What ingredients are in the **Pfizer** vaccine?

Pfizer (Comirnaty) vaccine is made up of **active ingredient, lipids, salts, sugars and waters**.

What is the **active ingredient**?

mRNA (messenger ribonucleic acid) is where a code for part of the genetic material for the virus is stored.

The mRNA will assist in teaching your own body how to **develop an immune response** to the COVID-19 virus.
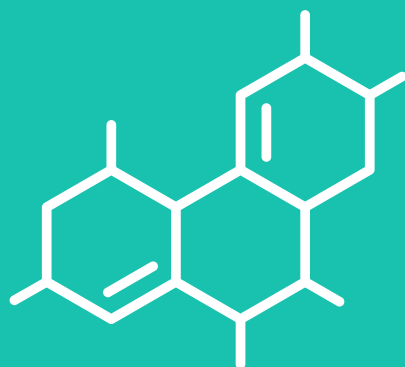
What is the **active ingredient**?

mRNA vaccines are quite new compared to other types of vaccines, but **have been around for decades**.

Examples include flu (influenza), rabies and HIV (human immunodeficiency virus).
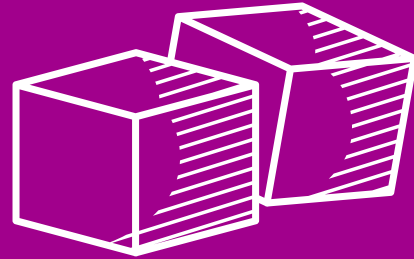
What do the **lipids** & **salts** do?

Lipids: are used to help the active ingredient to move into cells. They don't dissolve in water like fats, waxes and oils.

$$Na^{II}$$

Salts: help balance out acidity so it is better stored and similar with the body tissue it is injected into.

What do the **sugars & water** do?

Sugars: stop the molecules from losing their shape during the intense freezing process.

Water: most of the vaccines are made from water to make it easier to inject.

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List of ingredients for the Pfizer vaccine:

Active Ingredients

One dose (0.3 mL) contains 30 micrograms of BNT162b2 [mRNA] (embedded in lipid nanoparticles).

Other Ingredients (Excipients)

- ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate) (ALC-0315)
- 2-[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide (ALC-0159) (Lipids)
- Distearoylphosphatidylcholine (DSPC) (Lipids)
- Cholesterol (Lipids)
- Potassium chloride (Salts)
- Monobasic potassium phosphate (Salts)
- Sodium chloride (Salts)
- Dibasic sodium phosphate dihydrate (Salts)
- Sucrose (Sugars)
- Water for injections

For more information:

Theraputic Goods Association (TGA)
- https://www.tga.gov.au/covid-19-vaccine-information-consumers-and-health-professionals#ingredients

Queensland Health
- https://www.health.qld.gov.au/news-events/news/whats-really-in-a-covid-19-vaccine

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www.lelan.org.au