EMERGENCY STAND DOWN
2022

Call to Action:
COVID-19 Vaccines
## COVID-19 Deaths Compared to Cardiac Deaths

<table>
<thead>
<tr>
<th>Year</th>
<th>Cardiac Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>49</td>
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<tr>
<td>2013</td>
<td>39</td>
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<tr>
<td>2014</td>
<td>65</td>
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<td>2015</td>
<td>60</td>
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<tr>
<td>2016</td>
<td>44</td>
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<td>2017</td>
<td>53</td>
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<tr>
<td>2018</td>
<td>38</td>
</tr>
<tr>
<td>2019</td>
<td>36</td>
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### COVID Deaths 2020 - 2021
To date, 240 Firefighters in the United States have died due to COVID-19.
“If we had seen this many firefighters killed by any other cause, there would be no question about whether a Stand Down was necessary”

Dr. James Augustine
Medical Director for Fire/EMS agencies in Atlanta, Georgia; Naples, Florida; and Dayton, Ohio
Medical expert for the IAFC COVID Task Force
Serves the IAFF in infection control efforts
WHAT IS THE RISK TO FIRE & EMS?

Firefighters are 60-100% more likely to contract COVID-19 than other HEALTH CARE WORKERS.
Long COVID is when symptoms last more than 4 weeks.

The range of long-term symptoms vary significantly and can include:
- Persistent cough
- Shortness of breath
- Fatigue
- Headache
- Heart palpitations
- Chest pain
- Physical limitations
- Depression
- Insomnia

Among those who have not been vaccinated, an estimated 10% of firefighters are experiencing Long COVID – often leading to disability.
What’s The Issue with Vaccines For Fire & EMS?

• Is the vaccine safe?
• Is it a vaccine?
• How does it work?
• If I’m healthy, do I need it?
How Available COVID-19 Vaccines Work

**Pfizer/Moderna**
- mRNA
- Requires at least 2 doses

**Johnson & Johnson**
- Viral vector vaccine
- One dose for initial inoculation
- Similar technology to past vaccines
WERE VACCINES DEVELOPED AND BROUGHT TO MARKET TOO QUICKLY TO BE SAFE?

The speed of the vaccines coming to market can be attributed to:

- Existing scientific advances on mRNA and other types of coronavirus vaccines
- Expedited funding
- Fast study recruitment
- Highly effective vaccine and rapid spread of disease
- Expedited review
HOW MANY DOES OF VACCINE WILL BE NEEDED?

The ultimate number of doses remains a question

Recommendations will be made as data dictates based on careful monitoring of immunity

It is not uncommon for series of vaccines to be necessary for long term immunity

Currently, it is recommended that first responders, who are classified as a “high risk” occupation, receive a “booster” shot

How likely is that there will be long term side effects to the COVID-19 vaccine that just aren’t identified yet

• Side effects typically occur within the first 72 hours post vaccination

• Nearly every vaccine side effect (for COVID vaccines and all others) occur within the first 2 months post vaccination

• Vaccines leave the body within 72 hours

• No long-term buildup of vaccines
Is Anyone Paying Attention To The Side Effects Of The Vaccine?
What is Myocarditis?

- Myocarditis is inflammation of the heart muscle, or myocardium, that can result in hospitalization, heart failure, and sudden death.
- Common symptoms include shortness of breath, chest pain, feelings of fast-beating/fluttering/pounding heart.
- Myocarditis is a rare disease (4-6 cases/100,000), usually (50-70% of cases) caused by viral infections, and most common among young adult males.
- Concerns have emerged about the development of myocarditis after the receipt of mRNA vaccines – typically among young adult males after the second dose with symptoms occurring several days post vaccine.
Across all age groups, the relative risk of myocarditis is about 16 times higher for people with COVID-19 compared to those who are not infected.

A large study published in the New England Journal of Medicine found that myocarditis risk was 6 times higher after COVID-19 infection than after vaccination.

Among the more than 2.5 million vaccinated people in studies who were 16 years or older, 54 met the criteria for myocarditis. Most cases (about three quarters) were mild and another 22% were moderate.

It is important to note that although the rate of myocarditis is higher among COVID-19 infected individuals, it is still a rare disease in both groups.
Is it really considered a vaccine if people can still get COVID-19?

**SHORT ANSWER:** “Yes.”

**LONG ANSWER:** Vaccines are designed to prevent infection or decrease symptoms when someone is infected because the immune system has learned from the vaccine how to fight the virus.
## COVID-19 Vaccines vs. Other Vaccines

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Comparison</th>
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<tbody>
<tr>
<td>Polio vaccine</td>
<td>2 doses 90%, 3 doses 99%, 4 doses just under 100%</td>
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<tr>
<td>MMR (measles, mumps, rubella)</td>
<td>1 dose 93%, 2 doses 97%</td>
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<tr>
<td>Flu</td>
<td>Prevents 40-60% of infection</td>
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<tr>
<td>Moderna</td>
<td>Pre-Delta, 91% (100 days after second dose); Delta 70% (250 days after second dose) in preventing symptomatic COVID-19</td>
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<tr>
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<td>Pre Delta, 94%; Delta 92% effective in preventing hospitalization</td>
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<tr>
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<td>67-90% reduction in transmission of COVID-19</td>
</tr>
<tr>
<td>Pfizer</td>
<td>Pre-Delta, 80% (100 days after second dose); Delta 65% (250 days after second dose) in preventing symptomatic COVID-19</td>
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<tr>
<td></td>
<td>Pre-Delta, 95%; Delta 78% (5 months after full vaccination) in preventing hospitalization</td>
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<tr>
<td>Johnson &amp; Johnson</td>
<td>Pre-Delta, 68%; Delta 49-78% in preventing symptomatic COVID-19</td>
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<td>Pre-Delta, 100% in clinical trials; Delta, 60-81% in preventing hospitalization</td>
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WHAT IS THE BENEFIT OF GETTING THE VACCINE?

Weekly trends in age-standardized incidence* of COVID-19 cases, hospitalizations, and deaths, by vaccination status: April 4–July 17, 2021

- Rates are standardized by age, according to the enumerated 2000 U.S. Census age distribution. Blue vertical lines indicate when the B.1.617.2 (Delta) variant reached a threshold of >50%, using weighted estimates for 13 jurisdictions combined.
IF MY IMMUNE SYSTEM IS IN GOOD SHAPE, DO I REALLY NEED A VACCINE?

WON’T MY BODY JUST FIGHT IT OFF?

- Risk of severe disease is higher for those who are less healthy
- However, those who are healthy can still have severe, negative side effects
- Vaccines reduce spread of infection
- High community spread leads to faster mutations
Although COVID-19 is typically mild in young people, about 30% of youth hospitalized with COVID-19 have no underlying health conditions that would have put them at increased risk.

Amid the recent delta surge, hospitalization rates were about 10 times higher in unvaccinated young people than vaccinated ones.
Are the treatment approaches so good that you don’t need to worry about getting sick?
WHAT ABOUT IVERMECTIN?

“Overall, the reliable evidence available does not support the use of Ivermectin for treatment or prevention of COVID-19 outside of well-designed randomized trials.”
DO YOU STILL BENEFIT FROM A VACCINE IF YOU HAVE ALREADY HAD COVID-19?
Why Fire & EMS?
If you still have questions, we are happy to help answer them.

Send questions to:
Chief Scott Kerwood,
Chair, Safety, Health & Survival Section, IAFC
sdkerwood@huttofirerescue.org
THANK YOU
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