

Mild head injury and concussion

Patient and family education

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's health care team about specific care for your child.

What is a mild head injury?

Head injuries may vary from mild (temporary confusion or passing out) to severe (coma for a longer period of time). They are caused by trauma such as:

- A hard bump or blow on the head.
- A sudden harsh movement or jarring of the head.

All head injuries, including "mild" head injuries, should be taken seriously so that your child's brain can heal completely.

What is a concussion?

A concussion is a type of head injury. Sometimes, it just causes a child to be dazed or confused for a short time. It can also occur with or without passing out (loss of consciousness). If loss of consciousness does occur, it lasts less than 30 minutes.

Concussions usually involve:

- Losing brain function (the ability to think and reason) for awhile
- Healing that occurs over time, not right away

What symptoms could my child have?

Your child may not have symptoms until a few days after the injury. Symptoms may include one or more of these:

- Headache
- Nausea or vomiting
- Being really tired or drowsy
- Sensitivity to noise and light
- Numbness or tingling anywhere on the body
- Dizziness
- Loss of balance or trouble walking
- Being irritable or more fussy than usual
- Feel more emotional, like very sad or nervous
- Change in sleeping patterns
- Trouble seeing such as double vision, seeing spots or not being able to see at all
- Trouble thinking clearly or having a hard time concentrating and remembering



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What is the treatment for mild head injury or concussion?

Rest, both cognitive (for the brain) and physical (for the body), is the best treatment. This type of rest can be frustrating and seem long, but is needed to help your child heal.

Most children with a concussion can rest and get better at home. Some general guidelines for rest and treatment for your child include:

- Limit physical activities like active play, PE classes and sports. As your child gets better, he will slowly be able to do more.
- Keep surroundings calm and quiet.

- Be sure to keep your child's doctor appointments, even if he is feeling better. Your doctor can track your child's recovery and safe return to normal activities.
- Limit thinking activities like reading, school work, electronic games, talking on the phone and watching TV. Limit screen time to no more than 2 hours a day. This includes TV, video games, computers and cell phones. Stop and rest any time that symptoms get worse.

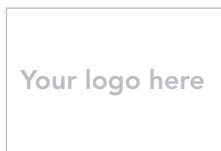
Use the chart below to make sure your child's brain has time to rest and heal after a concussion. Doctors call this a **"cognitive rest"**.

| Your child may do these things: | Do NOT let your child do these things: |
|--|---|
| Read easy books | Read difficult books or do word puzzles |
| Rest in a quiet room without bright lights | Do things that need focus or a lot of thinking |
| Listen to music at a low volume | Play loud music |
| Do simple arts and crafts | Send or read text messages |
| Have short visits with 1 or 2 friends | Have too many visitors |
| Play easy card games and board games that do not need much focus, such as UNO or Go Fish | Play violent video games |
| Play non violent video games that do not need physical activity | Play loud video games with action and flashing lights |
| Use the computer for a short time to check social medial sites, such as Facebook | Use a computer for more than 30 minutes at a time |
| Watch TV shows that do not need much focus, such as cartoons or comedies. Watching sports on TV with a small group is OK as long as it is not too noisy or too exciting. | Watch TV shows with action, loud noise or that need your child to focus |

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Can I give my child pain medicine?

Do not give your child any medicines that can make him sleepy, such as cold or strong pain medicines or medicine for itching, unless advised by your child's doctor.

- Give acetaminophen (Tylenol or less costly store brands) for pain if advised by your child's doctor. Follow the directions on the box carefully or ask your child's doctor how much medicine to give.
 - Do not give your child more than 5 doses of acetaminophen in a 24-hour period.
 - Do not give acetaminophen to babies less than 3 months of age without a doctor's order.
- OR, you may give ibuprofen (Motrin, Advil or other less costly store brand) if advised by your child's doctor. Follow the directions on the box carefully or ask his doctor how much medicine to give.
 - Do not give ibuprofen to babies less than 6 months of age without a doctor's order.
 - If your child has chickenpox, kidney problems or bleeding problems, talk with his doctor before giving ibuprofen.
 - Give this medicine with food or milk to decrease stomach upset.

When should I call the doctor?

Call your child's doctor if your child has any new symptoms that your doctor does not already know about, or if symptoms get worse, such as:

- Headaches that get worse
- Clear drainage from the nose or ear
- Scalp swelling that gets bigger
- A seizure
- Neck pain
- Is hard to wake up
- Vomits more than once
- Acts differently than usual such as if he does not play,
- acts fussy or seems confused
- Cannot think clearly or remember things
- Has weakness in the arms or legs or does not move them as usual
- Cannot recognize people or places
- Slurred speech
- Passes out

Also call if you have any questions or concerns about how your child looks or feels.

How can I help prevent my child from having another head injury?

