



CHI Health  
**better**  
**you** *IMAGINE THAT.*

## Game On

Pre- and post-game  
nutrition

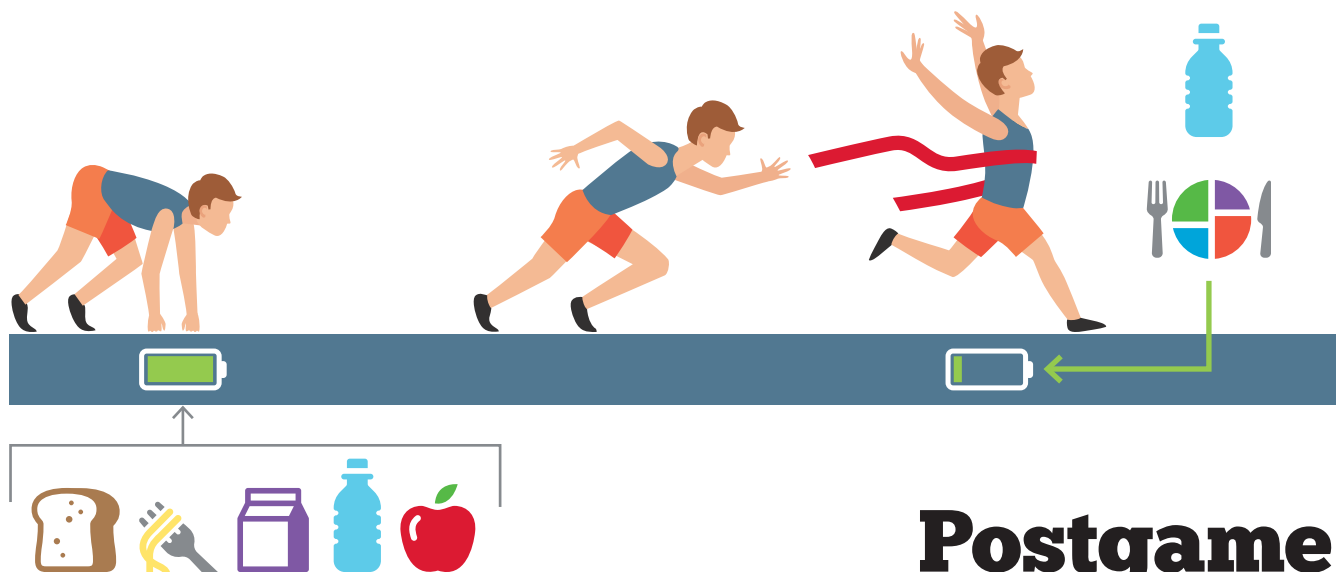
## Heads up on Concussions

Know what to do to  
protect athlete's brains

## Ready for the Weight Room?

Know your barbell  
basics and when to lift

**Student Athlete**  
2017/2018



## Pregame Eats: Fuel for the Win

Nutrition is an important aspect of athletic performance as it provides the source of fuel for the body prior to activity and helps maintain energy levels throughout the contest.



3-4 hours before

Elizabeth Norman, CHI Health certified athletic trainer, said examples of a good pregame meal (three to four hours prior to game time) include:

- ✓ Whole grain cereal with nonfat (or low-fat) milk and a piece of fruit
- ✓ Whole wheat toast with a small amount of nut butter and/or jam
- ✓ Whole wheat pasta, vegetables and a lean meat sauce
- ✓ Ham sandwich with a glass of 100 percent fruit juice or nonfat milk
- ✓ String cheese, whole grain crackers and grapes



30-60 minutes before

Examples of snacks to be consumed 30 to 60 minutes prior to activity start time include:

- ✓ Fruit, applesauce or fruit snacks
- ✓ Small granola bar, pretzels or graham crackers
- ✓ Sports drink

## Postgame Chow: Replenish Your Engine

When it comes to postgame meals, an athlete's focus should be on consuming proteins and carbohydrates.

"The main thing is to have a well-balanced meal," said Todd Goshorn, a certified athletic trainer for Grand Island Physical Therapy in partnership with CHI Health. "In this day and age, it's sometimes difficult to sit down and have a full-fledged meal, but we try to steer kids away from relying on fast food as their main fuel for energy and recovery."

