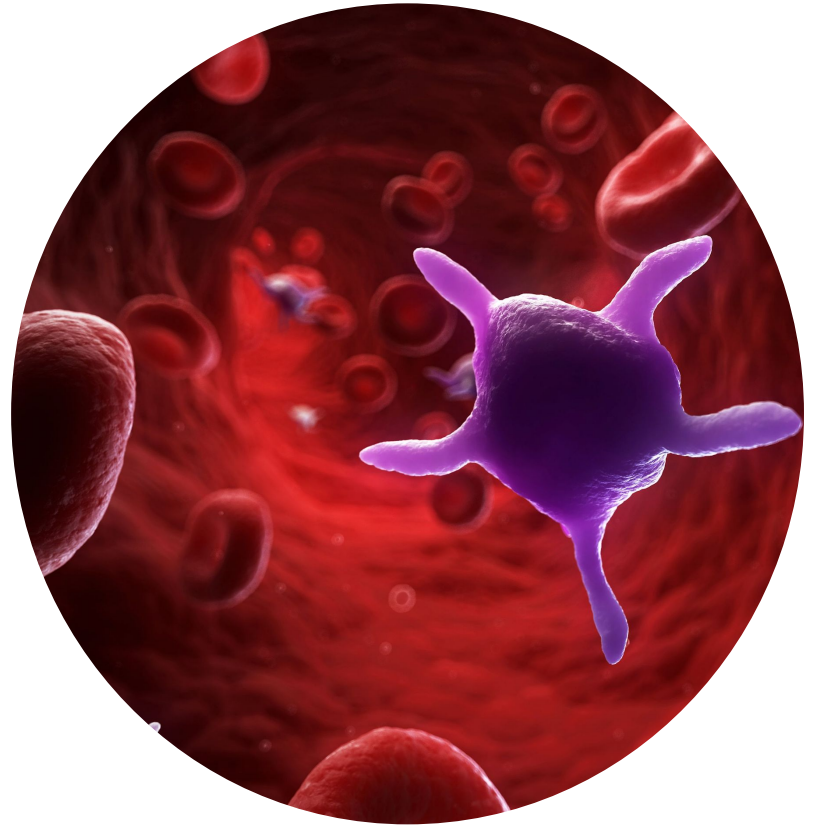


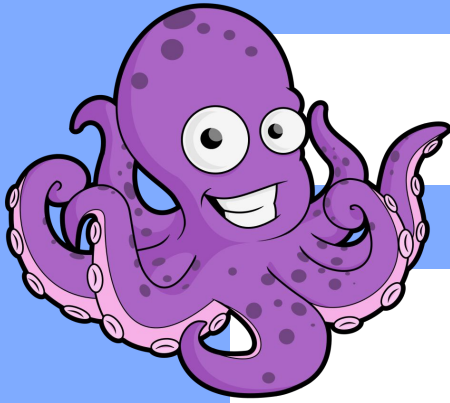
Understanding

# **PLATELET MORPHOLOGY**

# Their Purpose

TO CLOT  
BLOOD TO  
STOP  
BLEEDING





## What makes them change shape?

They're literally shaped like small plates in their non-active form. A blood vessel will send out a signal when it becomes damaged. When platelets receive that signal, they'll respond by traveling to the area and transforming into their "active" formation. To make contact with the broken blood vessel, platelets grow long tentacles and then resemble a spider or an octopus.

