

KS3 Epilepsy awareness & first aid lesson

Better futures for young lives with epilepsy youngepilepsy.org.uk





KS3 Epilepsy awareness and first aid lesson - plan

Title: Epilepsy Awareness

Focus: The brain, seizures, seizure first aid and safety doing activities.

Duration: 1 hour

Prior learning: This lesson is suitable for pupils who have no existing knowledge of epilepsy. If they have already attended the Young Epilepsy Secondary assembly, you can spend more time on the activities. There is also the option to use the main activities from the KS3 Epilepsy awareness and psychosocial impact lesson.

Learning Outcomes

AII:

- 1. To describe epilepsy as a medical condition where there is a problem with the electrical activity in the brain.
- 2. To appreciate that seizures can look very different from one another and that someone cannot stop what is happening to them during a seizure.
- 3. To recall at least one thing that they should DO and one thing they DON'T do to help keep someone safe during a tonic clonic seizure.

Most - in addition to the above:

- 1. To recognise the symptoms of absence and tonic clonic seizures.
- 2. To suggest what could happen to someone during a focal seizure affecting a specific part of the brain.
- 3. To recall at least three things that they should DO and two they DON'T do to help keep someone safe during a tonic clonic seizure.
- 4. To understand that young people with epilepsy can join in activities like everyone else so long as they take safety precautions.

Some - in addition to the above:

- 1. To understand the difference between generalised and focal seizures.
- 2. To be able to make a link between the functions of the brain and the symptoms of focal seizures.
- 3. To be able to explain why specific actions are taken during seizure first aid for a tonic clonic seizure.
- 4. To be able to appreciate that epilepsy can affect a young person both emotionally and socially.



Young Epilepsy resources required:

- KS3 Epilepsy awareness and first aid lesson presentation
- Epilepsy seizure first aid DO or DON'T card sort

Optional Young Epilepsy worksheets:

- Epilepsy seizure first aid DO or DON'T?
- Epilepsy seizure first aid DO or DON'T and why?
- KS3 Blank seizure first aid cartoon
- KS3 Seizure first aid cartoon How to help
- KS3 Seizure first aid cartoon Cut and stick
- KS3 Staying safe
- KS3 Epilepsy problem page

Resources you may need to provide:

- Bean bags (approximately 10)
- Mini white boards

PLEASE NOTE: If you are using the PDF presentation, there will be a slight alteration to the slide numbers in this plan.

Further lesson plans, worksheets and activities are available from the Young Epilepsy website:

http://youngepilepsy.org.uk/what-we-do/helping-schools/resources-for-schools



Starter suggestions

Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
Young Epilepsy Who has heard of epilepsy?	5	 Tell pupils that today's assembly has been put together by a charity called Young Epilepsy: Young Epilepsy work with young people just like you, but also younger children in primary schools and those who go to college and university. They raise awareness of a medical condition called epilepsy. Both children and adults can have epilepsy but Young Epilepsy focus only on childhood epilepsy. Ask pupils to put their hand up in response to the questions below. To encourage participation, tell pupils you are not going to ask for answers to the questions, you just want a show of hands. Had you heard of epilepsy before this lesson? Who thinks they know what epilepsy is? Would you know how to help somebody with epilepsy if they needed it? Tell pupils that if you'd asked a room full of adults the same three questions, their responses would probably be similar. Lots of people have heard about epilepsy, not many could explain what it is and not many feel confident to help someone.		Slide 1



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
Epilepsy is	5	 In groups, ask pupils to write and complete the sentence 'Epilepsy is' Alternatively, they could do a spider gram about what they already know. Take feedback from the class. By definition, epilepsy means somebody has recurring seizures; which are a sudden burst of electricity in the brain that can result in a temporary change in the person's behaviour, sensations and/or awareness. However, this will be covered in the main discussion of the lesson so it is best to only share ideas here and avoid getting into a discussion. Groups could be asked to do the same thing at the end of the lesson so that they can see how much their ideas have changed. 	 For inclusion of pupils who find writing, or a discussion such as this, a challenge, put pupils in mixed ability groups and request that only one pupil writes the group's definition down. Alternatively, groups could just discuss their ideas verbally and the teacher could list their ideas on the board and return to it at the end of the lesson. Hints could be given to some groups such as: What part of the body stops working the way it should in epilepsy? What can happen to someone who has epilepsy? How do you get it? Extension: Complete the following: 'When somebody with epilepsy has a seizure, they' You may need to explain that a seizure is the more scientific term for an epileptic 'fit.' 	



