

Covid-19

QUESTIONS AND ANSWERS

My Promise To You....

- ▶ **No politics...**
- ▶ **No 'mandates'...**
- ▶ **Only facts from respected sources...**
- ▶ **My only purpose is to provide up-to-date and accurate information...**

What Is Covid-19?

- ▶ Covid-19 is an infection caused by the 'corona virus' that has never before been seen in humans.
- ▶ Coronaviruses are a family of viruses that can cause everything from the common cold to more deadly infections like SARS (severe acute respiratory syndrome) and other deadly diseases.

How infectious is Covid-19?

- ▶ **37,737,631 cases as of 8/17/21 in the United States, with 638,871 deaths!**
- ▶ **The 'alpha variant' was said to be 40 times more transmissible than the original virus.**
- ▶ **The 'delta variant' is said to be 60 times more transmissible than the alpha variant.**
- ▶ **Why are there 'variants'?**

How do you get Covid-19?

- ▶ **By coming into contact with the virus.**
- ▶ **It is believed that contact for 15 minutes within 6 feet of someone carrying the virus is all that is necessary to cause infection.**
- ▶ **It is generally believed getting the virus from a contacted 'surface' is rare and not the major method of spread.**

Who gets Covid-19?

- ▶ Anyone can get this infection...it has been found in newborn children....
- ▶ Individuals with 'comorbidities' are more likely to be infected.
- ▶ 95% of those 'reinfected' with Covid have at least two comorbidities...

Tell me about getting infected...

- ▶ Symptoms can occur any time from 24 hours to 14 days after being infected.
- ▶ Most people have symptoms by day 5...
- ▶ Studies of Covid-19 show people are **most infectious in the 24 to 48 hour period before they experience symptoms!**

This is why we are here...

Rate ratios compared to 18-29 year olds

	0-4 years of d	5-17 years of d	18-29 years of d	30-39 years of d	40-49 years of d	50-64 years of d	65-74 years of d	75-84 years of d	85+ years of d
Cases²	<1x	1x	Referen ce group	1x	1x	1x	1x	1x	1x
Hospital ization³	<1x	<1x	Referen ce group	2x	2x	4x	6x	9x	15x
Death⁴	<1x	<1x	Referen ce group	4x	10x	35x	95x	230x	600x

So...how do I keep from getting it?

- ▶ The CDC is now recommending everyone wear masks in indoor situations and where you cannot social distance. That includes people who have been vaccinated.
- ▶ Masks are now recommended for anyone who has comorbidities...DM, COPD, obesity, decreased immune function...with or without vaccination.

What masks work?

- ▶ N95 or KN95 masks work the best...however watch for fakes.
- ▶ Use surgical masks if N95 or KN95 masks are not available.
- ▶ Bandanas, gaiters, and masks with exhalation valves **DO NOT WORK!**

Your best bet to avoid Covid-19??

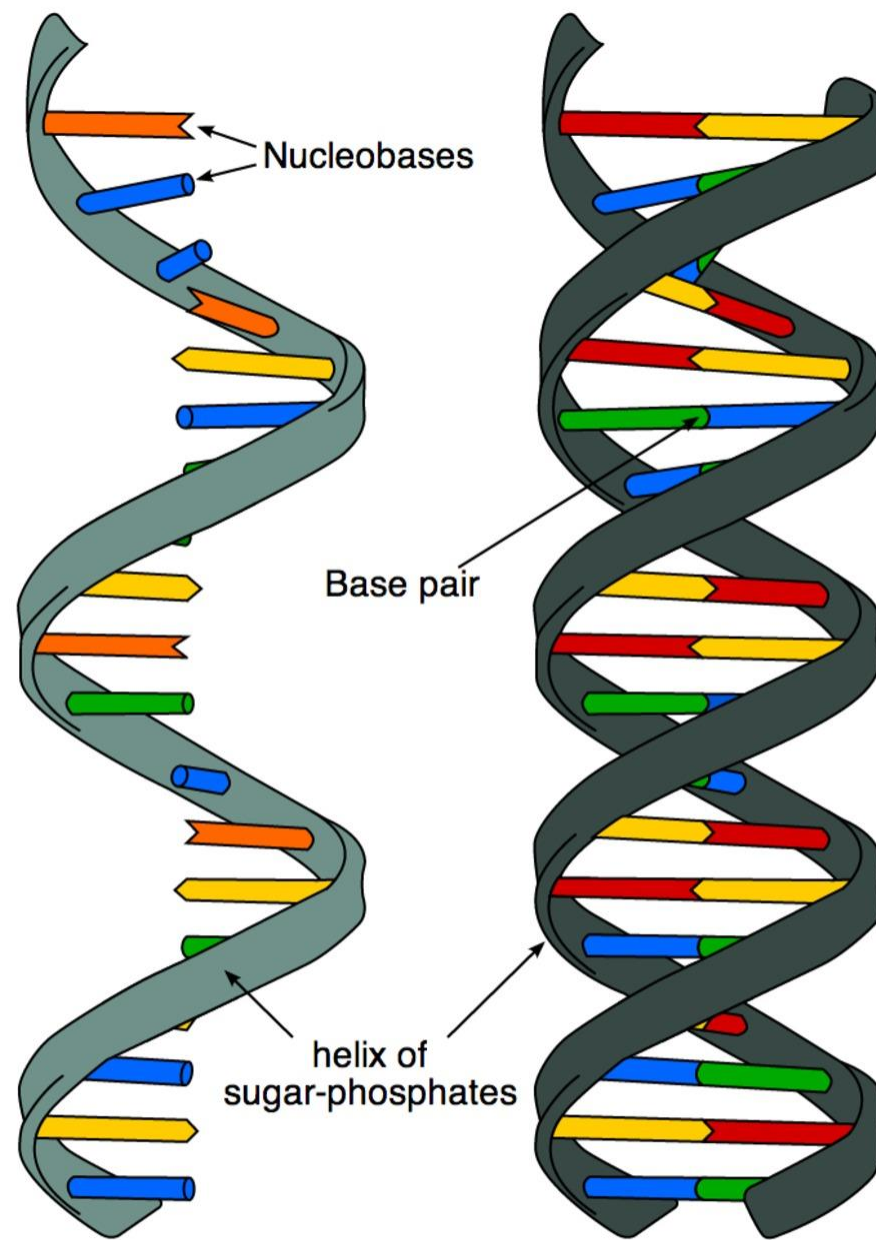
- ▶ **Vaccination!**
- ▶ **Many docs now believe if you are an adult and unvaccinated you will get Covid-19.**