**>200,000**

Is a normal platelet count

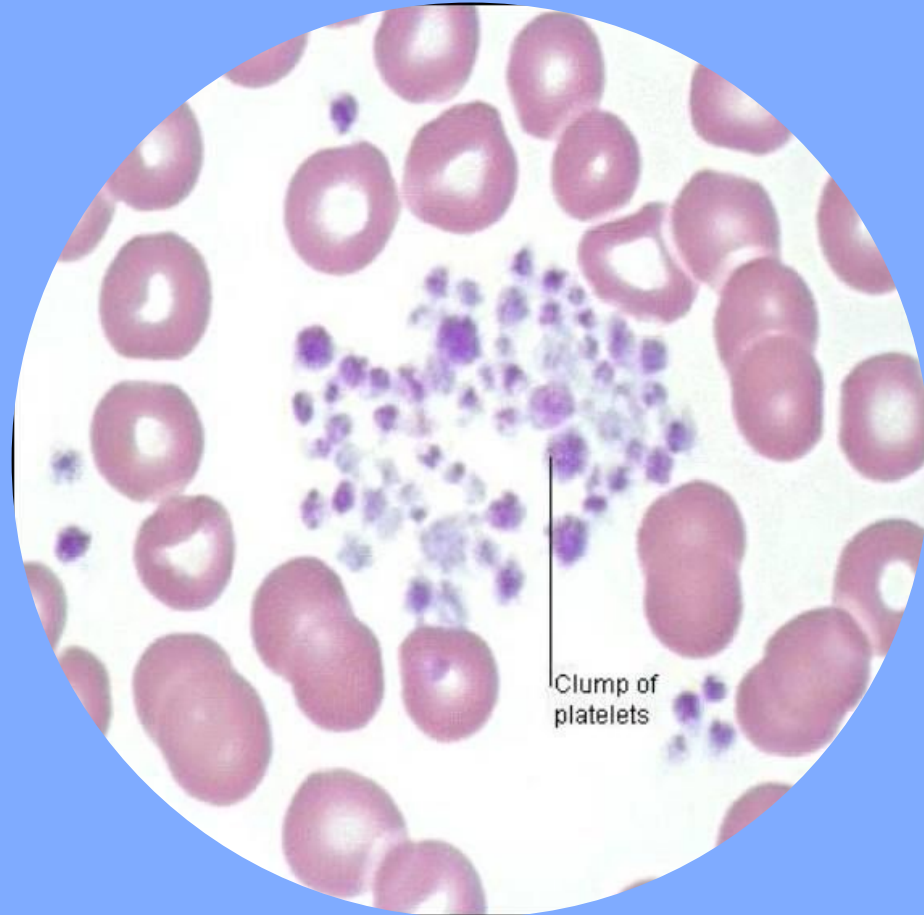
# Platelet Clumping

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Can be due to a bad stick when drawing the blood

Can also be due to EDTA

Sometimes the machine will miss these if they clump to the side

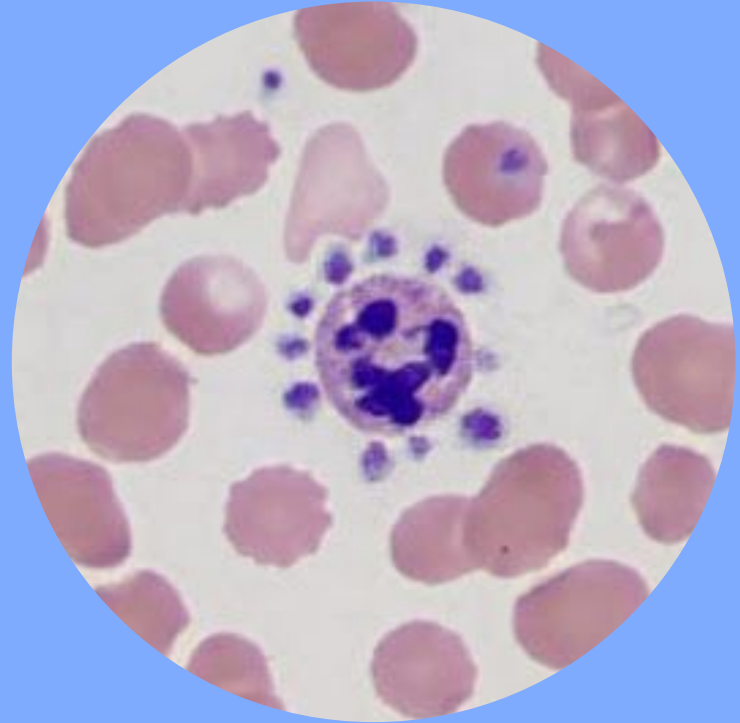


# Satellite Platelets

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Can also be due to EDTA

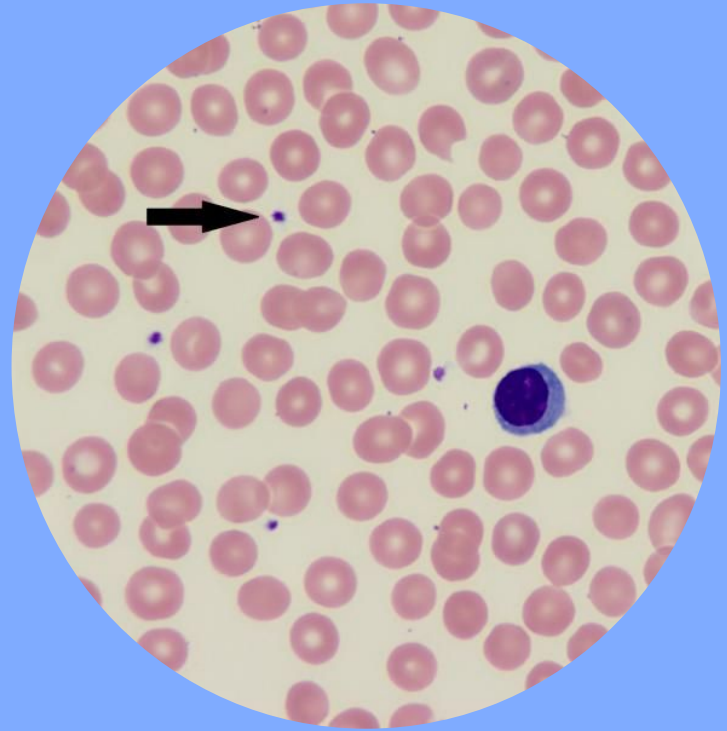
Careful, Machines will read this as part of the WBC instead of platelets



