COVID-19 mRNA Vaccine BNT162b2 is a vaccine used for active immunisation to prevent COVID-19 disease caused by SARS-CoV-2 virus. The vaccine triggers the body’s natural production of antibodies and stimulates immune cells to protect against COVID-19 disease.
Warnings and precautions
Talk to your doctor, pharmacist or nurse before you are given the vaccine if you have:

- ever had a severe allergic reaction or breathing problems after any other vaccine injection or after you were given COVID-19 mRNA Vaccine BNT162b2 in the past.
- a severe illness with high fever
  However, a mild fever or upper airway infection, like a cold, are not reasons to delay vaccination.
- a weakened immune system, such as due to HIV infection, or are on a medicine that affects your immune system
- a bleeding problem, bruise easily or use a medicine to inhibit blood clotting

As with any vaccine, COVID-19 mRNA Vaccine BNT162b2 may not fully protect all those who receive it. No data are currently available in individuals with a weakened immune system or who are taking chronic treatment that suppresses or prevents immune responses.

Children and adolescents
COVID-19 mRNA Vaccine BNT162b2 is not recommended for children under 16 years.

Other medicines and COVID-19 mRNA Vaccine BNT162b2
Tell your doctor or pharmacist if you are using, have recently used or might use any other medicines or have recently received any other vaccine.

Pregnancy and breast-feeding
If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before you receive this vaccine.

Driving and using machines
COVID-19 mRNA Vaccine BNT162b2 has no or negligible influence on the ability to drive and use machines. However, some of the effects mentioned under section 4 ‘Possible side effects’ may temporarily affect the ability to drive or use machines. Do not drive or operate machinery until you are sure that you are not affected.

COVID-19 mRNA Vaccine BNT162b2 contains sodium and potassium
This vaccine contains potassium, less than 1 mmol (39 mg) per dose, i.e. essentially ‘potassium-free’. This vaccine contains less than 1 mmol sodium (23 mg) per dose, that is to say essentially ‘sodium-free’.

3. How COVID-19 mRNA Vaccine BNT162b2 is given
COVID-19 mRNA Vaccine BNT162b2 is given after dilution as an injection of 0.3 mL into a muscle of your upper arm.

You will receive 2 injections, given at least 21 days apart.

If you receive one dose of COVID-19 mRNA Vaccine BNT162b2, you should receive a second dose of the same vaccine at least 21 days later to complete the vaccination series. Protection against COVID-19 disease may not be maximally effective until at least 7 days after the second dose.

If you have any further questions on the use of COVID-19 mRNA Vaccine BNT162b2, ask your doctor, pharmacist or nurse.
4. **Possible side effects**

Like all vaccines, COVID-19 mRNA Vaccine BNT162b2 can cause side effects, although not everybody gets them.

Most side effects are mild or moderate and go away within a few days of appearing. If side effects such as pain and/or fever are troublesome, they can be treated by medicines for pain and fever such as paracetamol.

Side effects may occur with following frequencies:

**Very common:** may affect more than 1 in 10 people
- pain at injection site
- tiredness
- headache
- muscle pain
- chills
- joint pain
- fever

**Common:** may affect up to 1 in 10 people
- injection site swelling
- redness at injection site
- nausea

**Uncommon:** may affect up to 1 in 100 people
- enlarged lymph nodes
- feeling unwell

**Rare side effects:** may affect up to 1 in 1,000 people
- temporary one sided facial drooping

**Not known** (cannot be estimated from the available data)
- severe allergic reaction

**Reporting of side effects**

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet.

If you are concerned about an adverse event, it should be reported on a Yellow card. Reporting forms and information can be found at [https://coronavirus-yellowcard.mhra.gov.uk/](https://coronavirus-yellowcard.mhra.gov.uk/) or search for MHRA Yellow Card in the Google Play or Apple App Store and include the vaccine brand and batch/Lot number if available.

Alternatively, adverse events of concern in association with Pfizer BioNTech COVID-19 mRNA vaccine BNT 162b2 can be reported to Pfizer Medical Information on 01304 616161 or via [www.pfizersafetyreporting.com](http://www.pfizersafetyreporting.com).

Please do not report the same adverse event(s) to both systems as all reports will be shared between Pfizer and MHRA (in an anonymized form) and dual reporting will create unnecessary duplicates.

By reporting side effects, you can help provide more information on the safety of this vaccine.

5. **How to store COVID-19 mRNA Vaccine BNT162b2**

Do not use this medicine after the expiry date which is stated on the box and label after EXP. The expiry date refers to the last day of that month.

Store in freezer at -80 °C to -60 °C.
Store in the original package in order to protect from light.
After thawing, the vaccine should be diluted and administered by a healthcare professional and used within 6 hours. Any unused vaccine should be discarded.

6. Contents of the pack and other information

What COVID-19 mRNA Vaccine BNT162b2 contains

- The active substance is BNT162b2 RNA. After dilution, the vial contains 5 doses, of 0.3 mL with 30 micrograms mRNA each.
- This vaccine contains polyethylene glycol/macrogol (PEG) as part of ALC-0159

- The other ingredients are:
  - ALC-0315 = (4-hydroxybutyl)azanediyl)bis(hexane-6,1-diylbis(2-hexyldecanoate),
  - ALC-0159 = 2[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide,
  - 1,2-Distearoyl-sn-glycero-3-phosphocholine,
  - cholesterol,
  - potassium chloride,
  - potassium dihydrogen phosphate,
  - sodium chloride,
  - disodium hydrogen phosphate dihydrate,
  - sucrose

What COVID-19 mRNA Vaccine BNT162b2 looks like and contents of the pack

The vaccine is a white to off-white solution provided in a multidose vial of 5 doses in a 2 mL clear vial (type I glass), with a rubber stopper and a flip-off plastic cap with aluminium seal.

Pack size: 195 vials

Manufacturer(s)
BioNTech Manufacturing GmbH
Kupferbergterrasse 17-19
55116 Mainz, Germany

This leaflet was last revised in 12/2020

=================================================================================================