



# ***G.A.M.E. Cards***



















Guide for Assessment of Medical Events

Children's Healthcare of Atlanta<sup>SM</sup>

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**Sports Medicine**

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# Sports Medicine Program



Our Sports Medicine Program offers comprehensive medical and orthopaedic services to student athletes. It is one of only a few multidisciplinary programs in the country dedicated to the well-being of young athletes. Whether the athlete is at the elite, high school or middle school level, our staff can provide individualized assessments based on maturity, skill level and performance goals.

**Children's Healthcare of Atlanta is among the top pediatric orthopaedic programs in the country.\***



Visit [choa.org/sportsmed](https://choa.org/sportsmed) for standardized preparticipation physical exam forms and tips for keeping athletes safe and healthy.

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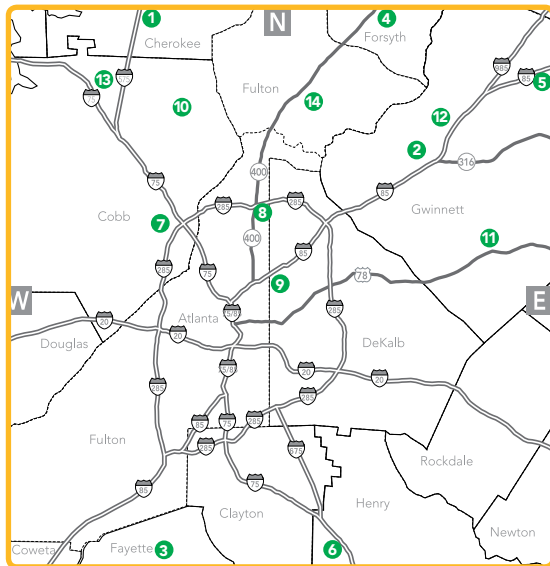
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# Locations

## Sports Medicine Physical Therapy

## Sports Medicine



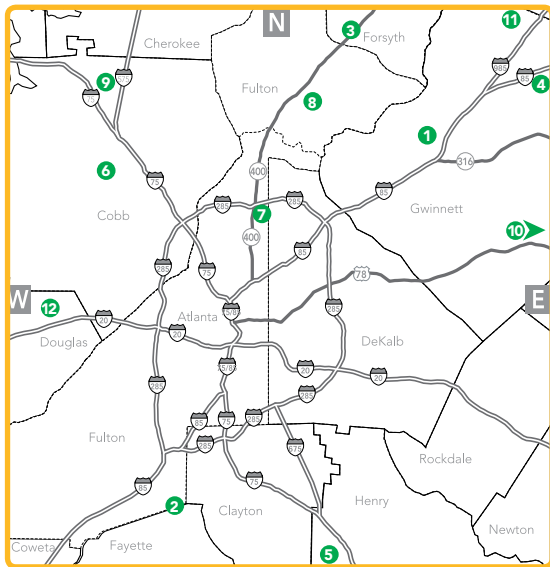
- 1 Children's at Cherokee\***  
**404-785-4268**  
1554 Riverstone Parkway, Suite 160  
Canton, GA 30114
- 2 Children's at Duluth\***  
**404-785-8387**  
2270 Duluth Highway 120, Suite 200  
Duluth, GA 30097
- 3 Children's at Fayette\***  
**404-785-8790**  
1265 Highway 54 West, Suite 200  
Fayetteville, GA 30214
- 4 Children's at Forsyth\***  
**404-785-3100**  
410 Peachtree Parkway, Suite 300  
Cumming, GA 30041
- 5 Children's at Hamilton Mill\***  
**404-785-4620**  
2108 Teron Trace, Suite 200  
Dacula, GA 30019
- 6 Children's at Hudson Bridge\***  
**404-785-4163**  
1496 Hudson Bridge Road  
Stockbridge, GA 30281
- 7 Children's at Ivy Walk\***  
**404-785-4271**  
1675 Cumberland Parkway, Suite 305  
Smyrna, GA 30080
- 8 Children's at Meridian Mark\***  
**404-785-5699**  
5445 Meridian Mark Road, Suite 290  
Atlanta, GA 30342
- 9 Children's at North Druid Hills\***  
**404-785-8421**  
1605 Chantilly Drive, Suite 200  
Atlanta, GA 30324
- 10 Children's at Sandy Plains\***  
**404-785-8316**  
3618 Sandy Plains Road, Suite 100  
Marietta, GA 30066
- 11 Children's at Snellville\***  
**404-785-8081**  
2220 Wisteria Drive  
Snellville, GA 30078
- 12 Children's at Suwanee\***  
**404-785-8910**  
3640 Burnette Road  
Suwanee, GA 30024
- 13 Children's at Town Center  
Outpatient Care Center\***  
**404-785-8008**  
605 Big Shanty Road NW  
Kennesaw, GA 30144
- 14 Children's at Webb Bridge\***  
**404-785-8570**  
3155 North Point Parkway,  
Building A, Suite 100  
Alpharetta, GA 30005

# Locations

## Children's Physician Group—Orthopaedics

Children's Healthcare of Atlanta™

## Sports Medicine



- 1 Children's at Duluth**  
2270 Duluth Highway, Suite 100  
Duluth, Georgia 30097
- 2 Children's at Fayette**  
1265 Highway 54 West, Suite 200  
Fayetteville, GA 30214
- 3 Children's at Forsyth**  
In The Collection at Forsyth  
410 Peachtree Parkway, Suite 300  
Cumming, GA 30041
- 4 Children's at Hamilton Mill**  
2069 Teron Trace  
Dacula, GA 30019
- 5 Children's at Hudson Bridge**  
In the Hudson Bridge Crossing shopping center  
1500 Hudson Bridge Road  
Stockbridge, GA 30281
- 6 Children's at Marietta**  
175 White St. NW, Suite 200  
Marietta, GA 30060
- 7 Children's at Meridian Mark**  
5445 Meridian Mark Road, Suite 250  
Atlanta, GA 30342
- 8 Children's at Old Milton Parkway**  
3300 Old Milton Parkway, Suite 310  
Alpharetta, GA 30005
- 9 Children's at Town Center  
Outpatient Care Center\***  
605 Big Shanty Road NW  
Kennesaw, GA 30144
- 10 Athens**  
Three Sixteen Professional Quarter  
1181 Langford Drive, Building 200, Suite 101  
Watkinsville, GA 30677
- 11 Buford**  
2914 Vinson Court  
Buford, GA 30518
- 12 Villa Rica**  
705 Dallas Highway, Suite 301  
Villa Rica, GA 30180