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
What does the brain do?	5-10	Ask pupils to list anything they know about the brain; what it does; how it works? Tell the class that their ideas will be discussed later.	 For inclusion of pupils who find writing, or a discussion such as this, a challenge, put pupils in mixed ability groups and request that only one pupil writes the group's ideas down. Alternatively, groups could just discuss their ideas verbally. For pupils who are more visual learners or find factual recall difficult, show them the images associated with the brain on slide 8 and then ask them discuss what they have to do with the brain. 	Slides 7-8



Main activities

Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
Why does everyone need to know about epilepsy?	2	 Use the PowerPoint to explain the reasons why everyone needs to know about epilepsy: Many people including children have epilepsy: Lots of people have epilepsy in the UK, including both adults and children. In fact, 63,400 children and young people aged 18 and under have epilepsy in the UK – that's more than enough to fill Arsenal's Emirates Stadium! More people have epilepsy than we realise because medication keeps lots of people well and some people may not want to talk about it. We all come into contact with a lot of people throughout our lives (family, friends, work colleagues and even strangers in the street), and so the chances are most people will meet someone who has epilepsy at some point in their life! 		Slides 2-4
		 Epilepsy can take effect suddenly, often without warning. This can be scary for those who are around the person with epilepsy and might cause them to panic. However, these feelings soon pass if we know what is going on. We can all help people with epilepsy to stay safe. There are just a few key things that anyone could do 		



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
		to help keep someone with epilepsy safe. People with epilepsy will also feel more confident if they know people around them understand how to help!		
Epilepsy and the brain	10	 Tell pupils that in epilepsy, there is a problem in a certain part/organ of the body – do they know what part of the body you are talking about? Establish that it is the brain and show the image on slide 6. Ask why the image of the brain has different coloured parts? The different parts (or lobes) are coloured differently to show that they have different jobs/roles within the body. Ask pupils to list anything they know about the brain; what it does; how it works? If you did this activity as a starter, you can move on to the next step. Take feedback from groups. To ensure all groups feel their ideas have been acknowledged, you could write every group's ideas on the board and place a tick next to an idea each time it is repeated. Alternatively, if you are pushed for time, you could just ask groups to read their ideas out. You could use presentation slide 8 to illustrate some of the key functions of the brain and how it works. Establish that our brains control everything we do, think and feel. Examples of functions are: sight, smell, hearing, taste, touch, movement, emotions and automatic functions of the body like digestion and heart rate. 	 If only a few pupils volunteer an answer for what part of the body causes the problems in epilepsy, tell them that it is the part of the body that controls everything we do, think and feel. If you think electrical messages in the brain will be a difficult concept for your pupils, you could leave this part out and later explain what happens in epilepsy more simply by saying that the brain suddenly becomes disrupted or muddled for a short time. Extension - In Year 7, pupils learn about specialised cells in 	Slides 5-10



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
		 Ask how the brain controls so many things; how does it do it so quickly; what does it use? For example, how does our brain tell our hand to move when we wave it? Establish that the brain sends electrical messages around the body to control it using specialised cells called neurones. Slide 10 helps to illustrate this. 	science and some may be able to describe that the brain is made of neurones, which send electrical messages around the brain and body. In order to do this, they are long and branched.	
Key point 1 and 2 (Epilepsy and seizures)	2	 Read out Key point 1: In epilepsy, there is a problem with the electrical messages in the brain. Read out Key point 2: People with epilepsy experience sudden bursts of electricity in their brain- called a seizure. Seizures disrupt the way the brain works for a short time. Expand on this by saying that the disruption in the brain can change the person's behaviour (what they are doing) or what they are feeling. 		
What seizures look like – focal seizures and absence seizures	5	 Ask pupils to share ideas about what it might look like when someone has a seizure. Show slide 14 and explain that there are two groups of seizures— either focal seizures or generalised seizures. Say that the electrical bolt on the diagrams show disruption of electricity. Ask them to look at the 		Slides 13-16



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
_	_	diagrams and describe the difference between a focal and generalised seizure. Explain that in generalised seizures all of the brain becomes disrupted; however, during a focal seizure, only one small part of the brain is disrupted. Focal seizures: Tell pupils that you are going to look at what can happen to people during different types of focal seizures. Show slide 15 and explain that although only one part of the brain becomes disrupted during a focal seizure, any of the jobs this part normally controls (e.g. sight/movement/speech as discussed in the earlier activity) could become disrupted. Progress the presentation and ask what might happen to someone if the part of their brain that normally controls sight (green area-the occipital lobe) becomes disrupted? Take ideas. The person could experience temporary blindness, hallucinations or distorted vision. They're not choosing to do these things — it's happening automatically because electrical	o The names of the different areas of the brain are not required for understanding epilepsy at this level and they may confuse some pupils. However, you could read out the names of the different parts of the brain with pupils working at a higher level.	
		signals are disrupted during the seizure. It will take a few minutes for the brain to sort the disruption out and once it has, they will return to normal. The presentation gives further examples of what		



