

Speaker 1: [00:07](#) Hello everyone, welcome to "Prep Talk," the emergency management podcast. Find out what you need to know about preparedness, get all of the latest tips from experts in the field and learn what to do before the next disaster strikes. From the Emergency Management Department in the city that never sleeps, here are your hosts, Omar Bourne and Allison Pennisi.

Omar Bourne: [00:26](#) Hello everyone thank you for listening. I am Omar Bourne.

Allison Pennisi: [00:29](#) And I'm Allison Pennisi. Thank you for joining us, we want you to come back as often as you can so feel free to add "Prep Talk" to your favorite RSS feed. You can also follow us on social media.

Omar Bourne: [00:39](#) This episode we're talking about the flu epidemic that's been sweeping across the country.

Allison Pennisi: [00:43](#) That's right, Omar, this flu season is said to be the worst in nearly a decade. Nationwide we've seen a number of pediatric deaths, and thousands of people have been hospitalized since the start of the season on October 1st.

Omar Bourne: [00:54](#) We're going to be looking at the difference between the flu and the common cold, who's most at risk for contracting the flu, and what you, our listeners, need to know to keep yourself safe.

Allison Pennisi: [01:03](#) Here to break it all down for us is Dr. Demetre Daskalakis, Deputy Commissioner for the health department here in New York City. Dr. D is in charge of the department's division of disease control, so he oversees communicable diseases, sexual diseases, and immunization. Thank you for joining us.

Dr. D: [01:19](#) Thanks so much for having me.

Omar Bourne: [01:21](#) Dr. D, let's get right into it. I'm going to start off with what is, I think, a fairly simple question here. What is the flu and is there a difference between the flu and the common cold?

Dr. D: [01:32](#) Well, yeah, there's a lot of differences. The flu is caused by a certain kind of virus. They're a few sorts of viruses called influenza viruses that circulate. The cold is caused by way more viruses, there's Rhinovirus, adenovirus, there's a lot of viruses that can make you feel like you have what we call a cold. Usually a cold tends to be upper respiratory stuff, like you have a little bit of a sniffle, you may feel a little tired, you're sneezing, you're coughing. The flu is an extreme version. It tends to be high fever, muscle aches, all of that upper respiratory stuff that I

talked about, so sneezing, coughs. You really feel wiped out. The other part is cold's generally don't cause large complications like pneumonia, they could, but usually not or other problems like hospitalization, et cetera. The flu can have those complications and every year people die of the flu in the US and in New York City, it's a lot different than a cold.

Allison Pennisi: [02:32](#) What are the signs and symptoms? I know that some people say that when they have the flu it feels like it hits them all at once and it doesn't come on gradually. Can you explain that to our listeners a little bit?

Dr. D: [02:42](#) Some people with the flu may have very few symptoms, that's one of the things to remember, and that's one of the best ways to transmit the flu. If you're feeling sick and you're not sure what it is, it's good to find out if you have the flu. You could have a milder form, but if you really have the flu it tends to be misery, so you get really high levels of fatigue, it does sometimes hit you like a truck, you're feeling okay and then all of a sudden, boom, you're so tired you can't move. Generally, colds don't really have fevers, they may have like a low temperature, flu tends to have a high fever and that's part of the reason that people feel so washed out. You could have stomach symptoms, sometimes people have a little diarrhea, but mainly it's upper respiratory and then just feeling like you just want to stay in bed and that you are a second away from going to the emergency room because you feel so sick.

Allison Pennisi: [03:28](#) I feel like I want to crawl back into bed right now just talking about it, to be quite honest with you. Now, it's a good idea for people to stay at home if they don't feel well, I know this is something the city, especially, emphasizes to people, but I've also heard people say, "Oh, well, I'm not contagious so I can't spread the virus," and I feel that that's probably a rumor we need to squash.

Dr. D: [03:49](#) Yeah, no there's actually pretty clear guidance as to what you should do if you have the flu. If you have the flu, and you have a fever, what you should do is stay at home for 24 hours of fever free time. Now, fever free time does not mean, "I'm on NyQuil and Tylenol and Advil," it means, "I'm on nothing, that I'm not on a fever reducer, and my fever's gone." After 24 hours of fever free time it's okay to come back to the world, and when you said don't go to work, don't go to social events, that's not the time for the parent/teacher meeting, just stay home.

Omar Bourne: [04:21](#) Stay home.

Dr. D: [04:22](#) It's a good way to spread the flu to folks that haven't been vaccinated.

