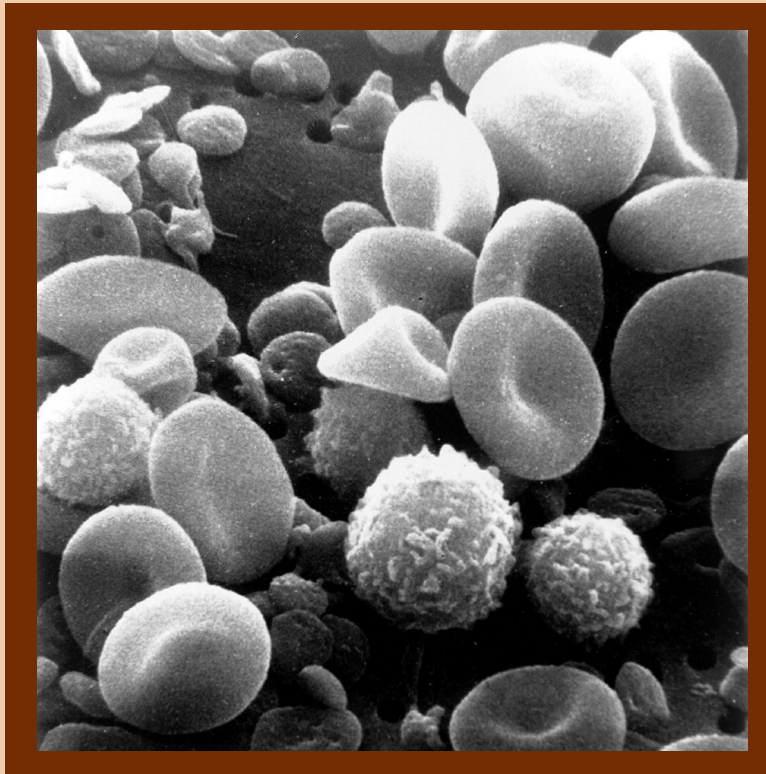


Platelets

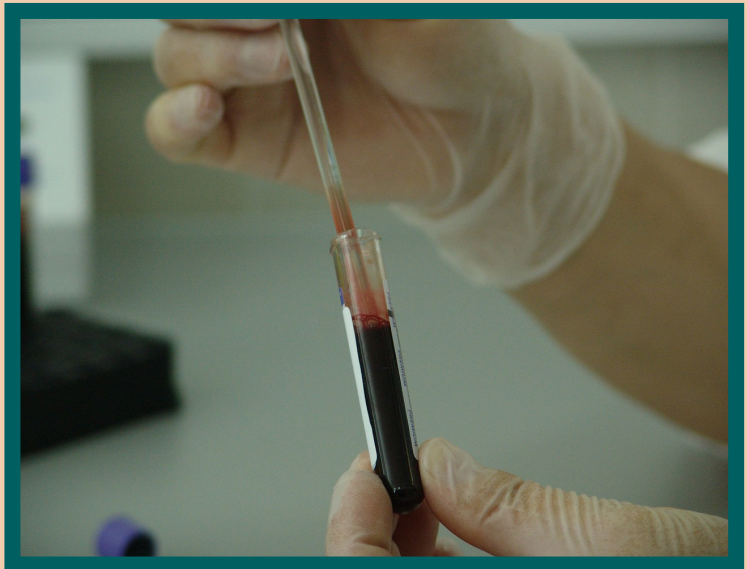


Platelets

**Do you need an idea for a scientific study?
Try out one of our ideas or make one of your own.**

Start learning right now about platelets found in blood. Take the following brief quiz to see how much you already know about blood platelets. See the bottom of page 4 to check your answers.

1. What is the name of the cells found in large bone marrow that produces blood platelets?
 - a. megakaryocytes
 - b. kilokaryocytes
 - c. megaplatcytes
 - d. kiloplatcytes
2. About how long is the shelf life of blood platelets given by a donor?
 - a. 5 days
 - b. 14 days
 - c. 1 month
 - d. 3 months
3. About how long does it take a person to make a typical donation of blood platelets?
 - a. 5 minutes
 - b. 30 minutes
 - c. 90 minutes
 - d. 240 minutes
4. What is the minimum time between donations that a person can safely donate blood platelets?
 - a. every 2-3 days
 - b. every week
 - c. every 2 weeks
 - d. every 2 months
5. Platelet donors *cannot* consume aspirin for the two days prior to their platelet donation.
 - a. true
 - b. false



Platelets: Parts of a Whole Blood

Platelets are one part of human blood, just as letters are a necessary component of words. Each space below represents one letter. As you move down the puzzle, each lower word has one letter added to the previous term; however, the order of the letters have been rearranged. Step 7 has been completed for you. Please see the bottom of page 4 to check your answers.

Hint

“Advanced placement”

Tree “blood”

Previously

Viscous adhesive

Light color

Holds freight

Kenye’s “old” clothing line

Clotting agent

Terms

P A S T E L L E



Platelets

Artificial Platelets

Medical staff out in the fields treating patients involved in automobile wrecks, power tool accidents, and battlefield injuries may have a new tool to help save lives; artificial blood platelets (ABPs). The newest version of ABPs are made of freeze-dried materials than can be directly injected into a patient to reduce clotting time by 30% and blood loss by a whopping 40%.

The ABP injection provides a boost of blood platelets that circulate through the patient's body. When the platelets eventually reach the wound site, natural proteins stimulated by the injury to the patient's body "turn on" the platelets to do their work and reduce the bleeding. This action is very important for two reasons. First, medical personnel would not need to know exactly where the patient's injury was located. This would be ideal in the case of internal injuries. Second, since the platelets won't begin to work until turned on by the injury-site proteins, the ABPs would not form dangerous clots in the patient's blood stream prior to reaching the injured area. Many times blood clots can be fatal if they occur in the heart, lungs, or brain of the patient.



Researchers are investigating how long these ABPs can last in the human body before they are rendered ineffective. If ABPs can be made that last for days or even weeks, soldiers could take injections of ABPs before entering a battlefield and have a greater chance of survival if they are faced with a traumatic injury.

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Answers: Page 2 Answers: (1) a, (2) a, (3) c, (4) c, (5) a. Page 3 Answers: Parts of a Whole Blood : (2) AP, (3) SAP, (4) PAST, (5) PASTE, (6) PASTEL, (7) PALLETS (8) PASTELLE, (9) PLATELETS.

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