



COVID-19 Workshops

Workbook for Grades 6-8

COVID & Vaccines

Part I: What is COVID-19?

- COVID-19 is a disease that we have discovered, originating in Wuhan, China in Dec 2019.
 - Due to Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), the virus that causes COVID-19.

The Anatomy:

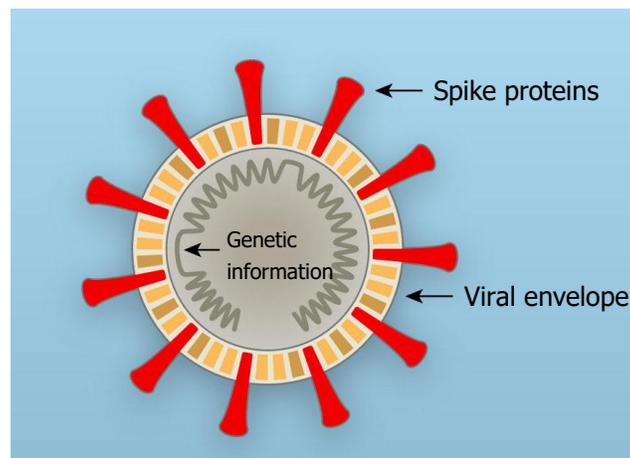


Image from: <https://www.nytimes.com/interactive/2020/03/11/science/how-coronavirus-hijacks-your-cells.html>.

- Zoonotic: A category of microbes that originate in other species, and through mutations, infect humans.
 - Examples: HIV, Flu, Ebola
- Significance: We have no natural immunity prepared to defeat the virus.
 - Prior coronaviruses spread only when someone had symptoms (including but not limited to, cough, fever, and/or shortness of breath.)
 - Contact Tracing is a core disease control measure.
 - Key message: The window to alert people who may have been in contact with the infection is small! It is important to contact people before they spread it further by spreading it to others! Meaning: We need to act fast!

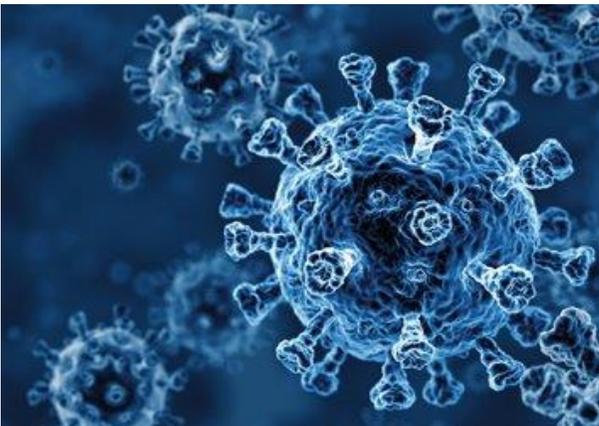
Part II: What is a vaccine?

- Stimulates your immune system to produce proteins (called antibodies) exactly like you would if you were exposed to the infection.
 - Result: Immunity: A 'memory' on how to defeat the microbe if your body sees it again!
- Primary target for a COVID-19 vaccine is the Spike Protein.
- The vaccine results in a memory creation for the immune system.
 - Goal: To prevent severe, life-threatening disease
- The ideal COVID-19 vaccine
 - Effective against SARS-CoV-2 after 1 or 2 doses.
 - Protects vulnerable populations (e.g., elderly, and people with disabilities)
 - Confers protection for a minimum of 6 months
 - Prevents future infection
- Herd Immunity: If infection is unable to travel from person to person, disease will not occur.
 - To achieve herd immunity, we think 60-90% of population must be vaccinated.



