

KEEPING YOUR ATHLETE IN THE GAME

# MVP PARENT

WINTER 2021

\$4.95

## PLAY INFORMED

EXPERT ROUNDTABLE ON  
YOUTH SPORTS DURING  
A PANDEMIC

Student Athletes  
and Immune Health

Strengthening Resiliency and  
Inner Defense

## STRETCHING

to improve performance

*Self-Esteem*  
The Psychology of Sports

...and more!



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WINTER 2021

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# Mission

**MVP PARENT** is committed to providing a credible resource that educates and supports the parents of youth athletes. **MVP PARENT** gives parents the information they need to keep youth athletes performing at the highest level physically, mentally, and emotionally. **MVP PARENT** takes a holistic and evidence-based approach to injury prevention, skill development, nutrition, and sports psychology.

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# FROM THE PUBLISHER

BY RICHARD B. DUBIN



## 2021: FOCUS ON STAYING POSITIVE

**W**hat a crazy year it has been! We have seen more change and uncertainty than ever before and no one knows what the new “normal” will be when we get there.

As a parent of youth athletes, I experienced first-hand these changes. My older daughter was a high school senior on the varsity basketball team getting ready to play in sectionals. My younger daughter was in 7th grade practicing for the playoffs. Both seasons were immediately canceled due to COVID-19 and the coping began. As everything began shutting down, both girls began quarantine and started studying online. Yes, we lived through it, but the real impact of these experiences (or lack thereof) will not be realized until later. I know this is a common conversation and thread among all families all over the world.

My older daughter experienced a modified graduation, was unable to attend her prom, and was still unsure of what was happening with college. She had planned to go to Ithaca College to play basketball, but during the summer discovered that the college was not bringing students to campus. Her hopes of going away and playing basketball was pulled out from under her. She is a very happy kid and extremely social and active. This experience, as it has for many, was incredibly challenging to say the least. Recently, she found out the even a modified schedule was not going to happen. This was another blow to her psyche. And gut-wrenching to watch as a parent.

Now, let's talk about the greater impact that all of this has had on the community. What can we do? First, we need to look at things for what they are, talk about our feelings, and share our thoughts—both parents and kids. Then we must look for solutions and find ways to stay active and healthy to keep our mental state strong. Don't dwell in the problem. Keep your focus on staying positive.

Communication is key. This is a real opportunity – certainly for all of us, but particularly for young athletes – to take stock and figure out what and who is important; to reevaluate our needs and wants and learn to focus and redirect our energy to reinvent our lives. THIS is the new normal: it isn't going away soon, so let's face the reality and accept what we cannot change and learn to live with it the best we can. This will look slightly different for each athlete and each family, but helping your athletes forge a positive path forward is key to successfully navigating these trying times.

For this issue, we have brought together leaders in the fields of exercise, nutrition, sports psychology, training, and sports medicine to educate the parents of youth athletes on how best to handle your athlete during this uniquely challenging time and moving into the future. ■





## WEIGHING THE RISKS AND BENEFITS OF YOUTH SPORTS DURING A PANDEMIC

# PLAY INFORMED

BY DOUGLAS J. GUTH

**Y**outh sports bring boundless benefits to children and college-aged adults alike, from physical well-being to the socialization skills inherent in team-based competition. The ongoing coronavirus pandemic – already intertwined in most every aspect of our daily lives – has impacted the sports world as well, leaving young athletes wondering when and how they can safely resume their on-field endeavors.

Although the situation appears bleak, there are ways to keep athletes safer, according to experts who participated in a 3-part educational series, “Play Informed Sports and Recreation through the COVID-19 Pandemic.” Success against this invisible competitor, they explained, requires a combined effort from youth competitors, parents, coaches, and healthcare professionals.

MVP Parent publisher Rich Dubin moderated the 3-part discussion, comprised of professionals from the National Athletic Trainers Association (NATA), the American Academy of Pediatrics (AAP), and the American Medical Society for Sports Medicine (AMSSM). The sessions covered risks and safety precautions

for returning participants, whether elite athletes or kids getting their first taste of competitive play. Details for how to access the presentations on YouTube and about the speakers can be found on page 7.

Preparing for sports in this unprecedented time first requires understanding the dangers involved, said Shelley Fiscus, MD, FAAP.

Seven months is not nearly enough to truly comprehend the effects COVID-19 may have on young athletes, Fiscus explained. According to Centers of Disease Control data, about 250,000 children – from birth to age 17 – have tested positive for the virus, representing around 7% of total infections. As of July 2020, 6 of every 100,000 kids was hospitalized with COVID-19, while a modeling study in the *Journal of Public Health and Management* estimates 1 out of every 2,400 infected kids need intensive care.

Serious outcomes among youth are rare, but parents and coaches must consider children with pre-existing conditions, or those living in multi-generational households with medically vulnerable relatives.

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**“Low-risk sports are golf, running, and tennis – individual sports where there’s not much contact. The opposite side is wrestling or rugby. As a parent, you might want to focus on skill development rather than the full-bore scrimmage component.”**

**MARGOT PUTUKIAN, MD, FACSM, FAMSSM**

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“Understanding what to do is what we’re struggling with,” said Fiscus. “We also know sports are important in teaching teamwork, problem-solving and self-esteem. It’s a matter of striking a balance and doing this as safely as we can.”

## **WEIGHING THE RISKS**

The virus that causes COVID-19 is thought to spread mainly person-to-person through respiratory droplets. Droplets from a cough or sneeze can be inhaled into the lungs, with spread more likely when individuals are in close contact.

Margot Putukian, MD, FACSM, FAMSSM, said some sports simply have more inherent risk than others. Activities like golf encourage social distancing and have little in the way of shared equipment, while wrestling and football require direct interaction. Even swimming has its problems when swimmers pack together on a pool deck between races.

“Low-risk sports are golf, running, and tennis – individual sports where there’s not much contact,” said Putukian. “The opposite side is wrestling or rugby. As a parent, you might want to focus on skill development rather than the full-bore scrimmage component.”

Keeping athletes apart even in heavy-contact sports is possible. In soccer, coaches can concentrate on ball control or other conditioning drills. Meanwhile, football players may practice strictly within position groups to limit wider exposure.

During competition, athletes can lessen COVID-19 spread by changing on-field behaviors. It may be tradition for volleyball players to huddle up after a point, for instance, but such close contact is an invitation for infection.

“Not celebrating can take volleyball from a high-risk sport to moderate- or low-risk,” said Darryl Conway, MA, ATC. “This may change the culture of the sport, but these are the things that can be changed to reduce risk.”

Children who contract COVID-19 endure a less severe course of the disease than older people. However, infectious disease

experts are still determining the long-term impacts of even mild or asymptomatic cases. Multisystem inflammatory syndrome in children, or MIS-C, is a very rare though dangerous outcome associated with the coronavirus that causes COVID-19. Myocarditis, an inflammation of the heart muscle that can lead to sudden heart stoppage with exertion, has been found in Big Ten College conference athletes and among several additional competitors in other conferences who have previously tested positive for COVID-19.

