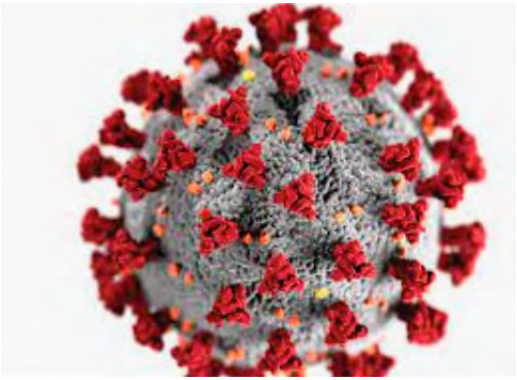
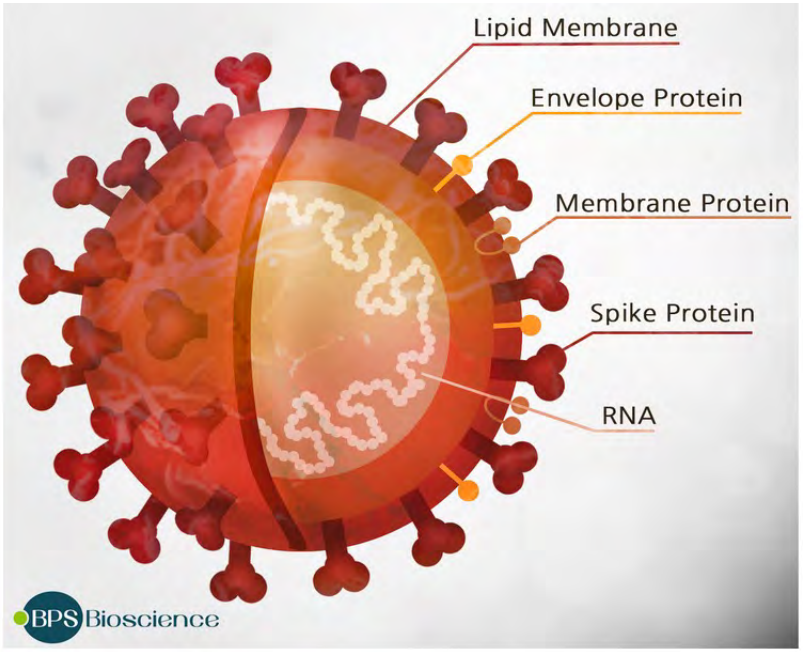
The Coronavirus, Covid-19, Vaccination Mandate and What You Can Do



1. The Coronovirus and its “Spikes”
2. How the Coronovirus Causes Infection
3. Severe results of Coronovirus Infection
4. Vaccines (1): mRNA Type Vaccine (Pfizer, Moderna)
5. Vaccines (2): Viral Vector Type Vaccine (Johnson and Johnson)
6. Possible Side Effects Of Vaccination; Variants of the Virus
7. Ethical Issue: Responsibility to Others
8. What you can do: (1) Get vaccinated
9. What you can do: (2) Stay Masked
10. What you can do: (3) Further Steps
11. What you can do: (4) Booster Shots when Appropriat
12. Covid Cases in the US
13. Legal Challenges to Vaccine Mandates (1): Indiana University
14. Legal Challenges to Vaccine Mandates (2) : Jacobson Precedent
15. Legal Challenges to Vaccine Mandates (3) : Mass. and Connecticut
16. Appendix (1): Some Major Pandemics in History
17. Appendix (2): Federal Agencies involved in Covid Measures

This presentation is based on scientific material as referenced, but provides no more than an overview. For detailed and fully accurate discussion, consult current journals directly, as cited. Prepared by David Blitz. Thanks to a colleague in the biological sciences for checking the first version of this slide-presentation for accuracy; any errors in the presentation are due to me as updated Nov. 5, 2021. Contact me at Blitz@ccsu.edu for corrections or additions. For CCSU covid policy go to https://www.ccsu.edu/blueprint/’

The Coronovirus and its “Spikes”



