM) Health and Safety Standard:

*Students enrolled in music unit programs and faculty and staff with employment status in the music unit must be provided basic information about the maintenance of health and safety within the contexts of practice, performance, teaching, and listening.*

*General topics include, but are not limited to, basic information regarding the maintenance of hearing, vocal, and musculoskeletal health and injury prevention. They also include instruction on the use, proper handling, and operation of potentially dangerous materials, equipment, and technology as applicable to specific program offerings or experiences. Decisions regarding topic areas and breadth and depth are made by the institution, and normally are correlated with the nature, content, and requirements of specific areas of specialization or specific courses of study.*

(NASM Handbook, November 2011, page 64)

- Texas Essential Knowledge and Skills (adopted 2013, implemented 2015-2016)

*High School Music Level 4 - §117.313.c.1.i: Analyze and apply health and wellness concepts related to music practice such as body mechanics, repetitive motion injury prevention, hearing protection, vocal health, hydration, and appropriate hygienic practice.*

- **Music educators are in an optimal position to impact musician wellness.** Youth football coaches educate about concussion prevention, youth soccer coaches teach proper heading techniques; music teachers (along with health care professionals) can and should educate about wellness and injury prevention in addition to teaching students to make great music

## ***The Athlete Musician***

- Performing artists are athletes. Just like “sport” athletes they:
- Practice or perform almost every day
  - Play through pain
  - Compete/perform in challenging environments
  - Experience little “off season”
  - Face extreme competition
  - Face real risk of career-threatening injury
- Yet, performing artists rarely have access to professional guidance for:
- Injury prevention
  - Nutrition
  - Practice and competition guidelines, even at the youth level

- Performing artists of all ages and their instructors need this information to optimize both long-term health and performance

***Athletes and the Arts - A multi-organizational coalition of medical and music organizations:*** [www.athletesandthearts.com](http://www.athletesandthearts.com)

Initiated in 2008 and formally launched in 2013, Athletes and the Arts is a multi-organizational initiative that recognizes that athletes exist throughout the performing arts community and that established performance, wellness, and injury prevention research for sport athletes is also applicable to performing artists. Health and wellness are generally foreign concepts in the performing arts community.

Athletes and the Arts (AATA) believes sports medicine physicians have the skill set to expand their practices to an entirely new and underserved population once they understand the needs and key risk factors of performing artists. Music educators also can address wellness, hearing, and cross-training, similarly to the way sports coaches introduce injury prevention initiatives. A partnership between the medical profession and performing artists has the potential to lead to improved medical care and the development of best practices that optimize performance and health. Key target audiences of the AATA initiative include performing artists, medical personnel and music/dance educators.

**Athletes and the Arts Collaborating Organizations as of November 2017**

American College of Sports Medicine (ACSM)  
Loyola University New Orleans  
Performing Arts Medicine Association (PAMA)  
American Academy of Podiatric Sports Medicine (AAPSM)  
American Medical Society for Sports Medicine (AMSSM)  
American Osteopathic Academy of Sports Medicine (AOASM)  
Association for Applied Sports Psychology (AASP)  
Drum Corps International (DCI)  
Music Teachers National Association (MTNA)  
MusiCares  
National Association for Music Education (NAfME)  
National Association of Teachers of Singing (NATS)  
National Athletic Trainers' Association (NATA)  
National Hearing Conservation Association (NHCA)  
New Orleans Musicians' Clinic (NOMC)  
The Voice Foundation (VF)

For more information about these organizations visit [www.athletesandthearts.com](http://www.athletesandthearts.com)

## ***Lessons learned from the sport athlete research***

- Comparisons between select aspects of Sports and Music domains:

	<b><u>Sport Athlete</u></b>	<b><u>Musician</u></b>
<b><u>Performance Measurement</u></b>	Score, Time, Wins → More Objective Measurement	Judging, Audience → More Subjective Measurement
<b><u>Practice Limits</u></b>	Limits based on safety and development (e.g. NCAA, Little League)	No formal limits
<b><u>Recovery</u></b>	Valued and incorporated into practice regimen	Minimally valued and not formally incorporated into practice regimen
<b><u>Specialization</u></b>	Moderately encouraged	Encouraged
<b><u>Optimizing Performance</u></b>	Regimen that includes long-term planning, cross-training, diet, video review, sports science research	Regimen that primarily includes practice and assessment
<b><u>Medical Professionals</u></b>	Work with athletic trainers, dieticians, sport psychologists, and other medical professionals	Little to no work with medical professionals
<b><u>Research</u></b>	Extensive research into sport science that guides policy and procedure, performance enhancement programs, and injury prevention and treatment	Minimal research on performing artists is available to guide policy and procedure, create performance enhancement programs, and injury prevention and treatment

*“You play in a bar room, people are smoking, there are long hours, practicing, you carry equipment to your gig. The idea of all of [these health impacts] is foreign to the music community, from the conservatory level to the level of street performers and everything in between.” - Jon Batiste*

