



3 June 2021

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Covid-19 Vaccination Education

As responsible team members of the [REDACTED] community, we are continuously focused on readiness. Only a medically ready force is fully operational to fulfill missions we are called upon to execute. You are currently not required to receive the COVID-19 vaccine however it is my duty as a medical officer to provide you with up-to-date, fact based evidence so you can make informed decisions.

In this memorandum you will learn:

- The risks of COVID-19
- The importance of vaccination and the immune response
- Myths and false information you may have heard
- Important information about mRNA vaccines
- Other information about pregnancy, J & J vaccine and more

Getting the Covid-19 vaccine is not only vital to our readiness, but it will protect your loved ones who may be at a much greater risk than you are of contracting a severe form of the coronavirus. Those with cardiovascular disease are twice as likely to contract severe forms of Covid-19 and are at high risk for poor outcomes as are those with cancer, chronic kidney disease and diabetes. Other common conditions that lead to poor outcomes include obesity, smoking, liver disease, those with immune compromising conditions, and pregnancy. FACT; more than 95% of COVID-19 deaths occur in people older than 45.

Attention has focused on how antibodies increase after vaccination and target their attack on the virus' spike protein. Not enough attention is given to how memory T-cells have the ability to recognize the coronavirus even after it has mutated. Our immune systems are a fascinating, complex apparatus that possess an array of other defenses that vaccination mobilizes, including antibodies that attack other parts of the virus, and most important, those superstar T-cells that attack the infected cells the virus hijacks, in order to replicate.

This is why T-cell immunity is crucial as they are effective in recognizing variants in addition to the original virus. mRNA vaccines provide an essential backup mechanism that will continue to provide protection against newly emerging coronavirus variants. Your natural immunity to common cold viruses provide you with protection against other cold virus variants which is why you are able to fight off different mutated cold viruses, year after year; your memory T-cells



recognize the viral protein. This is how we know that vaccination is the path to end this pandemic.

Myth Busting

Side Effects: The most common side effects are pain, redness, and swelling in the arm where you received the shot, as well as fatigue, headache, muscle pain, chills, fever, and nausea throughout the rest of the body. These side effects could affect your ability to perform daily activities, but they will go away in a few days.

R & D: The development of the COVID-19 vaccines did not cut corners on testing for safety and efficacy. The vaccines were produced using processes that were developed and tested over 30 years, and are designed to make and thoroughly test vaccines quickly in case of an infectious disease pandemic such as COVID-19. mRNA technology has been used successfully for Zika, CMV and Influenza vaccines and cancer immunotherapy and is continuously undergoing studies.

Fertility & Pregnancy: Pregnant women should discuss a COVID-19 vaccine with their doctors. Although clinical trials of vaccine testing in human pregnant women are not complete, getting COVID-19 virus while pregnant can be dangerous, so your doctor can help you decide if the vaccines are appropriate for you. The vaccines are safe for breastfeeding mothers, and do not harm a woman's ability to become pregnant. According to Pfizer, "BioNTech completed a developmental and reproductive toxicity (DART) study with the vaccine in animals, which was required by the regulatory authorities before starting the study in pregnant women. Those studies showed no evidence of fertility or reproductive toxicity in animals."

- ACOG (American College of Obstetricians and Gynecologists) recommends that COVID-19 vaccines should not be withheld from pregnant individuals.
- COVID-19 vaccines should be offered to lactating individuals similar to non-lactating individuals.

Johnson & Johnson: The CDC and the FDA recommended that health care providers temporarily stop administering the J&J (Janssen) COVID-19 vaccine while they investigate reports of six people in the U.S. developing a rare and severe type of blood clot after receiving the J&J vaccine. As of 23 April, that pause had been lifted and the J&J vaccine is authorized for administration in the US.

The adverse events are exceedingly rare, with six reported cases out of nearly 7 million people who were vaccinated with the J&J COVID-19 vaccine. The type of blood clot that caused the pause on the J&J vaccine is called a cerebral venous sinus thrombosis (CVST), a rare type of blood clot that forms in the brain. A CVST forms in the venous sinuses—spaces in the skull that let blood drain from the brain. A CVST can lead to a very rare type of stroke that impacts less than 5 in a million people ever year exclusive of the J&J vaccine.

The nearly 7 million doses of the J&J vaccine that have been administered in the US so far, makes the odds that any one person who received this vaccine would develop a CVST 0.00009%, or less than one in a million. That is if the adverse effect is in fact related to J&J's vaccine, which has yet to be confirmed.

The Oral Birth Control Debate: Because OBC comes with a risk of blood clots, there has been comparison discussion. Between 3 and 9 women in every 10,000 who take oral birth control pills will develop a blood clot, according to FDA data. (That's a 0.3 to 0.09% risk).

