COVID-19 VACCINATION

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WHERE ARE WE NOW?

• Over 225,000,000 cases worldwide with over 3 million deaths
• It’s been over year since the first case in the United States and Illinois
• We have 2 vaccines approved for emergency use
• 1 with full FDA approval
• Over 5,530,000,000 vaccine doses administered world wide
• We have treatment options when we had none a year ago
• We continue to have people dying of COVID-19
COVID in the US

https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days
DAILY CONFIRMED NEW CASES (7-DAY MOVING AVERAGE)

Outbreak evolution for the current most affected countries

Click any country below to hide/show from the graph:
- United States
- United Kingdom
- India
- Philippines
- Turkey
- Iran
- Malaysia
- Russia
- Brazil
- Thailand
Prevention

MASK UP

WASH UP

BACK UP
PREVENTION WITH VACCINATION
Vaccine trials

- Rapid but controlled
- Did not skip on measures of safety and efficacy
- Minimal other trials during this time
- However, did not include pregnancy
Modernm mrna-1273

30,000 participants

COVID-19 Infection

• 185 cases in placebo group
• 11 cases in vaccinated group

Efficacy 94.1%

Efficacy against severe infection 100%

• 30 severe cases in placebo group
• none in vaccinated group

Efficacy was consistent across age, race and ethnicity, and gender demographic
Pfizer MRNA Vaccine *BNT162b2*

- **43,000 participants**
- **Efficacy 95% at day 28 the first dose;**

**Infection**
- 162 in placebo group
- 8 in vaccine group

**Severe Infection**
- 9 in placebo group
- 1 in vaccine group

**Efficacy was consistent across age, gender, race and ethnicity demographics**
Janssen Vaccine – Human Adenovirus 26 Vector DNA Vaccine

- Single dose
- 34,000 enrolled worldwide
- Efficacy 66% efficacy
  - 72% in the US, 57% in South Africa
- 85% efficacy against moderate to severe disease
- ZERO hospitalizations or deaths after day 28 in all countries!
Variant Strains and Clinical Trials
<table>
<thead>
<tr>
<th>Vaccines</th>
<th>Pfizer age 12 and up – 2 doses 21 days apart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moderna age 18 and up – 2 doses 28 days apart</td>
</tr>
<tr>
<td></td>
<td>Jansen age 18 and up – 1 dose</td>
</tr>
</tbody>
</table>
CONDITIONS WITH INCREASED RISK

- Cancer
- Chronic Kidney Disease
- Chronic Lung Disease
- Dementia
- Diabetes
- Down Syndrome
- Heart Conditions
- Weakened immune system
- Liver disease
- Overweight BMI > 25kg/m²
  or Obesity BMI ≥30kg/m²
- Pregnancy
- Sickle Cell disease or thalassemia
- Smoking former or current
- Transplant of organ or blood
- Substance use disorders
- Stoke
FAQS – BASED ON THE CURRENT VACCINES AVAILABLE
No. The mRNA vaccine will not change your DNA. Your body only uses it to make proteins. It does not enter the part of your cell where your DNA lives.
**WILL THE VACCINE GIVE ME COVID-19?**

- No. mRNA and adenovirus vaccines cannot give someone COVID-19. They do not use the live virus that causes COVID-19.

- And you will not test positive for COVID infection after vaccine.

- Depending on the type of antibody test you might be positive.
• NO

• Regardless of your antibody status it is recommend to be vaccinated

• Only some antibody tests can detect antibodies to the vaccine
  • It depends on the type of test directed against the “Spike protein” antibody
SHOULD I GET THE VACCINE IF I ALREADY HAD COVID-19?

• Yes. It’s safe and recommended. The vaccine is more protective against variant strains and reinfection.

• Data from phase 2/3 clinical trials showed it is safe and likely efficacious in persons with evidence of a prior SARS-CoV-2 infection.

• [https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/clinical-considerations.html](https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/clinical-considerations.html)

Reduced Risk of Reinfection with SARS-CoV-2 After COVID-19 Vaccination — Kentucky, May–June 2021

*Weekly* / August 13, 2021 / 70(32);1081-1083
WILL THE VACCINES PROTECT AGAINST THE VARIANT STRAINS?

