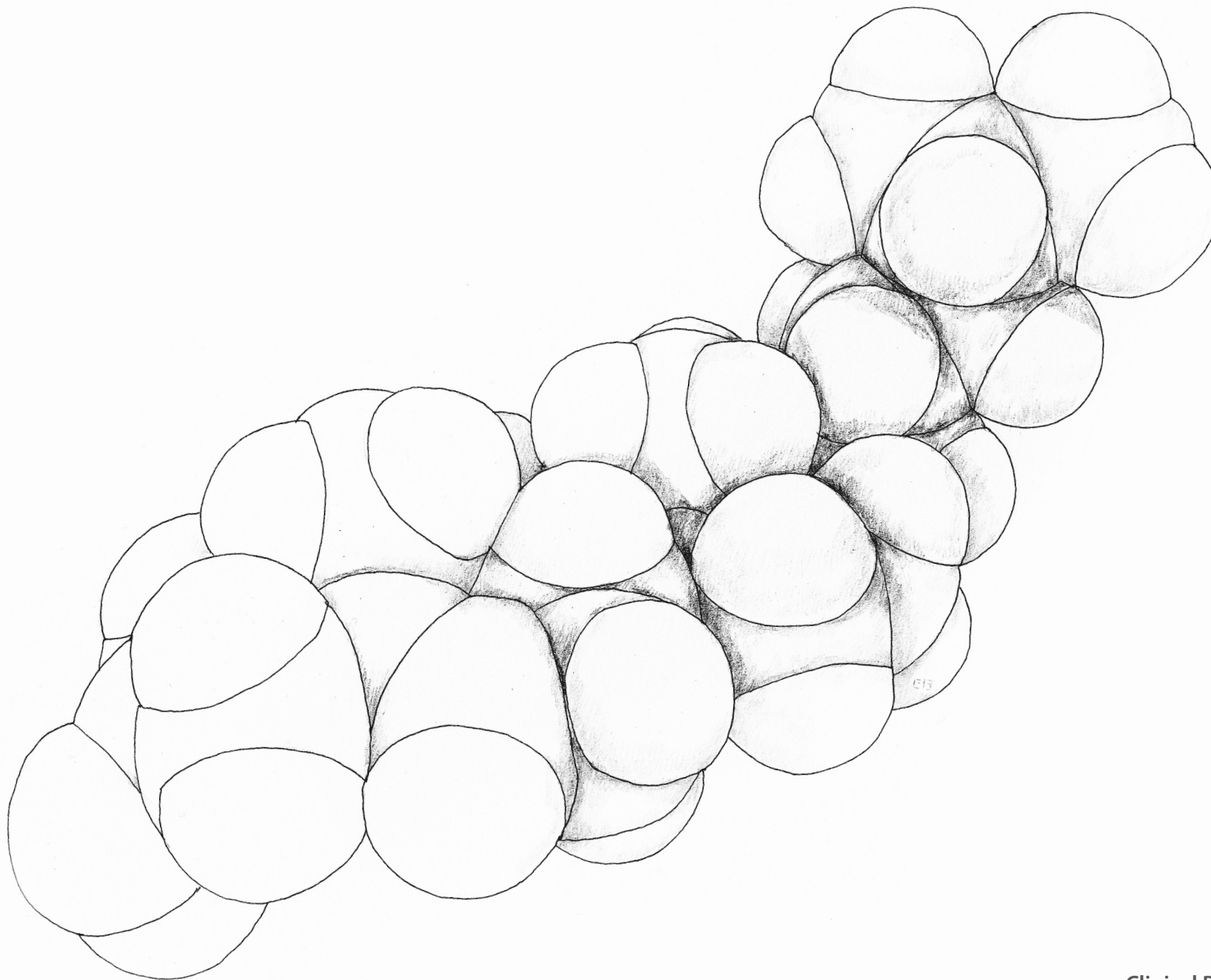


# Cholesterol

This molecule, made by your body and also taken from food, is essential for life. Cholesterol ( $C_{27}H_{46}O$ ) forms part of the membrane surrounding each of the cells that make up your body. This special molecule helps give your cells flexibility in shape.

This drawing is based on the chemical structure as a 'space filler' model, showing where atoms are joined to each other through covalent bonds. The main part of the molecule is made of carbon, while the smaller domes represent hydrogen. The only different atom here is a single oxygen atom at the far bottom left. While oxygen is depicted by convention in red, carbon in black and hydrogen in white, feel free to add whatever colours you want.

Although important, too much cholesterol in your blood increases the risk of heart disease and stroke. Cholesterol can't dissolve in water, so has to be attached to proteins and carried in the blood. The structure of these 'lipoproteins' varies. Cholesterol levels can be raised in the blood by a wide variety of conditions; healthy lifestyle, diet and plenty of exercise can improve levels or provide protection irrespective of circulating cholesterol.



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