## Risk of COVID in elective surgery:

There is overwhelming evidence that COVID-19 vaccination significantly lowers your risk of being infected by the COVID-19 virus, and lowers the risk of hospitalization, severe infections, blood clots, breathing issues, and death from COVID-19.

Patients diagnosed with COVID-19 infection undergoing elective surgery have a 25 times higher death rate than those without infection. Those undergoing emergency surgery have a 5 times higher death rate.

If you are being considered for elective surgery, being fully vaccinated at least 2 weeks before your procedure significantly lowers your risk of complications and death.

Your Surgeon or Hospital may require a negative COVID-19 test prior to your procedure. Even after a negative test, there is a chance that you could become infected with COVID-19, which would dramatically increase your risk of having a life-threatening complication.

25x Higher **Death Rate**Without the Vaccination

SAGES and your surgeon strongly recommend being fully vaccinated with the COVID-19 vaccine at least 2 weeks prior to your surgery to make your surgery safer.

To see the position of the world's major religions on the use of the COVID vaccine, visit: https://www.sages.org/category/covid-19/

British Journal of Anaesthesia, Mortality after surgery with SARS-CoV-2 infection in England: a population-wide epidemiological study. 127 (2): 205e214 (2021).

British Journal of Surgery: Patients should receive COVID-19 vaccine before surgery to reduce the risk of death https://www.eurekalert.org/news-releases/783249.



## SURGERY IS SAFER WITH VACCINATION.

SAGES is a society of over 7,000 international surgeons. We are invested in your safety and the wellbeing of your family and healthcare team. These recommendations are driven by data and research.

We know there is a lot of information about the COVID-19 vaccines out there - we are here to help! Your surgeon and all other doctors have been taught how to read and understand scientific research and data. Your doctors can help you learn more about these very important vaccines.

Remember, the most reliable and up-to-date information can be obtained from your doctor. Information found on social media, blogs, and Google searches may not be true or accurate.



## What ingredients are in the vaccines?

BionTech/Pfizer	» mRl » Lipio » Salt » Sug	ds s
Moderna	<ul><li>» mRl</li><li>» Lipic</li><li>» Salt</li><li>» Sug</li><li>» Acic</li><li>» Acic</li></ul>	ds s ar
Janssen/ Johnson&Johnson		ar Is
AstraZeneca	spik » Salt » Sug » Ami » Alco » Disc ede dihy (ED	ar ino acids bhol odium tate vdrate

Fully Immunized **2 weeks**before procedure

http://Cdc.gov/coronavirus



## The ingredients in the vaccines all have important roles in the vaccine's effectiveness:

- » mRNA (messenger ribonucleic acid): contains genetic material that provides instructions for our body on how to make a viral protein that triggers an immune response within our bodies. This immune response is what causes our bodies to make the antibodies needed to protect us from getting infected or really sick if exposed to the coronavirus. mRNA does not enter the cell nucleus and cannot alter your DNA.
- » Coronavirus spike protein: a harmless, non-infectious piece of protein from the coronavirus. Like mRNA, this material triggers an immune response within our bodies which causes our bodies to make antibodies. Antibodies help protect us from getting infected or really sick if exposed to the coronavirus.
- » Lipids: protect the mRNA and help the mRNAS slide inside the cells.
- » Salts: help the molecules hold their shape during freezing.
- » Sugar: helps the molecules hold their shape during freezing.
- » Acids, Acid Stabilizers, Alcohol, Polysorbate 80, and Disodium edetate dihydrate (EDTA): helps maintain the stability of the vaccine.

The Food and Drug Administration (FDA) has approved one drug, remdesivir (Veklury), to treat COVID-19. The immunity you get from a previous COVID infection is less reliable than vaccination in preventing complications or death from COVID-19.

Vaccine Brand Name	Safe and effective?	Age group who can get this vaccine?	When are you fully immunized?
Pfizer-BioNTech	<b>✓</b>	12 years and older	2 weeks after your second shot
Moderna	<b>✓</b>	18 years and older	2 weeks after your second shot
Janssen/Johnson & Johnson	<b>✓</b>	18 years and older	2 weeks after your shot
AstraZeneca* (not yet approved for use in the US)	<b>√</b>	18 years and older	2 weeks after your second shot