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ID#, Course  
Number/Title,  
Unit Number &  
Date.

GED102 The Human Body

Unit # 3

Restate the  
question in  
**bold font**

**Question # 1: List and describe the structure of the two major classifications of leukocytes.**

A leukocyte is a white blood cell. There are billions working within our bodies, circulating within our veins. Leukocytes are divided into two major categories: granulocytes and agranulocytes.

Both have specific purposes and are designed to carry out their function. Now, let's take a deeper look into the two classifications of leukocytes. The first classification of white blood cells is called granulocytes. These types of cells are granules that contain white blood cells. Granulocytes have a distinctive shape to them. Contained within them are multiple round nuclear parts that are connected by small strands of nuclear material. One indicator of these kinds of cells is that they stain easily when introduced to Wright's Stain. Granulocytes are made up of specific materials: neutrophils, eosinophils and basophiles.

The second classification of leukocytes of white blood cells is called agranulocytes. These cells are distinguishable as they contain visible granules of cytoplasm. The distinctive shape agranulocytes have is that the nuclei are spherical and the cells are kidney shaped. These cells are not easily stained with Wright's Stain. The materials that make up the agranulocytes<sup>1</sup> differ from the granulocytes and they are lymphocytes and monocytes. (Marieb, 2009, p. 52)

Short-form  
Citation in  
APA format

Granulocytes and agranulocytes differ significantly in the materials they are comprised of and the shapes that they take on. They are also very different in terms of their visual appearance when looked at under a microscope. They also differ in the way that they react to different chemicals.

In conclusion, white blood cells are comprised of two very different types of cells. These two cells work on conjunction to each other to create harmony within our veins. They are made up of different materials, one of lymphocytes and monocytes and the other neutrophils, eosinophils and basophile. They are also shaped very differently and therefore are completely different from one another.

Full citation of  
reference  
source in APA  
format

**Works Cited**

Marieb, E. N. (2006). *Essentials of human anatomy & physiology* (11th ed.). San Francisco, CA: Pearson/Benjamin Cummings.