

CRIME SEEN?



Epilepsy
Scotland

Learning outcomes

- Increased knowledge of epilepsy
- Introduction to some associated conditions
- An increased awareness of learning disability
- Always expect the unexpected

Tony



What is epilepsy?

A tendency to have recurrent seizures
that
originate in the brain

Seizures

- The public generally think that epilepsy is either:
 - “Grand Mal” (fall to the ground stiffly then shake violently)
 - OR
 - “Petit Mal” (brief episodes of staring)
- These are two examples of the **over 40 types** of seizures or syndromes associated with epilepsy
- Seizure types depend on:
 - Where the disturbance starts** in the brain
 - How quickly it spreads**
 - How far it spreads**

Partial (Focal) Seizures

- **Simple Partial**

Only a small area of the brain is affected (might act as a seizure warning or “aura”)

There is **no loss of awareness** and it is **remembered** afterwards

- **Complex Partial**

A larger area of the brain is affected

Automatisms – purposeless, automatic and involuntary movements

Activity is performed **without conscious awareness** and is **not remembered** afterwards

Generalised Seizures

- The whole of the brain is affected
- There will always be some loss of consciousness
- There are different forms of generalised seizures
- Regardless of the type of seizure there can be a temporary effect on:
 - behaviour
 - motor function
 - consciousness
 - emotion
 - perception

Lobes of the Brain - Frontal

Plays an integral role in the following functions/actions:

- Memory Formation
- Control of Emotions
- Planning
- Concentration
- Decision-making/Reasoning
- Personality

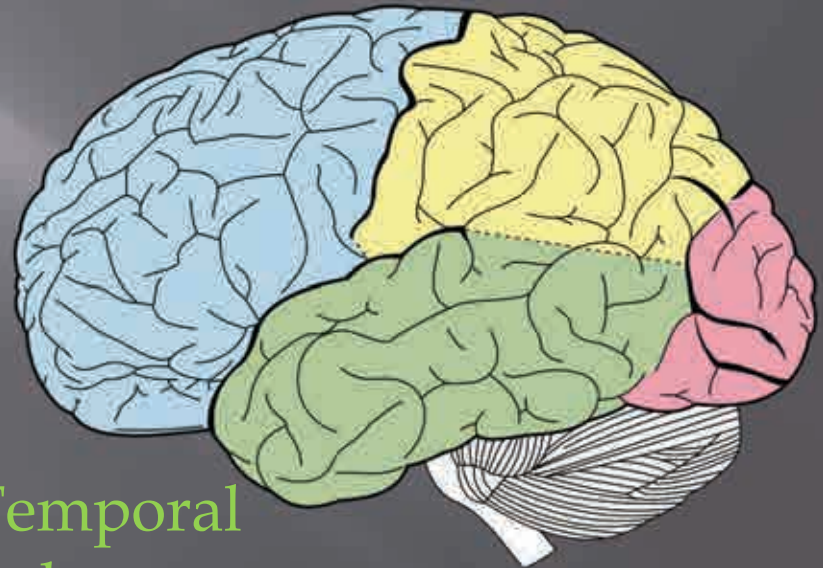
Frontal
Lobe



Lobes of the Brain - Frontal

Plays an integral role in the following functions/actions:

Memory (Long/ Short Term)
Control of Emotions
Information Retrieval
Language (comprehension)



Temporal
Lobe

How common is epilepsy?

- It is **one of the most common** serious neurological conditions in the world
- It can affect anyone at any time – more common in the young and commonest in those over 65 years old due to brain changes
- On average, **one person in every 100** has epilepsy
- Estimates suggest around **50 million people worldwide** have epilepsy. There are around **6 million** people with epilepsy in Europe
- 20 – 50% of people with a learning disability will also have epilepsy.

Possible Causes

- Unknown (majority of cases)
- Malformation of the brain
- Birth injury e.g. cerebral palsy
- Infection e.g. meningitis
- Trauma e.g. road traffic or sporting injury
- Drug/alcohol abuse
- Stroke
- Dementia
- Tumour



What is an Automatism?

- Occurs during (ictal) or after (post-ictal) a seizure
- **Purposeless, automatic and involuntary** movements during a seizure, such as chewing, lip-smacking, picking at clothing or wandering around confused; may occur during or after complex partial and absence seizures
- Performed **without conscious awareness** and followed by complete **amnesia**
- The continuum of amnesia and being “responsible” for one’s actions:
 - Mental Automatism (**insane**) – **epilepsy**.
 - Non-Mental Automatism (sane) – hypoglycaemia (diabetes), sleep walking.

Types of “offences” encountered

- Resisting paramedics on entering an ambulance
- Resisting police
- Urinating in public
- Removing clothing in public
- Being aggressive in a shop
- Sitting in a taxi refusing to pay the fare
- Walking up and down the aisle of an aeroplane refusing to fasten a seat belt.

