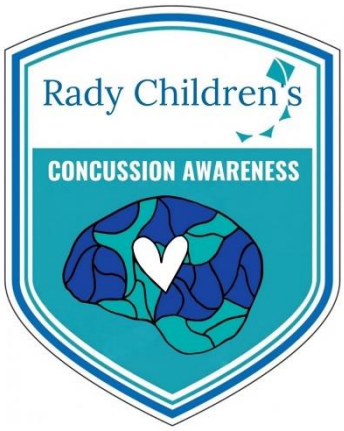
Concussion Awareness

Rady Children's Health Concussion Awareness Patch



The Facts

What is a Concussion?

A **concussion is** a type of brain injury that makes your brain bounce or twist inside the skull. This can happen if you receive a blow, bump, or jolt to your head or body. If you have a concussion, it can cause you to experience many different symptoms which can interfere with your daily life and make it hard to think, learn, and do the things you normally do every day. This means that it takes time to return to the things you usually do like going to school, working, or playing sports. Some people recover from concussions in days, but for others it can take months. Many youth concussions occur during sports, but concussions can also happen in many other ways, like falling off your bike, bumping your head on the playground, or in a car accident. 20% of teens report having a concussion at least once in their lifetime.

Understanding concussions is very important. The activities in this patch will give you the tools and information you need to be able to prevent and recognize concussions and support others while they are recovering from concussions. Once you have the knowledge, you can share this information with your community and use what you've learned in your daily life.

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many other ways, like falling off your bike, bumping your head on the playground, or in a car accident. 20% of teens report having a concussion at least once in their lifetime.

Understanding concussions is very important. The activities in this patch will give you the tools and information you need to be able to prevent and recognize concussions and support others while they are recovering from concussions. Once you have the knowledge, you can share this information with your community and use what you've learned in your daily life.

The Activities

Discover Activities: Complete at least four of the five activities below. Please note that the activities with an * are required.

1. WHAT HAPPENS TO THE BRAIN IN A CONCUSSION?*

In order to better understand what happens in the brain if you get a concussion, we can create a visual simulation. Watch this video for a demonstration and explanation.

Materials Needed:

- Ball/Small round(ish) object ("Brain")
- Tupperware/container with a lid ("Skull")
- Water ("Cerebral Spinal Fluid")

Instructions:

a. Pour water into your container until it is about halfway full
b. Place your "brain" into the container
c. Close the lid
d. Shake the container sideways and up and down to replicate a "jolt to the head/body"
e. Watch what happens to the brain when the jolt occurs.

This activity can also be done with jello in a container, where the jello represents the brain, and the container represents the skull.

2. WHAT ARE THE SYMPTOMS? *

Headaches are one symptom of concussions, but there are many other symptoms. The list below includes some of the common ones. For a full list, check out this link.

COMMON CONCUSSION SYMPTOMS

a. Headache/"Pressure" in head
b. Light Sensitivity
c. Noise Sensitivity
d. Fatigue/Tiredness
e. Difficulty Concentrating/Remembering
f. Balance Problems
g. Feeling Slowed Down
h. Blurry Vision
i. Trouble Falling Asleep
j. Feeling More Emotional

<u>If you are working with a troop:</u> Write down each symptom on a slip of paper. Assign each person a symptom to draw. Just like with Pictionary, your troop can guess what symptom is drawn.

<u>If you are working individually:</u> Read through all of the symptoms on the link, and choose one to draw.

Example Drawing: Sensitivity to Noise



3. HOW DO CONCUSSION SYMPTOMS FEEL?

After the last activity, we all have a better understanding of the range of symptoms that come with concussions. To better understand the experience of recovering from these symptoms, we

can replicate some of these feelings in a safe way. If any medical conditions, personal preferences, etc. would make completing these activities upsetting or dangerous, skip this section. **Do not complete any activity in a way that will cause a danger to yourself or anyone around you!**

Materials Needed:

- Large open space (preferably a soft surface)
- Goggles or non-prescription lab/regular glasses
- Petroleum jelly/Vaseline

a. Balance Problems - Go to a large open space. Spin around in a circle 5 times. Now, try to walk in a straight line, putting the heel of one foot directly in front of the toe of the other foot (see this video for a demonstration). This is called the Tandem Gait test, and can be used to assess concussion symptoms or as an exercise to help with concussion rehabilitation. By spinning in a circle beforehand, you can experience the struggles a person with a concussion may endure while trying this exercise.
b. Sensitivity to Noise/Sensory Overload - After a concussion, it can be hard for the brain to filter out the noises of everyday life, making it difficult to focus and very overwhelming. To replicate this experience at home, play multiple different sounds at the same time. For example, turn on the sink faucet, the television, and have someone start talking to you (either on the phone or in person). In a troop - everyone could make a different sound - clap hands, stomp feet, hum a song, have a conversation, etc.
c. Blurry Vision - To simulate the vision impairment that might occur with a concussion, smear Vaseline/petroleum jelly over goggles/spare set of glasses and try to perform activities like writing your name/sentence on a piece of paper, try to brush your teeth, walk to the bathroom, etc.. Please be mindful of your surroundings when attempting this!

4. WHERE/WHEN CAN CONCUSSIONS HAPPEN? *

While there are many things we can do to lower the risk of getting a concussion, we can't prevent all accidents and injuries. That's why it's important to understand concussion recognition and recovery in addition to prevention.

a. On your own or with a small group of your troop members, try to rank this list of the ten sports from the highest to the lowest risk of getting a concussion. An answer key is provided on pages 9-10.
    1. Girls Field Hockey
    2. Boys Soccer

3. Girls Basketball
4. Boys Lacrosse
5. Girls Soccer
6. Boys Tackle Football
7. Boys Ice Hockey
8. Girls Softball
9. Boys Wrestling
10. Girls Lacrosse

b. For each sport, brainstorm 2-3 ways a concussion could happen in each sport, and how this can be prevented (ex. helmets). Check out this link to learn about the most common ways concussions occur in each sport.
    i. Learn about Helmets! Read "Little Brain Decorates a Helmet" in the Little Brain Comic Series - University of Michigan. The next time you ride a bike, or wear a helmet for any sport or activity, use the last page as a guide to make sure your helmet fits properly and will protect your head the best that it can.
    ii. For an **optional** extension activity, you can try this Egghead Bicycle Helmet Activity from NOVA Science Now.
    iii. For more information about helmet safety, check out the CDC HEADS UP Concussion and Helmet Safety App.

c. Finally, come up with a list of at least 10 ways concussions can happen in everyday activities. How can these be prevented?

5. IS IT A MYTH OR FACT?

While every concussion is unique, decide if you think the following general statements about concussions are facts (true) or myths (false). An answer key is provided on page 9.

a. A person with a concussion should never sleep uninterrupted immediately after injury.
b. A concussion doesn't always involve loss of consciousness (blacking out).
c. Symptoms will always occur immediately after getting a concussion.
d. You don't have to get hit in the head to get a concussion.
e. Continuing to play a sport right after a concussion during play is dangerous and can result in longer recovery time.
f. It is easier/faster for a child to recover from a concussion than an adult.
g. Concussions don't impact mental health (anxiety, depression, etc.).
h. It isn't good for a person with a concussion to rest in a dark room for more than a couple days.
i. The majority of concussions occur while playing sports.

Connect Activities: Complete at least three of the four activities. Please note that the activities with an * are required.

1. HOW DO YOU RECOGNIZE A CONCUSSION?

Now that you've learned about concussion symptoms, it's time to practice how to recognize a concussion and respond effectively.

a. Read this article about how to spot a concussion - Signs and Symptoms of a Concussion - CDC Heads Up

b. Sort these scenarios/symptoms into 3 categories:

1. You don't suspect they have a concussion
2. You suspect they might have a concussion and should follow up with their doctor, and
3. You suspect they might have a concussion with a danger sign and need to go to the emergency room immediately.

An answer key is provided on pages 10-11.

