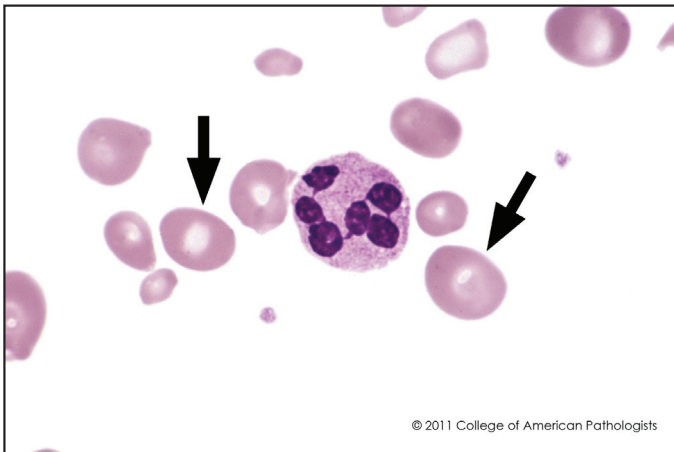




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Macrocyte, Oval or Round (Excluding Polychromatophilic Red Blood Cell):

Appearance: Abnormally large round or oval red cell. Best detected by comparing to other red cells in a smear in the context of the MCV.

Size: Volume >100 fL, diameter >8.5 μm .

Special features: Hemoglobin concentration is normal. Cell lacks significant polychromasia. Round macrocytes are associated with reticulocytosis, liver disease, hypothyroidism, and post-splenectomy states. Oval macrocytes are associated with vitamin B12 or folate deficiency. Abnormal red cell maturation in myelodysplastic syndromes or chemotherapy may also cause oval macrocytosis.

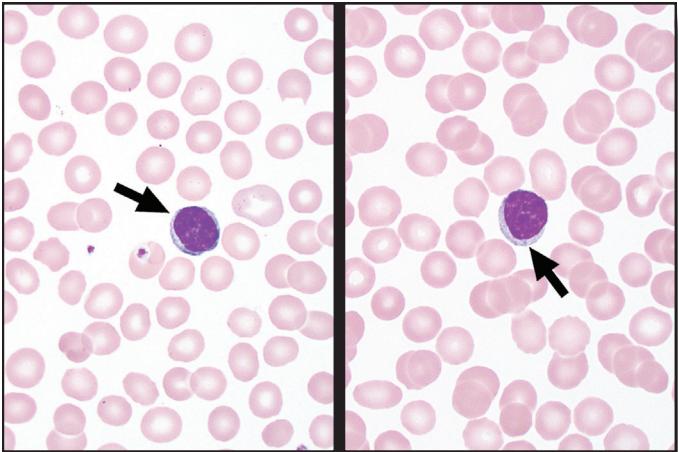


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Hemoglobin C Crystal:

Appearance: Rhomboidal-, tetragonal-, or rod-shaped dense structures within red cells that often distort the cell and project beyond its rim.

Special features: Crystals are often surrounded partly by a clear area or blister devoid of hemoglobin. Readily seen in patients with hemoglobin C disease, especially after splenectomy, or rarely in SC disease.

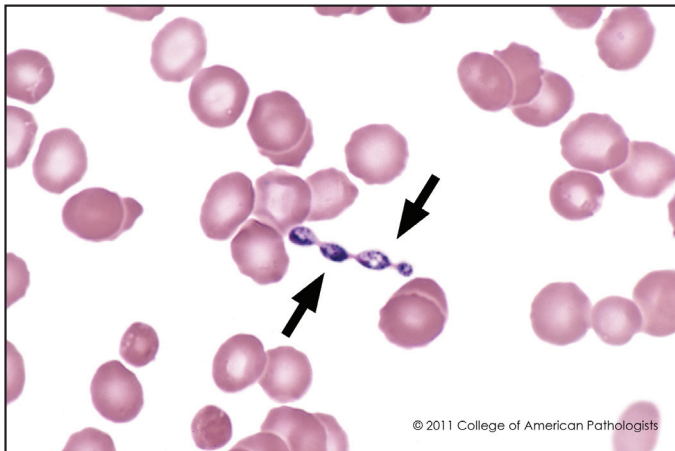


Lymphocyte:

Appearance: Small, round to ovoid cell with scant amount of pale blue to moderately basophilic, agranular cytoplasm. Chromatin is diffusely dense and coarse or clumped. Nucleoli are not visible, though some cells may have a pale chromocenter that can resemble a nucleolus.

Size: 7–15 μm in diameter;
N:C ratio = 5:1 to 2:1.

Special features: Lymphocytes may be increased in some acute infections (pertussis, typhoid fever, mycoplasma), viral illnesses, drug reactions, and endocrine disorders (eg, thyrotoxicosis).



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Fungi:

Appearance: The appearance is dependent on the specific fungal organism. The most common fungus encountered in a blood smear (although still quite rare) is *Histoplasma capsulatum*, which are small 1–2 μm extracellular budding yeast; they are typically intracellular in blood smears. Other organisms that may rarely be seen include *Coccidioides*, *Cryptococcus*, *Candida*, and *Aspergillus* species.