## **MAKING TOUGH DECISIONS**

Mitigating potentially deadly impacts means creating health and safety rules that everyone around a team agrees to follow, said Susannah Briskin, MD.

“You have to establish guidelines that everyone involved is aware of, then enforce those guidelines,” said Briskin. “You can put in place as many rules as you want, but if kids and parents aren’t following them, they won’t have an effect.”

Teams are adapting rules set forth by the CDC – masking when social distancing isn’t possible, wiping down shared equipment or surfaces, frequent handwashing and more. Culture is a crucial component of any successful team, a mantra that holds true today for diminishing consequences of the virus.

“Instill a culture of not being a tough guy,” Conway said. “Stay home when sick and do the mitigation strategies. At practice, have a hand sanitizer break every 30 minutes. The culture around the team is what I’d look for as a parent.”

Panelists made clear that these precautions only lower COVID-19 risk, not erase it completely. But the manner in which teams respond to a positive case is indicative of future success in controlling virus spread. “See something, say something” should be the watchword for teams introducing pandemic protocol.





“If someone’s not following the rules, you can speak up,” said Briskin. “There has to be movement within the organization to be loud for the safety of athletes and parents.”

Mark Halstead, MD, said parents have their own role to play in protecting their kids.

“Parents don’t want to be the wet blanket, but they have to make those decisions, too,” Halstead said. “If you’re not feeling comfortable about your child participating, there’s probably a good reason for it.”

## A TRUE TEAM EFFORT

Youth athletes advancing to the collegiate level are facing unique circumstances during the pandemic. On-campus populations must juggle athletics alongside academic and social pressures, with conferences including the PAC-12 and Big Ten postponing or cancelling their fall sport seasons.

Stephanie Chu, DO, a member of the NCAA COVID-19 Advisory Panel, said continuing uncertainty around virus transmission has proven too much for some administrators.

“The PAC-12 had a high prevalence of the virus which would require almost daily testing,” Chu said. “We don’t know about risks on the field yet. With cardiac issues [such as myocarditis, noted above], it became too risky to move forward at this time.”

Though games are cancelled, athletes at all levels aren’t necessarily retreating to their couches, said Drew Watson, MD, MS. Players can stay active via Zoom training or recruiting their parents as practice partners.

“It’s a big deal for kids to lose these sports, so we must set the context,” said Watson. “They can reconnect to how much they love learning new skills and abilities. These are the sort of things you don’t need a timeline for.”

Murphy Grant, MS, ATC, PEC, said the mental effects of a lost season take their own toll. A University of Wisconsin-Madison study found two-thirds of high-school athletes are experiencing depression and anxiety because of cancelled sports.

“We have to look at all aspects of being an athlete, including mental,” said Grant. “Sport takes a lot out of you, and (athletes) have an opportunity to talk to coaches about how they can improve. How can they watch film and find tendencies to get a competitive edge? The key is communication, even if you’re just talking about the upcoming season and how athletes thought it would be.”

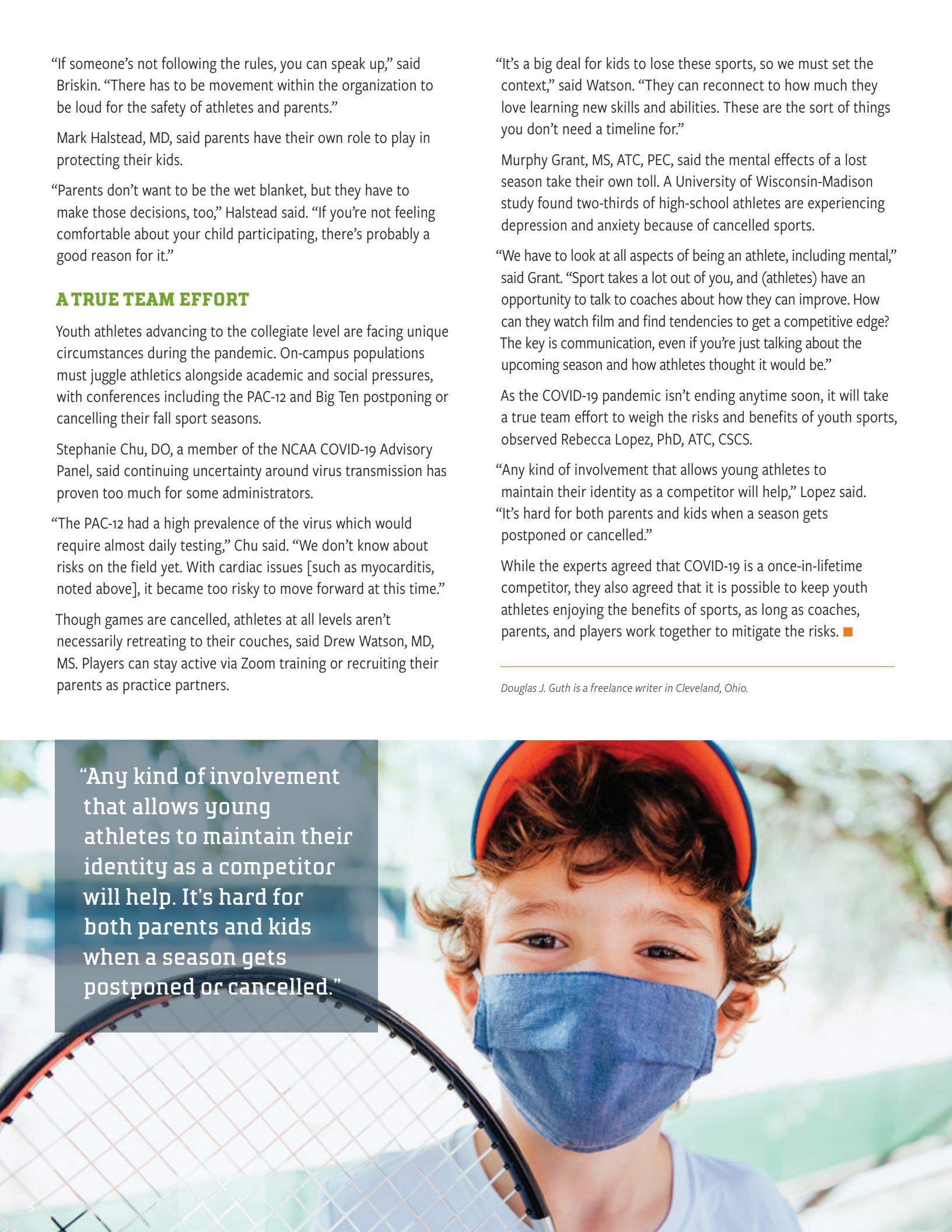
As the COVID-19 pandemic isn’t ending anytime soon, it will take a true team effort to weigh the risks and benefits of youth sports, observed Rebecca Lopez, PhD, ATC, CSCS.

“Any kind of involvement that allows young athletes to maintain their identity as a competitor will help,” Lopez said. “It’s hard for both parents and kids when a season gets postponed or cancelled.”