The FDA also issued comparison data, showing that the likelihood of developing a blood clot when you're **not** on the Pill is one to five in every 10,000 women. The risk is slightly higher while you're pregnant. That's 5 to 20 in every 10,000 women meaning that, in this context, pregnancy has the highest risk of blood clots. In case you were unaware, changes in a woman's body during pregnancy, childbirth, and the 3-month period after delivery can put women at higher risk for a blood clot. During pregnancy, a woman's blood clots more easily to lessen blood loss during labor and delivery.

Some limiting factors in comparison are that the data relates to all blood clots, not CVST in particular. Mainly, blood clots linked to OBC (Oral Birth Control) include deep vein thrombosis (DVT; a clot that forms in a deep vein, usually the leg or pelvis) and sometimes pulmonary embolism (PE; when a clot breaks off, travels to the lungs, and causes a blockage in an artery). Women who smoke, have obesity, and lead a sedentary lifestyle are at increased risk of a blood clot when they are on birth control although these are not underlying risk factors for a CVST.

However, it is possible to develop a CVST while taking oral birth control pills. A 2015 meta-analysis published in the journal *Frontiers in Neurology* looked at 861 studies on CVST and found that the risk of developing the complication is 7.59 times higher in women who take oral birth control pills than in those who don't. Due to that, the study authors said that oral contraceptive pills "increases the risk of developing CVST in women of reproductive age," but that more research is needed.

There are many inherent, every-day risks and you will need to weigh the risk benefit ratio when making decisions. Ultimately, your risk of getting a blood clot linked to the Johnson & Johnson vaccine is incredibly low based on current data. For your situational awareness, the J&J vaccine is **not** an mRNA vaccine. Furthermore, we at the 106th are only administering the Pfizer Covid-19 vaccine (mRNA vaccine) which has shown to have an incredibly robust safety profile. No cases of CVST have been reported after receipt of either of the two mRNA COVID-19 vaccines authorized for use in the United States.

How mRNA Vaccines Work: mRNA vaccines carry genetic instructions that teach our cells how to manufacture the spike protein found on the surface of the SARS-CoV-2 (COVID-19) virus. Once the spike protein is created the genetic instructions are destroyed by the body and the mRNA never enters your cell's nucleus. That piece of the spike protein (antigen) naturally activates your immune system's B cells to produce antibodies to the antigen--in this case COVID-19 virus protein. Our immune system has many types of T cells with different roles that have memory and will recall the viral protein each time it is encountered, providing you with active immunity.

Personal and Official Travel: CDC/DoD updates as of 12 April 2021: SMs fully recovered from a laboratory-confirmed diagnosis of COVID-19 infection within the previous 90 days, or those who are **fully vaccinated** (defined as: 14 days post completion of COVID-19 vaccination with a FDA-authorized vaccine and meet all of the CDC criteria for the specific vaccine administered), are **not required to quarantine** as long as they remain symptom free and are no longer required to test.

Mask Mandates: Fully **vaccinated** people can resume activities without wearing a **mask** or physically distancing, except where **required** by federal, state, local, tribal, or territorial laws, rules, and regulations, including local business and workplace guidance.

While we understand your hesitancy in receiving this vaccine, it's our duty to provide you with evidence-based facts that will guide your decision making process. As a military member you are currently not required to receive this vaccine although you are encouraged to. Vaccination enhances operational readiness and protects the force and the DoD is committed to supporting vaccination efforts. Please browse the references I provided below and as always [REDACTED] providers are available for all of your questions and concerns regarding the COVID-19 vaccine. Please call the [REDACTED]. If you decide the vaccine is right for you, you and your family members are eligible to receive the vaccine here at the [REDACTED].

Go Online now to register for your vaccination appointment (use the following link): [REDACTED]

ROSEMARIE C. TRACY, [REDACTED]
[REDACTED]

Distribution:

- 1) All members

REFERENCE:

- 1) <https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/12/vaccinating-pregnant-and-lactating-patients-against-covid-19>
- 2) [What Is Cerebral Venous Sinus Thrombosis? US Calls to Pause Johnson & Johnson Vaccine Over Blood Clots | Health.com](#)
- 3) [Hormonal Contraceptives and Cerebral Venous Thrombosis Risk: A Systematic Review and Meta-Analysis \(nih.gov\)](#)
- 4) <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html>
- 5) <https://www.nejm.org/doi/full/10.1056/NEJMoa2034577>
- 6) <https://www.cebm.net/covid-19/what-is-the-role-of-t-cells-in-covid-19-infection-why-immunity-is-about-more-than-antibodies/>
- 7) <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-commence-global-clinical-trial-evaluate>
- 8) <https://media.defense.gov/2021/Apr/16/2002622876/-1/-1/1/MEMORANDUM-FOR-FORCE-HEALTH-PROTECTION-GUIDANCE-SUPPLEMENT%2020-DEPARTMENT-OF-DEFENSE-GUIDANCE-FOR-PERSONNEL-TRAVELING-DURING-THE-CORONAVIRUS-DISEASE-2019-PANDEMIC.PDF>