



## Making Decisions (🌈 A Cognitive Health Story) (5<sup>th</sup> Grade – 10-11 yrs.)

Making decisions is something that all of us have to do all the time. Making good decisions actually helps you to live a better life and helps your brain stay healthy.

- 🌈 Making good decisions is not easy, especially when the part of your brain that helps you make decisions is still growing.
- 🌈 While your brain is still growing, you think about the world you live in differently and you may take more risks.
- 🌈 Your brain does a lot of things for you and now is the time when you need to help your brain, so it can help you. Understanding how your brain works and how you are able to make decisions will help you to keep your brain healthy.

### 🌈 SLIDE #1 - INTRODUCTION:

Good Morning (Afternoon)!

My name is \_\_\_\_\_ and I (describe who you are and give your relation to neuroscience – ex. you are a Neuroscientist, you study neuroscience, you have a friend that is a neuroscientist or you have recently been learning a lot about neuroscience).

Neuroscience, that's a really big word! But, a neuroscientist is a person who knows a lot about the brain.

I am here today to talk to you about how you can help to make your brain healthy – feeling good. It is REALLY easy and anyone can do it.

I love to talk about Brain Health because it's SPECTacular!!! SPECTacular means "GREAT". When your brain is SPECTacular, you are a happy and healthy person.

This story is about Cognitive Health – which is the C in SPECTacular. Cognitive Health is about thinking...and not just when you are in school. Cognitive is a big word that means being able to think.

Your brain thinks all the time, that is something you do inside of your head.

It is your brain's job to think and by thinking you are making your brain healthy.

So, let's see how you can keep your brain healthy.

### 🌈 SLIDE #2 – MAKING DECISIONS

We all know that your brain controls all the behaviors that you do. It helps you to eat, sleep, play, walk, talk...you name it – your brain helps you do it.

In order for you to do all the behaviors you need to do all the time, every single day, your brain also has to think and make decisions. These are known as cognitive behaviors.

This story, Making Decisions, is going to help us understand how the brain is able to make all of those decisions and why we need to help our brain to be sure we are making good decisions.

Making good decisions definitely helps our Cognitive Health.

### **SLIDE #3 – GOOD DECISIONS**

Making good decisions can be a very hard thing to do. When you are faced with lots of options, which one do you choose?

What are good decisions?

Good decisions, or good choices, usually have something to do with helping either your body or your brain stay safe or helping someone else.

### **SLIDE #4 – TEST OR VIDEO GAME**

Ok...let's think about making good decisions...

It is the night before a test and you really do not know the information that will be covered on the test that well. Should you do some homework or should you play a video game?

What should you do? What is the good decision?

Let's think about this...

If you do your homework, you would know the information for the test better and you would be less stressed out about having to take the test. During the test you would be prepared and confident.

If you play a video game, that will probably make you happier – at least right now. But...it would not make you happier tomorrow during the test. During the test you would be anxious and stressed.

What should you do? What is the good decision?

The good choice – the good decision - is to do your homework. Then, you will be ready for the test! Right now, your job is to go to school and learn. So, preparing for the test is part of doing your job.

Doing your homework would make your brain healthier, because too much stress is not good. That would also make your teacher happier – because teachers want you to learn.

### **SLIDE #5 – TO JUMP OR NOT TO JUMP**

Ok...let's think some more about making good decisions...

You are playing at the playground with your friend. You are on a swing, swinging pretty high, and then your friend dares you to jump off of the swing.

The swings are on a part of the playground that has soft grass underneath, but when you swinging this high, you are not sure that you be able to land on the soft grass – AND you notice that there are rocks surrounding the grass area where you might land. (Whose bright idea was it to put a swing set surrounded by rocks in a playground????)

What should you do? What is the good decision?

Let's think about this...

Do you take the dare and jump off the swing or do you tell your friend that they are not very nice for daring you to jump when you could land in the rocks and hurt yourself?

The good choice is not to jump off the swing. You decide that it is better to deal with your friend and potentially them teasing you for not taking the dare, than it would be to deal with a broken bone if you jumped and landed on a rock.

Making good decisions is not always going to be easy. There are going to be times in your life when the good decision is the more difficult choice.

## **SLIDE #6 – BRAIN IS STILL GROWING**

You may be wondering...why is it so hard for your brain to make good decisions?

Well...just like a tree...your body and your brain are still growing.

Both your body and your brain will continue to grow probably until you finish high school or even when you are in college.

## **SLIDE #7 – PREFRONTAL CORTEX**

There is a part of your brain, right in the front of your head, called the prefrontal cortex. This is a part of your brain that is important for helping you make decisions.

The prefrontal cortex, or decision-making part of your brain, gets information from lots of other parts of your brain. It puts this information together and helps you to decide what to do.

We know that the decision-making part of your brain is going to continue to grow until you are in your 20's or even your late 20's...that is somewhere between 22-29 years old (Remember, we all grow at different rates). Whoa...how old are you now? That means your decision-making part of your brain is going to be growing for a long time.

Until the decision-making part of your brain is finished growing, your brain might not always be able to make good decisions, so it is your job to help your brain make good decisions.

You need to help your brain make good decisions because this is a time when your brain may want you to engage in risky behaviors.

## **SLIDE #8 – RISKY BEHAVIORS**

Now, you may be asking yourself what are risky behaviors?

Risky behaviors are behaviors that you do that have the potential to have something bad or negative happen.

You are essentially gambling that you can do something – but you do not know whether the outcome will be good or bad. Usually the bad outcome will cause someone harm or to get in trouble.

Jumping off the swing when you could land in the soft grass or on the rocks – that is a risky behavior.

If you land in the soft grass, then you might not get hurt.