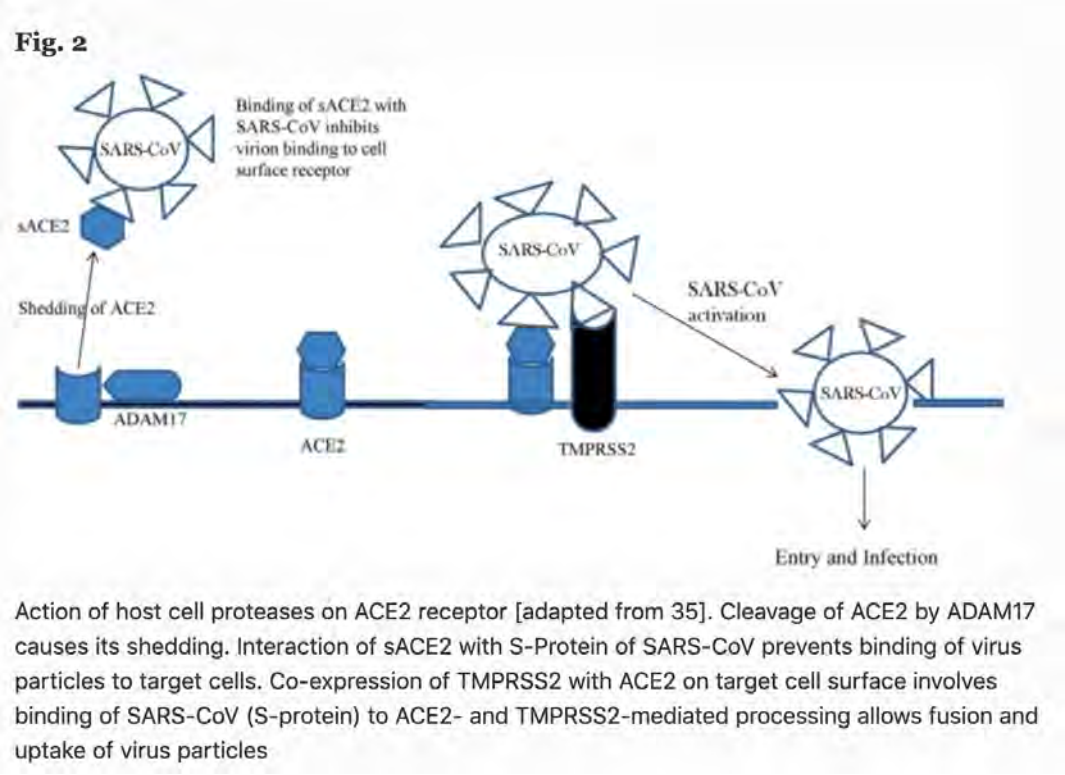
https://www.rndsystems.com/resources/articles/ace-2-sars-receptor-identified

The coronavirus (SARS-CoV 2) in an artists’ rendition, based on actual scans, has ”spikes” surrounding the membrane that encloses its content.

These spikes are key to infection. A spike is pictured in a graphic at the right, showing its 3-D structure, color coded for its component parts.

https://newsroom.uw.edu/news/covid-19-coronavirus-spike-holds-infectivity-details

How the Coronovirus Causes Infection



Action of host cell proteases on ACE2 receptor [adapted from 35]. Cleavage of ACE2 by ADAM17 causes its shedding. Interaction of sACE2 with S-Protein of SARS-CoV prevents binding of virus particles to target cells. Co-expression of TMPRSS2 with ACE2 on target cell surface involves binding of SARS-CoV (S-protein) to ACE2- and TMPRSS2-mediated processing allows fusion and uptake of virus particles

"COVID-19 susceptibility: potential of *ACE2* polymorphisms", 21 Sept. 2020
Egyptian Journal of Medical Human Genetics
https://jmhg.springeropen.com/articles/10.1186/s43042-020-00099-9#Fig2

1: The SARS-CoV 2 virus prompts the ACE2 receptor on human cells into accepting it (in interaction with ADAM17 proteinase.)

2: The virus is fully activated with the aid of the TMPRSS2 surface protein of the cell.

3: The virus now enters the cell, where it both causes damage (disease) and replicates itself, to infect more cells and spread to others (epidemic).

ACE2/ADAM17/TMPRSS2 Interplay May Be the Main Risk Factor for COVID-19; Frontiers in Immunology, 10/07/2020
https://www.frontiersin.org/articles/10.3389/fimmu.2020.576745/full

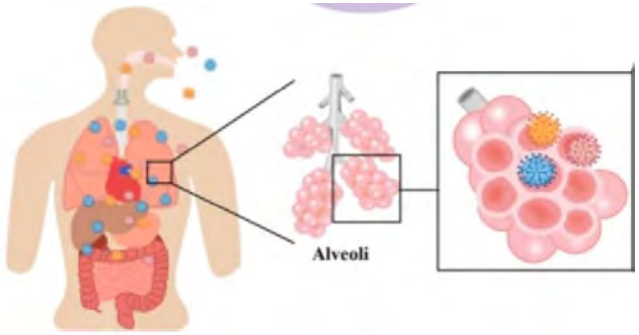
Severe results of Coronovirus Infection

The coronavirus enters the human body primarily through the lungs (as an air-born particle). Disease, ranging from mild symptoms to critical care in a hospital to death is caused by two major results:

1. In a non-vaccinated individual, pneumonia and associated symptom of difficulty in breathing results from compromised (infected) lung cells. That is why oxygen treatment is needed in severe cases, which can result in failure of the lungs and death. As the virus entered through the mouth and nose, loss of taste and smell may also result.