Goshorn said protein drinks have their place, but should be used as a supplement – not a meal substitute.

Post-competition hydration is also important. Athletes can weigh themselves before and after activity and, for every pound lost, Goshorn said they should rehydrate with 16 to 24 fluid ounces, using a one-to-one combination of water and sports drinks.



# Ouch!

## How to Stop the Sprain Cycle

One in every 10 visits to an emergency department is for a sprained ankle. And yet, some still believe it's just an injury of inconvenience.

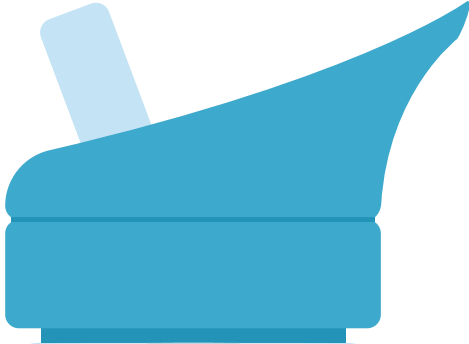
“People misjudge the severity and end up not getting the proper treatment,” said Ryan DeBlis, MD, a CHI Health orthopedic surgeon. “Our ‘suck it up’ mentality can put student athletes at risk for cartilage and bone damage, not to mention a lifetime of painful problems like arthritis.”

Not surprising to DeBlis, a recent study found a third of ankle sprain sufferers were still having pain a year later. “Without proper treatment, including resting for four to six weeks and rehab for strengthening, we’re seeing a cycle of sprain on top of sprain,” he said.

How do you know when it's more than just soreness? “If you hear a pop or tearing noise, get to the doctor right away,” DeBlis said.

**“Our ‘suck it up’ mentality can put student athletes at risk for cartilage and bone damage, not to mention a lifetime of painful problems like arthritis.”**

And keep in mind, once an ankle ligament is sprained, reinjury is 73% more likely – especially if muscle strength and balance are not fully restored to, or improved beyond, preinjury levels.




## Pour It On: Hydration Hints

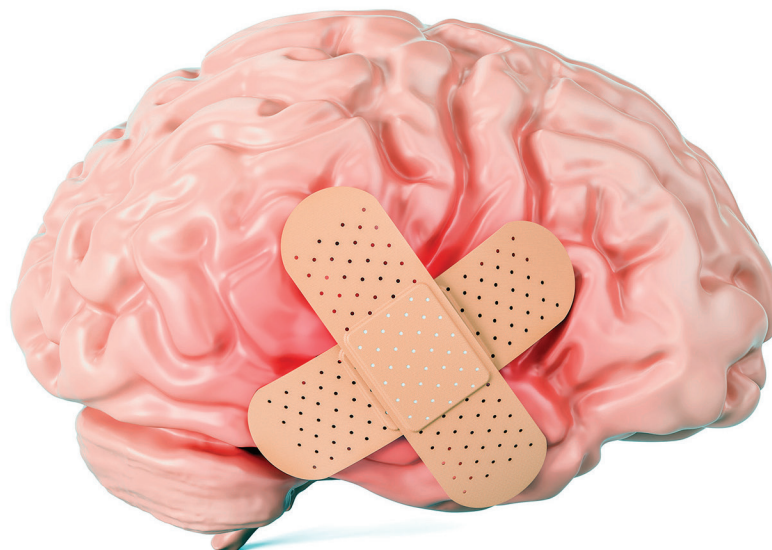
For proper hydration before activity, drink plenty of fluids. The day before an event, drink extra water or nutrient-rich fluids such as nonfat or one percent milk.

Also, monitor the color of your urine.

“The goal is pale yellow – not clear,” said Brigham Becker, CHI Health certified athletic trainer. “If your urine is clear, you’re over-hydrating and flushing out a lot of the nutrients your body needs to maintain proper condition.”

And what about the debate of sports drinks versus water? There is some benefit to sports drinks because athletes need to replenish the nutrients lost while sweating during competition or workouts. However, most sports drinks contain large amounts of sugar, which means that 90 percent of the population doesn’t need to consume sports drinks – only those who perform 60-plus minutes of high-intensity exercise.