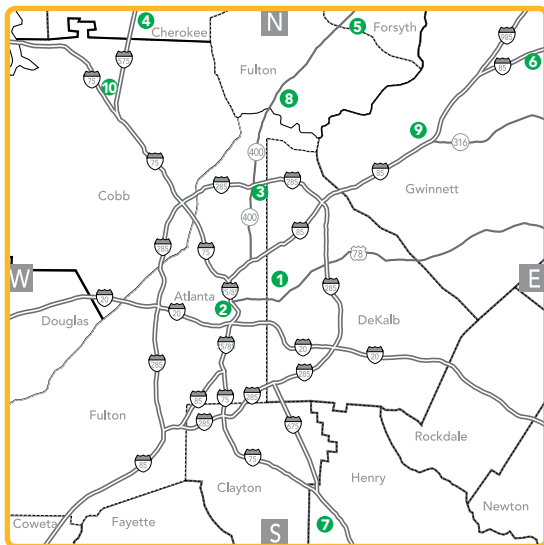


Visit [choa.org/md](http://choa.org/md) for forms and more information.



Call **404-255-1933** to schedule an appointment.

## Emergency Departments and Urgent Care Centers



### The main hospital campuses:

- 1 Egleston hospital
- 2 Hughes Spalding hospital
- 3 Scottish Rite hospital

Urgent Care Centers offer healthcare for your child when he has a minor illness or injury and is unable to be seen by a primary care provider.

- 4 **Children's at Cherokee**  
In the River Pointe shopping center  
1558 Riverstone Parkway, Suite 100  
Canton, GA 30114
- 5 **Children's at Forsyth**  
In The Collection at Forsyth  
410 Peachtree Parkway, Suite 300  
Cumming, GA 30041
- 6 **Children's at Hamilton Creek**  
In the Hamilton Mill Town Center shopping center  
2240 Hamilton Creek Parkway, Suite 600  
Dacula, GA 30019
- 7 **Children's at Hudson Bridge**  
In the Hudson Bridge Crossing shopping center  
1510 Hudson Bridge Road  
Stockbridge, GA 30281
- 8 **Children's at North Point**  
3795 Mansell Road  
Alpharetta, GA 3002

- 9 **Children's at Satellite Boulevard**  
2660 Satellite Blvd.  
Duluth, GA 30096
- 10 **Children's at Town Center**  
625 Big Shanty Road NW  
Kennesaw, GA 30144

**Monday through Friday** 11 a.m. to 9 p.m.  
**Saturday and Sunday** 9 a.m. to 9 p.m.  
**Holidays** 9 a.m. to 7 p.m.



Visit [choa.org/urgentcare](http://choa.org/urgentcare) to save your spot in line by selecting an arrival time.



**404-785-KIDS (5437)**

*If you think your child's illness or injury is life-threatening, call 911.*

*We accept walk-in patients during business hours. Hours may be affected by unanticipated circumstances. Visit [choa.org/urgentcare](http://choa.org/urgentcare) for real-time updates.*

# Phone numbers

### Important phone numbers

Emergency.....	911
Georgia Poison Center.....	800-222-1222
Georgia State Patrol.....	404-624-6077
Children's Sports Medicine Program.....	404-785-KIDS (5437)
Children's Concussion Program.....	404-785-KIDS (5437)
Egleston hospital Emergency Department .....	404-785-6400
Hughes Spalding hospital Emergency Department.....	404-785-9650
Scottish Rite hospital Emergency Department .....	404-785-2273
Egleston hospital radiology department.....	404-785-6555
Hughes Spalding hospital radiology department.....	404-785-9990
Scottish Rite hospital radiology department.....	404-785-2055



### When you call 911:

- Give your exact location, including the street address, not just the facility name.
- Tell the operator the current status of the injured athlete.
- Give the operator the number of the phone you are using.
- Do not hang up until the operator does.
- Send a specific person to look for the ambulance.
- Remain with the athlete until help arrives.



## What is a concussion?

A concussion is a short-term impairment of neurologic or brain function caused by a direct blow to the head, face or neck, or an indirect blow to another part of the body that transmits an acceleration or deceleration force to the brain.



## Concussions signs and symptoms evaluation

### Symptoms reported by athlete

- Headache
- Nausea
- Balance problems
- Dizziness
- Double vision
- Fuzzy vision
- Sensitivity to light or noise
- Feeling sluggish
- Feeling foggy
- Change in sleep pattern
- Concentration problems
- Memory problems

### Signs observed by staff

- Appears dazed or stunned
- Confused about assignment
- Forgets plays
- Is unsure of game or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness, even temporarily
- Shows behavior or personality changes
- Forgets events prior to hit (**retrograde**)
- Forgets events after hit (**anterograde**)



Symptoms may worsen with physical activity, noise, bright lights, video games or concentration.





### Sideline cognitive testing

#### Ask the athlete the following questions:

- What city is this?
- What month is it?
- Who is the opposing team?
- What day is it?