Key idea/activity	Time (mins)		Guidance	Differentiation	Resources
			happen during different types of focal es. Use the following for support:		
		Parietal (yellow)	This is responsible for sensory (or feeling) information (like touch, temperature, pressure, pain etc.) and orientation. A seizure in this area might result in a feeling like pins and needles or a feeling of warmth or numbness down one side of the body. It could make the person have a strange feeling in their stomach.		
		Temporal lobe	This controls speech, memory, smell, taste and hearing. What might happen to the person's speech during a seizure? Speech may become slurred; the person may be unable to speak or speak in a confused way, making no sense.		
		Frontal lobe (pink)	Amongst many things it controls movements, behaviour and attention. A seizure in this area might make the person walk around in a confused manner, pluck at their clothes or make strange facial expressions.		



Key Tin idea/activity (min	_	Guidance	Differentiation	Resources
		 Absence seizures: Reveal the slide showing the picture of the girl reading. Tell pupils that absences are a type of generalised seizure so the burst of electrical activity disrupts ALL of the brain (shown by the small diagram of the brain). Begin to describe an absence seizure as shown here but stop part way through to model how it looks and then continue as if nothing has happened: during an absence seizure, the person will suddenly freeze and stop what they are doing for a few seconds but will remain standing or sitting as they were before. Tell pupils that absence seizures (if not well controlled by medication) can happen many times in a day so they will miss lots of bits of information unless other people realise this is happening and help them catch up. They often are unaware that a seizure has happened. They might need your help to stay safe because they could stop suddenly in the middle of the road. Establish that absences are not the same as daydreaming, although it may look like it, the person is actually unconscious and will not respond to anything during this time. 		



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
Key point 3 (Medication)	1	 Read out Key point 3: Most people with epilepsy take medication everyday to help prevent seizures. This medication works well for 75% of people who take it. It is not a cure. It helps to prevent seizures, although they could still have one. Epilepsy medication may make the person feel tired and sick; it may also affect their behaviour by making it hard to concentrate or making them a bit grumpy. These side effects usually diminish once the person has been taking the medication for a while and their body has got used to it. 		Slide 17
Modelling a seizure in the brain	5	 Ask 4-5 pupils to stand in a line to represent parts of the brain and tell them that the bean bags will represent electrical messages. Explain that in people without epilepsy (or in people with epilepsy when they are not having a seizure), electrical messages are sent in a controlled way throughout the brain and body to make things happen when we want them to. Pass 4-5 bean bags, one at a time, down the line from pupil to pupil. The pupil at the end of the line should just collect them all or put them onto a chair/table, which represents the body. Explain that the message could have been about anything the brain controls (e.g. smell, movement and 	o Extension: Ask pupils to remind you what a seizure is – a burst of electrical activity- and then suddenly throw a large number of bean bags all at once along the line (be careful not to hurt pupils!). Ask them why they didn't catch any/many? Establish that sometimes so many messages are sent all at once during a seizure	Slide 18 Bean bags (approx 10)



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
		 speech) and needs to get to the correct part of the brain or body. Remind them that epilepsy is a problem with the electrical messages in the brain and that you are now going to demonstrate this with the bean bags. Tell them that they should not pick up any bean bags/messages that they drop. Pass the bean bags along very quickly and throw some directly to the 2nd or 3rd person in the row when they are not looking so that some of the bean bags are dropped on the floor. Ask pupils what happened to the messages and establish that they were sent too fast for the brain to handle. As a result, the messages have not got through and if the message had been about saying something the person might not be able to speak now or may speak in a confused manner. The brain now needs to sort out the disrupted messages and while it does this, it will not be able to work properly. Therefore, the person will only return to normal once the brain has sorted out the disruption. 	that the brain cannot cope and almost freezes. You could liken this to an absence seizure.	
What do seizures look like-Tonic clonic seizures	5	 Reveal the slide showing the illustration of a tonic clonic seizure. Like absences, this is a generalised seizure where the burst of electrical activity disrupts ALL of the brain. Has anyone seen someone have his type of seizure? If so, what did it look like? How long did it last? 		Slide 19



