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Fact Check-COVID-19 vaccines do not contain graphene oxide

By Reuters Fact Check

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Online reports that COVID-19 vaccines contain graphene oxide are unfounded.

The allegations are based on an analysis by a professor in Spain which has been rejected by experts. He obtained what he himself described as non-conclusive results after studying one vial. He said the vial was purported to contain a dose of the Pfizer-BioNTech vaccine but said it had come to him by a messenger service and acknowledged that the vial's origin was unknown.

Pfizer told Reuters its vaccines do not contain the material. This material is also not listed in any of the widely available COVID-19 vaccines worldwide.

Social media posts and blogs with this false claim can be seen [here](#), [here](#), [here](#), [here](#). Many of the posts wrongly suggest the vaccines are therefore toxic.

Graphene oxide is a “single-atomic layered material” made through the oxidation of graphite ([here](#)). When chemically reduced ([here](#), [here](#)), graphene oxide can create graphene which has been described as “the strongest, thinnest and most conductive material on earth” ([here](#)).

INGREDIENTS

“Graphene oxide is not used in the manufacture of the Pfizer-BioNTech COVID-19 vaccine,” Pfizer’s Senior Associate of Global Media Relations told Reuters.

According to a factsheet on the U.S. Food and Drug Administration’s website [here](#) the ingredients of the Pfizer vaccine include: mRNA, lipids, potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate, and sucrose. It does not list graphene oxide.

None of the other COVID-19 vaccines available worldwide, manufactured by Moderna, Janssen, AstraZeneca, CanSino, Sinovac and Sputnik V, contain graphene oxide, according to ingredients lists visible [here](#), [here](#), [here](#), [here](#), [here](#) and [here](#).

A “SAMPLE” OF UNKNOWN ORIGIN, NO CONCLUSIVE RESULTS

The report in question ([here](#)), dated June 28, 2021 was published by Pablo Campra Madrid, a professor of the University of Almería (UAL). The author states in the report that the study was not made on behalf of the university (page 23).

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As stated on page 3 and 8 of his report [here](#), Campra Madrid analyzed samples out of a Pfizer-BioNTech vial of “unknown origin” (that goes by the brand “Cominarty” in the EU, [here](#)) with two types of microscopes. The vial was sent to him by “messenger service”. The paper does not provide further details regarding the vaccine dose’s source.

In his report, Campra Madrid said he compared images of this vaccine liquid under the microscopes with images of graphene oxide published in scientific journals (see for example, page 12 in his study and [here](#)). He concluded that they looked similar.

Experts consulted by Spanish fact-checker Maldita.es said [here](#) images could show any material.

In his study, Campra Madrid himself acknowledges that the “microscope doesn’t provide conclusive evidence” and that the analysis comes from “a single, limited sample” – one of unknown origin and traceability.

Campra Madrid also says the investigation was requested by Ricardo Delgado Martín, founder of the blog “La Quinta Columna” (see page 3 [here](#)). According to articles by Spanish fact-checker Maldita.es and outlet La Vanguardia, Delgado has previously spread misinformation about COVID-19 ([here](#), [here](#)).

COVID-19 VACCINES ARE TRANSPARENT

Matthew Diasio, an American Chemical Society Congressional Science & Engineering Fellow ([here](#)) took to Twitter to criticise Campra Madrid’s report.

Among other arguments, Diasio said that liquids containing graphene or graphene oxide in any significant amount tend to be dark brown or black. If the shots had “even 1% graphene or graphene oxide” (the claim states it has 99.9%), the liquid would look black or at least, dark, Diasio said.

The Pfizer-BioNTech COVID-19 vaccine is a transparent or yellowish liquid (as visible [here](#), [here](#)), as are other available COVID-19 shots in the U.S. – Moderna ([here](#)), Janssen ([here](#)) and AstraZeneca ([here](#)).

VERDICT

False. Pfizer said their COVID-19 vaccines do not contain graphene oxide.

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