While the experts agreed that COVID-19 is a once-in-lifetime competitor, they also agreed that it is possible to keep youth athletes enjoying the benefits of sports, as long as coaches, parents, and players work together to mitigate the risks. ■

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*Douglas J. Guth is a freelance writer in Cleveland, Ohio.*

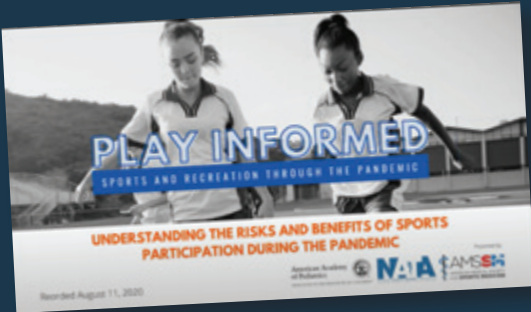


“Any kind of involvement that allows young athletes to maintain their identity as a competitor will help. It’s hard for both parents and kids when a season gets postponed or cancelled.”

# PLAY INFORMED SPORTS AND RECREATION THROUGH THE COVID-19 PANDEMIC

## SESSION 1:

### Understanding the Risks and Benefits of Sports Participation During the Pandemic



**Shelley Fiscus, MD, FAAP**, Medical Director of Vaccine-Preventable Disease and Immunization Program for the Tennessee Department of Health and District IV Chair for the American Academy of Pediatrics' Board of Directors.

**Rebecca Lopez, PhD, ATC, CSCS**, Associate Professor for the Department of Orthopedics & Sports Medicine at the University of South Florida's College of Medicine; and Chair of the NATA LGBTQ+ Advisory Committee.

**Margot Putukian, MD, FACSM, FAMSSM**, Director of Athletic Medicine and Assistant Director Medical Services at Princeton University; Consultant/Chief Medical Officer for Major League Soccer; Past Chair of the US Lacrosse Sports Science & Safety Committee; and member of the US Soccer Medical Committee.

## SESSION 2:

### Safety Precautions for You and Your Team



**Darryl Conway, MA, ATC**, Senior Associate Athletic Director of Student-Athlete Health & Welfare for the University of Michigan Athletic Department; and incoming Chair of the NATA Ethic Diversity Advisory Committee.

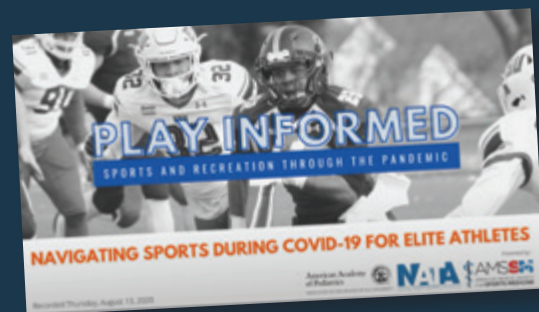
**Susannah Briskin, MD**, Associate Professor at Case Western Reserve University/University Hospitals Rainbow Babies; and

a member of the American Academy of Pediatrics Council on Sports Medicine and Fitness Executive Committee.

**Mark Halstead, MD**, Associate Professor at Washington University; current member of Sports Medicine Advisory Committee for the Missouri State High School Activities Association.

## SESSION 3:

### Navigating Sports During COVID-19 for Elite Athletes



**Stephanie Chu, DO**, Associate Professor of Primary Care Sports Medicine, University of Colorado School of Medicine; incoming Vice Chair for the NCAA Committee on Competitive Safeguards and Medical Aspect of Sport; member NCAA COVID-19 Advisory Panel

**Drew Watson, MD, MS**, team physician for University of Wisconsin Division of Intercollegiate Athletics, Head Team Physician for Forward Madison Football Club in the United Soccer League – League One and Chief Medical Advisory for the Elite Clubs National League

**Murphy Grant, MS, ATC, PEC**, certified athletic trainer and Senior Associate Athletic Director and Health Care Administrator for Wake Forest University Athletics; Chair, National Athletic Trainers' Association Intercollegiate Council for Sports Medicine.

**Moderator: Rich Dubin**, publisher of MVP Parent magazine. Dubin is also publisher of Lower Extremity Review, a magazine for healthcare professionals focused on the health and biomechanics of the lower limb, from pediatrics through geriatrics.

**Watch all the sessions at <https://www.nata.org/advocacy/youth-sports-safety/youth-sports-and-covid-19>**


*"Play Informed Sports and Recreation Through the COVID-19 Pandemic" is a 3-part educational series sponsored by the National Athletic Trainers Association (NATA), the American Academy of Pediatrics (AAP), and the American Medical Society for Sports Medicine (AMSSM).*



# REDUCE CONCUSSION RISK

WITH PROPER HELMET FIT

BY SUSAN YEARGIN, PHD, ATC



**T**he COVID-19 pandemic may be the front-page news, but parents of youth athletes need to remain vigilant about safety precautions for sport-related concussions. This is particularly true as young athletes are returning to the field and injury prevention and management remain critical among youth football players in particular. Indeed, a study published in *JAMA Pediatrics* (one of the nation's leading medical journals) found that concussion rates at the youth level are as high as rates in high school and college players. This means concussion prevention can't wait until high school. Youth tackle football across the country varies

by recreational leagues and club teams. Yet, no single overarching organization provides universal recommendations at this competitive level and many youth league teams do not have formal health care service personnel on-site, such as the athletic trainer.

Efforts to prevent sport-related concussion in youth tackle football players should always be on the forefront of parents', coaches', and administrators' minds. Risk-reducing factors include ensuring appropriate tackling techniques, improving neck strength, use of mouth guards, and proper fitting helmets among other considerations.



American football helmets range in types, models, sizes, and hardware. As a result, helmet fitting requires education and training—meaning personnel fitting helmets need to be properly trained in how to fit each brand of helmet. Preliminary research examining differences in helmet models' capability to reduce sport-related concussion risk has produced a wide variety of results. While helmets cannot prevent sport-related concussions, they may help reduce forces transmitted to the brain if fitted properly. If not properly fitted and serviced, the effectiveness of the helmet may be reduced.

As a parent, one of my first questions for my coach/league is, who is responsible for the health and safety of my child? The Helmet Safety Checklist should not be in lieu of a trained healthcare professional doing these checks and fittings.

In light of this helmet fit advice, researchers at the University of South Carolina conducted a study with more than 200 youth (7-12 years-olds) tackle football players in a recreation league. Initial results show the majority (83%) of helmets were rented by players from the league and the league was in charge of providing and fitting their helmets correctly.

Of the helmets examined, 5% had expired. (The National Athletic Equipment Reconditioners Association [NAERA] states that football helmets must be reconditioned and recertified every two to ten years.) Additionally, the majority (74%) of the helmets did not meet at least one component of the 13 criteria researchers used to measure helmet fit and were therefore considered improperly fit. The most common factors were

- ▶ lack of snugness on all sides,
- ▶ crown of helmet was not 1-2 fingers above the eyebrows,
- ▶ facemask slipped up and down, and
- ▶ the chinstrap was not taught.