- Considerations from sports research that can be applied to performing artists to optimize their talent and longevity:
  - Training
    - Teach proper techniques from the outset of musical education informed by knowledge of anatomy and best practice.
    - Identify and objectively measure improvement in each aspect of musical training is essential to better understand the type and volume of practice necessary to optimize performance.
    - Determine the ultimate goals and develop weekly expectations for the time and intensity required to achieve those goals.
    - Quantify a typical week of musical activity to be able to share with medical personnel as needed. Consider all weekly activities as well as external factors such as travel, teaching and existing health issues.
    - Record video and observe performance to better understand activity and evaluate posture, ergonomics, technique, and repetition.
    - Rather than volume of practice, consider focused practice segments with specific goals in each session. Rote repetition for extended periods of time has not proven successful in the sport athletic world.
  - Injury Prevention
    - Major Risk Factors for Overuse Injury:
      - Long practice sessions
      - Insufficient rest
      - Excessive muscle tension
      - Poor posture
      - Muscle fatigue
      - Sudden increase in time spent playing
      - Repertoire scheduling
      - Stress
      - Lack of Fitness
      - Insufficient warm-up
    - Emphasize rest and recovery whenever possible.
    - Acute increases in the time spent physically practicing/performing may increase risk of injury. If the volume or intensity of practice must increase, do so gradually.
    - Equipment modification can be made in some situations that can increase both physical comfort and performance (e.g., violin chin rest, .
    - Cross-train by employing mental and physical activities that focus on something different than the primary activity.
    - Substitute 30-45 minutes of current practice time for separate complementary physical activity and invest in overall fitness to enhance skill and longevity in the activity.
    - Recognize the strength needed to hold an instrument during long stretches of practice, how many repetitive movements are made in a day, and how much posture and breathing is dependent on core strength.
    - Create a culture where health issues can be discussed openly without fear and addressed by professionals.

- Future Questions informed by Sports Research
  - What is the optimal number of hours to practice?
    - NCAA participants can participate up to 20 hours per week
    - Musicians have no formal limits and are mainly restricted by other commitments, often allowing for playing 4-8+ hours per day
  - At what point do additional hours of practice hurt rather than help performance?
    - Athletes are monitored for repetitive actions in training (e.g., pitch counts) and given limits based upon physical development and training
    - Musicians rarely monitor certain repetitive actions that may increase risk factors for injury
  - Are there long-term and comprehensive programs for optimal performance?
    - Professional athletes have long-term training programs with gradual foundation work, incremental training, technique work, and schedules that include recovery time which increase and taper depending on subsequent performances

## ***Resources***

Athletes and the Arts is continually developing free resources to help music educators, medical personnel, and performing artists address issues of wellness and optimal performance. These resources can be accessed through [www.athletesandthearts.com](http://www.athletesandthearts.com). Your input on other key topics is valued.

## **Fact Sheets found on AATA Website**

- AATA Overview
  - General Overview – Integrating the Science of Sport and the Performing Arts (AATA)
  - What’s the Issue? (AATA)
  - How Can I Get More Involved? (AATA)
- Specific Health Issues
  - Keeping your Voice Healthy (AATA)
  - Dental Health and Musicians (AATA)
  - Performance Anxiety (AATA)
  - Focal Dystonia (AATA)
  - Preventing Overuse injuries in Musicians (AOSSM)
  - Preventing Dance Injuries (AOSSM)
  - Exercise and Type 2 Diabetes (SCAN)
  - MusiCares Provider Medical Networks (MusiCares)
  - Exercise is Medicine (ACSM)

- Hearing Loss
  - Musicians and Noise Induced Hearing Loss (AATA)
  - Safe Sounds (Poster) (NOMC)
  - Safe Sounds Hearing Loss (brochure) (NOMC)
- Target Audiences
  - The Medical Professional (AATA)
  - The Performing Artist (AATA)
  - The Teacher (AATA)
  - Marching Bands – Tips to Stay Healthy and Hydrated on the Field (DCI)
- Nutrition (Developed for AATA by the Sports, Cardiovascular and Wellness Nutrition (SCAN) Organization)
  - Eating Before Performing
  - Reversing Iron Depletion
  - Eating for Recovery
  - Eating on the Road
  - Hydration
  - Gluten Sensitivity
  - Alcohol and Performance
  - Gaining Weight

### **Other Resources and Programs through AATA Affiliates**

- Performing Arts Certification Course (PAMA)
- Sound Performers Online Education Course
- MusiCares Medical support
- DCI Marching Music Health and Wellness Program

### ***Opportunities to make a difference***

Athletes and the Arts has developed a checklist (<http://athletesandthearts.com/dev/wp-content/uploads/AthArts-Get-Involved-0817.pdf>) of how more people can get involved within their communities or on a larger scale. We can all make small changes that together will have a big impact. Start by learning more about these topics and incorporating modifications into your classroom and personal practice. You have an opportunity to become a needed and valuable part of a musician's health care team, just as a sport coach is a valuable component of a sport athlete's care.

*"I went to Julliard six years and never in any of my lessons was there any instruction about nutrition or any sort of quantifiable method to determine the pros and cons of playing long hours. If I missed a note, I was just told to do it again, to practice more". - Jon Batiste*