 For more, visit [CHIhealth.com/CharleyHorse](http://CHIhealth.com/CharleyHorse)



# Heads Up on Concussion Care

What's the biggest mistake parents make about concussions? Many still think they need to wake their child every hour to check for worsening symptoms. Most parents also don't know what to look for, if it may be more serious, after being sent home.

“Any sudden vomiting, blurry vision, lack of balance, slurred speech or a headache that keeps getting worse

(not same or better) should be taken to an emergency room,” said Kierstin Mergens, CHI Health certified athletic trainer.

What's the most important thing parents should do after a concussion? Listen to what the health care provider tells you. Limit screen time to 15 minutes every hour, break up anything that requires a lot of focus

(such as homework) to 15-minute sessions. Be aware of sensitivity to light and sound and plan accordingly. The most important factor for a parent is to ask questions and listen to what your child says. Pay attention to the situation.

For more, visit [CHIhealth.com/Concussion](http://CHIhealth.com/Concussion)

## Concussion Fact and Fallacy



- » **You don't have to hit your head: FACT.** A blow to the neck or body can cause the brain to accelerate and decelerate inside the skull and that whiplash of the head can cause a concussion.
- » **You shouldn't go to sleep: FALLACY.** Sleep is okay as long as symptoms aren't getting worse. In fact, sleep is how the brain begins to heal. “It's also a myth that you need to wake the child every hour. Let them sleep!” said Kierstin Mergens, CHI Health certified athletic trainer.
- » **Your concussion can take a turn for the worse: FACT.** “An athlete experiencing sudden vomiting, blurry vision, lack of balance, slurred speech or a headache that keeps getting worse should be taken to the ER,” Mergens said.
- » **You can play when symptoms improve: FALLACY.** Experts agree that athletes should never return to play with any remaining symptoms.

## Fire or Ice? How to Ease Those Aches and Pains

Confused when treating sore muscles or an injury? Remember:

### Cold

- » Relieves pain by numbing the affected area
- » Reduces swelling and inflammation
- » Reduces bleeding
- » Can aggravate symptoms of tightness and stiffness

### Heat

- » Brings more blood to the area where it is applied
- » Reduces joint stiffness and muscle spasms, which makes it useful when muscles are tight
- » Can make inflammation significantly worse and should not be used for the first 48 hours following an injury

## RICE: A Self-Care Staple

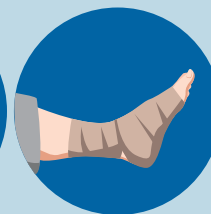
Sprains and strains are inevitable for athletes. The remedy is RICE:



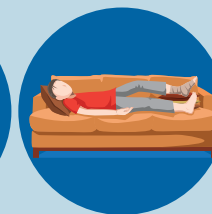
REST



ICE



COMPRESSION



ELEVATION

“The injured area needs some time to recover before activity is resumed,” said Jacquelyn Brazda, CHI Health certified athletic trainer.

Once swelling has gone away, stretching and strengthening exercises should be implemented to gain range of motion.

“A mistake athletes may make is immobilizing the area for too long. Waiting too long will delay the rehab process, make the injured area stiff, and may cost them range of motion,” Brazda said. “Another mistake teen athletes make is getting back into practice too early without properly

rehabilitating the area to its maximum potential, or not taking proper precautions to avoid a re-injury, such as taping or bracing.”

### Signs a strain or sprain needs medical attention:

- » Complete tear (i.e. ACL tear, biceps tear, Achilles rupture)
- » Excessive bruising, swelling or extreme pain that has not shown signs of improvement
- » Loss of sensation or motion in or around the affected area

