Vaccines  
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines.html  
**Authorized and Recommended in CDC**  
  
**Pfizer – BioNTech**  
**Requirements:**  
-12 yo+  
-2 shots (one more shot after 21 days)  
**Effective when:**  
-2 weeks after the last shot  
**Ingredients:**  
mRNA, lipids ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate), 2 [(polyethylene glycol)-2000]-N,N-ditetradecylacetamide, 1,2-Distearoyl-sn-glycero-3- phosphocholine, and cholesterol), potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate, and sucrose.  
  
Possible side effect  
In the arm  
- pain  
- redness  
- swelling  
  
Throughout the body  
- Tiredness  
- Headache  
- Muscle Pain  
- Chills  
- Fever  
- Nausea  
  
  
**Moderna  
Requirements:**  
-18 yo+  
-2 shots(one more shot after 28 days)  
**Effective when:**  
-2 weeks after last shot   
 **Ingredients:**  
The Moderna COVID-19 Vaccine contains the following ingredients: messenger ribonucleic acid (mRNA), lipids (SM-102, polyethylene glycol [PEG] 2000 dimyristoyl glycerol [DMG], cholesterol, and 1,2-distearoyl-sn-glycero-3-phosphocholine [DSPC]), tromethamine, tromethamine hydrochloride, acetic acid, sodium acetate trihydrate, and sucrose.  
  
Possible side effect  
In the arm  
- pain  
- redness  
- swelling  
  
Throughout the body  
- Tiredness  
- Headache  
- Muscle Pain  
- Chills  
- Fever  
- Nausea  
  
  
**Johnson & Johnson’s Janssen**  
Requirements:  
-18 yo+  
-1 shot  
Effective when:  
-2 weeks after shot  
Ingredients:  
The Janssen COVID-19 Vaccine includes the following ingredients: recombinant, replication-incompetent adenovirus type 26 expressing the SARS-CoV-2 spike protein, citric acid monohydrate, trisodium citrate dihydrate, ethanol, 2-hydroxypropyl-β-cyclodextrin (HBCD), polysorbate-80, sodium chloride.  
  
**not verified yet**   
https://www.techarp.com/science/sinovac-coronavac-vaccine-faq/  
https://storage.covid.gov.pk/new\_guidelines/22April2021\_20210421\_Guidelines\_for\_Sinovac\_6301.pdf  
https://cdn.who.int/media/docs/default-source/immunization/sage/2021/april/4\_sage29apr2021\_sinovac.pdf?sfvrsn=2d82605d\_5  
**sinovac**  
Requirements:  
-18 yo+  
-2 shots(one more shot after 14-28 days)  
Effective when:  
- ?  
  
**Ingredients:**- Active Ingredient: Inavtivated SARS-CoV-2 Virus (CZ02 strain)  
- Adjuvant: Aluminum hydroxide  
- Excipients: disodium hydrogen phosphate dodecahydrate, sodium dihydrogen phosphate monohydrate, sodium chloride  
**Side effects:**  
-Injection site pain  
-fatigue  
-muscle pain  
-headache