2. In a non-vaccinated individual, the immune system, reacting to the foreign virus, may "over-react" and cause an "immune storm" or "cytokine storm"which attacks not only the virus but other cells needed for proper organ function; resulting in systemic failures and possibly death. "The signal pathways and treatment of cytokine storm in COVID-19; Nature, 07/07/2021 https://www.nature.com/articles/s41392-021-00679-0

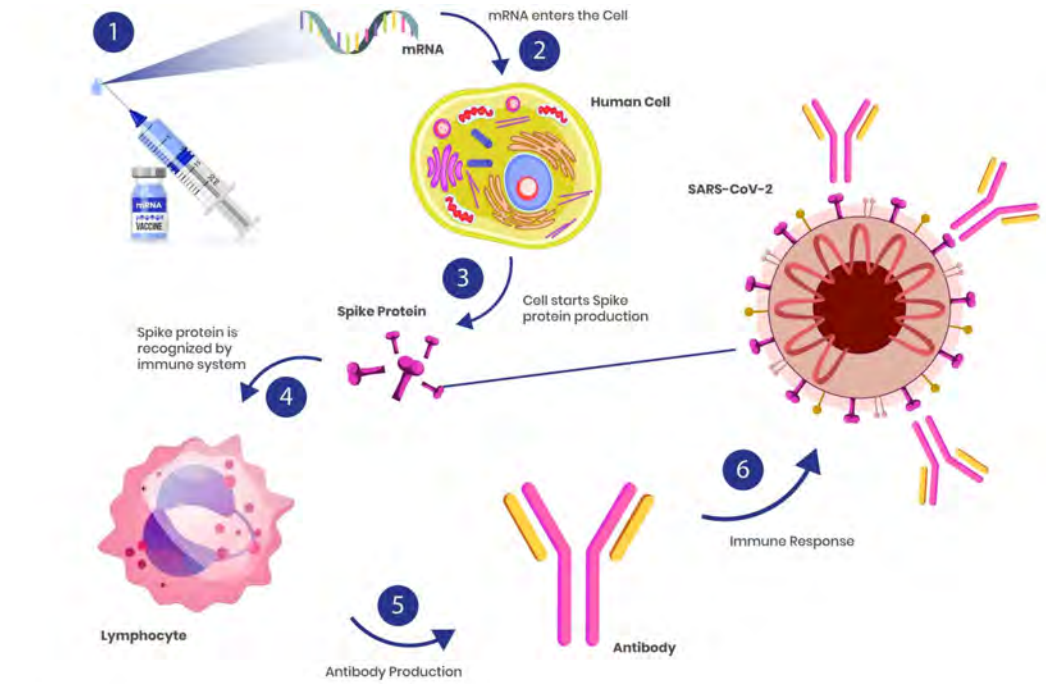
3. In some victims of covid-19 infection there are "long-haul" results even after the acute infection has passed, including symptoms such as severe fatigue, memory problems and others.



https://respiratory-research.biomedcentral.com/articles/10.1186/s12931-020-01479-w

NOTE: People often get concerned about the reaction to vaccines (not only covid, but flu shots too) and think the vaccine is making them sick with the disease. I like to explain that that is simply the normal response of the first part of the immune system. The innate immune system provides a one-size-fits-all response to pretty much any foreign particle that enters the body, primarily an inflammation response so the site of the injection becomes sore and inflamed, and there might be a slight fever for a day or two. The body also starts regulating energy usage to provide more energy to the second part of the immune system, the adaptive immune system, which will produce the antibodies and memory B-cells which are the entire purpose of the vaccine. So the fatigue that is commonly felt after a vaccination does NOT mean you are sick with influenza or COVID, it is simply an indication that your immune system is doing what it is supposed to be doing.

mRNA Type Vaccine (Pfizer, Moderna)



mRNA vaccine mechanism of action

https://www.gideononline.com/2021/05/07/how-vaccines-work/

1 -2: Messenger RNA (mRNA) with the code for the “spike” by which the coronavirus attaches itself to a human cell (but not the code for the virus itself) is injected into the muscle of the arm.

3: Human cells so affected produce the ”spike” (but not the coronavirus) and release it into the bloodstream
4 – 5: Lymphocytes recognize the “spikes” as foreign and produce antibodies

6: When infected by the coronavirus, the primed immune system produces more antibodies that attach to the spikes of the virus, preventing it from entering human cells.

Note: Pfizer has now received final approval (Biologics License Approval – BLA) for its vaccine. Moderna has also applied for BLA status.

