



# BLUEPRINT FOR LIFE.

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**LOOK** at the building blocks that this DNA model consists of.  
How many different sorts are there?

Every one of our cells contains the blueprint for the entire body. This set of instructions is carried by a long, unbranched molecule inside the cell's nucleus: a molecule of DNA (deoxyribonucleic acid). This molecule can be up to two metres long!

The molecule's structure is like that of a spiral rope ladder, whose vertical sides are alternate deoxyribose sugar (D) and phosphate (P) groups connected together. The "rungs" are base pairs, of which there are only two types – adenine (A) with thymine (T) and cytosine (C) with guanine (G). It is the ordering of these bases which constitutes the genetic code.

Our model shows a short section of the human genetic code for the insulin receptor. If its function is disrupted, diabetes can develop.