Let's talk about vaccines...

- ▶ **There are several types of vaccines...**
 - ▶ **Weakened virus (MMR, smallpox, chicken pox)**
 - ▶ **Killed virus (Polio, Rabies, Hepatitis A, flu)**
 - ▶ **mRNA (Covid-19 Moderna, Pfizer)**
 - ▶ **Viral vector (J&J)**
 - ▶ **Sub-unit (HPV, Hepatitis B, shingles)**

mRNA vaccines

- ▶ Not new....scientists have been working on them for decades!
- ▶ mRNA lives outside the nucleus of the cell and tells the cell what proteins to make.
- ▶ mRNA gives very specific instructions about how the cell is to make certain things necessary for life.



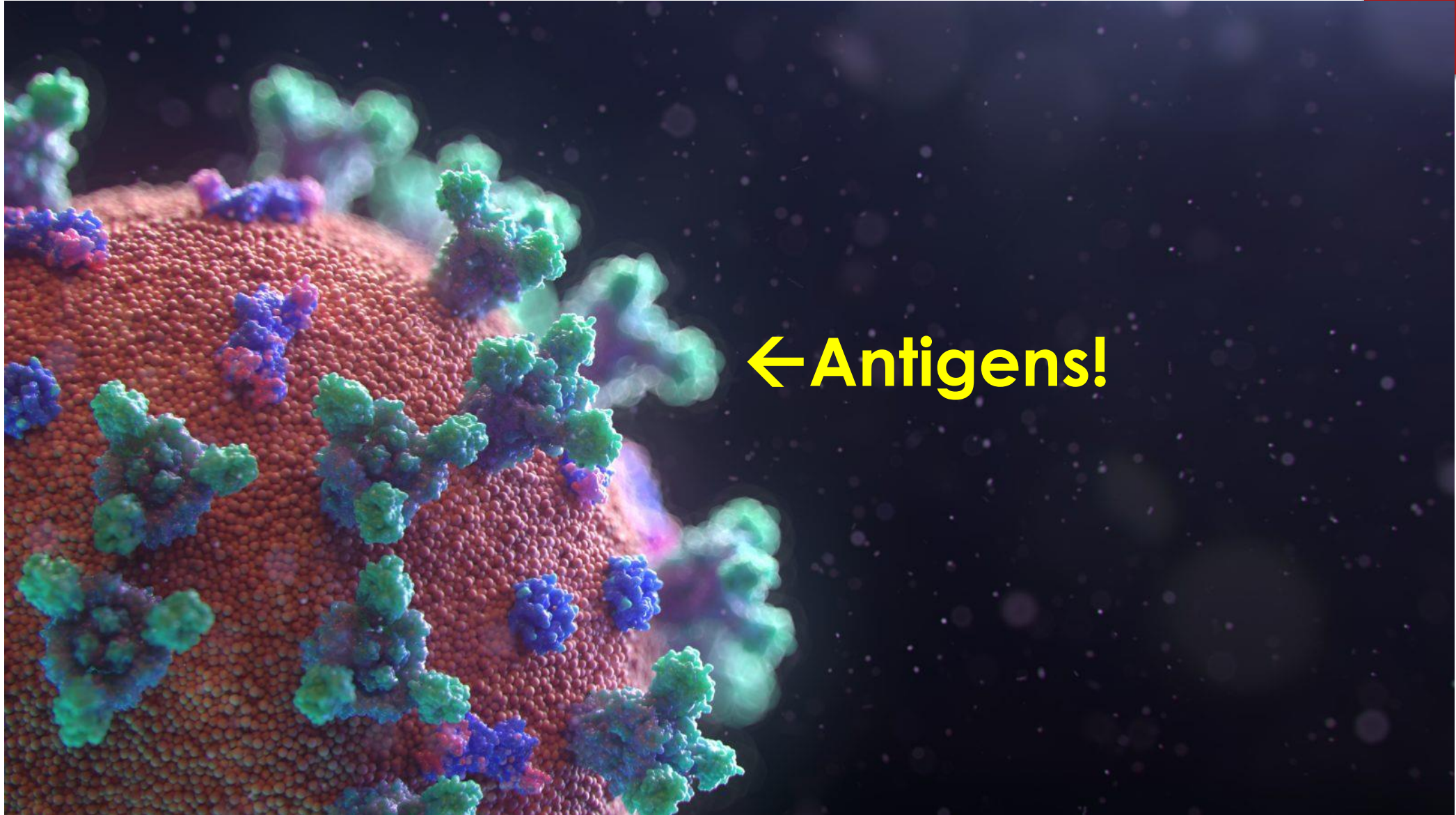
RNA
Ribonucleic acid

DNA
Deoxyribonucleic acid



So how does this vaccine work?

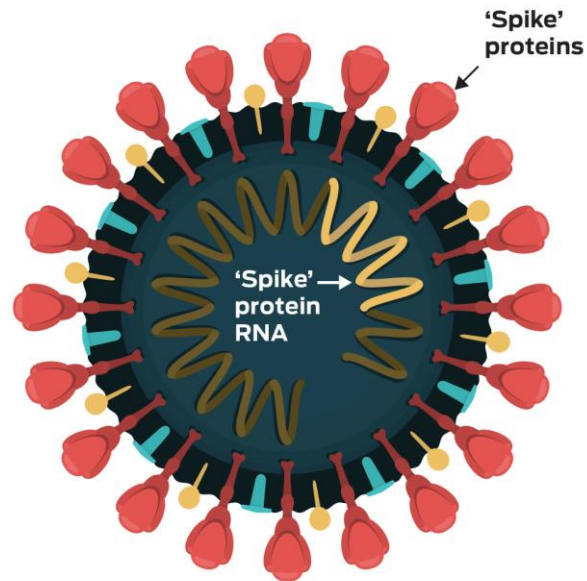
- ▶ You have to understand how our bodies react to the coronavirus...



Pretty slick!

- ▶ mRNA vaccines take a cell in your body and tell it to make at least a part of the spike (antigen!) found on Covid-19...
- ▶ The mRNA **NEVER GETS INTO THE NUCLEUS OF OUR CELLS!**
- ▶ All mRNA disappears after it causes the cell to make the spike!

Human cell with Covid spike...



CORONAVIRUS

Now your body can start safely making an immune response!

Let's talk about the FDA and new vaccines...

- ▶ Every new vaccine (or medication) goes through 5 phases before the FDA will approve it.
- ▶ No phases were skipped for the Covid-19 vaccines!

Phases of a new drug or vaccine trial...

- ▶ Phase 1- 'Discovery' (Preclinical, lab studies)
- ▶ Phase 2- Safety and dosage? (20 people)
- ▶ Phase 3- How effective is it? (Many more people, halted for any problems)
- ▶ Phase 4- Regulatory approval (manufacturing ability and consistency)
- ▶ Phase 5- Long term follow up

Why did we get the mRNA vaccine so quickly?