## Sore Spot: When to Sit Out

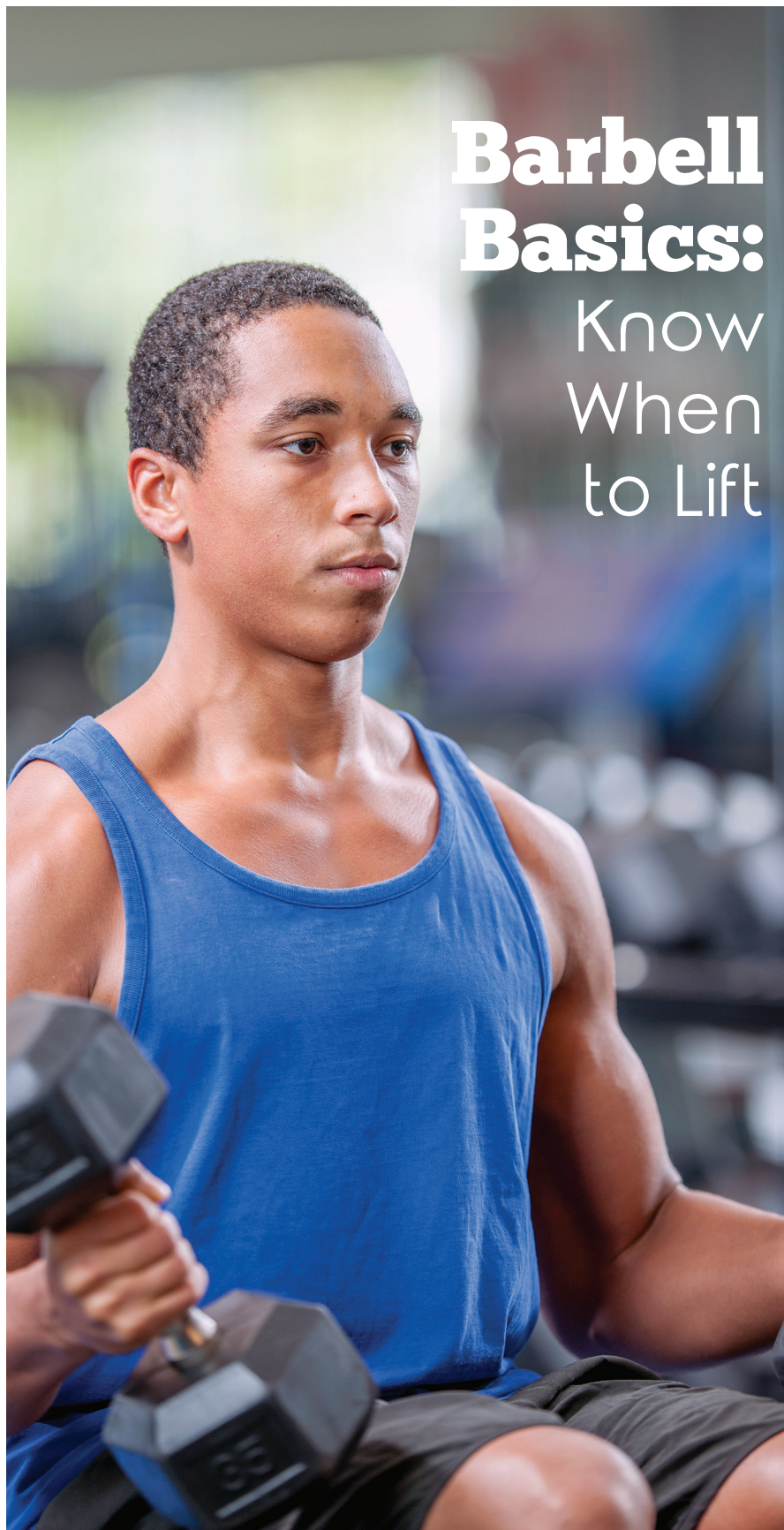
It's the nature of sports that major joints – knees, ankles and shoulders – take a beating.

Often, they need rest to repair. That's easier said than done.

“No competitive athlete wants to sit out,” said Whitney Vessar, CHI Health certified athletic trainer. “But missing a game or two is better than fighting through it and causing more damage.”

Vessar's message to teen athletes: “It's not a matter of will. It's a matter of health of the joint. Listen to your body.”





# Barbell Basics: Know When to Lift

As the landscape of youth and high school athletics continues to get more and more competitive each year, many parents might be wondering how soon is too soon for their children to begin taking part in strength and conditioning programs.