Building parent and coach relationships before the season begins is important. Coaches should set-up a session before the first full contact practice in which helmet distribution and fitting is managed by a healthcare professional; a separate session allows for proper fitting while not being rushed.

Parents can be supportive of such a session and offer help with stations and staggered player arrival. During the season, parents can help recognize a helmet is not fitting appropriately (getting a haircut can alter the fit) while watching practice and games and should feel comfortable notifying the coach or athletic trainer to help with determining what factor(s) may need to be addressed.

With a collaborative approach in place, and good communication among parents, coaches, administrators and health professionals in youth league and recreational football, the incidence of sport-related concussions can potentially be reduced. Reducing risk factors helps ensure young athletes can excel on the field. ■

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*Susan Yeargin, PhD, ATC, is Associate Professor of Athletic Training in the Exercise Science Department of University of South Carolina, a member of the Korey Stringer Institute Medical and Science Advisory Board, and the parent of a youth athlete.*



## HELMET SAFETY CHECKLIST

- 1** The helmet appears in good condition after all-around inspection, with no cracks or dents.
- 2** All padding is in place
- 3** All snaps and screws are in place
- 4** NOCSAE (National Operating Committee on Standards for Athletic Equipment) football helmet and sticker/logo is visible
- 5** Helmet fits snugly on all sides
- 6** Helmet covers the base of the skull
- 7** Crown of the helmet is 1 to 2 fingers above eyebrows
- 8** Helmet does not impinge neck movement
- 9** Helmet does not cover eyes when pressing down
- 10** Chin straps have equal tension
- 11** Facemask does not slip when pulled left to right
- 12** Facemask does not slip when pulled up and down
- 13** Skin on forehead moves with helmet front to back and left to right movement.



# Student Athletes and Immune Health

## Strengthening their Resiliency and Inner Defense

BY JILL LANE

**I**llness is the second most common reason (after injury) athletes miss training and competition. A student athlete's ability to be and stay well is of utmost importance now more than ever. In this article we'll cover what science has to say about healthy immune function in athletes, while helping them build their inner defense system and resiliency.

### IMMUNE HEALTH 101: A CRASH COURSE

Our immune system has 'game' as long as we provide the best possible playing field for it to execute its game plan on. To tell you the truth, we can be doing a cruddy job of taking care of ourselves and our immune system will still go to bat for us, but not for very long.

This is not a complete overview (more like a crash course), but it's enough to understand what's going on and 'who' is doing 'what' from an immune standpoint.

We have 2 basic 'sides' to our immune system: innate and adaptive. Innate (natural) immunity is so named because it is present at birth and does not have to be learned through exposure to a germ/invader. It thus provides an immediate response to foreign invaders. The innate immune system includes physical barriers such as the skin, gastrointestinal tract and the respiratory tract as well as a variety of specific immune cells, it is looking for things that are 'non-self' so it can protect us.

Adaptive (also called acquired) immunity, is just that. It's what's acquired after you're born. Once you've been exposed to a germ/invader for the first time (think common cold or chicken pox), your body creates a defense against it. That defense gives your body the capability to 'remember' chicken pox or that specific strain of the germ (acquires a memory) so that if exposed again, your chance of falling to infection/illness because of that invader is reduced or even eliminated.



Cells involved in immunity (all with different functions) are:

- ▶ Monocytes (which develop into macrophages)
- ▶ Neutrophils
- ▶ Eosinophils
- ▶ Basophils
- ▶ T Cells (mature in thymus gland)
- ▶ B Cells (mature in bone marrow)
- ▶ Natural Killer Cells (also called NK or K cells)

There are also dendritic cells and the complement system – that's a big army!

A few worth giving MVP acknowledgement to are:

- ▶ **NK Cells** – The big dogs. These are our cancer fighters. NK cells are also critical for the control of certain infections, particularly viral infections.
- ▶ **T Cells** – Remember/recognize germs (by their surface antigens) from the past and attack them if exposed again, help with identity, produce cytokines (inflammatory markers) to alert rest of system or they take out an invader all together.
- ▶ **B Cells** – Produce antibodies which attach to outside (antigen) part of invader and call attention from other parts of the immune system.

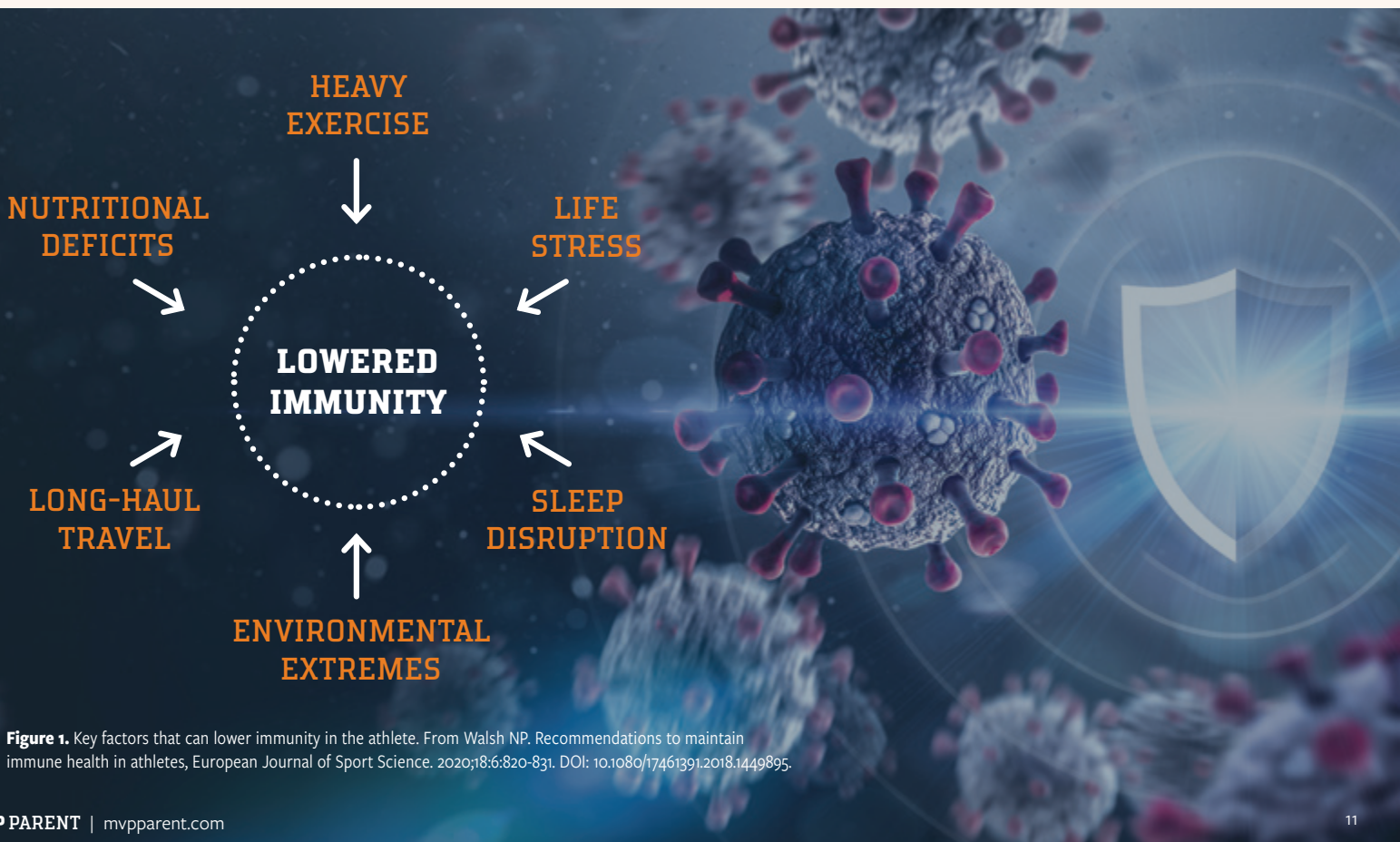
- ▶ **Phagocytes/Macrophages** – Engulf (surround and dissolve) foreign invaders (think Pac-Man).