Omar Bourne: [04:27](#) Is a 24-hour period of fever free time, I like that, as you say, is that the most contagious period? What happens after the 24 hours?

Dr. D: [04:35](#) Yeah, no, just after 24 hours of having no fever you really aren't shedding virus anymore so you're fine. Any time before then you could potentially shed virus, you could even shed virus before that truck hits you before you feel really sick, so that's one of the problems that comes up, so people are feeling okay and they probably are shedding a little bit of flu virus and then they get sick. The 24 hours just gives that cushion, and that's actually what the CDC says. If you were to look on their website, they're going to tell you, " 24 hours of fever free time without a fever reducer, so no Tylenol, Advil, things like that."

Omar Bourne: [05:05](#) Okay. Now this season we've seen a number of Americans who've contracted the flu, particularly children, and unfortunately some have died because of the virus. Can you tell our listeners who's most at risk for contracting the flu?

Dr. D: [05:18](#) Everyone should get the flu shot, that's number one, but the folks who are the highest risk for the flu are the very young and folks who are over 65. The recommendations are that everyone get the flu shot, but over 50s for sure, 65 is the cut off where things go down hill worse, where people could have pneumonia, in patient hospitalizations, and all of that stuff. Then the very, very young. Kids who haven't seen a lot of flu viruses or flu vaccines in the past, if they meet one of these viruses can get really sick. Really we say if you're under a couple years old it's really important to think about protecting yourself, or having your parents protect you.

Omar Bourne: [05:53](#) Yeah, I was going to say, that's good advice for parents. I'm glad you brought up the flu shot.

Dr. D: [05:58](#) Yes.

Omar Bourne: [05:59](#) That's one-

Dr. D: [06:00](#) My favorite topic.

Omar Bourne: [06:00](#) Yeah.

- Allison Pennisi: [06:02](#) Yeah, it's a controversial topic, I mean, a lot of people don't like to get the flu shot.
- Omar Bourne: [06:06](#) Yeah, and there are people, asking for a friend, there are people who say that they haven't gotten the flu shot, they've never gotten sick. On the flip side of that there are people who say, "Oh, I got the flu shot," and immediately after they felt sick. What do you say to our listeners who are anti flu shot?
- Dr. D: [06:23](#) This is what happens in my clinic every time I see patients around this time of year, the same debate, "I get sick after the flu shot." You don't get sick from the flu shot. In a time of year where we have many, many kinds of upper respiratory viruses flying around, it's not impossible that you get the flu shot and soon thereafter you get one of these upper respiratory viruses and you feel sick. The flu is like a truck, it really hits you, so that, "I had a little sniffle, I felt a little tired after the flu shot," probably not related to the flu shot. That's the first thing. The second thing is that it's always an odds game whether or not you're going to get the flu, and the odds right now, because of a lot of circulating flu is that your chances for getting the flu are pretty high. Just because you didn't get the flu in past seasons it may have been a little quieter, it doesn't mean that you're not going to get the flu this time.
- Dr. D: [07:14](#) I guess, one more thing about the flu shot. People are really obsessed with the idea of how effective is the flu shot and people quote numbers that right now are based on no data. We have no data for the United States, it's too soon, we won't know until mid-February, you shouldn't wait till that day to find out if it's worth getting the shot because at that point it's getting late in the season. But, the press is sometimes quoted that the vaccine this year is 10% effective, it's based on what happened in Australia, which has nothing to do with what's happening with us. I'll give the example, in Australia they said that there's a 10% effectiveness of the vaccine, in New Zealand, just a few miles away, the vaccine was highly effective.
- Omar Bourne: [07:57](#) Wow.
- Dr. D: [07:58](#) Right? It just depends on what virus lands and what the strain does and how it changes over time in the jurisdiction. Now, the other part about effectiveness, which I think is important to talk about, is that when they measure effectiveness, that means how good is the vaccine at preventing you from getting the flu period. That's perfect, we'd love everyone to never get the flu, but the part that they don't talk about is that the vaccine

protects you from pneumonia, hospitalization, and complications and reduces the duration and severity of illness. They don't measure that in effectiveness, so even if you do get the flu and you have vaccine-