mRNA vaccines are not new!

- ▶ Scientists have been working on the coronavirus for years...they had 'templates' to work with...
- ▶ Lots of infections in human subjects, so it was easy to do human trials quickly
- ▶ Several drug trial phases were grouped together.
- ▶ The government helped the drug companies financially

What are 'virus vector' vaccines?

- ▶ A different virus than Covid-19 (a 'vector') is used to cause our cells to produce the spike protein and start the immune response.
- ▶ The vector virus is harmless, and does not cause Covid-19 to grow in our bodies.

Vaccine myths...

- ▶ mRNA can change our DNA...not true
- ▶ The Covid shot puts a magnet in your body...not true
- ▶ Covid vaccines cause infertility...not true
- ▶ Covid vaccines will cause me to test positive for Covid-19...not true
- ▶ Vaccines will make me shed the virus...not true

And finally...

- ▶ Nobody knows what problems the vaccine will cause 'down the road'!
- ▶ Most serious side effects in vaccines are normally seen within two months.
- ▶ Doctors, pharmacists, patients, and vaccine companies all have provisions to provide info re adverse events.
- ▶ Vaccine manufacturing companies are required to follow adverse events even after approval!

The moral of the story...

- ▶ **99% of the people being infected with the delta variant are unvaccinated.**
- ▶ **Vaccinated people can still get the virus, but have a much greater chance of milder illness and survival.**
- ▶ **Expect to see more (and more potent!) variants unless this is brought under control!**
- ▶ **Expect to get booster shots and yearly vaccinations.**

And finally.....

**0.0009% of those who have
been vaccinated have died
from Covid-19 infection.**



Questions?