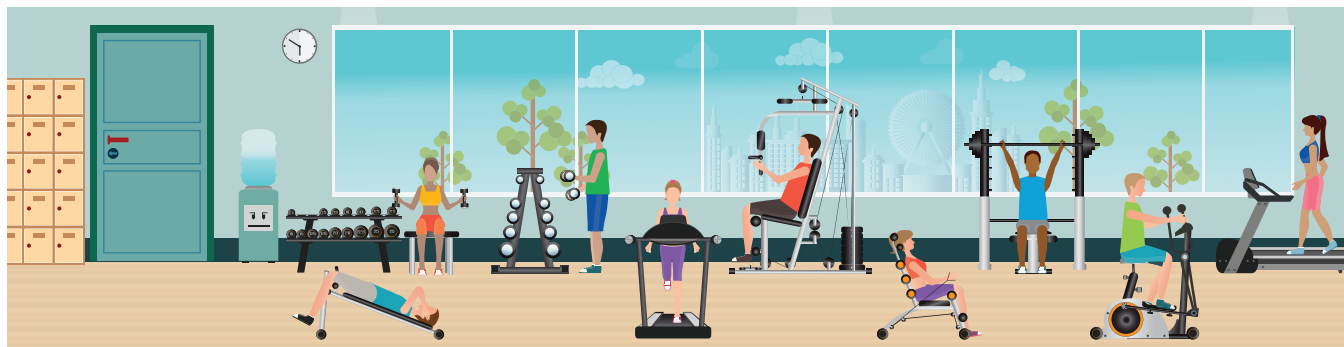
“If you’re looking at children ages eight to 14 who are interested in strength training, I think body weight exercises (such as push-ups and squats with no weights) are great to develop a foundation for strength,” said Tom Buehler, CHI Health certified athletic trainer. “We want to focus on developing the small muscle groups that stabilize the joints and bony structures so that there’s not excessive movement when the athlete starts getting into heavier strength in high school and college years.”

Buehler said learning proper form and technique is the first step. For incoming freshmen and inexperienced student athletes, Buehler starts their training with light weights and monitors their form before even considering increasing their work load.

Frequency is also an important concept in weight training. Proper rest is essential for making gains and overtraining can actually have adverse effects, including chronic fatigue, loss of strength and muscle pain.

For beginners, Buehler recommends weight training just two days per week. That number can be increased to three days a week for most high school athletes and four times a week for experienced lifters and college-level athletes.

Buehler said a good guideline is to give a heavily trained muscle (your legs after a session of heavy squats, for example) 72 hours of recovery time.



# Think in Seasons for Peak Performance

Besides teaching proper form and showing student athletes the strength-training exercises that will benefit them the most for their specific sports, certified athletic trainers like CHI Health's Tom Buehler also use a process called periodization.

Periodization is broken down into a macrocycle, mesocycle and microcycle. A macrocycle is a year-round program, mesocycles are offseason, preseason, postseason and in-season

and microcycle would be planning for individual weeks.

The goal is to have athletes performing at their peak level when it's most important. Trainers consider many variables such as the age of the athlete and their experience lifting when they design programs to "load" their student athletes with heavy work or "unload" them and reduce or rest them from their weight-training programs.

"During the unload week, the athlete has the greatest potential for increases in strength as their body recovers." Buehler said. "As I look at their season, ideally, three weeks away from their last game of the year, I want to have them lifting their heaviest amounts in the weight room that they've done their entire year and then begin to taper them. That's going to put them at their peak strength when it matters the most."



