Prifysgol Cymru
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University of Wales
Trinity Saint David

- BSc (Hons) Health and Social Care Level 5
- Module: Introduction to Physiology (BMHP5003)
- Poster Presentation: Cardiovascular disease: STROKE
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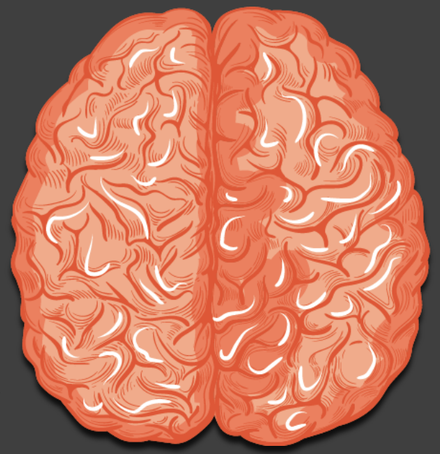
CARDIOVASCULAR DISEASE : STROKE

Understanding Stroke!

What is Stroke?

- A stroke is a severe life-threatening medical disease that occurs when a portion of the brain's blood supply is cut off. Our brain cells are unable to get the oxygen and nutrients they need from the blood and die within a few minutes.
- This may result in long-term brain damage, incapacity, or death. Strokes are a life-threatening medical emergency that need prompt care (NHS, 2021)



Types of Strokes

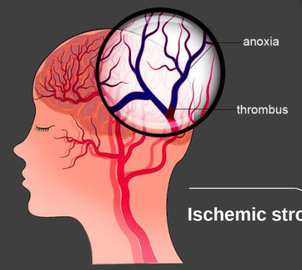
There are two kinds of strokes:

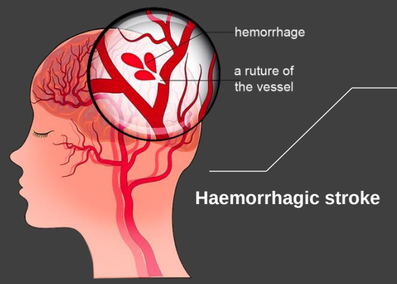
• **Ischemic stroke**

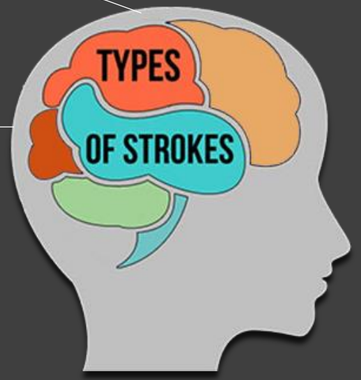
occurs when a blood clot clogs or plugs a blood artery in the brain. This is the most frequent kind; about 80% of strokes are ischemic.

• **Haemorrhagic stroke**

occurs when a blood artery ruptures and bleeds into the brain. (Medlineplus.gov, 2021)







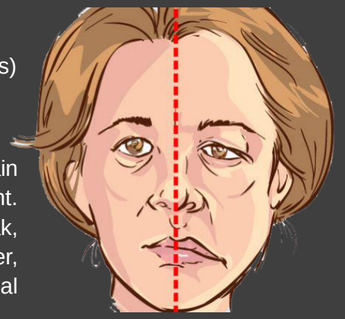
Physiology

The effects of stroke vary from person to person based on the type, severity, location and number of strokes.

The brain is divided into 3 main areas:

- Cerebrum (right and left sides or hemispheres)
- Cerebellum (top and front of the brain)
- Brainstem (base of the brain)

Depending on which of these regions of the brain the stroke occurs, the effects may be very different. A stroke may limit Ones capacity to move, speak, eat, think and recall, control the bowel and bladder, control our emotions, and control other critical bodily processes. (Hopkinsmedicine, 2021)



Risk factor

Stroke risk factors that may be altered, treated, or controlled medically include Blood pressure that is too high. Heart disease. Diabetes. Smoking. Pills for birth control (oral contraceptives) TIAs, have a long history (transient ischemic attacks).The number of red blood cells in our body is abnormally high. High levels of cholesterol and lipids in the blood. Lack of physical activity. Obesity. Excessive alcohol consumption. Unchangeable stroke risk factors include Age, race, and gender, as well as a history of previous strokes, all have a role. People with a family history of stroke have a higher risk of having a stroke. (Hopkinsmedicine, 2021)

Case study: Patient A

According to the lifestyle questionnaire completed on patient A, she is 48 years old, female, has high blood pressure, 180/90, weight 86kg while her height is 165cm, BMI calculation result (31.5) indicates that she is obese, she smokes, drinks, and eats fast food without any type of exercise. Hypertension, diabetes, high LDL cholesterol, and heart disease are all major risk factors for stroke. Patient A is more likely to develop at least either of these diseases because she is overweight. (Heidi Moawad, 2021)

Interventions

The patient may use her BMI result to have a conversation with her primary care physician about her weight and overall health. Exercising for the majority of weekdays. The most effective method of lowering blood pressure is via exercise. Consuming a sodium-reduced diet. Excess sodium (or salt) raises blood pressure. Limiting alcohol consumption. Prioritizing stress reduction. (NHS, 2021)

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F - Face drooping.
A - Arm weakness.
S - Speech difficulty.
T - Time to call 911. (NHS, 2021)