## ARE ATHLETES AT HIGHER RISK

The goal with athletic performance and overall health (which includes a healthy immune system) is to, through repetition of productive habits, build strength, adaptation, and resiliency. Let's take a roll call of habits or conditions which could be affecting an athlete's immune system negatively:

- ▶ Lack of quality sleep / chronic sleep disruption
- ▶ Under-fueling (not eating enough in relation to training and growth requirements)
- ▶ Under-recovery (not sleeping/eating/resting enough in relation to training and adaptation needs)
- ▶ Chronic stress (emotional, physical, or environmental)
- ▶ Nutrient deficiencies
- ▶ Exposure to 'bugs' or toxins (through travel, home, or the gym)
- ▶ Food sensitivities (an immune system stressor by itself)
- ▶ Over-training (training too much—quantity or intensity wise)

Below, see it spelled out visually (according to a 2018 *European Journal of Sport Science* paper by one of my favorite researchers on athlete immune health).



**Figure 1.** Key factors that can lower immunity in the athlete. From Walsh NP. Recommendations to maintain immune health in athletes, *European Journal of Sport Science*. 2020;18:6:820-831. DOI: 10.1080/17461391.2018.1449895.



**Adding 2 hours of sleep for 2-3 weeks improves almost every metric in sport performance.**

## **BUILDING RESILIENCE AND A SOLID INNER DEFENSE MECHANISM**

Now that we understand a bit more about immune health and what takes it out of the game, let's talk about how we can support it.

- 1 Get enough sleep** – the sleep science is clear (see Sleep Stats), not getting enough quality sleep (for the whole family) is a problem for all areas of health including the immune system. A lab experiment bears this out: When students at the University of Chicago were limited to only 4 hours of sleep a night for 6 nights and then given a flu vaccine, their immune systems made only half the normal number of antibodies. Reducing blue light exposure before bed by putting down the digital devices and or wearing blue light blocking glasses (my pro-athletes do this so your student is NOT too cool for these), keeping room as dark and cool as comfortably possible and trying to stick to similar wake and bedtimes can help with sleep.

## **SLEEP STATS**

- ▶ Most adults need 7-9 hours' sleep nightly (National Sleep Foundation 2015)
- ▶ Most youth need 8-10 hours of sleep (National Sleep Foundation 2015)

- ▶ Reduction in sleep time impacts the immune system and increases risk of Upper Respiratory Tract Infections (think common cold) (Cohen et al 2009)
- ▶ Lack of sleep is an independent risk factor for increase in injury risk in youth athletes (Rosen et al 2017)
- ▶ Losing 2 hours of sleep a night (dropping from 8 to 6) impairs performance, attention, working memory, long-term memory, and decision making (Alhola & Polo-Kantola 2007)
- ▶ Sleep extension (adding 2 hours for 2-3wks) improves almost every metric in sport performance – reaction time, swimming speed, agility, free throws, 3-point accuracy, 40 speed... (Mah et al 2011)

- 2 Eat enough of the right kinds of foods throughout the day** – see my last article (“Sports Nutrition: Supporting Performance, Growth + Wellness in Student Athletes,” Winter 2020) about the importance of eating enough food throughout the day. Amino acids from protein, omega-3 fatty acids from cold water fish, fiber from carbohydrates, and phytonutrients and polyphenols from veggies and fruits all contribute to healthy immune function and inflammatory responses. This is a step you and your student athlete can't skip: REMEMBER the goal is not to be perfect (cheeseburgers will happen); it is to be consistent.



**3 Stay Hydrated** – training in extreme temperatures affects immune health so staying optimally hydrated regardless of time of year is important for performance, as well as brain and immune health.

**4 Train and recover responsibly** – more is often not better when it comes to training. Know your athlete's goals and make sure the training being done matches those goals while also addressing the body's primary recovery tools (sleep and healthy food). Excessive soreness and fatigue can be signs it is time to dial it back a bit so the body can adapt and recover.

**5 Get good with personal hygiene** – most of us are pros at this now! I encourage athletes to wash hands up to elbows, paying special attention to the palms and between fingers. Replace toothbrushes every 3 months and especially after sickness and wash all gear regularly.

**6 Manage stress** – easier said than done, but it cannot be ignored! Chronic stress can have a negative impact on immunity, according to a 2004 review of 293 studies with a total of 18,941 participants. The review suggests that while short-term exposure to stressors can rev up your immune defense, prolonged stress may wear down the immune system and increase your vulnerability to illness. Many athletes have been stressed by the loss of a season, sport, or position in addition to over exposure to the unrelentless, unrealistic expectations displayed on social media. Be open to these discussions. Consider a counselor if you notice swings in mood and behavior.

**7 Consider supplementation** - what's that saying...if you fail to plan you plan to fail? A handful of vitamins have been shown to support healthy immune function. Talk to your integrative healthcare practitioner about the following. Know that quality matters, not all supplements are created equal. Look for a professional brand with good in-house and 3rd party quality control testing.

## SUPPLEMENT SUPPORT

**Vitamin D3:** If you or your student athlete have not had your levels checked, now is the time (aim for levels above 50ng/dL). A sub-optimal level of Vitamin D3 is problematic for many areas of health, immune health being just one. Vitamin D is found in foods like salmon and fortified dairy products and other beverages. I, however, concur with the Gatorade Sports Science Institute which says, "regular consumption of vitamin D-containing foods alone is not likely to maintain sufficient vitamin D status." Consider, at a minimum, using a professional grade, NSF Certified for Sport® multi vitamin that contains around 2000IU per serving.

**Probiotic:** Because immune health is either strengthened or diminished by your state of digestive health, keeping digestive function in tip-top shape is important. Look for a probiotic product that is dairy-free and shelf-stable containing 5 or more identified strains. Probiotics are found in fermented foods like yogurt, sauerkraut, and kombucha.