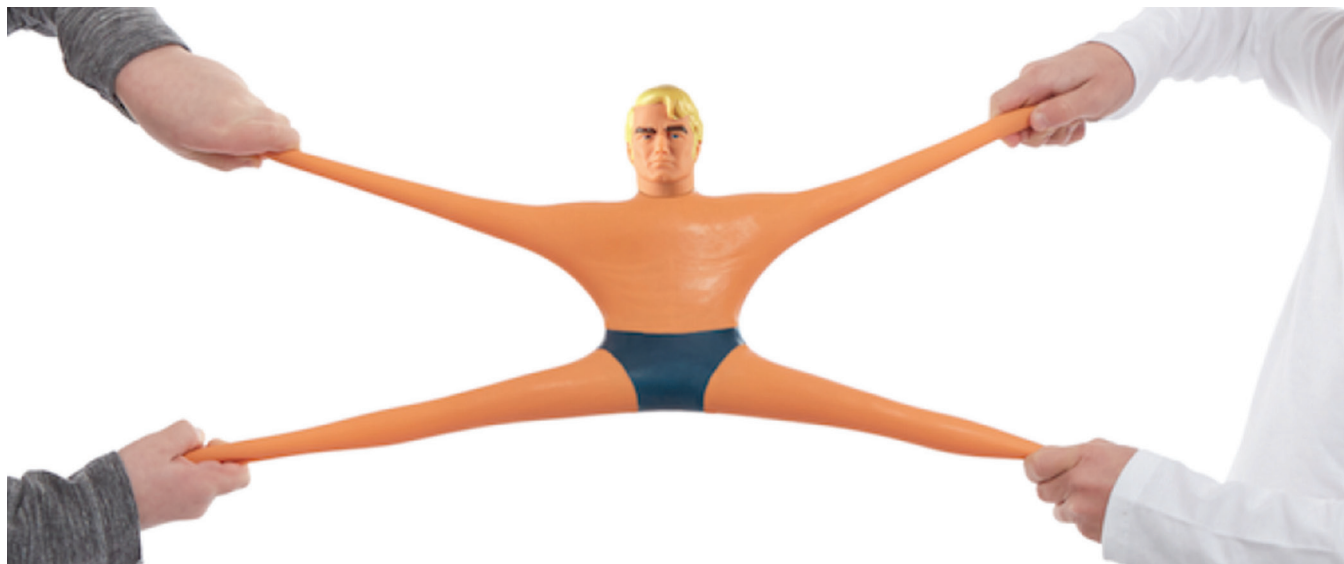
## The Secret About Supplements: You Might Not Need Them

While taking supplements might provide the edge needed by elite athletes, everything the typical high school student athlete needs can probably be found in their homes.

"If they just take a good look at their diet and watch it closely, and are careful about what goes into their body, they can get the proper nutrients from their diet alone," said Drew Erks, CHI Health certified athletic trainer. "Some of the best post-workout things you can find are chocolate milk and something

with peanut butter. And the good thing about those is that they're FDA-approved, which isn't always the case with some supplements."

Before even considering taking protein or other supplements, Erks said student athletes should first make sure their diet is relatively clean. If they're frequently dining on fast food and drinking lots of pop, he said it's basically pointless to worry about taking supplements.



# Stretch It Out:

## Mechanics to Make a Difference

Static stretching is probably the most common and is an excellent way to increase elasticity of muscles. The act involves lengthening the tissue in a slow controlled motion and holding for an allotted time, ideally around 30 seconds.

“It’s important to breathe fully to maximize the amount of oxygen permeating the muscle tissue,” said Elisha Morris, CHI Health certified athletic trainer. “To optimize your time and efficacy, static stretching should be performed after activity.”

Dynamic stretching involves moving a joint through its full range of motion. This type can be used after or during warm-up. By utilizing the full range of motion of a joint you reduce the risk of injury and increase elasticity.

For more, visit [CHIhealth.com/Stretching](http://CHIhealth.com/Stretching)

## Try Foam to Roll Away Sore Muscles

A foam roller can be used to perform a self-massage of muscle tissues. Often, this type of massage can be used in place of a deep tissue massage that you would receive from a massage therapist.

Stress and tension can both be reduced by breaking up the fascia that surrounds the muscles. After the fascia has been released there is



an increase in blood flow, flexibility and range of motion. Foam rolling can also help tight muscles recover from a hard workout.

There are several types of foam rollers on the market with different densities and textures. The more

dense a roller is, the more intense the massage. The different textures are there to provide relief at trigger points and provide a deeper penetrating massage.





## ER or Ortho: Which is Right?



### The Emergency Department:

- » Suspected fractures
- » Dislocations
- » Gross deformities
- » Uncontrollable bleeding
- » Suspected spinal injury
- » An injury that can worsen if athlete is moved
- » Head injury with loss of consciousness, seizure, vomiting, intense headache, slurred speech
- » Weakness or tingling in an extremity



### The Orthopedic Specialist:

- » An injury that shows no signs of improvement (or less improvement than expected) within seven days
- » Difficulty performing normal activities (climbing stairs, picking up objects)
- » Pain in muscles, joints or tendon/ligaments that doesn't go away or limits performance
- » Swelling or bruising around a joint or injury
- » Limited range of motion

## After the Fall: Who Should Treat Your Sports Injury

Your son suffered a minor injury playing football. Your daughter twisted her ankle at the volleyball tournament. Where to turn for help? Do you visit the family doctor who's known your child since he was an infant? Or visit an orthopedic specialist who may be more familiar with these types of injuries?