#### Ask the athlete to repeat the following three words:

- Girl, dog, green



#### Ask the athlete the following questions:

- What happened in the prior quarter/period?
- What do you remember just before the hit?
- What was the score of the game before the hit?
- Do you remember the hit?

#### Ask the athlete to do the following:

- Repeat the days of the week backward (starting with today)
- Repeat these numbers backward:  
63 (36 is correct) 419 (914 is correct)

#### Repeat the three words from earlier:

- Girl, dog, green



**Any failure should be considered abnormal. Consult a doctor following a suspected concussion.**

### Concussion management

Any athlete with signs or symptoms of a concussion should be removed from competition and not allowed to return until evaluated and cleared by a medical professional trained in the management of concussion.



**Children's Concussion Program: 404-785-KIDS (5437)**



## Neck injuries

### Stinger\* symptoms

- Sudden burning and numbness of lateral arm, thumb and/or index finger
- Weakness of shoulder, arm and wrist muscles
- Rarely lasts longer than one to two minutes



### Stinger management

- Ask about localized neck pain or stiffness.
- Ask if the athlete is afraid to move his head.
- Check if there is numbness in both arms.
- If any of the above occur or there is any doubt, immobilize athlete and call 911.

## Neck injuries (continued)

If this is the athlete's first stinger of the season, he can return to play if he meets the criteria below. If this is his second stinger of the season, or third or more in separate seasons, he should sit out until he is cleared by a sports medicine physician.

### Criteria to return to play from a stinger

- Must have no pain
- Must have no numbness
- Must have no weakness
- Must have full, active range of motion in neck
- Consider neck roll or "cowboy collar" for recurrent stingers

\*A traction or compression injury to the nerves in the neck and shoulder



## Motionless player on the field

### Remain calm

#### If athlete is unconscious and positioned face up:

- Call 911.
- Assume serious neck injury.
- Give CPR if needed (do not attempt if not certified).
- Place hands on both sides of the head for stabilization.
- If necessary to maintain airway, remove face mask (if applicable) with screwdriver, bolt cutters or trainer's angel.

#### Do not:

- Move athlete.
- Remove helmet.
- Use smelling salts.
- Give water.
- Rush evaluation.
- Worry about delaying the game.

## Motionless player on the field (continued)

#### If athlete is positioned face down, conscious or unconscious:

- Team roll to face-up position.
  - Use three to four people
  - Person at the head leads
  - Roll the athlete as a unit
- Leave helmet and shoulder pads on.
- See reverse for management after athlete is face up.



## Motionless player on the field (continued)

### If athlete is conscious and positioned face up:

- Do not move athlete.
- Check orientation and memory of play.
- Ask if it is painful to move neck.
- Ask about pain, headache, dizziness, nausea, blurry vision, numbness, tingling or electric shock sensation in arms or legs.



### Do not sit up unless:

- No neck pain or tenderness
- No pain, numbness or tingling in arms or legs
- Normal sensation to touch in chest, arms, hands, legs and feet
- Normal motor function (make a fist, bend elbow, lift arm, curl toes, move ankle up and down, bend knee, lift legs)

Let the athlete sit up on his own—only provide minimal help.

## Motionless player on the field (continued)

### Once sitting:

- Reassess for pain, dizziness or nausea.
- Look for areas of deformity, bleeding or swelling.
- If no evidence of head, neck or spine injury, carefully help athlete off field.
- If symptoms recur or change, carefully lay athlete back down and call 911.

**If ever in doubt, call 911.**



### Controlling bleeding

- Apply protective gloves.
- Cover wound with dressing and press firmly against wound with hand.
- Elevate wounded area above the level of the heart if possible.
- Cover dressings with a gauze roll or elastic bandage.

### If bleeding does not stop:

- Apply additional dressings.
- Squeeze artery against bone.
- Call 911.

### Caring for shock

- Have the athlete lie down.
- Help the athlete maintain normal body temperature (cover with blanket if cold).
- Elevate the athlete's legs about 12 inches, unless you suspect a head, neck, back or lower-extremity injury.
- Do not give the athlete anything to eat or drink, even though he is likely to be thirsty.

### Caring for burns

- Stop the burning.
- Cool the burn (use cool water only—no ice or ice water).
- Cover the burn (use sterile dressings or clean cloth).



### Caring for sprains and strains

#### P.R.I.C.E.M.M.

- **P**rotection (remove athlete from game/activity)
- **R**est (limit use of injured body part for 24 hours)
- **I**ce (apply ice for 15 to 20 minutes every one to four hours to reduce pain and control swelling)
- **C**ompression (apply an elastic bandage to control swelling)
- **E**levation (raise injured limb above the level of the heart to help reduce swelling)
- **M**otion (can begin mild range-of-motion exercises 24 hours after injury)
- **M**edicine (can be taken 72 hours after injury)

#### If an athlete:

- **Vomits**
- **Faints**
  
- **Has a diabetic emergency**
- **Has a seizure**

Place the athlete on his side.

Position him on his back and elevate legs eight to 10 inches if you do not suspect a head or back injury.

Give the athlete some form of sugar.

Do not hold or restrain the athlete or place anything between his teeth. Remove any nearby objects that might cause injury.



## Asthma and sports

### Know your players

- Ask if anyone has asthma, then discuss with him privately. Find out his asthma action plan and medicine needs.
- Always have quick access to asthma medicines on the field.
- Make sure the athlete uses the quick-relief inhaler with a spacer 15 to 20 minutes before exercise.
- Have the athlete do a 10-minute warm-up and cool-down before and after exercise.
- Make sure the athlete drinks plenty of water before and during exercise.



### Know the early warning signs of an attack

- Chest pain or tightness
- Coughing
- Difficulty doing physical activity
- Weak voice or difficulty completing a sentence
- Wheezing

### Know when to take a break

- Stop the activity if you see, or the athlete reports, any early warning signs.
- The athlete should use his quick-relief inhaler.
- The athlete can return to activity once asthma signs are gone.
  - In the meantime, do not leave the athlete out of the activity—find alternative reduced activities for him to participate in, such as walking.