**Zinc:** A chelated version of the mineral zinc is optimal. You could be getting between 15-30mg in your daily multivitamin. Zinc is found in the diet through nuts, seeds, animal protein, and beans. Zinc lozenges have mixed reviews but may also prove helpful at first sign of sickness.

Contact me for a list of the references used to support this article. ■

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*Jill Lane, mom of 3, founder of Fueling Champions® has been teaching nutrition and exercise science to pro-athletes, sports families, student athletes, coaches and health care practitioners for 20 years. Some of her current and past clients include coaches and players from the NFL, NBA, and MLB. As a former All-American, Olympic Development Team Member and Division I Scholarship Collegiate athlete herself, Jill has a clear understanding of what competitive athletes require to achieve and sustain their personal best.*

*Her mission to support the next generation of student athlete leaders (as well as those who lead them on a daily basis) comes full circle in Fueling Champions®.*

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# Dynamic *Stretching*

IMPROVES TENNIS PERFORMANCE  
IN JUNIOR PLAYERS

BY GREG GARGIULO

Everyone knows that having young athletes warm up before exercise is essential in practically every sport. But now, research shows that the type of stretching that's performed can actually improve athletic performance.

In a Spanish study of junior tennis players, a warmup including the static stretches that many parents will remember doing when they were young led to poorer performance than a warmup based on dynamic stretching.

“Based on our findings, I think it’s beneficial if dynamic stretching routines are used during warmups and that static stretching is avoided,” said Jaime Fernandez-Fernandez, PhD, a professor in the Department of Physical Education and Sports at the University of Leon, in Spain, and a member of the Tennis Performance Research Group in Madrid, who helped conduct the study.



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## There is still a role for static stretching in youth sports, but primarily after exercise rather than before, Fernandez-Fernandez pointed out.

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Static stretches are those in which muscles are stretched and held in a challenging but comfortable position for about 10-30 seconds; dynamic stretches involve movements that are analogous to sport-specific skills. Although static stretches are effective for improving flexibility, studies conducted in adult populations have suggested static stretching prior to exercise can potentially have a negative impact on performance.

Fernandez-Fernandez and his team conducted the study which tested the abilities of 12 internationally ranked male junior tennis players (average age 16.8) after doing two different warmup routines. Both routines were identical, except that one used static stretches and the other used dynamic stretches.

The results, which were published in the journal *PLoS One*, showed that the athletes had faster sprint times, higher jumps, and faster and more accurate tennis serves after warming up with dynamic stretches than when warming up with static stretches.

Fernandez-Fernandez thinks similar results would be found with younger tennis players and stressed the importance of dynamic stretching prior to exercise during middle childhood (ages 5-11).

Dynamic warmups in young tennis players should include exercises that are analogous to tennis movements for the main body parts involved -- the shoulder, lower back, hips and knees, Fernandez-Fernandez said.

“Lunges, butt kicks, side steps and movements that twist the trunk and hips are all very effective,” said Todd Ellenbecker, DPT, clinic director of Rehab Plus Physical Therapy Scottsdale in Arizona, and vice president of Medical Services for the ATP World Tour. “Simply performing tennis strokes with the racquet

at different intensities is also excellent for the arms and trunk since they simulate the demanding movements needed during play.”

There is still a role for static stretching in youth sports, but primarily after exercise rather than before, Fernandez-Fernandez pointed out.

“Static stretching should not be demonized, as doing it after activity will help increase flexibility and reduce pain and soreness,” he said. “I recommend including daily, individualized static stretching routines (using 30 seconds per stretch) after practice and competitions.”

Ellenbecker concurred.

“Since athletes may experience a loss in performance after doing static stretching, I would recommend replacing them with a quality dynamic warmup before tennis and doing static stretches after play,” he said. “One notable exception is that if a child has a tight or injured area, static stretching can be beneficial and should be used before aggressive workouts and tennis play.”

For parents and coaches interested in learning more about the benefits of dynamic stretching, Ellenbecker recommended the book [Complete Conditioning for Tennis](#), while Fernandez-Fernandez suggested [Dynamic Stretching](#) and the [USTA website](#). ■

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*Greg Gargiulo is a freelance medical writer based in San Francisco. He has over 10 years of writing experience, with specialized focus on sports medicine and the treatment and prevention of common injuries and painful conditions. He can be reached at [ggargiulo12@gmail.com](mailto:ggargiulo12@gmail.com) or through his website, [ggmedwriter.com](http://ggmedwriter.com).*



THE  
SPORTS  
DOCTOR  
IS IN

WITH DR. BOB WEIL

# ARE YOU INTO THE PRODIGY SPORTS?

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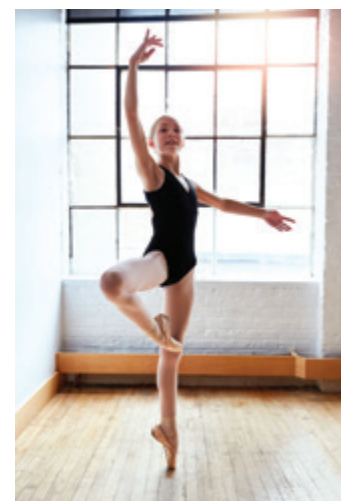
## CAN SPECIALIZING AT A YOUNG AGE HAVE DISADVANTAGES?

**W**hat do I mean by the prodigy sports? Specifically, I'm talking about sports that involve adolescents and younger who are specializing in only one sport. Tennis, figure skating, gymnastics, swimming, soccer, ballet, and volleyball are all examples of these prodigy sports. It's not uncommon for me to see young figure skaters under the age of 10 already skating every day. They simply are not interested in other sports. But specializing at such a young age can have disadvantages, namely overuse and repetitive motion injuries. So often, young athletes and their parents are faced with the question regarding concentrating on their main sport versus playing multiple sports. In today's world, it's not unusual to see kids younger than 12, some as young as 6, already putting all their efforts (and parent's money) into one sport. The multiple-sport athlete is far less common today than years ago. Remember those letter sweaters with letters for each sport?

Some parents, and even some coaches, think that the young athlete will fall behind if they play different sports, instead of just focusing on one sport year-round. This may seem a logical

scenario, but there is no exact answer as to whether it is the right scenario.

Today's epidemic of overuse injuries due to specialization affects both lower and upper extremities, across the board, in all sports at all ages. As the world of youth sports has grown dramatically, so have these injury problems. Overuse injuries cause a significant loss of time off the field, but more importantly, they threaten future sport participation which could inadvertently lead to increased obesity. These young athletes are at increased risk because growing bones are less resilient to stress and children's awareness of symptoms as signs of injury are limited.





ALL experts agree that specialization is risky both physically and mentally. My bottom line has always focused on the young athlete's passion and insistence on specializing. Hearing that youngster say,

# "I'm not interested in other sports, period!"

Yes, parents should listen, but they also need to advise.