Ethical Issue: Responsibility to Others

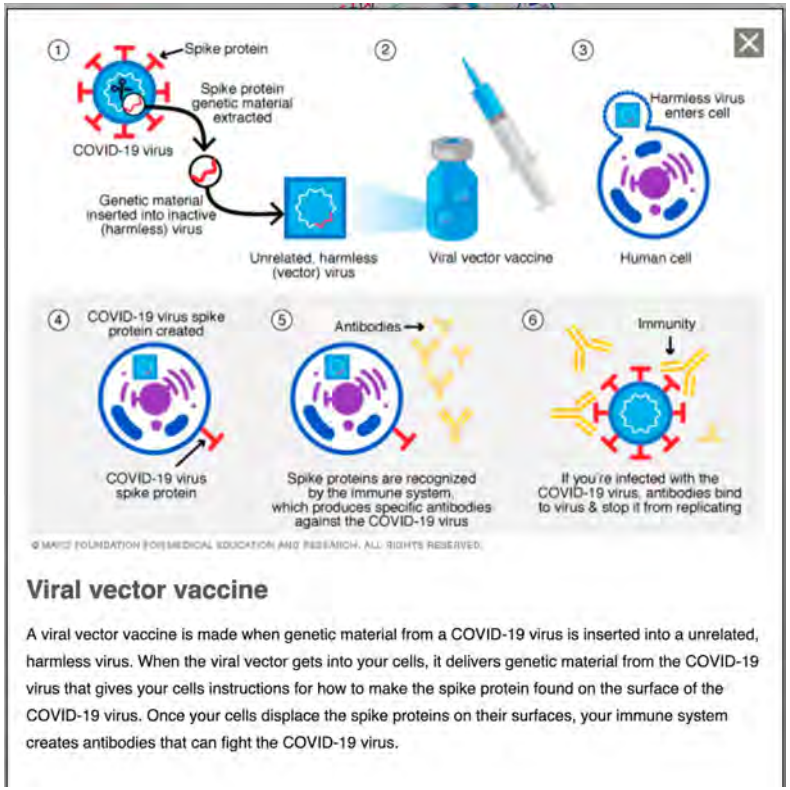
A persistent argument against the vaccine mandate is that it's the individual's "freedom to choose" whether to be vaccinated or not, and that it is a "constitutional right" to refuse being vaccinated or to follow other anti-covid measures such as wearing a face mask. Sometimes the notion of "natural immunity" is invoked to argue that vaccination is not necessary.

The argument from "freedom to choose" omits reference to the fact that non-vaccinated individuals are not only placing themselves in peril, but can spread the disease to others. Once the contagious nature of the virus is recognized, the more fundamental "responsibility to others" becomes dominant. Moreover, unvaccinated individuals can become a source of mutated viruses that may escape prevention from existing vaccines that others have taken.

The argument about "constitutional rights" forgets the other side of the coin: "responsibilities' (such as the duty to protect others) and restrictions. For example, the right to bear arms is subject to restrictions (not allowed in public buildings, machine guns prohibited), and the right to drive a car is subject to getting a licence and obeying traffic laws. Courts at the state and federal levels, and the US Supreme Court have ruled that public authorities are authorized to impose mandates to protect public health.

The claim of "natural immunity" sometimes invoked is not verifiable, and usually exaggerated. It is estimated that 45 million Americans have contracted covid-19, which is not a sufficient number for "natural immunity".

Viral Vector Type Vaccine (Johnson and Johnson)



1: The “spike” protein genetic material is incorporated into a harmless, inactive virus (not coronavirus)

2 – 3: When injected into humans, the virus with the code for the ”spike” is incorporated into cells.

4 - 5: The cells produce the spike protein, which are identified by the immune system as foreign, and anti-bodies are produced.

6: When infected with the coronavirus, antibodies to its “spike” attach themselves to the invading virus and prevent it from entering human cells and replicating. This is the same mechanism involved as a result of the mRNA vaccines.

https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/different-types-of-covid-19-vaccines/art-20506465#dialogId48081977

Possible Side Effects Of Vaccination

As for any other medication, whether taken as a pill or a vaccine, side effects are possible. Those for covid-19 vaccines are minimal compared to the danger of the disease itself.

Local effects may include irritation, swelling or soreness at the site of the vaccination. This is minor.

A more significant side effect can, in some cases, include a flu-like reaction that can ensue within 24 hours of the vaccination, and usually lasts about that length of time as well.

The most significant side effects include very rare cases of inflammation of the heart muscle, known as myocarditis. This has been reported in a very small number of cases involving the m-RNA vaccines, and is treatable by physicians, who are now aware of this possible side effect and can identify it through reported symptoms such as chest pain, shortness of breath, or fast-beating, fluttering or pounding heart.
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/myocarditis.html

Variants of the Virus

You have probably heard that there are a number of different "variants" of the coronavirus. Viruses, like other organisms, evolve over tine, but rather rapidly – in the course of months.

The coronavirus has evolved variants to the spike, formerly named by the country in which they were first identified, but now referred to by the Greek alphabet: alpha, beta, gamma, delta and so forth. These refer to changes on the spike, which is the part of the virus that attaches to and enters cells. https://www.cdc.gov/coronavirus/2019-ncov/variants/variant-info.html

Currently the major variant is the "delta" – which is more transmissible, and may be more serious and affect younger people.

The preferred environment for this evolution is infected individuals – which is correlated with non-vaccinated individuals, who form a pool for new variants. So far existing vaccines remain effective against the variants, but the longer a pool of unvaccinated individuals persists, the greater the risk of new and potentially more dangerous variants. So get vaccinated!