# Asthma

## Know peak trouble times

- Pollen counts—tree pollen (fall and spring); grass/ragweed (summer)
- Ozone and air quality
- Cold air
- Weather changes

## Watch for an emergency. Call 911 if the athlete:

- Cannot finish a sentence without stopping to catch his breath.
- Cannot stop coughing or wheezing.
- Has blue lips or fingernails.
- Has sunken skin on the chest and neck.



The athlete should take his quick-relief inhaler if he begins showing these signs of distress. It is important to start the quick-relief inhaler as soon as he begins having an attack.

\*If you feel the athlete does not have control of his asthma, you can talk to his parents about making an appointment at the Children's Asthma Center. They will design an asthma action plan that will help him stay in control and active.



Visit [choa.org/asthma](https://choa.org/asthma) to learn more about the Asthma Center.



404-785-9960





### First aid for fractures (broken bones)

A fracture is a break or crack in a bone that can be caused by an accident, fall or blow. Symptoms include a snapping sound as the bone breaks, bone protruding from skin, detectable deformity of bone, abnormal movement of bone, grating sensation during movement, pain and tenderness, difficulty in moving or using the affected part, swelling and discoloration.

- Seek medical attention right away. Call for an ambulance or transport the child to the nearest emergency department after immobilizing affected area. Wait for an ambulance and do not attempt to transport the athlete if you suspect a head, back or neck injury (see "Head and neck injury" card), if there is a visible deformity of bone or if the limb cannot be splinted or transported without causing more pain.

- Suspect a back or neck injury if the athlete is unconscious or has a head injury, neck pain, or tingling in the arms or legs. If neck or back injury is suspected, do not move the athlete unless necessary to save his life.
- Immobilize and support affected bone in the position in which it was found. Do not try to push protruding bone back into body or let the athlete move or use affected area.
- Control any bleeding through direct pressure but do not elevate affected area.
- If bone is protruding, cover with clean cloth once bleeding is controlled.
- Observe for shock (or change in mental status—drowsy, sleepy, etc.). Do not give the athlete anything to eat or drink.
- Immobilize injured area, and, if no open wound is present, apply ice pack wrapped in clean cloth.



### Immobilizing fractured bone

- Check for sensation, warmth and color of toes or fingers below suspected break.
- Place a padded splint under the area of suspected break. Use board, rolled newspaper or magazines, broomstick, or rolled blanket for splint.
- Wrap the splint in cloth or towels for padding.
- Bind the splint to limb using neckties, cloth, belts or rope. Do not bind directly over the break.

- Recheck often for sensation, warmth and coloring. Loosen the binding if fingers or toes turn blue or swell.
- For arm or shoulder injury, place splinted arm in sling, with hand above elbow level. Bind arm to the athlete's body by wrapping towel or cloth over sling and around upper arm and chest. Tie the towel or cloth under his opposite arm.



Visit [choa.org/fracture](https://choa.org/fracture) for more information.



## Splinting

### Types of splints

- **Soft**            Folded blankets, towels, pillows and a sling cravat
- **Rigid**            Boards, metal strips, and folded plastic or cardboard splints
- **Anatomic**      Using the body as a splint—for example, an arm can be splinted to the chest or an injured leg can be splinted to an uninjured leg
- **Traction**        Used primarily to immobilize fractures of the thigh (femur). One end attaches to the hip and the other to the ankle. When traction is engaged, a constant, steady pull is applied against opposite ends of the leg, holding the fractured bone until it bends in a near normal position.



**Reminder:** Once the injury has been immobilized, recheck airway, breathing and circulation and take steps to care for shock. Also check for blood flow to the immobilized extremity and for sensation.





### First aid for an eye injury

Knowing what to do for an eye emergency can save valuable time and possibly prevent vision loss. Here are some instructions for basic eye injury first aid.

#### Specks in the eye

- Do not let the athlete rub the eye. This may scratch or damage the cornea.
- Try to let his tears wash the speck out, or use saline eyewash or room-temperature water.
- Have the athlete lift the upper eyelid outward and down over the lower lid. Using a clean finger and thumb, he should gently pull the upper eyelid down over the top of the lower eyelid. This should cause tearing and flush the object out. He may need to repeat this several times.
- If he can see the object, he may try to remove it from the eye with a sterile gauze or clean cloth.
- If the speck does not wash out, keep the eye closed, bandage it lightly and have the athlete see a doctor.

#### Blows to the eye

- Apply a cold compress without putting pressure on the eye. Crushed ice in a plastic bag can be taped to the forehead to rest gently on the injured eye.
- In cases of pain, reduced vision or discoloration (black eye), seek emergency medical care. Any of these symptoms could mean internal eye damage.
- Check for satisfactory extraocular movement (look up, down, side to side).

#### Cuts and punctures of the eye or eyelid

- Have the athlete see a doctor right away.
- Do not wash out the eye with water or any other liquid.
- Do not try to remove an object that is stuck in the eye.
- Cover the eye with a rigid shield without applying pressure. The bottom half of a paper cup can be used.



**Do not assume that any eye injury is harmless. When in doubt, have the athlete see a doctor right away.**



### New CPR guidelines

(American Heart Association, 2015)

Call 911



#### Adult (puberty to adulthood)

- Tap or gently shake shoulder, and shout "Are you OK?" to determine unresponsiveness.
- Call for help, call 911 and get an automated external defibrillator (AED).
- Look at chest for rise and fall of normal breathing. If not breathing normally or if only gasping:
  - Begin compressions; place the heel of one hand on the center of the chest between the nipples, second hand on top.
  - Push hard and fast—2 to 2.4 inches deep, at a rate of 100 to 120 compressions per minute.
  - Open airway with head tilt and chin lift, and pinch the nose.