## HERE ARE SOME FACTS TO HELP WITH THAT:

- 1** Physically, with young growing bodies, playing the same sport with the same movements, same muscles being used, same stresses to tissues, is very challenging. Recovery and rest of the used muscles and tissues are critically important—and they take time of their own. Overuse and repetitive motion injuries to the upper and lower extremities are a real problem. Many feel that specializing just multiplies these problems.
- 2** If specialization is the decision, then it is important to include off-sport conditioning that helps to develop the overall athlete and strengthen against these repetitive motion injuries. Concentrate on what Bob Gajda, famous sports therapist, called "strengthening the opposites and stabilizers." In other words, condition the muscles and tendons that help work against those repetitive motions. Athletic trainers, physical therapists, and personal trainers can help devise these programs. This kind of training is also helpful for multiple sport athletes.
- 3** Make sure that strengthening feet and ankles and working balance is included no matter what the sport! So important—for sport...and a long, healthy life!

Love your athlete. Listen to your athlete. Then advise. And if it's their passion, let them specialize—but only with extra conditioning. ■

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*Dr. Bob Weil is a sports podiatrist in private practice in Aurora, Illinois. He hosts "The Sports Doctor," a live weekly radio show on [bbsradio.com](http://bbsradio.com). For more information, go to [sportsdoctorradio.com](http://sportsdoctorradio.com).*





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# TOP 2

## *Sports Training Myths*

BY JAY VINCENT

Since the early 1970s when professional sports organizations and universities began to realize the importance of strength training for injury prevention and performance improvement, we have been continually inundated with the latest “breakthroughs.” Often, these “programs” were offered up by severely under qualified individuals who were simply looking to make a quick profit. Today, we are left with dozens of strength and conditioning myths that have been indoctrinated into the minds of not only the athletes, but also many so-called “strength coaches”. Many of the beliefs that our athletes and coaches hold are not only wrong and erroneous, but they are also ineffective at best, and in many cases, severely counterproductive.

### **MYTH #1. YOU NEED TO TRAIN FAST TO BE FAST**

This is FALSE. This belief comes from the erroneous assumption that explosive training helps an athlete become more explosive on the field. Although, no one ever takes the time to define what they mean by “explosive” I believe they mean being able to perform a skill with more speed and proficiency. There are a couple components to performing a skill with speed.

First, how efficient you are at performing the particular skill plays the largest role. The more you practice a particular skill, the better you will become at the skill, the more quickly you will be able to perform the skill. Think about the first time you learned to write. You had to learn how to draw the individual letters first. Obviously, you drew them quite slowly until you got the hang of it. Over time, your skill at drawing each individual letter drastically improved and you became able to write words and do so very quickly. The same applies to a sport-related skill. The

better you become at the skill – technically a muscle recruitment pattern, the more quickly you will be able to perform it.

The second component of performing technical skills quickly is muscular strength. The muscles are the motors that transmit movement through the bones. If you improve the strength of a muscle, it will be able to produce more contractile force within the muscle and transmit that force through the bones to create faster movement. Simply put, stronger muscle = more force production = faster movement.

Improving the strength of a muscle is about recruiting and fatiguing fast-twitch motor units. A motor unit is a bundle of muscle fibers that contract together to produce force. That force transmits movement through the bones. Motor units can be divided into two categories: slow twitch and fast twitch. “Slow” and “fast” actually have little to do with the twitch speed of the muscle. It mostly refers to the amount of force the motor unit can produce. Slow-twitch motor units do not produce much force. These motor units are recruited by your nervous system for low intensity activities like walking. Fast-twitch motor units produce a LOT of force. These fibers will be recruited when you do an activity that requires a lot of strength or speed... aka “explosiveness.”

We can actually stimulate and build fast-twitch motor units moving quite slowly, or even with no movement at all. According to Henneman’s Size Principle, motor units are recruited based on force requirement or intensity of muscular contraction. This means the more effort required in a given movement, the higher the order of motor unit recruited. Simply put, if you were to hold a weight out from your body in place with no movement until you could no longer hold it, you would recruit and stimulate (and effectively strengthen) fast-twitch motor units.

This improved strength would transfer to explosiveness in your particular sport.

Training “explosively” is not only unnecessary and inefficient, it can be dangerous, potentially resulting in injury. Instead, choose exercises that address muscle and joint function and perform them slowly throughout a safe range of motion. The athlete will become stronger over time and be able to express more explosiveness in competition.

## MYTH #2. JOGGING FOR CONDITIONING

This one drives me nuts. Jogging to “get in shape” for your sport, if it is anything other than cross country, track, or a sport that specifically requires jogging as part of its competition, is a complete waste of time. The first step of conditioning your body for your sport occurs in the weight room. Making all of your muscles stronger with an adequate resistance training program will improve something called “local muscular endurance.” This is the ability of a muscle or muscle group to sustain submaximal contractions for a sustained period of time. This occurs by simply making the muscles stronger. For instance, say you could squat 100lbs for 10 repetitions, but you could not complete an 11th repetition. If you were to improve your strength to the point where you could squat 300lbs for 10 repetitions, you will be able to lift that previous 100lbs far more than 10 repetitions. It would take maybe 20, 30, or 40 repetitions to reach muscular failure. Strength and endurance go hand in hand. If a muscle becomes stronger, the muscle’s ability to endure low intensity muscular contractions for a sustained period of time will also improve.

Improving your skill with the particular movements associated with your sport is not only crucial for improving speed and explosiveness, it is also responsible for improving endurance and conditioning. As you perform a particular physical activity frequently over time, your nervous system will learn to recruit the muscles required for the movement more efficiently, so your body doesn’t have to use as much energy. This is why the skill becomes easier over time and you become more proficient with the skill.

When you go out for a jog for the first time in a while, you will notice it is fairly difficult. Over time, jogging becomes easier. People generally believe it is because they have gotten in “better shape.” While that is partially true (you did make slight improvements in cardiovascular conditioning and local muscular endurance), most of the improvement comes from development of the skills associated with jogging. Your body learned, over time, how to more efficiently recruit the muscles associated with the jogging movement and thereby lower the physical demand on the musculoskeletal system and cardiovascular system. However, this improvement in jogging skill and conditioning does NOT transfer to any activity other than jogging. This is why I consider jogging useless.

If you want to improve your cardiovascular and metabolic conditioning for your sport, then you want to practice the specific skills associated with the sport. If you are a wide receiver, you should run patterns and catch the football. If you are a basketball player, you should play pickup basketball games with the same intensity and effort as an official game. If you are a sprinter, you should sprint the distances that you will be competing in. You must practice skills as close to the competitive environment as you can. Practicing skills that are not close to, or are not similar to the skills of your sport (such as punching with weights in your hands for boxing) will not only have no transfer to your particular sport, it could have a negative transfer which will make you less effective and efficient at the skill associated with your sport and you will perform worse.