- Omar Bourne: [08:34](#) It might not be as bad.
- Dr. D: [08:34](#) Exactly.
- Omar Bourne: [08:34](#) Wow.
- Dr. D: [08:36](#) It may not be as bad, it may not last as long, you may not transmit as long, you will less likely be hospitalized and less likely to get pneumonia. If you were a gambling person, odds in your favor, something is better than zero even if it's not perfect.
- Omar Bourne: [08:51](#) That's eye opening.
- Allison Pennisi: [08:53](#) Absolutely.
- Dr. D: [08:54](#) People never think about that.
- Allison Pennisi: [08:55](#) No, I think we're so focused on, "Should I get it? Should I not get it? Well, it's not effective." I'm somebody who I get the flu shot every year. I always did, but I know that there are a lot of people that don't or people who have and then shortly thereafter have gotten the flu, my husband's actually one of those people, but it was-
- Omar Bourne: [09:15](#) We're calling him out.
- Allison Pennisi: [09:16](#) It's the luck of the draw. Listen, but he got the flu shot because I pretty much strong-armed him into doing it, so thanks for that, honey.
- Dr. D: [09:23](#) The other thing is, I tell my patients all the time, "Do you get tetanus shots?" "Yes." When is the last time we saw a case of tetanus in New York?
- Allison Pennisi: [09:32](#) That's a good point.
- Dr. D: [09:33](#) When people say, "I don't take vaccines," it's like well, you do, for stuff that's really important to get vaccinated for, but are exquisitely rare conditions versus this one that happens every year and that assuredly will sicken and potentially kill people every year.

Allison Pennisi: [09:48](#) There have been reports that the virus mutates, is that true?

Dr. D: [09:52](#) The flu virus is wriggly. It can do a couple of things. There can be something that's called a shift, which means that it remixes in another animal. Bird virus, pig virus go together, they blend together, and a new virus pops up and it's a pandemic. That's not what's happening. This is not a new kind of flu virus, the flu virus circulating the H3N2 is one that we've seen before, but what the flu virus can do is something else called it can do something called a drift. It can change suddenly. We don't know if that's happening yet, but when you have drift you can have mismatch between the vaccine and the circulating virus. We're going to know more about that when we have data about vaccine efficacy or effectiveness in a few weeks.

Dr. D: [10:39](#) The other thing that can happen with this strain is that when it passes through eggs; P.S. egg allergy is not a contraindication to flu shot, when it passes through eggs it can get developed into the vaccine, sometimes that process causes the vaccine virus to mutate a little bit. What happens is the match may not be a 100% perfect, so H3N2 can do that. We have a couple of things that may indicate that the flu vaccine that may have around the same efficacy or effectiveness of last year, we won't know for sure, but bottom line is it's your first line of defense both from the perspective of flu and also its complications.

Allison Pennisi: [11:18](#) Wow. We're also told to be mindful, "Don't touch certain things, don't touch the doorknobs." Should I be wearing gloves when I'm touching the coffee maker here at work? Are there -

Omar Bourne: [11:31](#) I say yes.

Allison Pennisi: [11:32](#) - conduits of the virus that we should know about?

Dr. D: [11:34](#) I don't think you need a Tyvek suit to walk around the subway.

Allison Pennisi: [11:38](#) Aw, man.

Dr. D: [11:38](#) It would be cool, people would think that-

Allison Pennisi: [11:38](#) I think it would be cool.

Dr. D: [11:41](#) That's the way to get a seat, for sure.

Omar Bourne: [11:43](#) Definitely.

Dr. D: [11:43](#) You don't need to do that. Really, it's just like you're talking about, there are phomytes which are like solid things like inanimate objects that flu can live on, and you can just sort of pick it up. The real answer is hand hygiene. I walk around with my little bottle of alcohol hand sanitizer. I use it compulsively. My hands are a little dry, I'm not super happy about it, but it's the best strategy. It's the best you can do. I wouldn't cover yourself in Tyvek suits or latex gloves or stuff, I think it's live your life, but have attention to hand hygiene.

Allison Pennisi: [12:22](#) Wash your hands, which I still don't understand how people don't do that, but that's a different topic for a different podcast. People aren't washing their hands.

Dr. D: [12:29](#) Wash your hands. Totally. Wash your hands. Use alcohol-based hand sanitizer, it's the best we've got.

Omar Bourne: [12:34](#) I'm going to walk around like the Bubble Boy, the Seinfeld episode.

Allison Pennisi: [12:40](#) He was talking about this, yeah.

Dr. D: [12:40](#) Like I said, it's a great way to get a seat on the subway.

Omar Bourne: [12:44](#) How does a doctor first diagnose and then treat the flu? You kind of touched on this a little earlier.

