



Parachute Brain Waves

Participant FAQ

Participants are going to be excited and curious about what they learned during Brain Waves. This resource provides answers to some frequently asked questions you might hear.

Tips

- **Remember, as a Parachute Brain Waves instructor your role is to talk about injury prevention.** Sometimes, questions get off topic and can be outside the scope of Brain Waves and your role as a volunteer. See Section 4 for examples, and ways you can respond.
- **Concussions:** The topic of concussion is big in the news and injury prevention, so you may receive questions on this topic. Concussion information is included in the Instructor Guide and the Student Activity Booklet. Parachute has free concussion resources you can share: www.parachute.ca/concussion
- **It is OK if you don't know the answer to a question.** Refer teachers to the Parachute website for more information or have them email the Parachute Brain Waves Program Manager: brainwaves@parachute.ca.

Section 1

Common questions, module-specific

Neurons/Brain Anatomy

Can the brain heal itself?

Even though neurons cannot repair themselves, the brain is able to find other healthy neurons in the body and make new connections, so that you can perform the same activities even if some of your neurons are hurt. However, not all injuries to your brain can be repaired like this. If you damage too many neurons, there won't be enough healthy neurons left to make connections with. Preventing damage to your brain and neurons is the best treatment!

Do we really use only 10 per cent of our brains?

We use 100 per cent of our brains! However, we may not use 100 per cent of our brains at the same time. This myth comes from the observation that, at any given time, only 10 per cent of neurons are active and sending signals. If all of your neurons were sending signals all the time, it would be very difficult for you to concentrate.

Taste

When you burn your tongue from a hot drink do taste buds die? Do they regrow?

Sometimes when you drink something hot or eat a lot of sour candy and your tongue feels funny, this is your taste buds dying. However, your taste buds will come back. Scientists and doctors don't completely understand how the taste buds regrow, but remember that your tongue is only one part of the "tasting" process. What other senses do we use to "taste" food? (Answer: smell, sight)

Why is spicy not one of the four tastes?

In the same way that your skin has touch receptors that tell your brain about pain and temperature, your tongue does too. Spicy is not a flavour that has a taste receptor in your taste buds; instead it activates the *touch* receptors on your tongue!

What is "brain freeze"?

See the Touch section below.

Vision

Why do you see the opposite colours in the Colour Afterimage Activity?

Our eyes have three types of cones (cells). Each cone detects red, green, or blue colour. When you stare at an image for a long time, the cones in your eyes get tired from seeing the same colour(s) for so long. When the screen becomes white, the cells that are not tired respond, creating an image in the opposite colour on the screen. Ask: Can anyone tell us why this is important for survival? Answer: Our eyes quickly readjust to any changes, because changes could mean something like, danger or prey, are near.

Hearing

Will loud noises damage the ears of children? What about adults?

Hearing loss experienced from loud noises is permanent, no matter your age. If the music you are listening to is so loud that you cannot hear other things going on around you, it is damaging your hearing. It is also a safety hazard (e.g., if you are riding your bike and listening to music, you may not hear the cars behind you).

Touch

What is “brain freeze”?

Brain freeze is what happens when touch receptors on the roof of your mouth sense the cold from your ice cream or cold drink. Those touch receptors are pain receptors, and they tell your brain "ouch, that's too cold, slow down!" A quick way to stop brain freeze is to swallow whatever the cold thing is that you're eating, and put your warmer tongue against the roof of your mouth.

Section 2

Common questions, injury-specific

Why can some people walk after a spinal cord injury and others can't?

Recovery after an injury depends on many factors. These include the amount of bleeding, how quickly the person can get to a doctor/the hospital, and where on the spine the injury happened. The closer the spinal cord injury is to your neck area, the more likely it is going to affect your arms, middle of the body, and legs. Sometimes injuries only affect one side of the body.

What is happening to my brain when I get a concussion?

The brain is surrounded by fluid ("cerebral spinal fluid"), layers of tissue to help cushion it, and a skull. Some things, such as hitting your head, can cause the brain to move in the skull, injuring the brain. This injury affects the way the brain functions. While most concussions will heal pretty quickly, some can cause a lot of damage to the neurons in your brain. As we've learned today, the brain is very important for many different things. It is important to take time off and rest after a head injury.

Is a concussion only when you lose consciousness?

A concussion can happen even if someone is awake the entire time. Make sure you tell your teacher, parents, or doctor if you hit your head and start feeling headaches or pressure in your head, vomiting and dizziness, and/or difficulty around light and noise.