Follow the guidelines below to help protect your child. Avoid activities that put your child or teen at risk for another head injury soon after the first one. Examples include things like climbing toys, riding a bike or driving a car.

Babies

- Always make sure that your baby or child rides in an approved child safety seat or booster seat each time he travels in a vehicle.
- Never place your baby on a chair, table or other high place while they are in a car seat or baby carrier.
- Use the safety straps on changing tables, grocery carts and high chairs.
- Don't allow children to carry your baby.
- Do not use baby walkers that have wheels. These can tip over and cause harm. Use a baby activity center without wheels instead.

Toddlers

- Childproof your home to protect him from falls.
- Secure large pieces of furniture, TVs and appliances to the floor to prevent them from tipping over on your child. Use anti-tip brackets if needed.
- Lock windows and screens. On upper floors, install safety bars that can keep your child from falling out of windows, but can be removed in case of fire.
- Use safety gates at the top and bottom of stairs until your child can go up and down safely on his own. Keep stairs free of clutter.
- Make sure your toddler wears an approved bike helmet and sits in an approved seat when riding on a bike with you.

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Children

- Watch your child closely on the playground. Make sure play equipment is in good working order. The playground surface should be made of at least 12 inch deep shredded rubber, mulch or fine sand. Avoid harder surfaces like asphalt, concrete, grass and soil.

Older children and teens

- Make sure your child wears a seatbelt every time he rides in a vehicle. Children under 13 years of age are safer in the back seat.
- Make sure he wears the correct helmet when he rides a bike, skateboards or takes part in other active sports.
- All terrain vehicles (ATVs) should only be used by teens age 16 years and over. They need to wear a motorcycle style helmet and should never have passengers on the ATV with them.

When can my child return to school or daycare after a concussion?

Your child needs to stay home from school or daycare until the doctor tells you that he can return. Most children will need to miss 1-2 days of school. If your child is school age, talk with your School Nurse or Health Services Coordinator.

- They can help support your child's slow return back into school work.
- Your child may need a 504 plan in school. The plan helps to make sure that any special needs are met during his school day.

When can my child return to sports after a concussion?

Your child **MUST** stop all sports and rest until he has no symptoms. It is important to protect the brain right after a head injury.

- Wait for your doctor to say that it is ok for your child to return to sports.

- Do **NOT** allow him to go to practice just to watch.
- When he does return to sports, if any symptoms return, he must **STOP** and rest until the doctor tells him that he can do things again.
- A slow return to sports may take several days to several months.
- Your child must return to normal school work and studies before returning to game play. You must also have a doctor's OK for your child to resume sports and PE activities. See the chart on page 7 and 8 for more details about your child's return to sports and play.

What is the Concussion Program?

Children's has a Concussion Program made up of an entire team of specialists to help care for children with concussions. The team works with your child's doctor to create a treatment plan for your child.

Talk with your child's regular doctor about your child's need for this program. Before calling the Concussion Program, it is best to get a referral for the program from your child's doctor.

The Concussion Program nurse can help you get an appointment and provide you with advice until your child is seen by the Concussion Team.

- The phone number for the nurse is 404-785-1111.
- The office is open during normal business hours from Monday - Friday.
- If you call after 3 pm or on weekends or holidays, leave a message and the nurse will call you back the next business day.
- The website for the Concussion Program is choa.org/concussion.

If you ever think your child needs help right away, call 911 or take your child to the emergency department.

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Before caring for your child at home, make sure you know:

- What to do for your child at home
- What symptoms or problems to look for
- When to call your child's doctor
- What to tell your child's teachers and coaches about bookwork, studies, PE classes and sports
- What follow-up care your child needs
- How to protect your child from another head injury

Use this space to write down questions you have for your child's doctor:

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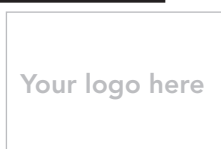
Guidelines for your child's return to school, book work and studies

| Stage of healing | Home activity | School activity | Physical activity |
|--|---|---|------------------------------|
| Stage 1 – Your child still has many symptoms and problems | <ul style="list-style-type: none"> • Complete rest in a quiet room • Allow as much sleep as possible • Limit things that require your child to think, focus, reason or remember • Remove any electronics and computers from your child's room • Remove any activity planners and "to-do" lists from your child's room • Give your child plenty of fluids to drink • Give your child plenty of carbohydrates to eat, such as whole grain breads and cereals, pasta and rice | <ul style="list-style-type: none"> • No school | See Stage 1 in next chart |
| Stage 2 – Your child still has some symptoms and problems | <ul style="list-style-type: none"> • Quiet room • Allow as much sleep as possible • Allow your child to use TV, video games, texting, tweeting and email for a short time - less than 2 hour a day • Help your child not to stress over missed school work • Continue with fluids and carbohydrates as in Stage 1 | <ul style="list-style-type: none"> • May return to school for ½ day • Attend core classes only • Attend shortened class time • Rest in nurse's office between classes and as needed • No tests or quizzes • Use pre-printed class notes • Short homework assignments – work 20 minutes at a time with rest breaks in between • Talk with school nurse or teacher about a 504 plan | See Stage 2 in next chart |
| Stage 3 – Your child's symptoms and problems have gone away | <ul style="list-style-type: none"> • Slowly return to watching TV and playing video games and texting • Allow family interaction again | <ul style="list-style-type: none"> • Full day of classes • Gradual return of class work, including make-up work, tests, quizzes • May take 1 test or quiz a day with extra time as needed to complete • Tell the teacher or school nurse of any symptoms or problems return | See Stages 2-4 in next chart |
| Stage 4 – Your child seems back to normal | Normal home and social interactions | <ul style="list-style-type: none"> • Normal school work and studies | See Stages 5-7 in next chart |