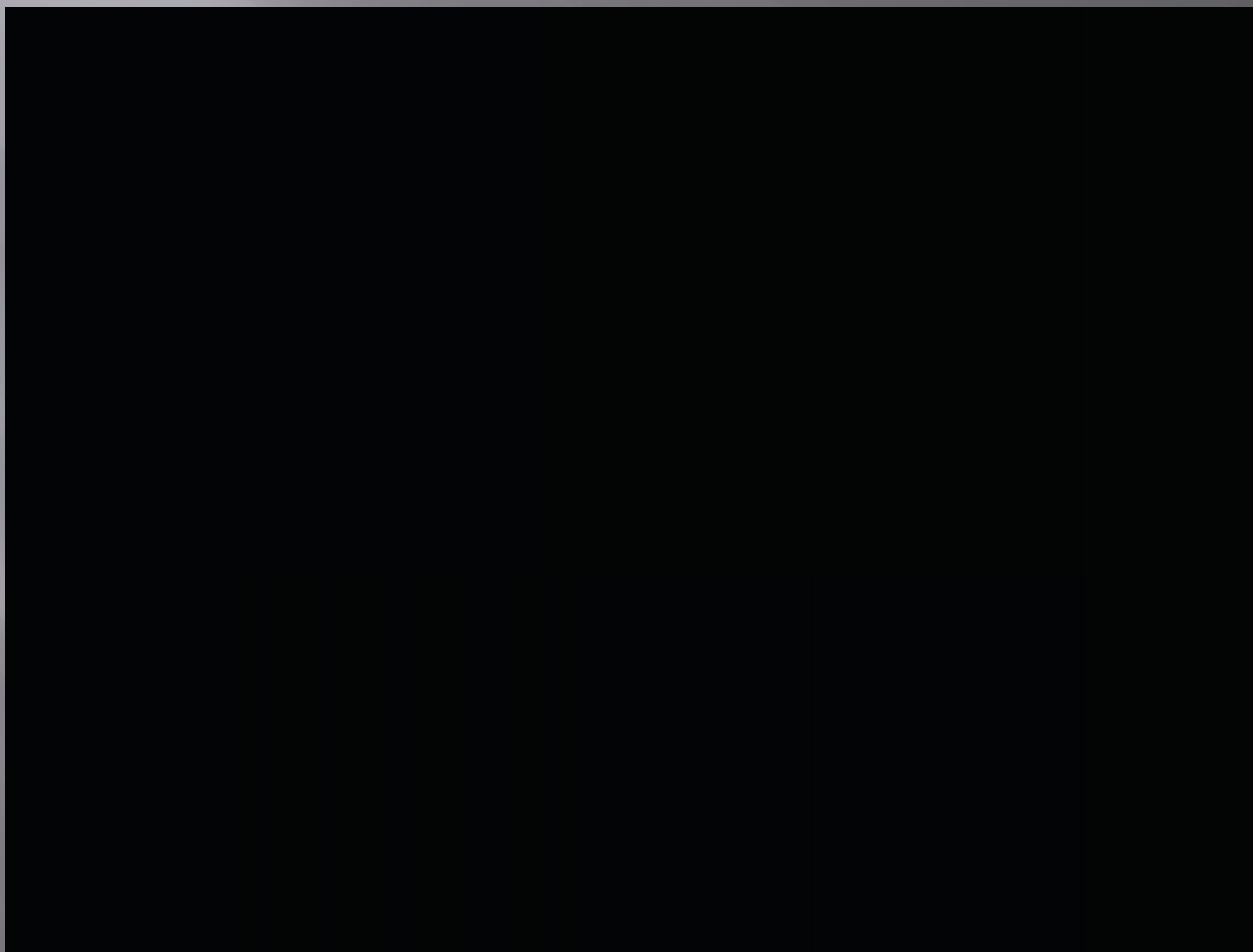
The Bank Manager

- 56 yr old
- History of complex partial seizures
- Goes into Dept Store
- Comes out with shoes (size 11)-own size 8
- Arrested for shoplifting
- Found guilty
- Suspended sentence/ dismissed from job.

Queen Street Station

- 52 year old baker with history of temporal lobe epilepsy
- Returning from funeral on train from Falkirk
- Gets off at Queen Street Station
- Seen walking down platform undoing his trousers and exposing himself and makes “thrusting” movements
- “Comes to” in police van – handcuffed
- Charged with indecent behaviour
- Found guilty
- Suicide.

Anthony



Seizures & Sexual Phenomena

Can occur during (ictal) or after (post-ictal) a seizure

- Pleasant sensations or paresthesia in the genitals
- Pain in the genitals
- Penile erection (transient priapism)
- Orgasm in both males and females
- Rhythmic contractions of the pelvic muscles
- Compulsive masturbation
- Undressing.

Sexual Automatism in Complex Partial Seizures.

Spencer et al

Neurology. 1983 May;33(5):527-33

- **Ictal sexual automatisms** :masturbatory activity, pelvic thrusting, or similar automatisms for which the patient is amnesic have been attributed to temporal lobe disease
- Of 61 patients with medically refractory complex partial seizures, 14 had frontal lobe seizure foci
- 4 of these patients manifested sexual automatisms in some or all of their seizures.