Ethical Issue: Responsibility to Others

A persistent argument against the vaccine mandate is that it's the individual's "freedom to choose" whether to be vaccinated or not, and that it is a "constitutional right" to refuse being vaccinated or to follow other anti-covid measures such as wearing a face mask. Sometimes the notion of "natural immunity" is invoked to argue that vaccination is not necessary.

The argument from "freedom to choose" omits reference to the fact that non-vaccinated individuals are not only placing themselves in peril, but can spread the disease to others. Once the contagious nature of the virus is recognized, the more fundamental "responsibility to others" becomes dominant. Moreover, unvaccinated individuals can become a source of mutated viruses that may escape prevention from existing vaccines that others have taken.

The argument about "rights" forgets the other side of the coin: "responsibilities' (such as the duty to protect others) and restrictions. For example, the right to bear arms is subject to restrictions (not allowed in public buildings, machine guns prohibited), and the right to drive a car is subject to getting a licence and obeying traffic laws. The ability of staters to impose vaccination mandates in cases of epidemics has been affirmed in state and district courts, and by the Supreme Court on numerous occasions.

The claim of "natural immunity" sometimes invoked is not verifiable, and usually exaggerated. It is estimated that 45 million Americans have contracted covid-19, which is not a sufficient number for "natural immunity", given the over 300 million people living in the US.

What you can do: (1) Get vaccinated

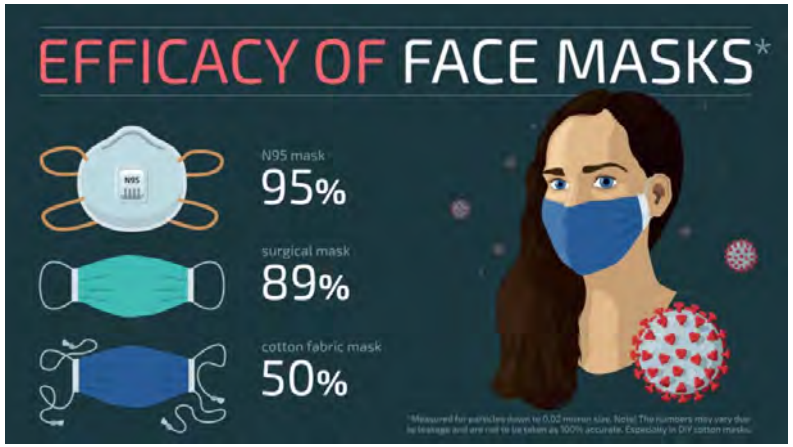
1. Most importantly, get vaccinated. In particular, the Pfizer m-RNA vaccine (similar to the Moderna version) has just received final approval (Biologics License Approval: BLA), replacing its previous Emergency Use Authorization (EUA), from the Food and Drug Administration (FDA). That means in some 6 months of additional testing, benefits far outweigh any side effects, all of which are known and either pass within a day or so, or can be fully treated in the very rare serious adverse reactions.

2. The Board of Regents (BOR) that governs the four state universities, including CCSU, has approved a vaccine mandate, requiring all students to be vaccinated. The university is providing free clinics for Pfizer vaccines. A court case against a similar policy at UConn has been rejected by a judge, as has a decision by a district court in the Indiana University case. These mandates are legal and can and will be enforced.

3. In a very small number of cases, a student has been granted a medical exemption based on an attestation by a physician that the individual has a compromised immune system or other medical contra-indication. These students depend on the rest of us being vaccinated for their protection.

4. Those students who have availed themselves of a non-medical exemption should know that (1) they must be tested for covid-19 on a weekly basis; (2) they may be subject to other restrictions based on the prevalence of the virus on campus and its surroundings; (3) the exemption is temporary for Fall 2021 only, and "that the Connecticut Board of Regents may disallow nonmedical exemptions at any time" and (4) over 95% of hospitalizations for covid-19 are among the non-vaccinated, who have a 29 times greater risk of being hospitalized with serious, even life-threatening symptoms. It is only prudent for these students to be vaccinated immediately.

What you can do: (2) Stay Masked



https://www.optometrytimes.com/view/how-mask-antiviral-coatings-may-limit-covid-19-transmission

1. Also essential, follow to the letter the CCSU masking policy. Masks MUST be worn during class, in hallways, upon entering buildings and whenever in a campus building, as well as walking in groups between buildings. This is because the coronavirus is an air borne particle, which an infected person expels when breathing out, and which infects another person when they breathe it in. Masks protect both you and others.

2. Make sure your mask conforms to basic standards: a scarf or bandana is not sufficient. An N95 or KN95 is best, but other commercially available masks, sometimes called surgical masks or by other terms, will aid in preventing infection. Wear the mask over your nose and covering your mouth. Do not remove it in class when speaking. You can find N95 masks in the paint departments of major home centers (eg Loew's, Home Depot and other hardware stores) or online (eg Amazon).

