

Blood Clots, Polymers and Strokes Worksheet **Answers**

1. Explain the relationship between a monomer and a polymer.
A polymer is made of multiple monomer units.
2. How and why are blood clots formed?
Blood clots are formed when damaged vessels release proteins leading to coagulation, platelet accumulation, and polymerization of fibrin.
Blood clots are formed to prevent blood loss from damaged vessels.
3. List three ways that a blood vessel can be blocked.
 - 1) A blood clot that breaks off a vessel wall and then gets stuck
 - 2) A build-up of plaque on a vessel wall
 - 3) An abnormally growing blood clot in a vessel (thrombosis)
4. What is a stroke and why is it harmful?
A stroke is the loss of brain function caused by an interruption of blood supply to the brain. It is harmful because it causes brain tissue to die, inhibiting the body's ability to function.

5. Match the following with their definitions/functions.

embolism	Clot blocking blood flow to the brain.
thrombosis	Tool inserted into a blocked vessel in order to suck out a clot.
ischemic stroke	Device inserted into a blocked vessel in order to pull out a clot.
hemorrhagic stroke	An object that travels through vessels and prevents blood flow.
Merci Retrieval System	Bleeding in the brain.
Penumbra System	An abnormally growing clot that cuts off blood flow.

6. A person has a stroke and then has difficulty speaking.
The stroke likely occurred in the cerebrum.
7. A person has a stroke and then has difficulty writing.
The stroke likely occurred in the cerebellum.
8. A person has a lethal stroke.
The stroke likely occurred in the brain stem.