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Pros and Cons of Covid-19 Vaccine

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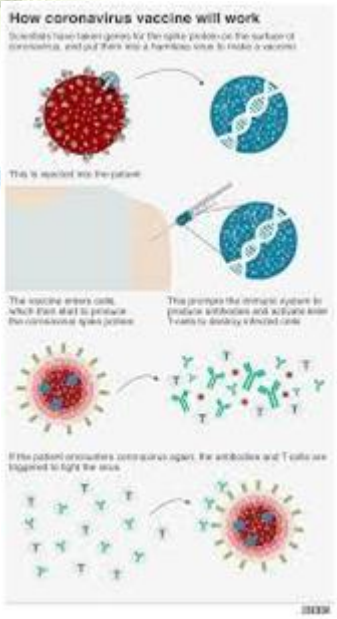
Abstract: When we are vaccinated, our body is much prepared to shield off against the viruses by making the immune system strong and effective against the covid-19. The other main reason of vaccination is to break the chain of spread. In less common side effect reported for some covid-19 vaccines have included serve allergic reaction such as anaphylaxis, this reaction is extremely rare where have some typical side effect include pain at injection site, fever, fatigue, headache, muscle pain, chills and diarrhea. The chances of any of these side effects some covid-19 vaccines making up people sick with covid-19. Even though has a some side effect vaccine are safe and it help protect against covid-19 Covid-19 vaccine were developed by using science which has been in the books from the old ages. Covid-19 vaccine has been tested by multiple drug administration authorities in the world. A vaccine is the safe way to improve your immune system, it teaches our body to fight against the threat.

Keywords: vaccine, covid-19, spread, immune system, pain.

Introduction:

As vaccines to prevent COVID-19 roll out, get the latest news, updates, and the information you need about how the vaccines work, how they're getting distributed and safety and side effects. A vaccine is a substance that stimulates your immune system to make antibodies to response the foreign substance in our body as it would if you were exposed to the actual disease. After vaccination, our body develops immunity against the disease, so there is a less chance of getting infected

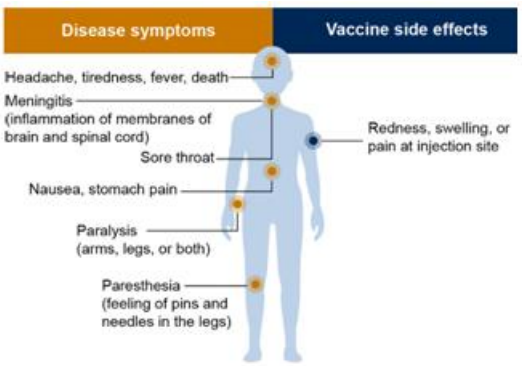
Unlike some other vaccines, covid-19 vaccine made without adding egg .The vaccines from Pfizer and Moderna use a technique known as mRNA, or messenger RNA. These vaccines "give instructions for our cells to make a harmless piece of what is called the 'spike protein,' " according to the CDC. This protein is found on the surface of the corona virus that causes COVID-19. Once these vaccine instructions, or mRNA, are injected, your cells use it to make the spike protein; then the instructions are broken down and eliminated. The protein piece is displayed on the cell surface, triggering our immune system to make antibodies against it, just as it would if it were exposed to the real corona virus that causes COVID-19. In this way, the body learns how to protect itself when and if the real virus shows up.



There are three COVID-19 vaccines approved for use in the U.S. The Pfizer, Moderna, and Johnson & Johnson vaccines are all highly effective in protecting you from the virus that causes COVID-19. The CDC says there's a preference for the mRNA (Pfizer and Moderna) COVID-19 vaccines over the Johnson & Johnson one. This is based on data from the Advisory Committee on Immunization Practices (ACIP). It's best to get a booster shot from either Pfizer or Moderna, but any booster is better than none. It will now be marketed under the name Comirnaty. Two other vaccines, from Novavax from AstraZeneca, are not available in the U.S. Vaccines continue to lower your risk for severe disease, hospitalization, and death, even against the widespread Delta variant of COVID-19

COVID-19 VACCINE SAFETY VS. SIDE EFFECTS:

Pfizer and Moderna began shipping the first batches of COVID-19 vaccines in December-2020, capping months of anticipation, development, clinical trials, and regulatory reviews. The FDA granted emergency use authorization for both vaccines, deeming them safe and effective. Paul Off it, MD, a member of the FDA advisory panel that recommended the vaccine's use, says rigorous clinical trials of the shot identified no safety concerns, despite its sped-up production. "These vaccines were subjected to large phase III clinical trials," says off it, a vaccine expert at Children's Hospital of Philadelphia. "Regarding safety, there was an insistence by the FDA that at least tens of thousands of people be observed for 2 months after the final dose to make sure that there were no … uncommon side effects." The FDA says common side effects, in Pfizer's clinical trial involving some 44,000 people, included pain where they got the shot, fatigue, headache, chills, fever, and joint and muscle pain. But these are all described as temporary.