• Alpha and Delta Variant spread more easily but Pfizer, Moderna, and Janssen are effective

• Last week Delta accounted for 99% of cases but majority of hospitalized patients are unvaccinated.

**SHOULD I GET THE VACCINE IF I AM PREGNANT OR PLANNING TO BECOME PREGNANT?**

- Pregnant people with COVID-19 at increased risk of severe illness and adverse pregnancy outcomes, such as preterm birth
- CDC and The American College of Obstetricians and Gynecologists recommend vaccination.
- Data from all three vaccines safety monitoring and a study of mRNA vaccines show no increased risk of miscarriage
- Talk to your doctor about risk and benefit

IF I AM PLANNING TO BECOME PREGNANT SHOULD I GET THE VACCINE?

Yes, there is no biologic mechanisms that would affect fertility

Best to get vaccinated and be protected before becoming pregnant
IF I HAVE A HISTORY OF ALLERGIES, CAN I GET THE VACCINE?

If you are allergic to Polyethylene glycol you can not get the Pfizer or Moderna Vaccine

If you are allergic to polysorbate can’t get Janssen.

If you have severe food or medication allergies you CAN get the vaccine but may need to be observed for 30 minutes.
### INGREDIENTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Pfizer-BioNTech (mRNA)</th>
<th>Moderna (mRNA)</th>
<th>Janssen (viral vector)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active ingredient</strong></td>
<td>Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2</td>
<td>Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2</td>
<td>Recombinant, replication-incompetent Ad26 vector, encoding a stabilized variant of the SARS-CoV-2 Spike (S) protein</td>
</tr>
<tr>
<td><strong>Inactive ingredients</strong></td>
<td>2(polyethylene glycol (PEG)-2000)-N,N-ditradecylacetamide</td>
<td>PEG2000-DMG: 1,2-dimyristoyl-rac-glycerol, methoxypropyleneglycol</td>
<td>Polysorbate-80</td>
</tr>
<tr>
<td></td>
<td>1,2-distearoyl-sn-glycero-3-phosphocholine</td>
<td>1,2-distearoyl-sn-glycero-3-phosphocholine</td>
<td>2-hydroxypropyl-β-cyclodextrin</td>
</tr>
<tr>
<td></td>
<td>Cholesterol</td>
<td>Cholesterol</td>
<td>Citric acid monohydrate</td>
</tr>
<tr>
<td></td>
<td>(4-hydroxybutyl)azanediylbis(hexan-6,1-diylbis(2-hexydecanoate)</td>
<td>SM-102: heptadecan-9-yl-((2-hydroxyethyl) (6-oxo-6-(undecyloxy) hexyl) amino) octanoate</td>
<td>Trisodium citrate dihydrate</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td></td>
<td>Tromethamine</td>
<td>Sodium chloride</td>
</tr>
<tr>
<td>Monobasic potassium phosphate</td>
<td></td>
<td>Tromethamine hydrochloride</td>
<td>Ethanol</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td>Acetic acid</td>
</tr>
<tr>
<td>Dibasic sodium phosphate dihydrate</td>
<td></td>
<td>Sodium acetate</td>
<td></td>
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<tr>
<td>Sucrose</td>
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*None of the vaccines contain egg, gelatin, latex, or preservatives.*
WHAT KIND OF SYMPTOMS MIGHT I HAVE AFTER VACCINATION? – IMMUNE RESPONSE

Like all medicines and vaccines, the vaccine may cause side effects, although not everyone will get them. The most likely side effects are:

• Pain at the injection site (80%)
• Redness, at the injection site (10%)
• Fever (3-4% first dose, 15% second dose)
• Chills (30%)
• Fatigue (60%)
• Nausea (1-2%)
• Headache (50-60%)
• Muscle aches/pain (30-40%)
• Joint pain (25%)
• Underarm gland swelling on the side of the vaccination (1-5%)
IMMUNE RESPONSE FROM THE VACCINE

• Expected
• “I had one day inconvenience of feeling pretty cruddy, but I would take that over getting COVID infection any day”
IF I AM GETTING VACCINATED, WHEN SHOULD I HAVE A MAMMOGRAM?

• Before your first dose or 4 weeks after your second dose
• You can have lymph node swelling in your arm pit that can make it difficult to read your mammogram
CAN I GET MY FLU SHOT AND THE COVID-19 VACCINE?