If you land in the rocks, then you could hurt your body or your brain.

### **SLIDE #9 – WHY TAKE RISKS**

You may be thinking, why would anyone engage in risky behaviors when there is a potential for something bad to happen? And, why would your brain – which has the job of helping to keep you alive – let you do risky behaviors?

The answer goes all the way back to the days of the cavemen.

During the cavemen days, people did not know how to read and write – so, people could not pass down all the things that they had learned to future generations like we can do now.

So, the cavemen had to take risks to survive – to be able to get food for themselves and their family. They had to do a lot of “trial and error” learning, which meant that sometimes they survived and sometimes they did not.

### **SLIDE #10– BRAINS ALLOW YOU TO TAKE RISKS TO SURVIVE**

Let’s say that the cavemen found some bushes that had fruit on them.

There was a lot of fruit on the bushes, and it was good to eat and you could keep it around for a few days.

The problem was that the bushes were in the area that a group of saber-toothed tigers lived. So, in order to get food, you had to risk bumping into a saber-toothed tiger.

You had seen these tigers fighting before and you knew that they were strong and had sharp teeth...but, you and your family were hungry and you had not eaten for days. So, while your family gathered the food, you had to protect them from the tiger.

The brains of the early cavemen were built to allow them to take the risks that they needed to take in order to survive. Sometimes they survived and sometimes they did not.

### **SLIDE #11 – OUR BRAIN TAKES RISKS**

While we do not have saber-toothed tigers to deal with in order to get food, we do live in a world where there are lots of risky and safe decisions to be made.

Luckily for us, we do not have to have to take risks just to get food. We CAN read and write and we have learned from the generations of people who came before us. Because of this we have many more options to do the behaviors that help us survive – like getting food. Plus, in today’s world, we try to protect ourselves and others.

BUT, just like the brains of cavemen, when our prefrontal cortex is still growing, our brains may allow us to take risks and do dangerous things. And, these risk-taking behaviors start around the onset of puberty which can start anywhere between 8 and 14 years old and can go into your mid 20’s.

So, until the prefrontal cortex – or the decision-making part of our brain is fully grown - our brains sometimes act like the cavemen brains and so we may engage in risky behaviors.

### **SLIDE #12 – HELP YOUR BRAIN MAKE GOOD DECISIONS**

So, it is up to you to help your brain make good decisions. How do you do that???

We are usually taught what kinds of things are safe and what kinds of things are dangerous.

There are people in your life that take care of you and are trying to teach you how to make good choices that will keep you safe. They do this so you will be able to take care of yourself.

But, when a friend dares you to do something dangerous – it is sometimes hard to make good choices.

### **SLIDE #13 – FRIENDS**

Part of the problem is that as your decision-making part of your brain is growing, your friends become very important to you.

You sometimes care more about what your friends and other people think than you do about keeping your body and your brain safe.

You may listen more to your friends more than you listen to the other people in your life – like your family - that take care of you and are trying to teach you how to make good choices.

You need to remember, that it is not your friend's job to take care of you. It is your job to take care of yourself.

### **SLIDE #14 – STOP & THINK**

So, how can you be sure that you are making good choices?

The first that you need to do is... stop and think.

Risky behaviors are necessary if you are like the cavemen and not figuring out how to get around the saber-toothed tigers will result in you dying from hunger.

But, most likely – unlike the cavemen – you have choices. We have so many more options than the cavemen had and there are so many other ways to learn – other than “trial and error” learning.

Remember, your brain's job is to help keep you alive and even though your brain is still growing, if you stop and think of all the possible outcomes of doing something dangerous because your friend dares you to, then your brain will come up with other options.

Stop and think. If you have any questions about how you should be behaving, then you probably should not be doing what you are doing.

Be selfish and protect yourself. It is your job to protect yourself and your brain. The changes that are going on in your decision-making part of your brain can only help you if you live long enough.

And, just a thought...but, are friends who want you to hurt yourself by doing potentially dangerous things really good friends?

### **SLIDE #15 – LOTS OF COMPLEX CHOICES**

Our world is more complex than it used to be and can be more dangerous. There are no more saber-toothed tigers or dinosaurs...but there are lots of other things that we need to learn to be able to survive in our world.

Your brain does not mean to give you hard choices to make, but because the world is more complicated there is more that you need to learn in order to know what is a good choice and what is a bad choice.

Cavemen used to draw pictures on the walls of caves to communicate.

We have computers, phones, tablets, AND social media. So, it can be really hard to tell what is real (safe) and what is not real (risky).

It is also hard to know who you are talking to when using screen devices. Is it someone who wants to protect you and teach you how to take care of yourself and your brain? Or, is it someone who wants to “dare” you into doing risky behaviors?

 **SLIDE #16 – TAKE CARE OF YOUR BRAIN, BODY AND OTHERS**

When trying to make a good decision, always remember that your main job is to take care of yourself (your brain & your body) and others that need your help.

If you think about this when you are trying to decide about whether or not to engage in risky behaviors, then you will make the right decision.

Stop and think, protect your growing brain the same way that your brain takes care of you.

 **SLIDE #17 – CONCLUSION**

Thank you all for letting me talk to you about your brain and making decisions.

I have enjoyed spending time with you today talking about the brain. I hope that you have had some fun and learned something about your brain.

REMEMBER, the decision-making part of your brain still has lots of growing to do. While it is growing, you need to be extra careful about making good choices when you are trying to make a decision. While risky behaviors may seem like a good choice, you need to always think about keeping yourself and others safe. Helping your brain to stay healthy is SPECTacular and your brain will thank you for it.

**THANK YOU SO MUCH FOR ALL OF YOUR HELP!!! Brain Health is not just SPECTacular...it is FUN!!!**