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
		 Explain that tonic means stiffening and clonic means shaking or convulsions. Firstly, the person becomes unconscious and then the electrical messages are sent out of the brain to all the muscles in the body at once, making them go stiff. Ask pupils to extend one arm up and clench their fist. The muscles go hard because our brains are sending electrical messages to our arm muscles. To stand normally we need a mixture of muscles being relaxed and stiff, but when all the muscles become stiff the person will lose their balance and fall over. Refer to the 'tonic' picture on the slide. It shows that the girl's muscles have stiffened over her entire body. The muscles then begin to relax and contract rhythmically, causing their body to shake. This is called the clonic phase. The person will not feel any pain during the seizure because of the disruption in the brain, but if they injure themselves by falling on hard ground or banging their head, arm or any other part of their body against a hard surface, they will feel it after the seizure has passed. Most tonic clonic seizures last no more than 2-3 minutes. 		



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
Seizure first aid – Do and Don't activity and seizure cartoon. Key point 4 (First aid)	15	 Read out Key point 4: During a seizure, we need to keep the person safe. DO or DON'T activity: Give each pupil or group a copy of the 'Epilepsy seizure first aid - DO or DON'T card sort' sheet. Ask pupils to cut out each of the cards and sort them into two piles - one containing pictures that show things you should DO to help someone who is having a seizure, and another for the pictures that show things you DON'T do. This activity is best done after pupils have learned about tonic clonic seizures, but before they have been given any first aid information. You could discuss each picture as a class using slides 22-31. If you have not got time for this sheet, there are two alternative sheets listed in the resources column. Alternatively, you could show slides 22-31 and ask pupils to vote DO or DON'T for each picture. For the answers to these activities please check the Secondary school teachers' guide. 	DO or DON'T: Some pupils may prefer to use the worksheet 'DO or DON'T' where they just have to write DO or DON'T against each picture Extension - pupils could be asked to give an explanation for their choices. Use the sheet called 'DO or DON'T and why?' for this.	Worksheet: Epilepsy seizure first aid- DO or DON'T card sort Optional worksheets: Epilepsy seizure first aid - DO or DON'T? Epilepsy seizure first aid - DO or DON'T? DON'T and why?



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
		Seizure cartoon: The seizure cartoon summarises the key points learnt about first aid. Instead of using it here, you could use it as the plenary. Display the first aid seizure cartoon. In groups, ask pupils to discuss what the people labelled 1-7 are doing to help the person having a seizure. Then take feedback from the class and reveal the labels around the cartoon picture. Pupils do not need to discuss this in groups if time is short.	Seizure cartoon: Pupils working at a lower level could be given a mini whiteboard and asked to write down the number of the person who is doing the activity you describe, such as: 'Which number shows the person timing the seizure?' Extension: Pupils working at a higher level could be asked to provide explanations for what the children in the cartoon are doing. There are also worksheets using the seizure first aid cartoon. These are listed in the resources column.	Optional worksheets: KS3 Blank seizure first aid cartoon. KS3 Seizure first aid cartoon-How to help. KS3 Seizure first aid cartoon- Cut and stick
Optional: Living with epilepsy – staying safe	5-10 mins	 OPTIONAL: Show the images of swimming, skateboarding and a concert. Ask pupils to think about what might happen if somebody had a seizure whilst doing these activities? 		Slides 33-37



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
Key point 5 (Inclusion)		Take feedback and discuss with pupils that sometimes people are so worried about keeping those with epilepsy safe that they think it is better they don't do things in case they get hurt. Sitting out safely in a nice comfy chair all day every day might be fun for a while, but the person will soon get bored and frustrated and miss doing things with their friends. Emphasise that ANYBODY doing these activities could have an accident – but we still do them! Young people with epilepsy are no different – they just have to ensure they take sensible safety precautions. • Ask pupils to discuss how we can ensure people with epilepsy (and those without epilepsy too!) are safe when they do these activities. Share ideas as a class and stress that somebody with epilepsy whose seizures are not well controlled should ideally have somebody with them, or nearby, when doing these activities, in case they have a seizure. As a guideline: • Swimming: Tell the life guard, do not go alone, and do not go at very busy periods. • Skateboarding: Wear a helmet and elbow/shin guards, do not go alone, skate on smooth surfaces. • Concert: Why have we shown this? Many pupils will have heard the warnings about flashing lights. Flashing lights are a trigger for SOME people's	Worksheets are available that look further into safety while doing activities and the psychosocial aspects of epilepsy. They are detailed in the resources column.	Optional worksheets: • KS3 Staying safe • KS3 Epilepsy problem page



Key idea/activity	Time (mins)	Guidance	Differentiation	Resources
		seizures (other triggers might be stress, tiredness and getting too hot). Triggers make seizures more likely to happen, they DO NOT cause them. Ask if you had 100 people with epilepsy, how many would be photosensitive? The answer is 5%. • Read out Key point 5: People with epilepsy can join in activities like everyone else. • Show the picture of Dai Greene, a hurdler who has won medals in the European and Common Wealth games and narrowly missed out on a bronze medal in the London 2012 Olympics. Dai was diagnosed with		
		epilepsy as a teenager. He has not let his epilepsy stop him from doing what he loves and being successful.		