YES

You can get other vaccines at the same time.
IF I DON’T HAVE A REACTION TO THE VACCINE, AM I STILL PROTECTED?

• Yes

• There is information that shows the antibody/immune system response to the vaccines are up to 95% effective in protecting you from severe infection, even if you don’t have any symptoms when you get the vaccine.

• Most current antibody tests only show immunity after natural infection not after vaccine.
WHAT IF I HAVE A FEVER AFTER THE VACCINE?

• Somewhat expected, especially after the 2\textsuperscript{nd} dose

• If you develop fever within 3 days of getting the COVID-19 vaccine, talk to your physician to assess based on recent exposure or other symptoms if you need to be tested for COVID-19 infection.
WILL I BE PROVIDED ANY FOLLOW UP POST VACCINATION?

- CDC has a smartphone-based tool **V-safe after vaccination health checker**
- You can report and side effects and dependent on responses CDC may call you
- Daily/weekly check-in
WHAT IF I MISS MY SECOND DOSE?

• The second dose should be given as soon as possible, preferably within 2 days.
• The first dose does not need to be repeated.
WHAT IF I GET ACTIVE COVID-19 INFECTION BEFORE MY SECOND DOSE?

• Reviewed on a case-by-case basis
• Defer dose #2 vaccine until out of infectious period (isolation)
• Defer until 90 days if you receive a monoclonal antibody (bamlanivimab/etesevimab or imdevimab/casirivimab, sotrovimab)
Yes….for now

None of the vaccines are 100% effective.

With high prevalence of Delta you can still get it but likely 5 fold decreased chance if you are vaccinated.
If you get it you can still spread it but less so when vaccinated.
To be protected against next variant strain.
CAN YOU MIX THE PFIZER VACCINE AND MODERNA VACCINE FOR THE DOSES?

• Although they are very similar in safety and efficacy it is recommended that you complete a series with the same vaccine

• Pfizer dose #2 is 21 days after
• Moderna dose #2 is 28 days after
• Johnson & Johnson 1 dose

• But it has been shown to be safe it you need to mix
WILL I NEED A BOOSTER?

The current vaccines are highly effective against the Wuhan strain and the alpha and delta variant strain.

We might need a booster to provide protection against other variants.

Data on the need for boosters is being reviewed by FDA and ACIP on Friday.
HOW LONG DOES THE VACCINE LAST IN YOUR SYSTEM?

• Briefly remains in your system for your immune system to “fight” and develop a strategy against the live virus
• Your immune system has a memory then to fight the virus
• We don’t know how long the memory will last but some data suggests long term immunity
• Some vaccines with long term protection – Hepatitis A & B, Meningitis,
• Some vaccines that protection wanes over time – tetanus, pertussis, varicella (chicken pox)
• Data is being reviewed this week to decide on boosters of Pfizer and Moderna
WHY SHOULD I GET THE VACCINE IF SOME CHANCE I CAN STILL GET COVID?

All three vaccines were highly effective in the trials in preventing hospitalization and death.
WHAT MIGHT BE THE REASON FOR BLOOD CLOTS ASSOCIATED WITH JANSSEN?

• It may be a rare autoimmune triggered condition that causes the body to react to platelets
  • This can happen rarely from other medications, infections or genetic predispositions
• Current data is 6 cases in 6.8 million doses delivered
• They found no association with Moderna or Pfizer
• Ongoing review
IS THERE ANY INTERACTIONS WITH MEDICATIONS?

NO
WHAT IS THE RISK OF HEART INFLAMMATION?

- There has been a signal of myocarditis in male young adults and teens
  - often after the second dose
  - Resolves with rest
- There is increased risk for myocarditis and heart failure from COVID-19 infection
- CDC continues to recommend all those age 12 and up get vaccinated for COVID-19
CAN THE VACCINE TRIGGER OTHER HEALTH ISSUES?

- Rare allergic reaction
- Possibly this rare clotting issue with Janssen, but likely extremely low
WHY IS THERE NOT A VACCINE FOR CHILDREN?

They are studying now

Moderna is studying those 6 months and up
IF I AM VACCINATED BUT MY CHILDREN AREN’T HOW DO I PROTECT THEM?
Prevention

MASK UP

WASH UP

BACK UP
WHICH VACCINE IS SAFEST?
WILL I BE CHARGED FOR THE VACCINE?