REMEMBER: Even if you don't go to the emergency room right away, it is always important to see a doctor after getting a concussion, and to get cleared by a doctor before returning to sports.

i. Claire got hit in the head with a ball at the end of soccer practice. She felt fine right after, but the next day, she felt a bit dizzy and got a headache.
ii. While playing with her friends, Izzy tripped and hit the back of her head on a tree. She was unconscious for a few seconds, and threw up right after the injury.
iii. Eleanor was playing with a water balloon. She got hit in the nose with the balloon. The spot where she got hit hurt for a couple of moments, but the pain went away and she felt fine otherwise.
iv. Delilah was wearing a helmet and riding her bike. She ran into a tree and fell, hitting the side of her head. After hitting her head, Delilah felt dizzy and her head hurt, and couldn't remember the name of her favorite stuffed animal.
v. Shana had a terrible headache after going to a loud concert, and threw up.
vi. Mila was looking for something under her bed. She stood up quickly and slammed her head on the bed frame. The next day, she was sensitive to loud noises and was having trouble concentrating.

2. HOW DOES CONCUSSION AWARENESS RELATE TO THE GIRL SCOUT LAW?*

As Girl Scouts, we strive to uphold the values set forth in the Girl Scout Law. Think about/discuss how concussion awareness relates to each of these phrases from the law. Share your thoughts/what you discussed with words, artwork, or a skit. If you are working in a troop, you can do this in pairs.

For example - I need to be honest with myself if I get hit in the head. Even if I want to keep playing, I need to remind myself that my health is more important, and if I feel off, I should take a break.

a. Honest and Fair
b. Friendly and Helpful
c. Considerate and Caring
d. Courageous and Strong
e. Responsible For What I Say And Do
f. Respect Myself and Others
g. Respect Authority
h. Use Resources Wisely
i. Make The World A Better Place
j. Be A Sister to Every Girl Scout

3. HOW CAN I SUPPORT A FRIEND WITH A CONCUSSION?*
Given what you have learned about concussion symptoms and the recovery process, list 5 ways you can support a friend with a concussion.

4. READING LIST ACTIVITY
Read one book from the list at the end of this curriculum. Share what you learned with a parent, teacher, or trusted friend.

Take Action Activities: Complete at least two of the activities. Note that the one with an * is required.

1. TEACH OTHERS ABOUT WHAT YOU LEARNED*
Tell a friend, family member, sports team, class, or troop. about what you learned about concussions and what actions they can take to prevent and recognize concussions, and support people recovering from concussions in their lives.

2. INFOGRAPHIC/POSTER

Create your own infographic/poster including the things you think are most important to know about concussions. This can include drawings, arrows, writing, etc. Share your infographic with a group (team, troop, class, etc.) or with a trusted friend, family member or teacher.

3. CONCUSSION LAW RESEARCH

Research the laws surrounding concussions in your state/country. What forms, reading, or training is required for coaches and/or athletes to complete before competing in high school sports? Is your sport included in these laws? If it isn't, reach out to your representative in government to lobby for it to be included.

4. SHARE YOUR EXPERIENCE

Have you had a concussion before? Create a piece of art to share your own experience. You can do a drawing, poem, photo, essay, video, etc. Share with a trusted friend, family member or teacher.

5. CONCUSSIONS IN WOMEN/GIRLS

Why might girls and women be affected differently by concussions? Research this topic and present your findings to a trusted friend, family member or teacher or your class, friends, team, or troop. Helpful Source: Pink Concussions

Reflection Activities: Complete all four prompts.

1. Based on what you've learned while completing this patch, respond to each of the following prompts. You can do this by writing your response or drawing your response to each question.
    a. What are two ways you can prevent yourself and others from getting a concussion?
    b. If yourself, a friend, a teammate, or a family member gets hit in the head, what should you do?
    c. What concussion symptoms did you learn about today that you didn't understand/know about before?
    d. If someone you know is recovering from a concussion, how can you support them?

Share with a trusted friend, family member or teacher.

