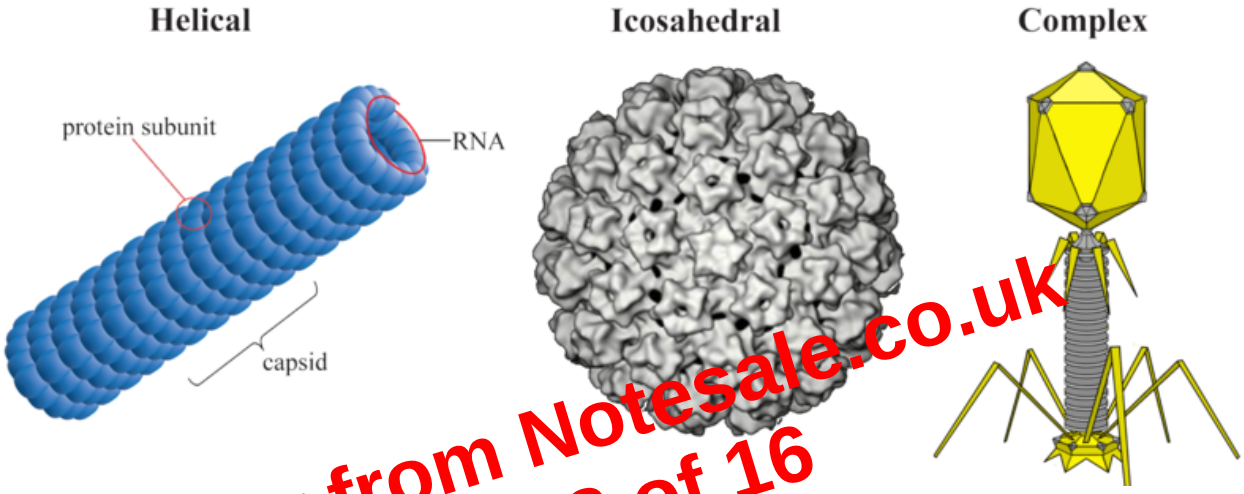
Virus shapes

Viruses vary in sizes just like how bacteria vary in shapes and sizes. There are thousands of different virus shapes and sizes. Shapes can vary from balls, boxes, polygons, sausages, golf balls, spirals and even tiny looking space rockets. Viruses are classified on how their appearance such as their size, shape, symmetry and groups of diseases they cause. Below are examples of the different virus shapes you can find. Below are the main known shapes.



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Helical virus shape:

The protein coat is corkscrew-like with the genetic material entwined. Examples of viruses with this shape of virus are myxoviruses and paramyxoviruses.

Icosahedral virus shape:

A faceted container is formed by twenty equal-sided triangles connected together. Examples of viruses with these shapes of virus are herpes virus and adenoviruses.

Distinction:

Eukaryotic cells are cells, which have a nucleus and other organelles. The organelles may have certain structures and features, which provide ease for theses organelles to perform their functions. Some eukaryotic cells in the human body may produce hormones. Examples of hormones that are produced by eukaryotic cell are insulin, which are produced in Beta cells and Glucagon, which is produced by Alpha cells. Glucagon has the opposite function/effect of that insulin has. Insulin raises glucose concentration and glucagon lowers glucose concentration. The organelles in the eukaryotic cell enable it to carry out its function. In eukaryotic cells the labour or the work of the cell is divided between the organelles. Each organelle has its own role. It starts of with the nucleus.

Alpha cells produce glucagon. The nucleus is where the DNA for the instructions for making the glucagon is found in the form of a gene. The mRNA known as messenger ribonucleic acid holds the instructions of this specific gene/set of instructions because the nucleus copies these instructions onto it (the mRNA). The instruction for making the specific Glucagon is taken from a DNA molecule situated in the nucleus. The mRNA with the code/set of instructions for producing Glucagon now travels out of the nucleus/leaves the nucleus through the nuclear pore in the nuclear envelope.

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The mRNA now attaches to a ribosome where the protein is assembled by amino acids using the instructions from the mRNA. This process is known as protein synthesis. The ribosomes are attached/found on the RER/rough endoplasmic reticulum organelle of the cell. The protein has now been assembled as a chain of amino acids. The glucagon molecule is now pinched off in vesicles. The vesicle now travels to the Golgi apparatus and fuses with this organelle where it will now be processed, packaged, modifies then released to the cell surface membrane where it is fused and here it will then be secreted outside the cell as the cell surface membrane opens. The secretion of Glucagon as stated earlier will lower the glucose concentration in the bloodstream.