- Give two one-second breaths, making the chest rise each time.
- Give 30 compressions, followed by two breaths for five cycles (should take two minutes).
- Continue until victim responds (place on side and observe) or emergency medical service (EMS) arrives.

#### Child (age 1 to puberty)

- Tap or gently shake shoulder, and shout "Are you OK?" to determine unresponsiveness.
- Call for help, call 911 and get an automated external defibrillator (AED).
- Look at chest for rise and fall of normal breathing.
- If not breathing normally, begin compressions; using one or two hands (second on top of first) in center of chest between the nipples.
- Push hard and fast (2 to 2.4 inches deep), at rate of 100 to 120 compressions per minute.



- Open airway with head tilt and chin lift; look, pinch nose.
- Give two one-second breaths, making the chest rise each time.
- Give 30 compressions, followed by two breaths for five cycles (should take two minutes).
- Continue until victim responds (place on side and observe) or emergency medical service (EMS) arrives.

### Infant (birth to age 1)

- Tap foot to determine unresponsiveness.
- Call for help and call 911.
- Look at chest for rise and fall of normal breathing. If not breathing normally or if only gasping:
  - Begin compressions; place two fingers on the breastbone, just below the nipple line.

- Push hard and fast (1.5 inches deep) at rate of 100 to 120 compressions per minute.
- Open airway with head tilt and chin lift. Do not tilt as far back as with an adult.
- Cover infant's nose and mouth and give breaths, making sure the chest rises each time.
- Give 30 compressions followed by two breaths for five cycles (should take two minutes).
- Continue until victim responds (place on side and observe) or emergency medical service (EMS) arrives.


### Hands-only CPR:

- For an **adult-witnessed arrest** or anytime you feel uncomfortable giving breaths, call 911 and begin continuous hard and fast compressions, still at the rate of 100 to 120 compressions per minute and 2 to 2.4 inches deep.



## AED guidelines

### Automated external defibrillator (AED) guidelines (American Heart Association, 2015)


- 
- You may use an AED for an unresponsive adult, child or infant.
  - Use adult pads on anyone older than age 9 and pediatric pads on anyone age 8 or younger.
  - Adult pads may be used on a child or infant if pediatric pads are unavailable.
  - **For an adult**—Turn on the AED when it arrives and follow commands and pictures on pads.
  - **For a child age 1 to 8**—Complete five cycles (two minutes) of CPR, then turn on the AED and follow commands.
  - **Reminder**—An AED will not shock a victim who does not need it.

## Sudden cardiac arrest

### Sudden cardiac arrest

#### Early warning signs

Children and adolescents who show these signs could be at risk for sudden cardiac arrest and should be evaluated by their primary care provider and referred as needed.

- 
- Fainting or near-fainting during or right after exercise
  - Extreme shortness of breath with exercise
  - Extreme fatigue with exercise
  - Chest pain or discomfort with exercise
  - Family history of sudden, unexpected, unexplained death before age 50

After further evaluation, these conditions can usually be treated and activity may or may not be restricted.

 Visit [choa.org/projectsave](https://choa.org/projectsave) for more information.



# Sudden cardiac arrest

## Treating sudden cardiac arrest

- Activate your emergency action plan.
- Call 911 and get the automated external defibrillator (AED), if one is available.
- Have someone stand outside to direct emergency medical service (EMS) to the scene.
- Begin CPR immediately. Remember **CAB**:
  - Begin **chest compressions**—push hard and fast, give 30 compressions, then two breaths
  - Open the **airway**
  - Check for **breathing** and give two breaths
- When AED arrives, open and turn on.
- Follow the directions given by the AED.
- If “no shock advised,” continue CPR; if still unresponsive, check for other medical conditions.



# Heat illness

## Heat illness

### Heat cramps

- Painful muscle spasms that most commonly occur in the calf and abdomen but can occur anywhere.
- Treatment involves drinking water or an electrolyte drink, mild stretching and ice massage of the affected area.

### Heat exhaustion

- Symptoms include excessive thirst, dry tongue and mouth, weight loss, fatigue, weakness, uncoordination, mental dullness, slightly elevated body temperature, and reduced sweating.
- Treatment involves the immediate ingestion and eventual intravenous replacement of large quantities of water. If possible, the athlete should be placed in a cool environment.





## Stage 1: Dehydration

When athletes do not replenish lost fluids, they become dehydrated.

### Signs and symptoms

- Dry mouth
- Thirst
- Headache
- Dizziness
- Cramps
- Excessive fatigue



## Treatment


- Move the athlete to a cool environment and give him fluids to rehydrate.
- Make sure the athlete maintains normal hydration as indicated by baseline body weight.
- The athlete should begin exercise sessions properly hydrated. Any fluid deficits should be replaced within one to two hours after exercise is complete.
- Have the athlete hydrate with a sports drink like Powerade, which contains carbohydrates and electrolytes. Doing this before and during exercise is optimal.
- Make sure the athlete hydrates throughout practice to minimize dehydration and maximize performance.
- Seek medical attention to replace fluids via an I.V. if the athlete is nauseated or vomiting.



## Stage 2: Heat exhaustion

Heat exhaustion is a moderate illness characterized by the inability to sustain adequate cardiac output as the result of strenuous exercise and heat stress.

### Signs and symptoms

- 
- Athlete finds it hard or impossible to keep playing
  - Loss of coordination, dizziness or fainting
  - Dehydration
  - Profuse sweating or pale skin
  - Headache
  - Nausea, vomiting or diarrhea
  - Stomach cramps or persistent muscle cramps

## Treatment


- Remove the athlete from play and move him to a shaded or air-conditioned area.
- Remove excess clothing and equipment.
- Cool the athlete until his temperature is approximately 101 degrees.
- Have the athlete lie comfortably with legs propped above heart level.
- If the athlete is not nauseated or vomiting, help him rehydrate orally with chilled water or sports drink. If he is unable to take fluids orally, use I.V. infusion of normal saline.
- Monitor the athlete's heart rate, blood pressure, respiratory rate and core temperature.
- Transport him to an emergency facility if rapid improvement is not noted.