3. Some object to wearing a mask because of misconception. They object on the grounds that it infringes their freedom or right to wear a mask or not. Freedom is never absolute, but is framed and constrained by rules. You may be free to drive your car to campus, but you can't speed down the road at 80 mph. You have the right to speak your mind, but not when it infringes on others right to hear a speaker. You have the right to "bear arms", but you cannot bring a weapon to campus. Rights have restrictions, and are relative to context.

4. Some object to wearing a mask because of misinformation or disinformation. Much of this is spread online by conspiracy theorists, who make up a story of "them" doing something covert or injurious to "us". Accurate information is provided by various scientific publications and agencies. Don't be fooled by those who attempt to play the public as patsies for their own purposes, whether personal or political.

What you can do: (3) Further Steps

- In addition to getting vaccinated, wearing a face mask, and hand sanitizing, social distancing is essential: try to maintain a distance of at least 3 feet, and ideally 6 feet from others when dealing with persons whose vaccine status is unknown too yoou. Maintaining this distance reduces the chances of your breathing in virus particles if someone you meet is infected, and helps to prevent your spreading the disease if you become infected.

- If you think you have been in contact with someone with covid-19, get tested. Free testing is available at pharmacies such as CVS and Walgreen, and a various health care centers.

- If you are diagnosed with covid-19, you must inform the university of your status and provide contacts for tracing: call at 860-832-3200 for the CCSU Covid Information Line and Resource Navigator ; 860-832-1910 for the Student Contact Tracing Team. Do not come to campus until you test negative.

- The annual flu season will start again with the coming of fall. Get vaccinated for the flu to avoid this serious illness, which can easily complicate the health care situation due to covid-19. If you feel sick for any reason, stay home. Return to school only after fully recovering.

- Follow the directives on covid measures in the state of Connecticut that are issued by the Governor, who has emergency authorization from the legislature, towns and municipalities as allowed by state policy, as well as the leaders at the system, college and university levels of the Connecticut State Colleges and Universities.

- Avoid misinformation and disinformation which are flooding social media. Reliable sources of information include scientific research papers and validated findings from appropriate government agencies such as the Centers for Disease Control (CDC), Food and Drug Administration (FDA) and the National Institutes of Health (NIH), whose conclusions are based on multiple trials and panels that critically examine the evidence – not talk radio shows interested in boosting their ratings, or Facebook pages or other social media.

What you can do (4): Get a Booster Shot when Authorized

You have probably heard that Pfizer, Moderna and now Johnson and Johnson have stated that booster shots should be administered soome months following vaccination. This is required for a number of reasons:

1: The effectiveness of the vaccine in inciting the immune system to produce anti-bodies may decline over time.

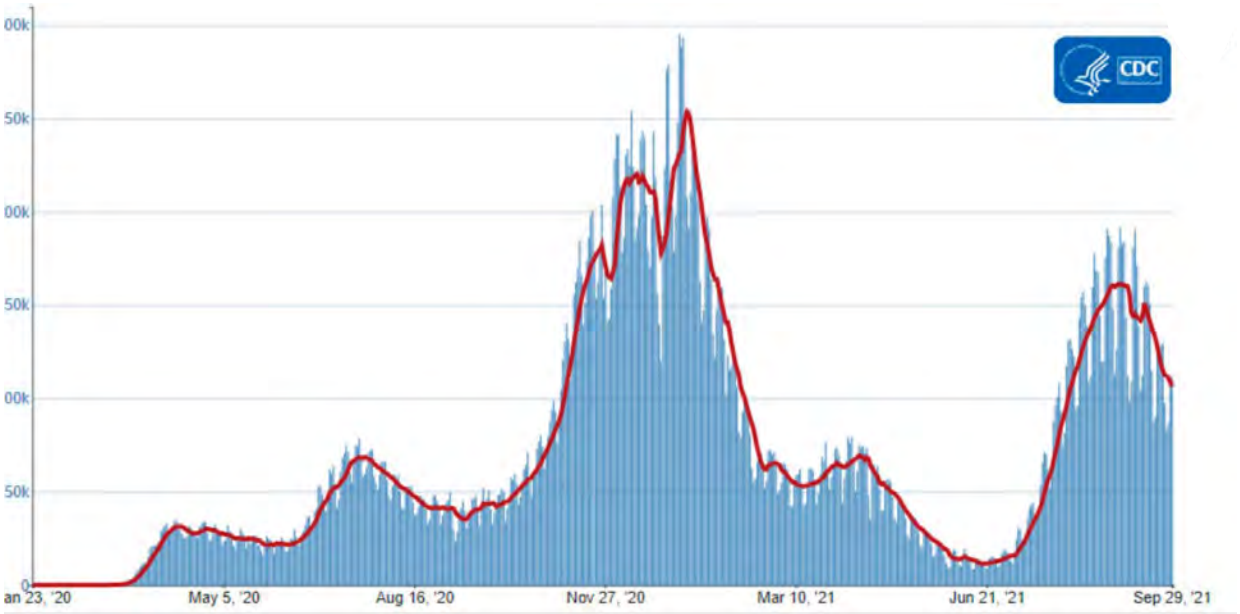
2: A slightly modified vaccine may be needed to fully combat the delta (and perhaps further) variants of the virus.

