

COVID-19

VACCINE INGREDIENTS



Get the full picture of what's in the **Pfizer and Moderna** vaccine and how it's helping you.

mRNA

Also known as messenger ribonucleic acid. **This is the only active ingredient in the vaccine.** mRNA contains instructions for our bodies on how to make a spike protein that triggers an immune response. The immune response is what causes us to make antibodies that will protect us if we get exposed to COVID-19.

LIPIDS

Lipids **protect the mRNA** and act as a delivery vehicle to our cells. Their slippery exterior helps the mRNA slide inside the cells easily.

In Pfizer, called: ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate), 2 [(polyethylene glycol)-2000]-N,N-ditetradecylacetamide, 1,2-Distearoyl-sn-glycero-3-phosphocholine, cholesterol.

In Moderna, called: SM-102, polyethylene glycol [PEG] 2000 dimyristoyl glycerol [DMG], cholesterol, 1,2-distearoyl-sn-glycero-2-phosphocholine [DSPC].

SALTS

Salts, in addition to pH stabilizers, help **balance the acidity** in the vaccine with the acidity in our bodies. They also **keep components of the vaccine from separating or breaking down.**

In Pfizer, called: potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate.

In Moderna, called: sodium acetate trihydrate, tromethamine, tromethamine hydrochloride, and acetic acid.

SUGAR

Basic table sugar, also known as sucrose, helps mRNA **maintain its shape during freezing.** The vaccines need to be kept at very cold temperatures for storage and transport.



Learn more about the COVID-19 Vaccine:
www.dhs.wisconsin.gov/covid-19/vaccine.htm