Part III: Mutations and Variants

- If a mutation, results in:
 - Easier to spread
 - More lethal
 - Weakens current tools to prevent or cure the virus' disease
- We call that mutation a variant.
- Best way to prevent mutations and variants is through infectious control strategies:
 - Hygienic interventions (face masks, physical distancing, hand hygiene)
 - With the aid of vaccines



- Currently, there are three vaccines that are FDA-approved for emergency usage:
 - Moderna
 - Pfizer-BioNTech
 - Johnson & Johnson

Part IV: Myth-Busting

- By improving your science literacy, you can understand how misunderstandings happen when it comes to scientific considerations.
 - One common misunderstanding: Correlation implying cause-and-effect
- Vaccines are meant to prevent life-threatening versions of COVID-19. You may still have minor cases (like a bad “cold”) of COVID-19.



- Vaccine Timeline: 20+ years of coronavirus research and removal of common manmade barriers slowing down scientific breakthroughs.
- Side Effects: Common ones are no different than the experience of a good work-out! Life-threatening ones are VERY rare (1 in 16 million).
- Vaccines are free for everyone and keeps everyone from becoming very ill.

Part V: Ways You Can Reduce Stress

It is so important to take care of your physical and mental health during these challenging times. Therefore, here are a few healthy coping strategies:

- Proper nutrition
- Physical exercise
- Rest!
- Engage in self-care and have regular check-ins with yourself and your loved ones.

Resources on vaccines:

[COVID-19 Vaccinations in Maryland](#)

[Find COVID-19 Vaccines Near You](#)

[Where to Get Vaccinated in Baltimore City](#)

Local Mental Health Services

[Baltimore City Health Department's Trauma and Mental Health Resources](#)

[Baltimore Crisis Response](#)

Call 410-433-5175; Available 24 hours a day, 7 days a week

[Johns Hopkins' Center for Adolescent Health](#)

National Mental Health Services

[Crisis Text Line](#)

Text HOME to 741741; Available 24 hours a day, 7 days a week

[National Alliance on Mental Illness \(NAMI\)](#)

Call 1-800-950-6264; Available Monday–Friday, 10am–6pm EST.

[National Suicide Prevention Lifeline](#)

Call 1-800-273-8255; Available 24 hours a day, 7 days a week

Stay up to date with the vaccines:

Look to your local health department, Center for Disease Control and Prevention (CDC), Food and Drug Administration (FDA), National Institutes of Health (NIH), the World Health Organization (WHO), and Johns Hopkins for up-to-date information on vaccines.

[Health Department Directories](#)

[Center for Disease Control and Prevention COVID-19](#)

[Food and Drug Administration](#)

[National Institutes of Health COVID-19 Response](#)

[World Health Organization COVID-19 Pandemic](#)

How can students identify trusted sources?

Here are some questions to consider:

1. Who wrote the article?
2. Was it peer reviewed?
3. Do they tell you where they got their information and/or provide sources/citations to back up what they say?
4. Who is the target audience?
5. What is the reputation of the site/author?
6. How does the URL end?
 - .gov (government)
 - .edu (education/university)
 - .mil (military)
 - .com (commercial)
 - .org (special group/organization)

Citation: <https://sites.umgc.edu/library/libhow/credibility.cfm> and J Med Internet Res 2017;19(6):e218 doi: 10.2196/jmir.7579

3 Tips for Constructive Conversations

- Active listening
- Share your resources
- It's okay to disagree! Engage in conversations based on mutual respect and clear communication, and share unbiased, objective facts to support your opinion.

Opportunity for Students

In an effort to increase youth health literacy and ability to make informed decisions about the vaccine, please consider volunteering for the Office of Minority Health (OMH) Student Ambassador Program.

- Must have parental permission
- Opportunity to earn service-learning hours

Please email HEATCorps@jhu.edu for more information.

Be a peer educator. Why? Because we're all in this together!

Our goal is to increase health literacy across the world, so more students and families feel confident in making informed decisions about their health!

We want you to share what you have learned through this workshop with your community.

The more people understand the science behind COVID-19 and the vaccines, the more empowered they are about the decisions they make that impact their health and way of life. It is important to realize that in sharing information consistent with known scientific truths, we can all contribute to promoting health, reducing the spread of COVID-19 further, and seeing an end to the pandemic!