This occurs with other vaccines as well: child hood vaccines for MMR (measles, mumps, rubella) may be needed, along with Tdap (tetanus, diptheria and pertussis); adults require boosters for tetanus, shingles, and pneumonia among others.

The most obvious “booster” is the need for annual flu shots – in this case, because there are new variants annually (eg: “swine” flu, “avian” flu, etc.)

The CDC has now approved booster shots for select categories of individuals (over 65; and age 18+ living/working in long care settings, with underlying conditions (eg: compromised immune system),and working/living in high risk settings (eg: first responders, educators, grocery store workers and others).

Covid Cases in the US



Download Image [JPG?_=39366]

https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html

As a result of the increase of vaccinations due in large part to mandates at public and private institutions, including universities, we appear to be on the declining side of a fourth "hump" in covid cases. But this decline remains fragile and dependent on continued vaccination and measures such as masking and distancing.

Hospitalizations and severe cases, including those leading to death, continue among the non-vaccinated, who make up 86% of current hospital cases. https://www.healthsystemtracker.org/brief/unvaccinated-covid-patients-cost-the-u-s-health-system-billions-of-dollars/

Legal Challenges to Vaccine Mandates (1): Indiana University

1. Numerous legal challenges to vaccine mandates have been rejected by courts at al levels. The first and most significant was a challenge against Indiana University, a public university. The case is Klaasen vs. The Trustees of Indiana University, decided in favor of the university's vaccine mandate by Judge Danon R. Leichty, July 18, 2021. This judgement declared that "Under guiding principles of federalism, our Constitution preserves the power of the States, within constitutional limits, to adopt laws to provide for public health and safety. Twice the United States Supreme Court has upheld state authority to compel reasonable vaccinations. The States don't have arbitrary power, but they have discretion to act reasonably in protecting the public's health." (p. 1) https://law.justia.com/cases/federal/appellate-courts/ca7/21-2326/21-2326-2021-08-02.html

2. The precedent in question was Jacobson vs. The City of Cambridge, a decision which permitted that city to require vaccination for smallpox. In the current case, the judge ruled that " Indiana University has a rational basis to conclude that the COVID-19 vaccine is safe and efficacious for its students. The vaccine has been used on about 157 million Americans; and data now about eight months later, though it will grow more robust in years to come, is considerable and shows major side effects are rare. Much like over 500 universities and colleges in the United States that have done the same. Indiana University reasonably relies on the vaccine as a measure to return to normal school functioning." (p. 80)

3. And the judge continued: ""Progress has been made because of the vaccine, not despite it. To the extent= that lingering medical and scientific debate remain on this record, the court remains resolved that Indiana University has acted reasonably here in pursuing public health and safety for its campus communities." The ruling in the Indiana case was appealed to the US Supreme Court, which on Aug. 17, 2021 declined to hear the appeal, thus letting the decision stand. https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/coronavirus-supreme-court-denies-review-vaccine-mandate.aspx

4. The complainants appealed to the US 7th District Court of Appeals and were turned down on Aug. 2. A further appeal to the US Supreme Court was denied by Justice Amy Coney Barrett. As a result, the vaccine mandate was upheld at all three court levels: district court, appeals court, and Supreme Court. https://www.scotusblog.com/case-files/cases/klaassen-v-trustees-of-indiana-university/

Vaccine Mandates Upheld in Court (2): Jacobson Precedent

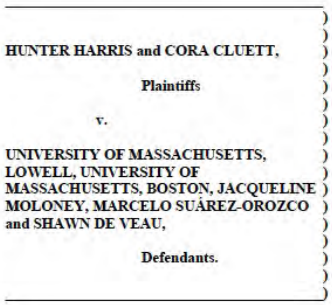
The legal precedent cited in the Indiana case was one upholding a vaccination mandate against a cholera epidemic in Cambridge, Massachussets. As Judge Danon R. Leichty stated, citing a Supreme Court precedent:

"In Jacobson, 197 U.S. at 12, Massachusetts passed a law that allowed a city, if "necessary for the public health or safety," to enforce vaccination of its citizens. If a person refused, he could be fined $5.00 (about $140.00 today). Id.; Cuomo, 141 S. Ct.at 70 (Gorsuch, J., concurring). The law allowed an exception for children who had physician signed certificates saying they weren't fit for vaccination, but no such exemption existed for adults. Jacobson, 197 U.S. at 12" (p. 36, referring to Jacobson v. Commonwealth of Massachusetts, 197 U.S. 11, 24-25 (1905))" (Klassen v. The Trustrees of Indian University, https://www.courthousenews.com/wp-content/uploads/2021/07/klaassen-indiana.pdf

An adult who refused vaccination was tried and found guilty of violating the mandate – he was sentenced to jail unless he paid the then $5 fine.