## Stage 3: Exertional heat stroke

Exertional heat stroke is a severe illness that results from elevated body temperatures induced by strenuous exercise and increased heat.

### Signs and symptoms

- 
- Elevated core body temperature, usually about 104 degrees
  - Central nervous system dysfunction, including:
    - Altered consciousness
    - Emotional instability
    - Seizures
    - Irrational behavior
    - Confusion
    - Decreased mental acuity
  - Nausea, vomiting or diarrhea
  - Headache, dizziness or weakness
  - Hot and wet or dry skin
  - Increased heart rate, decreased blood pressure or fast breathing

## Treatment

Aggressive and immediate whole-body cooling is the key to treating exertional heat stroke. The duration and degree of hyperthermia may determine adverse outcomes. If untreated, fatal consequences may occur in vital organ systems like the muscles, heart or brain.

It is recommended to cool first and transport second if on-site rapid cooling and adequate medical supervision are available.



# Heat stroke

## Heat stroke

**This is a serious, life-threatening emergency—call 911.**

- Symptoms include sudden collapse, usually with a loss of consciousness; flushed, hot skin; and a rapid, strong pulse. Often, sweat is absent, as the body has lost the ability to cool itself.
- Treatment includes calling 911, then trying to cool the body—strip all the clothing off the athlete, immerse him in a cold water bath or sponge with cool water and fan with a towel.



		Heat index															
		Relative humidity (%)															
		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
Air temperature (°F)	110	108	112	117	123	130											
	105	102	105	108	113	117	122	130									
	100	97	98	102	104	107	110	115	120	126	132						
	95	91	93	95	96	98	100	104	106	109	113	119	124	130			
	90	86	87	88	90	91	92	95	97	98	100	103	106	110	114	117	121
	85	81	82	83	84	85	86	87	88	89	90	92	94	96	97	100	102
	80	79	77	78	78	79	79	80	81	82	83	84	85	86	87	88	89

### Legend

<b>80 to 89 degrees</b>	Fatigue is possible with prolonged exposure and/or physical activity.
<b>90 to 104 degrees</b>	Sunstroke, heat cramps and heat exhaustion are possible with prolonged exposure and/or physical activity.
<b>105 to 129 degrees</b>	Sunstroke, heat cramps and heat exhaustion are likely. Heatstroke is possible with prolonged exposure and/or physical activity.
<b>130+ degrees</b>	Heatstroke/sunstroke is highly likely with continued exposure.

Courtesy of the National Oceanic and Atmospheric Administration, a division of the National Weather Service

# Hydration

## Hydration

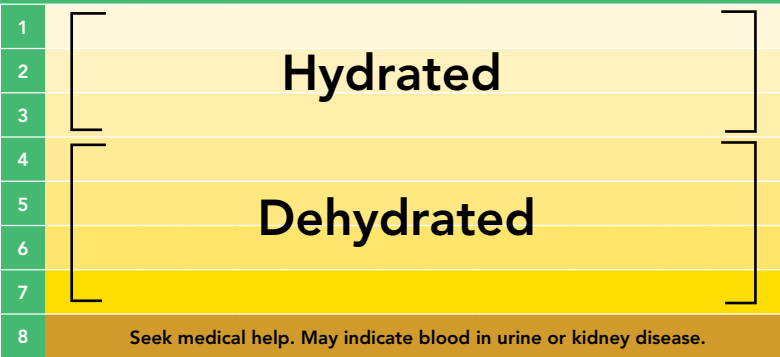
- Athletes should be well-hydrated prior to participating in any athletic activity.
- Athletes should drink water or an electrolyte drink every 15 to 20 minutes during activity.
- Recommendations are based on body weight:
  - A child weighing 88 pounds should consume 5 ounces of water or an electrolyte drink every 15 to 20 minutes.
  - An adolescent weighing 132 pounds should consume 9 ounces of fluid in the same period.



### Are you drinking enough water?

A simple way to make sure you are hydrated

This urine color chart can help you assess if you are drinking enough fluids.



If your urine matches the colors numbered 1 through 3, you are hydrated.

If your urine matches the colors numbered 4 through 8, you are dehydrated and need to drink more fluids.

Be aware: If you are taking vitamin supplements, some can change the color of your urine for a few hours, making it bright yellow or discolored. You may need to check your hydration another way.

### Tips for choosing a running shoe

- Try on shoes in the late afternoon or evening, as feet tend to swell throughout the day.
- Try on shoes with the type of socks you will be using during physical activity.
- Check the quality of the shoe by placing it on a flat surface and pushing down on the heel from the inside of the shoe. The shoe should “pop” straight up with no side-to-side motion.
- Examine the back of the shoe to make sure the stitching is straight up and down.
- Choose a shoe designed for your foot type.
- Be sure the shoes are comfortable.
- The shoe should be one-half inch longer than your toe, wide enough for your forefoot and snug in the heel.



### Tips for choosing a running shoe (continued)

- It takes about two weeks to break in a new pair of running shoes.
- Try rotating between an old and a new pair of shoes.
- Arch height is not a good predictor of the shoe type needed.

### Shoe types

- Motion control—does not let the foot move in any direction. It is not a good shoe for most people and injuries are more likely.
- Stability—helps control pronation (the outward turn of the foot at the ankle). Pronation is not necessarily bad. The foot should pronate some when you run. It is a good shoe for most people.
- Cushion—offers no support or control but helps absorb shock. It is good for people with rigid feet who tend to land on the outside of the foot.