Reading List

Ages 7-9: (Brownies)

Little Brain Comic Series - University of Michigan

When Get Well Soon Isn't So Soon by Kristin Sorrentino PA-S

Amanda's Fall: A Story for Children About Traumatic Brain Injury (TBI) by Kelly Bouldin Darmofal

Ages 9-13: (Juniors/Cadettes)

Little Brain Comic Series - University of Michigan

Concussion Crisis: The Rise of Head Injuries in Youth Sports by Marie-Therese Miller

Ages 13+ (Seniors/Ambassadors)

Little Brain's Guide to Post-Concussion Syndrome

Concussion Crisis: The Rise of Head Injuries in Youth Sports by Marie-Therese Miller

Answer Key: Discover Activity #1 - Is it a Myth or Fact?

a. A person with a concussion should never sleep uninterrupted immediately after injury. **MYTH. Once a brain bleed or unsafe symptoms are ruled out, sleeping is okay.**
b. A concussion doesn't always involve loss of consciousness (blacking out). **FACT. Even if you don't get knocked out, you could still have a concussion.**
c. Symptoms will always occur immediately after getting a concussion. **MYTH. Onset of symptoms may take time, so watch out for symptoms in the days following the event, etc. Even if you feel okay right after the injury, you may still have a concussion.**
d. You don't have to get hit in the head to get a concussion. **FACT. Hitting another body part can still affect the head and cause the brain to shake in the skull, resulting in a concussion.**
e. Continuing to play a sport after a concussion is dangerous and can result in longer recovery time. **FACT. If you get hit in the head, sit out and rest. Only return to sports after a concussion if you have been cleared by a doctor. Continuing to play can make symptoms worse, lengthen recovery time, and put you at risk for another head injury.**
f. It is easier/faster for a child to recover from a concussion than an adult. **MYTH. It can be more difficult for children to recover than adults. It is especially difficult to recover from a concussion during adolescence.**
g. Concussions don't impact mental health (anxiety, depression, etc.). **MYTH. It is important to help support people with concussions, as they might be struggling with their mental health in addition to more noticeable/expected symptoms.**

h. It isn't good for a person with a concussion to rest in a dark room for more than a couple days. **FACT. Isolating a person with a concussion from the outside world for more than a few days can lead to prolonged symptoms and further difficulty readjusting to the world.**
i. The majority of concussions occur while playing sports. **MYTH. While many people associate concussions with playing sports, the majority of concussions actually happen in everyday activities.**

Answer Key: Discover Activity #3 - Where and when do concussions happen?

Correct ranking (top = highest rate of concussions, bottom = lowest rate of concussions)

1. Boys tackle football
2. Girls soccer
3. Boys lacrosse
4. Boys ice hockey
5. Boys wrestling
6. Girls lacrosse
7. Girls field hockey
8. Girls basketball
9. Boys soccer
10. Girls softball

Answer Key: Connect Activity #1 - Recognizing/Responding to Concussions

vii. Claire got hit in the head with a ball at the end of soccer practice. She felt fine right after, but the next day, she felt a bit dizzy and got a headache. **Suspect they might have a concussion and should follow up with their doctor.**
viii. While playing with her friends, Izzy tripped and hit the back of her head on a tree. She was unconscious for a few seconds, and threw up right after the injury. **Suspect they might have a concussion with a danger sign and need to go to the emergency room immediately.**

ix. Eleanor was playing with a water balloon. She got hit in the nose with the balloon. The spot where she got hit hurt for a couple of moments, but the pain went away and she felt fine otherwise. **Don't suspect a concussion.**

x. Delilah was wearing a helmet and riding her bike. She ran into a tree and fell, hitting the side of her head. After hitting her head, Delilah felt dizzy and her head hurt, and couldn't remember the name of her favorite stuffed animal. **Suspect they might have a concussion with a danger sign and need to go to the emergency room immediately.**

xi. Shana had a terrible headache after going to a loud concert, and threw up. **Don't suspect a concussion.**

xii. Mila was looking for something under her bed. She stood up quickly and slammed her head on the bed. The next day, she was sensitive to loud noises and was having trouble concentrating. **Suspect they might have a concussion and should follow up with their doctor.**

Sources:

Discover Activity #1 -

Source - UT Southwestern Medical Center

Source - Children's Hospital of Philadelphia

Source - ImPACT Baseline Testing

Discover Activity #3

Source - CDC HEADS UP

Source - American Brain Foundation