"The United States Supreme Court rejected his challenge. A state's police power "must be held to embrace, at least, such reasonable regulations established directly by legislative enactment as will protect the public health and the public safety." Id. at 25.This power included the **"authority of a state to enact quarantine laws and health laws of every description;**" and such power extended to "all laws that relate to matters completely within its territory and which do not by their necessary operation affect the people of other states." Id

Legal Challenges to Vaccine Mandates (3) : Massachussets and Connecticut



HUNTER HARRIS and CORA CLUETT,

Plaintiffs

v.

UNIVERSITY OF MASSACHUSETTS, LOWELL, UNIVERSITY OF MASSACHUSETTS, BOSTON, JACQUELINE MOLONEY, MARCELO SUÁREZ-OROZCO and SHAWN DE VEAU,

Defendants.

Case No. 21-cv-11244-DJC

1. In both Massachussets and Connecticut, a group known as "Family Freedom Endeavor, Inc." sponsored law suits against vaccine mandates at the University of Massachussets and the University of Connecticut, using the same rejected arguments as in the Indiana University case: freedom of choice as absolute, the vaccine as dangerous, the pandemic as less dangerous. US District Judge Denise Casper on Aug. 27 rejected these claims and ruled in favor of the vaccine mandate at the campuses. She found the vaccine mandate to be based on science and medicine, and to be necessary to prevent the spread of covid-19 at the universities. https://www.usnews.com/news/best-states/massachusetts/articles/2021-08-27/judge-tosses-case-over-umass-boston-lowell-vaccine-mandates

2. In Connecticut, US District Judge Jeffrey Meyer (New Haven) on Aug. 17, 2021 rejected a similar lawsuit against the University of Connecticut. In this case, the judge ruled that two of the three students complainants had applied for exemptions under the policy, and the third had failed to apply for an exemption. As a result, they lacked standing and their case was dismissed. https://www.nbcconnecticut.com/news/coronavirus/covid-vaccine/judge-dismisses-lawsuit-challenging-uconns-vaccination-mandate/2562829/

3. Both of these legal decisions are consistent with the Indiana University decision: that students are not being forced to be vaccinated, but required to follow a vaccine mandate: to be vaccinated, or under legitimate exemptions undergo weekly testing and other restrictions. The judge in the Indiana case noted that non-compliant students could take courses online, take a term off, or go to another university; but that they had no "right" to violate the legitimate university vaccine mandate intended to protect the community as a whole from a deadly pandemic.

Appendix (1): Some Major Pandemics in History

Covid -19 is not unique. Here are some other major pandemics that preceded it.

We have to deal with it now, and likely future pandemics as well. So let's be aware and prepared.

- Influenza
- AIDS
- Covid

Years	Name	Vector	Deaths	Spread
1918 - 1919	"Spanish" Influenza (flu)	H1N1 flu virus	World: 17 – 50 million US: 675,000	World wide
1957 - 58	"Asian" flu	H2N2 virus	World: 1.5 – 2 million US: 70,000	World wide
1968	"Hong Kong" flu	H3N2 flu virus	World: 1 – 4 million US 34,000 – 100,000	World wide
1981 - date	Aids	HIV retrovirus	World: 36 million worldwide US: 675,000	World wide
2002-2003	SARS – severe acute respiratory syndrome	coronavirus SARS – COVID 1	8422 with fatality rate of 11%:	China > 5000 Hong Kong > 1000 Taiwan, Canada, Singapore > 100
2009 - 2010	"Swine" flu H1N1 Pandemic	H1N1 flu virus	US: app. 12,000; worldwide >100,000	World wide
2012	MERS – Middle East Respitory Syndrome	coronavirus MERS - COVID	866/2519, fatality rate of 34%	Saudi Arabia > 100 South Korea > 100
2018 – date	COVID - 19	Coronavirus SARS – CoV 2	deaths/cases World: 4,550,000 /219,000,000 US: 710,000//44,000,000 CT 8307/362,000	World Wide

Appendix (2): Federal Agencies involved in Covid Measures

1. CDC: Center for Disease Control amd Prevention: Issues warnings and guidances for the control and prevention of disease and injuries.

2. NIH: National Institutes of Health: Agency responsible for biomedical and public health research.

3. FDA: Food and Drug Administration: Authorizes medications and vaccinations for public use.

In the case of covid vaccines, the FDA is responsible for issuing Emergency Use Authorization (EUA) and final approval of Biologics License Applications (BLA). The NIH, through its National Institute of Allergy and Infectious Diseases (NIAID) conducts research on infectious, immunological and allergic diseases. The CDC issues guidances on measures, such as masking and social distancing that contribute to controlling the disease spread. From time to time they may be modified or even recalled based on the changing situation.

For the most up to date measures, refer to your university or college administration policies, based on the best available information.