## Shoe types (continued)

- Minimalist—may provide some cushion but mostly allows the foot to move naturally. It may improve running form, but be careful transitioning into these kinds of shoes if you usually run in traditional shoes.

## General training tips for runners

- The most common injuries for runners are caused by:
  - Rapidly increasing training mileage or intensity.
  - Running too much or too often in a given week. (People who run more than 40 miles a week are three times more likely to be injured.)
  - Ignoring or overlooking symptoms to continue training.



## Tips for reducing injury

- Do not increase training mileage more than 10 percent a week.
- Listen to your body. Allow one rest day a week for recovery.
- Hip and core weakness have been found to be a common link in running-related injuries. It is helpful to strengthen these areas while cross-training to avoid muscle imbalances, which may lead to injury.
- Vary your training routine:
  - Do not run the same path every time.
  - Alternate running clockwise and counterclockwise around a track.
  - Cross-train.
- Replace shoes every 500 miles or six months (whichever comes first).



### Return to running: Sprinters/track

<b>Week 1</b>	Monday, Wednesday and Friday Run 15 seconds then walk one minute, for 10 rounds
<b>Week 2</b>	Monday, Wednesday and Friday Run 30 seconds then walk one minute, for 10 rounds
<b>Week 3</b>	Monday, Wednesday and Friday Run 40 seconds then walk one minute, for 10 rounds
<b>Week 4</b>	Monday, Wednesday and Friday Run one minute then walk one minute, for 10 rounds



Visit [choa.org/running](https://choa.org/running) for more information about the Sports Medicine Running Program.



404-785-KIDS (5437)

### Return to running: Endurance runners/cross country

<b>Week 1</b>	Monday and Friday—Walk three minutes then run two minutes, for three rounds Wednesday—Walk three minutes then run two minutes, for four rounds
<b>Week 2</b>	Sunday and Thursday—Walk two minutes then run three minutes, for four rounds
<b>Week 3</b>	Monday—Walk two minutes then run five minutes, for four rounds Wednesday and Friday—Walk one minute then run five minutes, for five rounds
<b>Week 4</b>	Monday—Walk two minutes then run 10 minutes, for three rounds Tuesday—Walk one minute then run 10 minutes, for three rounds Thursday and Saturday—Run 30 minutes

Must be pain-free for 48 hours before moving to cross-training and strengthening.





### Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

English	Spanish
<b>Question:</b> What is your name? <b>Answer:</b> My name is _____	<b>Pregunta:</b> ¿Cómo te llamas? <b>Respuesta:</b> Me llamo _____
<b>Question:</b> What is wrong? <b>Answer:</b> I fell I tripped I twisted my _____ <i>(Insert body part. See diagram)</i>  My _____ hurts <i>(Insert body part. See diagram)</i>	<b>Pregunta:</b> ¿Qué te pasa? <b>Respuesta:</b> Me caí Me tropezé Me torcí el _____ <i>(escriba la parte del cuerpo)</i>  Me duele el _____ <i>(escriba la parte del cuerpo)</i>



### Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

English	Spanish
<b>Question:</b> Where does it hurt? <b>Answer:</b> My _____ <i>(Insert body part. See diagram)</i>	<b>Pregunta:</b> ¿Dónde le duele? <b>Respuesta:</b> Mi _____ <i>(escriba la parte del cuerpo)</i>
<b>Question:</b> Have you injured it before? <b>Answer:</b> Yes No	<b>Pregunta:</b> ¿Te lo habías lastimado antes? <b>Respuesta:</b> Sí No
<b>Question:</b> Can you move your _____? <i>(Insert body part)</i> <b>Answer:</b> Yes No	<b>Pregunta:</b> ¿Puedes mover el _____? <i>(escriba la parte del cuerpo)</i> <b>Respuesta:</b> Sí No



### Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

English	Spanish
<b>Question:</b> May I help you? <b>Answer:</b> Yes No	<b>Pregunta:</b> ¿Te puedo ayudar? <b>Respuesta:</b> Sí No
<b>Question:</b> May I call someone?	<b>Pregunta:</b> ¿A quien puedo llamar?
<b>Question:</b> What were you doing? <b>Answer:</b> I was running I was jumping There was no injury, it just started hurting	<b>Pregunta:</b> ¿Qué estabas haciendo? <b>Respuesta:</b> Estaba corriendo Estaba saltando No me había lesionado, solo me comenzó a doler



### Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

English	Spanish
<b>Question:</b> May I touch where it hurts? <b>Answer:</b> Yes No	<b>Pregunta:</b> ¿Puedo tocarte aquí? (point to body part) <b>Respuesta:</b> Sí No
<b>Question:</b> May I help you off the field? <b>Answer:</b> Yes No	<b>Pregunta:</b> ¿Te puedo ayudar a salir del campo? <b>Respuesta:</b> Sí No
<b>Statement:</b> I am going to call for an ambulance	<b>Declaración:</b> Voy a llamar a una ambulancia



### Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

<b>English:</b> Possible neck injury	<b>Spanish:</b> Posible lesión en el cuello
<b>Question:</b> Did you lose consciousness?	<b>Pregunta:</b> ¿Perdistes el conocimiento?
<b>Answer:</b> Yes, No	<b>Respuesta:</b> Sí, No
<b>Question:</b> Do you have neck pain?	<b>Pregunta:</b> ¿Tienes dolor en el cuello?
<b>Answer:</b> Yes, No	<b>Respuesta:</b> Sí, No
<b>Question:</b> Where on your neck does it hurt?	<b>Pregunta:</b> ¿Qué parte del cuello te duele?
<b>Answer:</b> It hurts in the middle It hurts on the side	<b>Respuesta:</b> Me duele en el medio Me duele el lado
<b>Statement:</b> Please don't move your head or neck	<b>Declaración:</b> Por favor no muevas la cabeza o el cuello

### Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

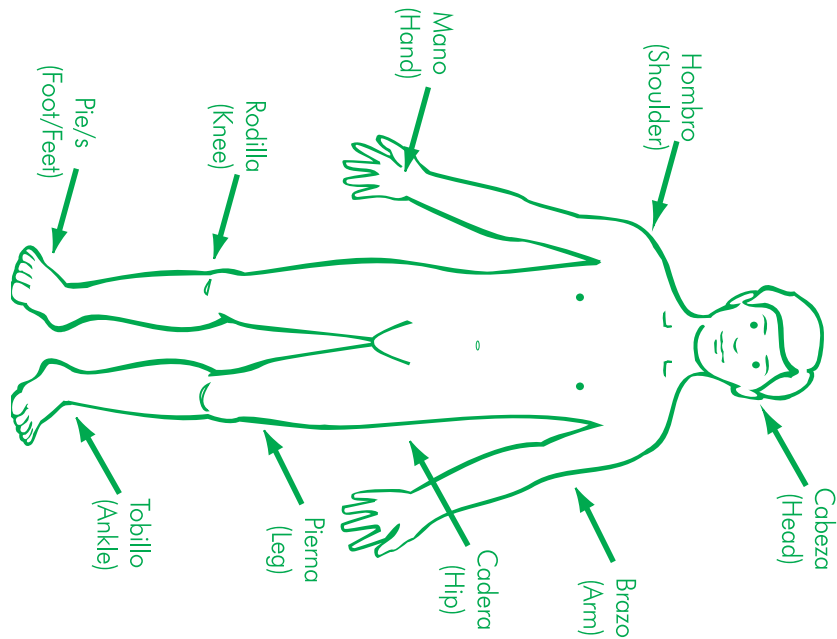
<b>English</b>	<b>Spanish</b>
<b>Question:</b> Do you have any numbness or tingling in your arms or legs?	<b>Pregunta:</b> ¿Tienes entumecidos los brazos o las piernas o tienes hormigueo?
<b>Answer:</b> Yes, my arms Yes, my right arm Yes, my left arm Yes, my legs Yes, my right leg Yes, my left leg No	<b>Respuesta:</b> Sí, los brazos Sí, el brazo derecho Sí, el brazo izquierdo Sí, mis piernas Sí, mi pierna derecha Sí, mi pierna izquierda No

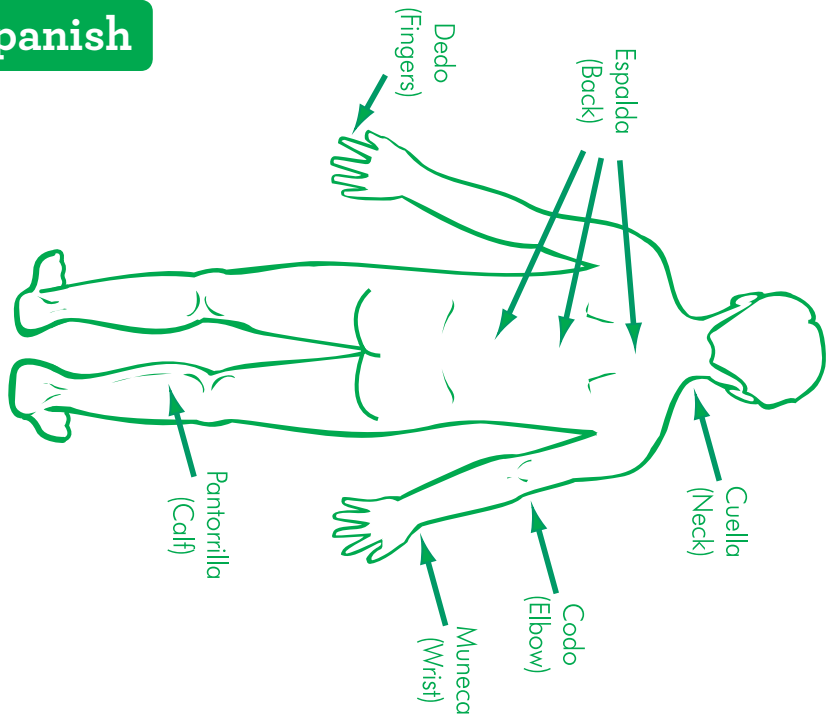


# Spanish

## Common sports-related questions and answers in Spanish (Preguntas y respuestas más comunes sobre deportes, en español)

English:	Spanish:
<b>Question:</b> Can you move your fingers and toes?	<b>Pregunta:</b> ¿Puedes mover los dedos de la mano y del pie?
<b>Answer:</b> Yes No	<b>Respuesta:</b> Sí No
<b>Statement:</b> I am going to call for an ambulance	<b>Declaración:</b> Voy a llamar a una ambulancia





## Lightning

Identify safe shelters before storms arrive

### Flash-to-bang count

- Count seconds between lightning and thunder.
- Divide by five.
- The result equals distance of storm.
- If 30 seconds or less, this means lightning is six miles away—too close.
- If you see it, flee it.
- If you hear it, clear it.



# Medical kits

## Suggested contents for a basic medical kit

- Protective gloves
- Band-Aids (multiple sizes)
- Gauze (4x4)
- Scissors
- Ace wraps (multiple sizes)
- Screwdriver, bolt cutters or trainer's angel
- Hydrogen peroxide
- Antibiotic ointment
- Contact lens solution and case
- Sugar source (such as hard candy)
- Tape and prewrap
- Arm and shoulder slings
- Team roster, insurance information, consent forms to treat child if parents are not present
- Extra equipment (such as mouthpieces, chin straps, helmet pieces, shoulder pad buckles)





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*This is general information and not specific medical advice. Always consult with a doctor or healthcare provider if you have questions or concerns about the health of a child.*