Dr. D: [12:50](#) Well, it's kind of complicated because a lot of people who come in with flu symptoms may never actually get a real diagnosis. The doctor or other health care provider who sees them will say, "Fever in flu season with muscle aches and pains and sniffles, sounds like the flu." Then they'll just treat them. That's not the wrong answer, but the really gold standard way of testing for the flu is by taking a nasal swab and sending it for a flu test. A couple of different flu tests are out there, some are rapid, some are molecular tests where they amplify the genetic material of the flu shot, sorry, of the flu virus. If you find it the answer is yes, now if you don't find it and they sound like they have the flu, they may still have the flu, because every test is not infallible. What people are doing is, I think for the most part, if they can swab they do swab and that's how you diagnosis, but the clinical diagnosis of flu is also okay.

Omar Bourne: [13:54](#) How long does that flu swab test take?

Dr. D: [13:57](#) There's some that rapid point of care tests that can be in about 20 minutes, others take a couple of hours.

Omar Bourne: [14:01](#) Oh, wow. Okay.

Dr. D: [14:02](#) I just diagnosed someone with flu in my clinic and I got the answer back in about three and a half hours.

Omar Bourne: [14:08](#) That's not bad.

Dr. D: [14:10](#) But I treated him because that's the right thing to do.

Omar Bourne: [14:12](#) Yeah.

Allison Pennisi: [14:12](#) Yeah.

Omar Bourne: [14:13](#) Don't wait.

Dr. D: [14:15](#) If you think you have the flu, your provider should treat you.

Allison Pennisi: [14:17](#) No, I think that that's absolutely important. We even see this now, that Governor Cuomo declared a public health emergency for New York State; signing an executive order that allows pharmacists to administer flu vaccinations to minors between the ages of two and 18. How does this executive order impact our efforts here in the city to combat flu season?

Dr. D: [14:37](#) Well, we love it. We're really glad that this order happened because we think that the pharmacists are really a first line of defense from the perspective of people getting vaccines. There are not a lot of vaccines they're allowed to give under their scope of work, but this is a great ... Flu vaccination has really increased since pharmacies has been able to do it so this just provides another place for kids to get vaccinated and kids are like a great reservoir of influenza. If we can vaccinate that crew it's good for their health and also good for preventing transmission. It's a slam dunk, we're really happy that it's happened and are happy that our pharmacy colleagues are going to be working to protect New Yorkers.

Omar Bourne: [15:16](#) What are the latest numbers that you're seeing? I don't know if you may have this, and I think you actually don't because you mentioned that the tests aren't-

Dr. D: [15:25](#) I can give you something.

Omar Bourne: [15:26](#) Okay.

Dr. D: [15:26](#) Oh, for sure. I'll start with the State. I'm going to speak for the State because that's an interesting conversation. We measure

things a little differently. The State counts cases and we count use of the medical system for influenza like illness as well as swab positivity. I'll talk about swab positivity in a second. New York State is seeing a lot of flu, they're saying that hospitalization is increasing, I think last week was one of the biggest weeks they've ever seen for flu related hospitalizations in the history of measuring. Now, that also is because their reporting is better so they're getting more information so the better the reporting is the more you hear about what is going on. At least partially it's that, but let's not pretend, it's also because there's flu around and people are getting sick. New York State is saying that that's happening, that there's an increase in hospitalization.

- Dr. D: [16:18](#) What were seeing in New York City, we look at percentage of flu swabs that are positive. What that means is if they order 3,000 or 10, flu swabs, however many, if we have influenza activity, that percentage goes up. If five swabs are ordered and all five are positive, there's flu activity. The percentage, no matter what the testing trends are in the city, we see what the trend is from the perspective of percentage positivity. Last week, last surveillance week, it was 30%, that's a lot of flu. We're seeing a lot of activity. Our influenza like illness utilization of the health care system is also up a little bit higher than last year. All the indicators they're using different methods to figure it out, say flu is up, get your flu shot, and if you're sick get treated.
- Omar Bourne: [17:11](#) When's flu season? Because I know some people are kind of confused as to when it is and some people think that we should have passed the peak season by now, so when is the season?
- Dr. D: [17:25](#) Seasons peak in variable ways. There are usually a couple of humps in the flu season, so we have an early peak that tends to happen January, February, and then another one that happens a little bit later towards the spring where we have some more Flu B. This is like a little bit of an early peak, and we haven't really seen the end, the ends not in sight yet. We have more to go, we think, given where the trend is. The season can usually start around October and tends to go through March-ish.
- Omar Bourne: [17:58](#) We recommend for people, going back to the flu shot, that they get the flu shot before October, before this season begins?
- Dr. D: [18:05](#) The one time I've ever gotten the flu personally, I had gotten the flu shot, and I was late in the season. Since then when I hear the flu shots available, I line up for it. Sometimes you hear about it coming out in August or September, the earlier the

better because it takes about two weeks for immunity to kick in. No matter what, even if you're worried about that or thinking about playing your odds, still get the flu shot now, because we still have some flu season to go through. We're not done yet. Yeah, I would say the earlier the better, but it's never too late.