• Many locations will not charge you or your insurance.
• The vaccine is being provided free from the federal government.
• Some location will charge an administration fee for giving you the vaccine similar to other vaccines.
COVID-19 VACCINE

The COVID-19 vaccine is safe, effective and one of the best ways to protect yourself and loved ones.

Getting the vaccine adds another layer of protection that can help to keep you and those around you safe. More vaccine types are becoming available. Building defenses against COVID-19 is a team effort and you play a key role in that effort.

How to Get the Vaccine

UI Health is currently offering the COVID-19 vaccine at University Village Vaccination Site, Pilsen Family Health Center, Pop-up Site in South Shore, and various Mile Square locations.

Walk-Ins Welcome at University Village

UI Health’s vaccination site at University Village is accepting walk-ins.

Eye & Ear Infirmary Vaccination Site
The Pfizer COVID-19 vaccine is available to anyone 12 years and older.

University Village Vaccination Site
The Pfizer COVID-19 vaccine is available to anyone 12 years and older.

Pilsen Family Health Center
The Pfizer COVID-19 vaccine is available to UI Health patients.

Mile Square Health Center
The Moderna COVID-19 vaccine is available at various Mile Square Health Center Clinics.

Walk-Ins Welcome at University Village

Getting the vaccine is easy! UI Health’s vaccination site at 724 W. Maxwell St. is accepting both appointments and walk-ins Tuesday & Wednesday from 1 pm to 4 pm and Thursday 8 am to 4 pm.

Vaccine.uihealth.care
Outpatient Treatments

- Monoclonal Antibodies
  - For those at risk for complications of the COVID-19 infection
  - No increased need for oxygen
  - Not hospitalized
  - Infusion
UIC COVID-19 Contact Tracing

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David Marder, MD, MPH, davidm@uic.edu
Trinnette Zahaylo, APRN, trin@uic.edu
UIC COVID-19 Contact Tracing: CCTEP + UHS

- Epidemiologists, APRN and RN contact tracers, and student contact tracers.
- School of Public Health and University Health Services
Contact tracing goals and operations

- Goal: monitor COVID-19 epidemiology on the UIC campus and perform case investigation and contact tracing on employees and students who are infected with or exposed to COVID-19.

- Collaborating with:
  - Student Health Services
  - Infection Control
  - Housing
  - Athletics
  - Performing arts
  - Environmental Health and Safety Office
Where does contact tracing fit in?

1. Test (saliva, diagnostic)
2. Isolate
3. Contact trace

Goal: isolate cases as soon as possible, and identify and quarantine contacts in order to stop the transmission of COVID-19
Why is contact tracing important?

Timeline of Infection: Window of Opportunity

<table>
<thead>
<tr>
<th>CALENDAR DAYS</th>
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</table>

**Person infected**

- **Incubation period**
  (ranges from 2-14 days, but typically 5 days)

**Signs and symptoms**

- (mild illness, about 10 days)
- (severe illness, 2 or more weeks)

**Infected Contact**

- (15 day incubation)
- (10 days signs and symptoms)

**Window of Opportunity**

(before they become infectious)

Image source: Center for Teaching and Learning, Johns Hopkins Bloomberg School of Public Health.

https://coronavirus.jhu.edu/contact-tracing
Services UIC contact tracing provides:

- Notify of test result/exposure
- Inquire about symptoms and advise to seek medical care when needed
- If infected, evaluate possible sources of exposure and inquire about the infectious period to identify contacts
- Advise to seek testing when appropriate
- Isolate/quarantine
- Provide ongoing support
- Removal and return-to-participation
- Pre- and post-travel counseling
Regardless of your vaccination status stay home and report if you:
- Test positive for COVID-19 (unless testing is performed on campus), OR
- Experience symptoms of COVID-19, no matter how mild, OR
- Were exposed to someone with COVID-19, OR
- Traveled to another state or country.

There is now a single, easy-to-use reporting tool available to all UIC and UI Health students, faculty, and staff.

- Just answer a few simple questions and you will be directed to the appropriate resource.

*UIC contact tracing will be in touch within 24-48 hours, generally much sooner.*
Thank you!