Genital Automatisms

Can occur during (ictal) or after (post-ictal) a seizure

- Scratching
- Rubbing
- Grabbing

Seizures & Aggressive Behaviour

Aggression during an automatism or other seizure activity is **possible, but unlikely**

There is conflicting research evidence

- Directed violence could be the automatism of a complex partial seizure
- Rage associated with seizure activity in limbic system
- Directed violence can occur during the post-seizure confusional state (Kanemato et al, 1999)
- Feelings of anger, leading to an altered physical state, may trigger a seizure, ie anger is the cause rather than the consequence of a seizure.

Seizures & Aggressive Behaviour Cont.

- Acquired brain injury may cause disinhibition or increase emotional lability depending on where the injury is located (epilepsy can also result from ABI)
- Damage to the frontal or temporal lobes could disrupt the disinhibiting influences on the brain areas associated with emotional perception and expression.
- Prisoners who have epilepsy show no difference in the kind of violent behaviour they exhibit compared with prisoners who do not have epilepsy.

(From "Epilepsy and Behaviour" in "Behavioural Neurology", Pincus, JH and Tucker, GJ, Oxford University Press, 2003)

Questions to ask

1. Does the person have a history of epilepsy with automatisms?
2. Are there any signs of premeditation, planning or preparation?
3. Was the behaviour directed over a period of time?
4. Were complicated and organised activities performed during the episode?

Questions to ask

5. Can the person recall the episode?
6. Did any witnesses see anything to indicate that the person's consciousness was impaired?
7. Did the person try to escape or conceal the episode afterwards?

Consequences of being charged

- Increasing anxiety
- Worsening seizure control
- Loss of control and self esteem
- Being “criminalised”
- Worsening job prospects (a change in employment is impossible with a pending court appearance)
- Family conflict
- Depression and risk of suicide

Persons with temporal lobe epilepsy have 25 times greater risk of suicide than age matched controls* - 10 times greater than the risk of SUDEP (Sudden Unexplained Death in Epilepsy)

*Christensen J et al Epilepsy and risk of suicide: a population-based case-control study Lancet neurology 6(8) August 2007, Pages 693-698

FEARS

- Isolation
- Unpredictable seizure activity
- Injury or death
- Arrest
- Bullying
- Perceptions and stigma
- Not achieving or pleasing
- Vulnerability

James



FEARS



FREAKS

- “It happened to me a couple of times when people have just looked at you and walked by calling you a drunk or a junkie....”
- “We had a family shouting at our door and telling us our daughter, 2 at the time, is a spastic and shouldn't be around other kids or allowed out.”
- “A number of years ago I had a seizure outside and when I regained consciousness someone had stolen my money, my jacket and my shoes. This was in a public park.....despicable behaviour.”
- “People move away from you on buses and don't say anything but stare. That can be pretty hurtful.”
- “A stupid woman made comments about me being drunk in the supermarket. I hate it when you have a seizure in a crowded places; it knocks your confidence away again.”
- “Following a seizure on a bus a woman called me a freak and stated that people like me should be locked away.”
- “I had a seizure outside Glasgow Central whilst Christmas shopping. Some lovely people stopped and helped me. I was out of it but I was told when I came round that a young guy grabbed my shopping bags and ran off with them. Apparently people chased after them however they got away. This all happened whilst I was in the middle of the seizure on Gordon Street.

Learning Disability

- Epilepsy can affect anyone at any time
- Epilepsy is more common in people with learning disabilities (PWLD)
- The greater the brain damage the higher the likelihood of seizures

Mild LD (about 5%) Profound LD (over 50%)

- About 30% of people with autism have epilepsy
- PWLD are more likely to experience:
 - A range of seizure types
 - More difficult to control epilepsy

Top 5 emotional difficulties of people with learning disabilities

- Shame
- Fear
- Environmental and emotional sensitivity
- Emotional regulation
- Difficulty adjusting to change

A Quick Memory Test

Text will be displayed

You will have 45 seconds to read it

Afterwards, write down as much as you can remember

It's an easy test!!

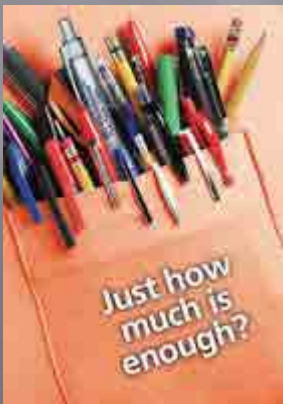


With hocked gems financing him, our hero bravely defied all scornful laughter that tried to prevent his scheme. “Your eyes deceive,” he had said, “An egg not a table correctly typifies this unexplored planet.” Now three sturdy sisters sought proof. Forging along, sometimes through calm vastness, yet more often over turbulent peaks and valleys, days became weeks as many doubters spread fearful rumours about the edge. At last, from nowhere, welcome winged creatures appeared, signifying momentous success.

CHRISTOPHER COLUMBUS DISCOVERS AMERICA

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The Unexpected



Remember

- Epilepsy is not simply seizures. It can be, and often is, a complex package of related issues that cannot and should not be seen in isolation.
- Very often epilepsy is associated with moderate to severe learning disabilities.
- Many will accept what is happening to them as normal and routine and behave accordingly.
- Many will have a poor understanding of cause and effect.

Lionel