The best strength and conditioning approach for sports is to adopt a safe, efficient, and effective resistance training protocol and to simply practice your sport as close to the competition conditions as possible. It’s that simple. ■

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*Jay Vincent is an exercise expert and fitness entrepreneur with two training studios in Upstate New York. He is also a published fitness model and has modeled for Under Armour, Amazon.com, and Men’s Health, and has been featured in advertisements for magazines such as Muscle and Fitness, FLEX, Muscular Development, Iron Man, and more. Jay’s goal is to teach the proper science behind exercise to help people train more efficiently, safely, and effectively.*



The best strength and conditioning approach for sports is to simply practice your sport as close to the competition conditions as possible. **IT’S THAT SIMPLE.**





# THE DEATH OF SELF-ESTEEM

HOW WE'RE  
UNKNOWINGLY  
SETTING OUR KIDS  
UP TO FAIL AT LIFE

*Confidence. Self-esteem. Talk  
to any parent and they'll tell  
you they want these qualities  
for their child.*

BY ROBIN QUINN KEEHN

# WE WANT IT, BUT HOW DO WE INSTILL IT INTO OUR KIDS?

**I**n my experience, confidence is achieved through repeated experiences of success. But what is success? Success comes from the satisfaction and pride of completing a task and/or reaching a goal.

If this is true, that experiencing “success” comes from reaching a goal or completing a task, then contrarily, the experience of failure comes from incompleteness – not reaching a goal, from quitting before the task is finished.

That would mean when kids don’t complete projects or reach goals, they experience a sense of failure. Instead of growing in confidence and self-esteem, kids who quit actually lose confidence and self-esteem.

I believe this is true. And parents with the best intentions, perpetuate it every time they let their child quit something prematurely – before it’s complete. This typically happens when their kids are in a valley (at a low point) – the worst time ever to quit.

Having worked with thousands of families in my career in teaching music and dance, I’ve had literally hundreds of conversations with parents who enrolled their kids because it seemed like a good idea, but then let them quit to try something else.

They commonly said, “I want my child to try lots of things. Eventually they’ll find something they love and we’ll stick with that.”

That’s a well-intentioned – but inherently flawed – premise.

I initially took a similar approach with my own kids, but with time, experienced a negative outcome with one of my daughters who tried lots of things but never felt she was good at anything. She stopped wanting to try things. Her self-esteem and confidence suffered then, and does even now into her mid-20’s.

The slow death of self-esteem and self-worth is perpetuated by habitual quitting. When quitting becomes a habit, we end up with children who tell themselves they aren’t good at anything; that they can’t achieve anything, and eventually it’s not worth even trying. If we think this is simply unfortunate or sad, we misunderstand and underestimate the impact quitting has on a child’s belief system. We fail to understand that feelings of “not being good at anything” and “why bother trying” negatively



impact a child’s life. The effect is felt in activities, school, friendships, relationships and in vocations.

I believe that the death of self-esteem and confidence can lead to isolation, depression, and possibly even suicide.

## SETTING OUR KIDS UP FOR CONFIDENCE AND HEALTHY SELF-ESTEEM

There is a solution. In my experience, we can completely alter a child’s beliefs and trajectory for life. Here’s how:

**1**

**Before you enroll your child in an activity,** know why it’s important to you, what goals you have for your child in that activity and how long you want them to participate.

For example, you want your 5-year-old to participate in gymnastics. Your goal is that they develop some body awareness and be able to do a forward roll. The coach tells you it usually takes 8 weeks to achieve that.

**2**

**Commit to the goal.** This is not a commitment your child makes. You make it. Tell your child the goal and let them know that no matter what happens, they’ll be enrolled for the 8 weeks.

It’s important to note that, while children are smart, they lack the skills and experience to commit to anything. They don’t know what’s best for them, nor do they know how to finish what they start. They learn that from you.

**3**

**Understand that every long-term commitment/relationship has a series of peaks,** valleys and plateaus that last for short, medium and long terms AND are always changing.

It’s inevitable – it is human nature – for your child to be thrilled about gymnastics one day and refuse to go the next. They can’t wait to get to class...then they can’t wait to get out of class.



Typically, this is where the trouble begins. A child decides they don't like it, they're tired or they're bored. They get upset. They cry, whine, and complain and the parent thinks, "Something's wrong."

The parents start to question the activity, the coach or teacher, the facility, or themselves. When they get uncomfortable enough, they let their child quit, with the promise that they can try something else.

Peaks, valleys, and plateaus are normal in long-term commitments. They're expected. They're part of the commitment cycle. Nothing is wrong. It's actually perfectly normal. Think back on any long-term relationship or commitment and you can see it for yourself.

When we let our kids quit in a valley, they don't get results. They never learn the forward roll. They never master any skills. They don't get to the final class – which in itself is an accomplishment.

The first time we let them quit it doesn't seem like a big deal. We enroll them in another activity and a few weeks in, they don't like it. The same negative behavior (crying, whining, complaining) ensues and parents are back to making the decision to let their child quit. It's easier to let them quit than to put up with and deal with the upset. And so, the pattern is set. The child is calling the shots – yet they're not mature enough to know what's being set up.

The child begins to think, "I'm not good at gymnastics." Or, "I'm not very good at soccer or piano." "I don't know how to do anything and I never will." They stop trying. They may grudgingly go to an activity but now they expect to fail.

This mindset – of not being good at anything, of jumping from one thing to another without experiencing success – can follow a child through his or her life. It can impact relationships, jobs and experiences of every nature.

The death of self-esteem and confidence is real. Look around and you'll see it everywhere.

Ask an isolated, depressed teenager what they're good at. Ask them what they love to do. Ask them what they tried when they

were young. In my experience, these are the kids who habitually quit activities when they were young and have low self-esteem and zero confidence as a result.

Now ask a teenager who's excelling at dance or music or sports. Ask them how they got to this point. Ask them how they do in school. Ask them how they feel about their future. This is the teen whose parents didn't let them quit, but understood what it would take to help them finish what they started.


I believe as a culture, through conversation and education, we can turn this around. We can raise a generation of kids who know how to finish what they start and grow in confidence with each successful achievement or completion; kids who are excited about knowing they can accomplish whatever they set their minds to.

We need to be brave enough to have conversations with parents so they know what their role is. Parents need to understand how long-term commitments work and how to steer their kids away from the habit of quitting. They need to understand that letting their kids start and stop numerous activities until they find the one they love is actually contributing to low self-esteem and lack of confidence.

Raising successful kids requires parents who are confident in their parenting and know that they can make good decisions for their kids. It isn't easy. It takes being present. It requires being selective and intentional about what we enroll our kids into and what we want them to learn.

Confidence and self-esteem are keystones to the well-being of our children. If we can support them in developing confidence and self-esteem through experiences of success, they will know how to be successful for the rest of their lives.

The reality is that this generation of children is the next generation of adults. They are the future stewards of our world and it is our privilege and our responsibility to equip them with the tools they will need to lead themselves and others. ■



Robin Quinn Keehn, the creator of Quit-Proof Kids, is a former music & dance studio owner and mother of 4. Robin is passionate about ending 'Quit-itis' – kids quitting prematurely and habitually. She's seen how quitting impacts businesses, especially those whose goals focus on developing skills, abilities and talents in kids. She also knows from teaching music to thousands of kids for over 25 years, that parents don't know what to do about kids quitting. Robin's committed to changing the culture of quitting and helping both businesses and families thrive. Visit <https://quitproofkids.com/> for more information.



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