How do I know whether my headache is a concussion?

Usually, a headache caused by a concussion happens after an incident, like a fall or something hitting your head. To be safe, make sure you tell your teacher and parents about what happened, and that your head is hurting.

What does it mean when I have a headache?

There are several reasons you get headaches – when you're sick, stressed, or sitting in a funny position. Your brain does not have any pain receptors, so the pain you experience during a headache is coming from other parts of your body near your head. Things like not drinking enough water or tight muscles can affect pain receptors near your head [link it back to neurons and spinal cords]. Ask: What are some of the things you do when you have a headache?

Section 3

Common questions, helmets

How long can I keep my helmet for?

It is recommended that you replace your helmet three to five years after the date of purchase, if it gets damaged, or if it does not fit you anymore. Some helmets, such as hockey helmets, have an expiry date printed inside them. Your helmet is made of a special material that breaks down over time and will not work as well if it is old. Also, over time your helmet may have been poked or hit by objects that will affect how it works.

Can I put stickers on my helmet?

Do not modify or remove original parts of your helmet (unless the part is meant to be removed, like visors on bicycle helmets or cages on hockey helmets). Remember, the shiny plastic part (the “shell”) on the outside of helmet is made of a special material. Stickers can react with the plastic causing it to be less effective. Helmets are supposed to be shiny and smooth to absorb the shock if you fall off your bike. Stickers make the helmet rough and it can’t absorb as much of the shock. Finally, stickers can cover an area where a crack may have occurred.

Can I wear my hockey helmet when I ride my bike?

Most helmets are single-use. This means the helmet is only certified for one activity. Baseball helmets are an example of a single-use helmet. You can only use your helmet for different activities if it is certified as a multi-use helmet. The helmet certification sticker will tell you which activities your helmet is certified for. If your helmet is not certified as multi-use, you cannot use it for different activities.

If I have a crash, can I reuse my helmet?

This depends on the type of crash you experienced and the type of helmet you have. Single-impact helmets, like a bicycle helmet, means the helmet will protect you against one crash before it has to be replaced. Multiple-impact helmets, such as hockey or football helmets, can handle many hits before having to be replaced. However, any helmet that experiences a violent impact should be thrown away, even if the damage is not obvious. Don’t forget that you should replace your helmet after three to five years.

Can I wear a helmet over a baseball hat or ponytail?

If you have a hat on or a high ponytail, this prevents your helmet from sitting properly on your head. Remember to use the 2V1 rule to ensure your helmet fits and you’re wearing it properly.

Section 4

Questions outside the scope of injury prevention

Questions like the examples listed below are out of the scope of Parachute Brain Waves and your role as a volunteer. We are not experts on the topic of drugs, cancer or medical treatment, and do not expect you to be either. Parachute does not give advice or guidance in areas outside the realm of injury prevention for liability reasons. Please redirect questions like these, or refer them to a doctor, teacher or parent.

- What about our brain allows us to talk when animals can't?
- Why are drugs bad for your brain?
- What is a brain tumour?
- What is the best thing to do to keep your brain healthy?

General answer: "These are great questions! Unfortunately I am not an expert on this topic and can't give you all the answers. However, I am very excited about the chance to talk to you about injury prevention. What are some of the ways you protect your bodies when you're on the playground?"

Section 5

Common questions from teachers

How would you suggest making it ‘cool’ for kids to wear helmets, especially as they start going into middle school and high school?

To start, be a role model to your students. Ensure you and your colleagues wear protective gear with your students during physical activity. Further, promoting athletes and celebrities who wear protective gear during activity is also a great way to keep helmets “cool”. LeBron James (basketball) wears a helmet while biking to practices and games, and Shaun White (snowboarding) is an advocate for helmets during snowboarding. For other helmet-related questions see Section 3 above.

Can my child’s class receive a Brain Waves presentation?

Please contact the Parachute Brain Waves Program Manager at brainwaves@parachute.ca. If there is a local site near you, they will put you in touch with a Site Coordinator to determine presentation availability. In the event there are no volunteers in your area, Parachute has put together an online Parachute Brain Waves kit that teachers can use to deliver the program themselves.

Do the risks of injury outweigh the benefits of playing some sports (such as hockey or football) for children?

Physical activity is an important part of positive child and youth development. All activities will have an inherent risk, but taking safety precautions, such as the ones we have talked about today, will help to ensure children can be active, have fun, and stay safe. Risk of injury is dependent on a child’s skill level, physical development, how they’re feeling that day, and those around them. Parachute advises everyone to use discretion.