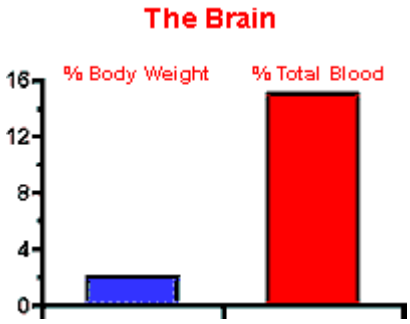
Communication, Teamwork and Collaboration Activity

Extra Materials 1: The Blood Vessels of the Brain

Source: http://faculty.washington.edu/chudler/vessel.html

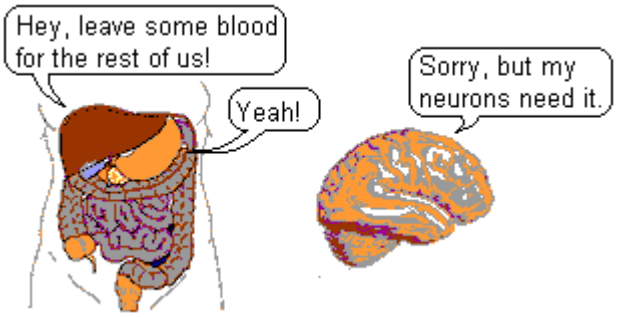
Either direct mentees to the source link, or provide them with the below information:

The Blood Supply of the Brain

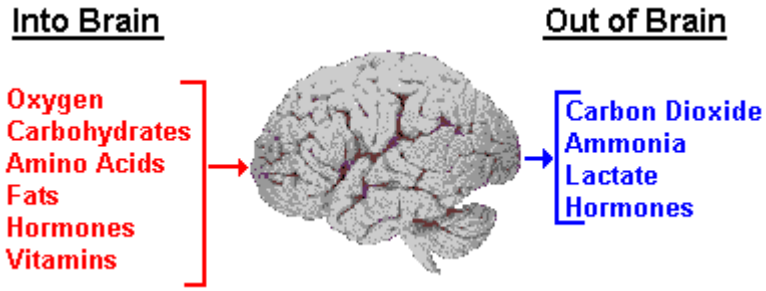


Food and oxygen are carried to the brain by many blood vessels. These vessels are found on the surface of the brain and deep within the brain. The blood vessels (and nerves) enter the brain through holes in the skull called foramina

Although the brain is only about 2% of the total body weight in humans, it receives 15-20% of the body's blood supply. Because brain cells will die if the supply of blood which carries oxygen is stopped, the brain has top priority for the blood. Even if other organs need blood, the body attempts to supply the brain with a constant flow of blood.

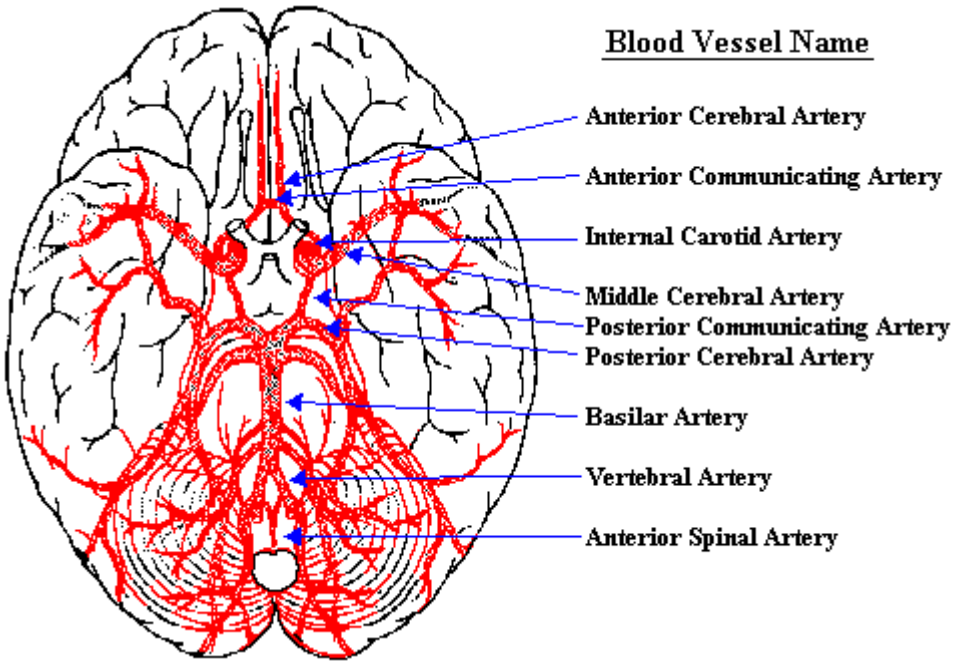


The blood brings many materials necessary for the brain to function properly. The blood also removes materials from the brain.



Blood is supplied to the entire brain by 2 pairs of arteries: the internal carotid arteries and vertebral arteries. As you can see in the figure below, the right and left vertebral arteries come together at the base of the brain to form a single basilar artery. The basilar artery joins the blood supply of the internal carotid arteries in a ring at the base of the brain. This ring of arteries is called the **circle of Willis**. The circle of Willis provides a safety mechanism...if one of the arteries gets blocked, the "circle" will still provide the brain with blood.

Base of the Brain



Only some of the vessels that exist in a real brain have been labelled.