# Microplatelets

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Can be early signs of ITP in some cases, but not always



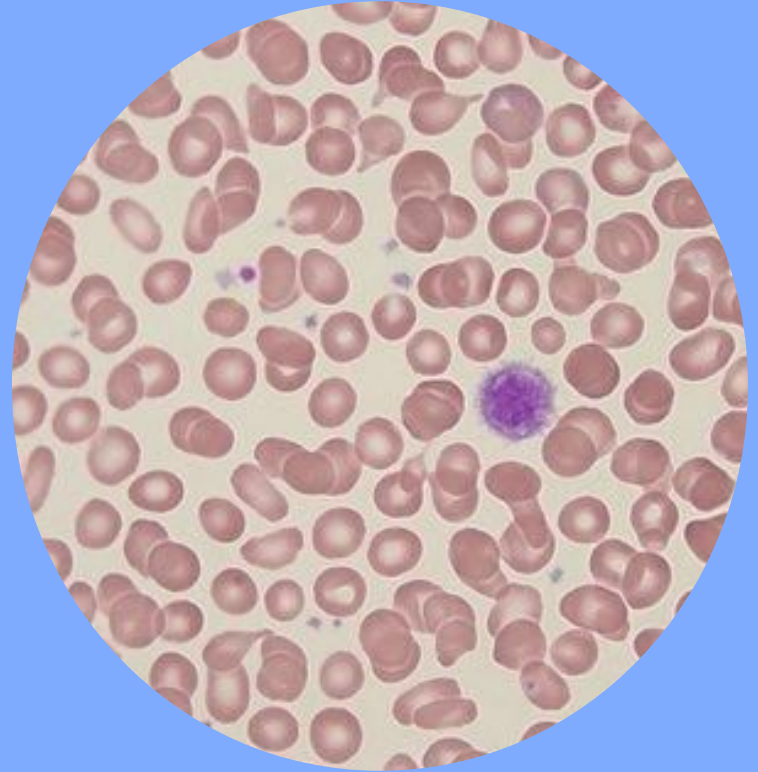
# Macroplatelets

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Larger than a normal red blood cell

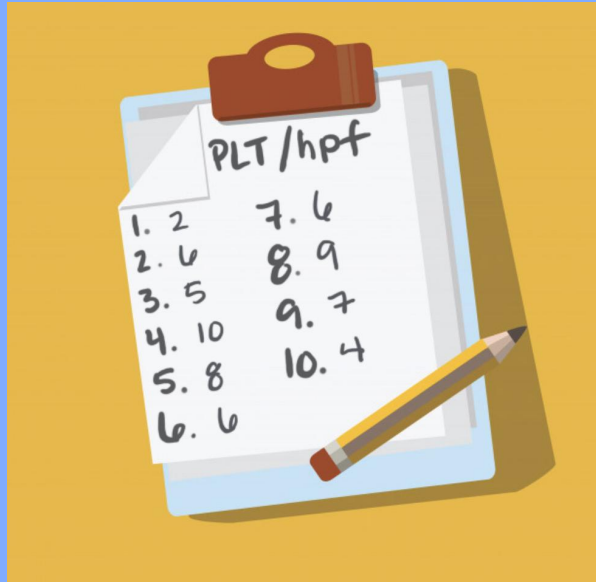
Can be from an autoimmune disorder

Machines can falsely read these as WBCs





# Manual PLT Count



Number a paper 1-10. While looking through the microscope on 100x lens count how many PLTs you see in the field. Write the next to number 1. Repeat the step 9 more times with a new field each time.

Step 1: Add it All Up

$$2 + 6 + 5 + 10 + 8 + 6 + 6 + 9 + 7 + 4 = 63$$

Step 2: Find the Average

$$63 \text{ platelets} \div 10 \text{ fields} = 6.3$$

Step 3: Multiply by 15,000

$$6.3 \times 15,000 = \underline{\underline{94,500}}$$

↑  
That's Your Count!

# Thanks!

Does anyone have any questions?

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