Suggested plenary activities

Key idea/activity	Time	Activity	Differentiation	Resources
Recapping the Key points	5	 Ask pupils if they can remember the key points from the lesson? The pictures should help them but you could prompt their memory with the following hints: 1. Hint: What part of the body becomes disrupted/doesn't always work the way it should in epilepsy? Key point 1: In epilepsy, there is a problem with the electrical messages in the brain. 2. Hint: What can happen to the electricity in the brain in epilepsy; what this is called? Key point 2: People with epilepsy experience sudden bursts of electricity in the brain - called a seizure. Seizures disrupt the way the brain works for a short time. 3. Hint: How do you treat epilepsy? Key point 3: Most people with epilepsy take medication everyday to help prevent seizures. 4. Hint: What is our key job when someone has a seizure? 	 To help pupils, use the hints provided. The images can be used as visual clues to prompt pupil's memory. 	Slides 38-40



Key idea/activity	Time	Activity	Differentiation	Resources
		 Key point 4: During a seizure, we need to keep the person safe. 5. Hint: What did we discuss about young people With epilepsy doing normal activities? Key point 5: People with epilepsy can join in most activities just like everyone else. 		
Revisiting the 'Epilepsy is?' starter	5	 In groups, ask pupils to complete the sentence 'Epilepsy is' You do not need to have done this activity as the starter in order to use it as the plenary. However, if you did, it can be interesting to compare the before and after definitions. Ask some groups to feedback their ideas. 	 For inclusion of pupils who find writing, or a discussion such as this a challenge, put pupils in mixed ability groups and request that only one pupil writes the group's definition down. Alternatively, groups could just discuss their ideas verbally and the teacher could list their ideas on the board. Extension: Pupils could do a spider gram or a list of epilepsy facts. 	



Key idea/activity	Time	Activity	Differentiation	Resources
Seizure cartoon – first aid summary	5	This could be used as the plenary if not covered in the lesson. Display the first aid seizure cartoon. In groups, ask pupils to discuss what the people labelled 1-7 are doing to help the person having a seizure. Then take feedback and reveal the labels around the cartoon picture. If short of time, pupils do not need to discuss their ideas, they could just put up their hands as part of a class discussion.	 Pupils working at a lower level could be given a mini whiteboard and asked to write down the number of the person who is doing the activity you describe, such as: 'Which number shows the person timing the seizure?' Extension: Pupils working at a higher level could be asked to provide explanations for what the children in the cartoon are doing. There are also worksheets using the seizure first aid cartoon. These are listed in the resources column. 	Slide 32 Optional worksheets: KS3 Blank seizure first aid cartoon KS3 Seizure first aid cartoon - How to help KS3 Seizure first aid cartoon - Cut and stick
Splat – Keyword and ideas game	5	 Display key words and phrases from the lesson randomly on the board. In this activity, 2 pupils stand either side of the whiteboard with their backs to it so that they are facing the class. 	 This activity enables you to assess the learning of the pupils at the board and of the pupils formulating and asking 	



Key Time idea/activity	Activity	Differentiation	Resources
	 Pupils sitting down must think of questions about the lesson that fit ONE of the answers on the board. Once pupils have thought of appropriate questions, they can put up their hands and the teacher selects one of them to ask the question (e.g. name one thing you should do when someone has a seizure?) Once the question has been asked, the 2 pupils at the board can turn around and look at the key words and phrases. It is then a competition to see who is the quickest at finding the word and touching it with their hand (i.e. the fastest to 'splat' it). The pupil who is the quickest stays by the board, whilst the other swaps places with the pupil who asked the question. Another question can then be asked. This can continue for as long as you want it to. Splat suggested key words: Brain, Seizure, Neurone, Electricity, Disrupted, Absence, Focal, Tonic clonic, Medication, Time the seizure, Restrict their movements, After 5 minutes, Dai Greene, Confused speech, Stiffen, Shake, Lifeguard, Photosensitive. 	the questions (they need to be able to think of a question to which they know the answer!) It is an open-ended activity and pupils will therefore ask questions that reflect the level and depth of their understanding. • Extension: Ask pupils to think of the keywords and phrases themselves.	