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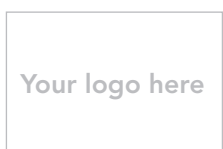
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Guidelines for your child's return to sports, play and activities

| Stage of healing | Activity allowed | Examples of sports | Examples of other activities | Goal |
|------------------|---|---|---|--|
| 1 | <ul style="list-style-type: none"> No activity Complete cognitive and physical rest | <ul style="list-style-type: none"> Complete physical rest | <ul style="list-style-type: none"> Quiet time with rest Avoid groups, videos, reading, computers, video games, cell phones, noisy places | <ul style="list-style-type: none"> Brain rest and healing Be free of symptoms |
| 2 | <ul style="list-style-type: none"> Light aerobic activity | <ul style="list-style-type: none"> 10-15 minutes of walking or stationary bike Light sweat on the brow Slight increase in breathing rate | <ul style="list-style-type: none"> Walk in park or neighborhood Avoid group activities | <ul style="list-style-type: none"> Increase heart rate to 30-40% at most |
| 3 | <ul style="list-style-type: none"> Moderate aerobic activity Light resistance training | <ul style="list-style-type: none"> 20-30 minutes of jogging or stationary bike Arm curls, shoulder raises, leg lifts with weights that can be comfortably lifted 1 set of 10 repetitions for each activity | <ul style="list-style-type: none"> Supervised play Low risk activities such as dribbling a ball, playing catch, changing directions, jumping, side-to-side slides, chasing a ball or catching a ball on the run | <ul style="list-style-type: none"> Increase heart rate to 40-60% at most Add resistance Use eyes to track objects |
| 4 | <ul style="list-style-type: none"> Intense aerobic activity Moderate resistance training Sport-specific exercise | <ul style="list-style-type: none"> 40-60 minutes of running or stationary bike Same resistance exercises with weight for 3 sets of 10 reps Pre-competition warm-up such as passing a soccer ball, throwing a football or doing ladder drills | <ul style="list-style-type: none"> Supervised play Moderate risk activities such as balance and agility drills. No head contact activities. Can sweat and breathe heavy | <ul style="list-style-type: none"> Increase heart rate to 60-80% at most Increase resistance Mimic the sport |
| 5 | <ul style="list-style-type: none"> Controlled-contact training drills | <ul style="list-style-type: none"> 60-90 minutes of time on the field, court or mat for specific drills Take part in normal practice session Contact that is normally part of the sport - only use items that "do not hit back" such as a sled in football Recheck for symptoms or problems often | <ul style="list-style-type: none"> Free play Run and jump as able Full return to physical education (PE) Recheck for symptoms or problems often | <ul style="list-style-type: none"> Mimic the sport or free play without the risk of head injury |
| 6 | <ul style="list-style-type: none"> Full-contact practice | <ul style="list-style-type: none"> After OK from the doctor, may take part in normal training activities | <ul style="list-style-type: none"> With parent or adult supervision, may take part in normal activities | <ul style="list-style-type: none"> Build confidence Assess skills |
| 7 | <ul style="list-style-type: none"> Return to play | <ul style="list-style-type: none"> Normal game play | <ul style="list-style-type: none"> Normal playtime and activities | <ul style="list-style-type: none"> No restrictions |

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What other guidelines do I need for my child's activities?

- Allow 24 hours between each activity stage in the chart. This means that it will take at least 7 days to return to full activity.
- For your child to move from one stage to the next, he must be able to do an activity at 100% without symptoms or problems for 24 hours.
- If any symptoms return, it means his brain is not ready for the next stage.
- Once your child has no symptoms again for 24 hours, he can try the activities in that stage again.

Where can I get more information?

You can get more information on concussion and mild head injury at any of these websites:

- American Academy of Neurology: aan.com
- American Academy of Pediatrics: aap.org
- American College of Sports Medicine: acsm.org
- Centers for Disease Control and Prevention: cdc.gov

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