The family doctor can write a prescription for meds to help with swelling and pain, said CHI Health certified athletic trainer D.J. Gehr. Or the doctor can order an X-ray or MRI to help with a diagnosis. A more severe injury may require the expertise of an orthopedic specialist.

“An orthopedic doctor who specializes in sports medicine only sees people suffering from sports-related injuries,” Gehr said. “Because of this specialization, generally speaking, they have far more experience in dealing with sports-related injuries than a family practitioner. This experience usually leads to quicker and more successful patient outcomes.”



## Put It On: Dress for Sports Success

Whitney Vessar, CHI Health certified athletic trainer, offers these clothing tips for student athletes:

- ✓ Wear clothes that you're able to move in and are flexible with you – not restrictive.
- ✓ Wear proper shoes that fit you well and are close-toed.
- ✓ Wear athletic socks that prevent slipping inside the shoe.
- ✓ Compression shorts can prevent chafing. Many tight-fitting performance fabrics do a good job of wicking away excess perspiration.
- ✓ When it's hot outside, wear light-colored clothing that absorbs less sun and helps you stay cooler.
- ✓ When it's cold, layers are a great idea because you can always take something off if you get too hot.

## Who's Got Your Back: Certified Athletic Trainers



An injury can end a game, season or career. Having a medically trained eye on your athlete's health is essential.

Enter the certified athletic trainer.

"We are health care professionals that specialize in the prevention, assessment, treatment and rehabilitation of athletic injuries," said Lisa Moore, CHI Health certified athletic trainer.

While personal trainers design fitness programs, certified athletic trainers:

- » Diagnose injuries
- » Provide emergency care
- » Prescribe therapeutic interventions
- » Promote injury prevention

"Coaches take their direction on what to do with their athletes from us," Moore said. "While we care about the teams, we care first about the kids."

# One-Sport vs. Multi-Sport Athletes: Who Wins?

Think specializing early in a single sport gives young athletes a competitive advantage? Not necessarily, according to Rick Nelson, CHI Health certified athletic trainer.

A Loyola University study found early specialization was one of the strongest predictors of injury.

**“Athletes in the study who specialized were 70 to 93 percent more likely to be injured than children who played multiple sports,” Nelson said.**

Children who specialize early have a far greater risk for burnout. “Those who commit to one sport at a young age are often the first to quit, and suffer a lifetime of consequences,” he said.



**A Reality Check for Future Pros**

Young athletes with big league dreams should consider this: one in 2,451 men's high school basketball players get drafted by a National Basketball Association team, according to the National Collegiate Athletic Association.

Parents should help kids keep sports in perspective.

“Encourage your child in all aspects of their lives,” said Deanna Stickney, CHI Health certified athletic trainer. “College coaches are looking for the whole package. Talent is a necessity, but so are good grades, being coachable and more. They want athletes who will be successful in sports and school.”

A blue rectangular area with a white starry background. At the bottom, several orange hands are reaching upwards. One hand in the center is holding a large white star.



**To find a provider or location near you, call or log on to:**

**CHI Health Sports Medicine**

402-758-5054

[CHIhealth.com/SportsMedicine](http://CHIhealth.com/SportsMedicine)

**CHI Health Orthopedics**

402-717-0820

[CHIhealth.com/Orthopedics](http://CHIhealth.com/Orthopedics)

**CHI Health Physical Therapy**

402-758-5054

[CHIhealth.com/PT](http://CHIhealth.com/PT)

**D1 Omaha - Sports Training & Therapy**

402-933-5173

[d1sportstraining.com/Omaha](http://d1sportstraining.com/Omaha)

**CHI Health  
Omaha/Council Bluffs  
Metro Hospitals**

**CHI Health Creighton  
University Medical Center -  
Bergan Mercy**

**CHI Health Immanuel**

**CHI Health Lakeside**

**CHI Health Mercy  
Council Bluffs**

**CHI Health Midlands**

**[CHIhealth.com](http://CHIhealth.com)**