3. Guidelines for vaccination

Pregnant women or nursing moms who want the COVID-19 vaccine should get one, expert's advice. That's true even though there's a lack of safety data in these groups, according to guidance from the CDC, the American College of Obstetricians and Gynecologists (ACOG), and the Society for Maternal-Fetal Medicine. The pregnant woman's who have not vaccinated has supported the decision well, a practice advisory from ACOG recommends. In addition, women do not need to avoid getting pregnant after receiving Pfizer's COVID-19 vaccine, according to the CDC. The FDA issued an emergency use authorization (EUA) for the vaccine on Dec. 11. Although investigators excluded pregnant women from vaccine clinical trials, experts believe that mRNA vaccines, which are not live vaccines, "are unlikely to pose a risk for people who are pregnant" and "are not thought to be a risk to the breastfeeding infant," the CDC notes. At the same time, women who are pregnant may be at greater risk of severe COVID-19, even though the absolute risk of severe illness is low. COVID-19 also may increase the risk of serious pregnancy outcomes, such as preterm birth. "If pregnant people are part of a group that is recommended to receive a COVID-19 vaccine (eg, healthcare personnel), they may choose to be vaccinated," the CDC says. Patients can talk to their health care provider if they need more information, the guidance says. [1]

4. Cons of FDA-approved anticovid-19 drugs

There are 4 FDA approved drugs available against Covid-19 infections, they are, Baloxavirmarboxil (Xofluza), Oseltamivir (generic or Tamiflu), Peramivir (Rapivab), and Zanamivir (Relenza). Antiviral drugs can lessen your symptoms and shorten sick time by 1 or 2 days, according to the CDC. These are prescription medicines in various forms, such as pills, liquids, an inhaled powder, and an IV solution. They may also have side effects. Tamiflu may cause nausea and vomiting, and it may make headaches and psychiatric effects more likely. And in a recent study, it didn't lessen complications. It's important to start the drugs early, as studies show they work best when started within 2 days of getting sick. But your doctor may decide they can still be helpful if started later than

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that [3]. Sleep disorders or insomnia is one of the psychiatric problems that arise during the COVID-19 pandemic. The term used to define this particular insomnia is coronasomnia or COVID-19 insomnia. Data show that the prevalence of this problem is increasing, especially in the confirmed COVID-19 patient group. Anti-insomnia drugs such as hypnotics, sedatives, and anxiolytics are the easiest option. As with drugs generally, anti-insomnia drugs are associated with various safety issues, especially in people with COVID-19. Therefore, their use may be hazardous. This paper aims to make health practitioners aware of the anti-insomnia drugs that have the best efficacy and safety issues that are clinically relevant from the use of anti-insomnia drugs and the interactions of anti-insomnia drugs with various drugs used in the treatment of COVID-19. Overall anti-insomnia drugs have efficacy in improving sleep parameters. Meanwhile, the combination of zolpidem, lorazepam, and diphenhydramine improved TST parameters better than other drugs. Side effects such as drowsiness and dizziness were among the most commonly reported effects. Therefore, attention and monitoring of the use of anti-insomnia drugs in COVID-19 patients need to be carried out by considering the side effects and interactions that are very risky [4].

Pros of vaccine against COVID-19

Widespread use of Covid-19 vaccines, including the BNT162b2 vaccine (Pfizer-BioNTech), led to a decrease in mortality due to Covid-19. Data regarding whether Covid-19 vaccine boosters are also effective in lowering disease-related mortality are needed.[6] Participants who received a booster had 90% lower mortality due to Covid-19 than patient who did not receive a booster. The benefit was observed in adults 65 years of age or older and in those 50 to 64 years of age, as well as in both men and women. The frequency of confirmed SARS CoV-2 infection was significantly lower among patients who received a booster. Vaccines typically require years of research and testing before reaching the clinic, but in 2020, scientists embarked on a race to produce safe and effective coronavirus vaccines in record time. Researchers are currently testing **116 vaccines** in clinical trials on humans, and 48 have reached the final stages of testing. More than 75 preclinical vaccines are under active investigation in animals [5].

Conclusion: It is therefore expected that the content of this review will help researchers to design and develop more sensitive advanced commercial biosensor devices for early diagnosis of viral infection, which can open up avenues for better and more specific therapeutic outcomes. The somewhat accelerated strategies that are being applied to COVID-19 vaccine development include identification of new viral targets and the use of novel vaccine technology platforms. The extensive tests and careful evaluations of safety and efficacy at every single step are critically important. Ultimately, extensive international collaboration between public health institutions, vaccine developers, funding entities, and governments will be critical and necessary to ensure effective manufacturing of licensed vaccines in adequate quantities is available to all individuals afflicted by COVID-19 in affected areas. Challenges still exist despite the remarkable progress being made in the development of vaccines around the world. There are many issues that remain to be learned and resolved about novel SC2, including its biological properties, epidemiology, and other yet-to-be-determined challenges, which can all arise during future phases of COVID-19 vaccine development and evaluation

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