South African Nephrology Society

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PATIENT
FREQUENTLY ASKED QUESTIONS
COVID-19 VACCINES

People living with kidney disease and recipients of kidney transplants are at higher risk of severe COVID-19. There is currently no cure for COVID-19, but vaccination helps to reduce the risk of either becoming infected with the virus or developing severe disease in the event of infection. This document provides information for patients living with kidney disease on COVID-19 vaccines.
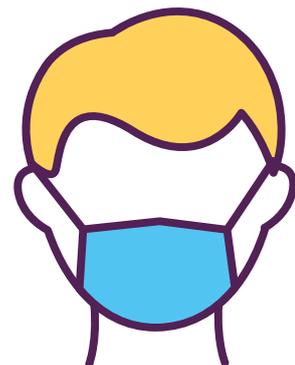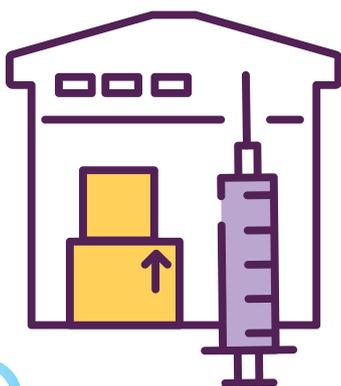
How do vaccines work?

The immune system consists of specialised white blood cells and proteins (called antibodies) which are trained to recognise and kill viruses. Because the COVID virus has only recently switched to infecting humans, our immune systems have never come across this particular virus before and so cannot recognize it and do not know how to kill it. Vaccination is an old technique for training the immune system to recognize and attack viruses. This is usually done by exposing the immune system to small doses of virus which has been weakened so that it cannot cause disease. You have probably received such vaccinations in your childhood, or you may have been vaccinated for the hepatitis virus if you have been on dialysis.

The COVID vaccines differ from this usual type because they do not contain any virus. Instead, they contain a protein called mRNA. mRNA is a temporary messenger that our cells use to tell themselves how to make other proteins. The mRNA in the COVID vaccine tells your cells how to temporarily make a small part of the COVID virus called the "spike protein".

Once this "spike protein" has been made, the mRNA from the vaccine is broken down by your cells. The mRNA in the COVID vaccine cannot permanently enter or alter your DNA, and it cannot make a whole COVID virus. The small amount of spike protein which your cells temporarily make after the vaccine trains your immune system to recognise the COVID virus.

Because the COVID virus uses the spike protein to enter your cells to cause disease, training your immune system in this way helps to prevent infection and severe COVID-19.

Which vaccine is better?

Any vaccine is better than no vaccine. However, the Pfizer vaccine may be better at training the immune system and is the preferred vaccine for patients living with kidney disease.
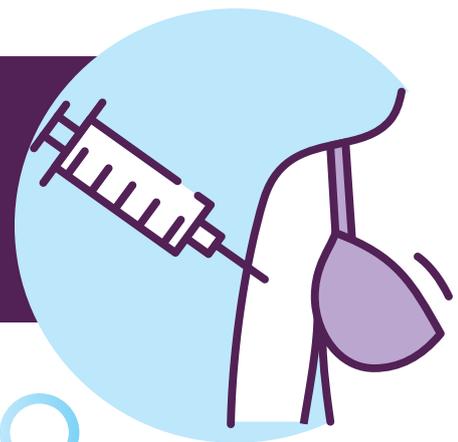
Which vaccines are available in South Africa?

South Africa has two vaccines available:
1. The Johnson & Johnson / Jansen viral vector vaccine (J&J)
2. The Pfizer mRNA vaccine

Both vaccines make use of mRNA to allow our cells to temporarily make the spike protein, but they differ in the technology used to get the mRNA into cells. The J&J vaccine uses a virus called an adenovirus which has been altered so that it cannot spread and cause infection. The Pfizer vaccine uses a lipid nanoparticle (a very small fat droplet) for this purpose.

I am taking immunosuppression medicines. Can I take the vaccine?

The COVID vaccines do not contain the virus or allow your cells to make the whole virus. Both vaccines are therefore safe to use if you are taking immunosuppressants. However, because these drugs weaken your immune system, you may need additional doses to train your immune system effectively against the COVID virus. People receiving immunosuppressants should consult with their treating specialist as to the timing of the vaccine and dosing of the immunosuppressant medications.

I have an autoimmune condition. Could the vaccine make my disease flare up?

Because vaccines stimulate the immune system, it is theoretically possible for any vaccine to cause autoimmune diseases to flare. However, since people living with autoimmune disease are at higher risk of more severe COVID-19, the benefit of receiving the vaccine outweighs the potential risk of disease flare. People living with autoimmune disease should consult with their treating specialist with regards to monitoring for disease flares after receiving the vaccine.
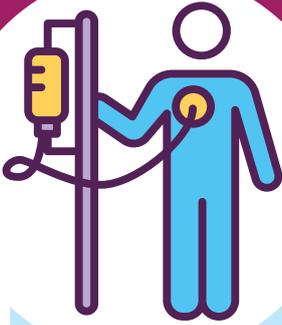
What are the potential side-effects of vaccination?

All medical treatments have potential side-effects. However, the COVID vaccines have now been given to millions of people around the world with very few serious side effects reported. Common mild side effects include:

- Pain at the injection site
- Fever
- Headache
- Muscle cramps

These symptoms can be effectively treated with paracetamol (Panado).

You may be aware that the J&J vaccine programme was temporarily stopped out of concern that the vaccine caused lung clots. The total number of patients who developed clots was very low and it is possible that these episodes were unrelated to the vaccine (and would have happened anyway in these patients). The fact that the programme was temporarily stopped is a sign of how carefully these vaccines have been monitored for safety.

I am a kidney transplant recipient. Could the vaccine cause rejection?

Because vaccines stimulate the immune system, it is theoretically possible for any vaccine to cause rejection. However, since transplant recipients are at higher risk of severe COVID-19, the benefit of receiving the vaccine outweighs the potential risk of rejection. Recipients should consult with their treating specialist with regards to monitoring for rejection after receiving the vaccine.

How do I get the vaccine?

To get the vaccine you must first register with the Department of Health. You can do this by:
- The Department of Health website - https://vaccine.enroll.health.gov.za
- WhatsApp "REGISTER" to 0600123456
- SMS dial *134*832*[your ID number]

Once registered you will receive a unique code via SMS and an appointment to receive the vaccine. You should take this code and your ID number to your appointment in order to receive the vaccine.