Omar Bourne: [18:38](#)

That's the perfect answer.

Dr. D: [18:39](#)

It is the perfect answer.

Allison Pennisi: [18:43](#)

It is great. We were talking about the strain of the virus that's out there.

Dr. D: [18:46](#)

Yeah.

Allison Pennisi: [18:47](#)

H3N2, can you explain why this strain has been so deadly, what makes it so deadly? Because we keep hearing about this in media reports and it's been responsible for a lot illnesses, hospitalizations, and deaths over the years.

Dr. D: [19:03](#)

Yeah, when we see this strain it tends to be associated with the worst flu season in general. I don't know if there's a basic scientific answer as to what about the virus makes it worse, but we know from our epidemiology that definitely when it circulates people can get worse. I can make up some stories, you can imagine that there's something about the virus that's more inflammatory, that potentially can make people iller, but I don't think that there's one specific thing I can point to to answer that H3 because of this molecule does this. Its really that we know that when this circulates, batten down the hatches. We tend to have our worst flu season.

Allison Pennisi: [19:37](#)

Right. No, and I think that that's important to know because I think people hear flu they don't understand there are different strains that are out there, that okay, if this is the strain that it's more prevalent then this is where we have to get on the defenses and get that flu shot.

Omar Bourne: [19:53](#)

Do you think that the start of school after Christmas and New Year's Eve may have contributed to increase cases, because I know that there were reports that medical professionals thought that that week, Christmas through New Year's, was actually the peak. Now it seems that cases are increasing, so does school have anything to do with it?

Dr. D: [20:18](#)

I don't know the answer to that. I could imagine a story that you could make that up that it could work, where if you have a lot of

kids with not super symptomatic disease who are roaming around school that you could do that, but I don't have a slam dunk answer for that. I mean, I just think that the confounding feature is that this is a flu virus that we know has a more interesting course for a flu season. I think the answer is in typical scientific, medical style there's lots of factors that are feeding into the answer. I can't tease one out, but it's an interesting theory.

- Omar Bourne: [20:48](#) Got you.
- Dr. D: [20:49](#) It does speak for vaccinating kids, right?
- Omar Bourne: [20:51](#) Mm-hmm (affirmative).
- Dr. D: [20:51](#) Because the best way to prevent flu from circulating is from no one to ever get it. That's sort of that herd immunity idea, that if you have people who are, if enough people are vaccinated against the flu and that there's enough effectiveness in the vaccine then you won't have ongoing forward transmission. The more folks vaccinated the better it is for everybody. It's good for personal and public health.
- Allison Pennisi: [21:14](#) I know we kind of touched upon this, but quick tips to stay safe this flu season. I know get a flu shot, get a flu shot, get a flu shot.
- Dr. D: [21:20](#) Did I say that enough?
- Allison Pennisi: [21:22](#) And wash your hands.
- Dr. D: [21:22](#) Wait, get a flu shot?
- Omar Bourne: [21:23](#) You could say it one more time.
- Dr. D: [21:25](#) Get a flu shot. That sounds great. Yeah, so definitely I think that there's preemptive and then what happens if you get sick. Preemptive is flu shot, flu shot, flu shot we can't say it enough. Don't worry about if it's going to be 30, 40, 50, 60% effective, because remember, even if it is not effective in preventing the flu, it prevents all the really terrible things that happen if you get the flu. That's an important thing to think about. The second thing is hand hygiene is a strategy, it's not as good as the flu shot, but definitely use that in association with the flu shot. Layer levels of prevention on yourself. Then finally, if you're sick, seek out care and seek it out pretty quickly because you can start anti viral medicines and they prevent you from getting

sicker and also prevents some of the uglier complications of the flu.

Omar Bourne: [22:17](#)

Got you.

Allison Pennisi: [22:18](#)

All right.

Omar Bourne: [22:18](#)

Dr. D with some extremely informative and effective and practical information for all of our listeners for this flu season. Thank you very much for being here with us, anything else that you would like to add?

Dr. D: [22:31](#)

No. Thank you for having me, that was fun. Get your flu shot.

Allison Pennisi: [22:35](#)

For our listeners, you can visit NYC.gov/health or call 311 for more information on the flu. That's this edition of "Prep Talk." If you like what you heard you can listen any time online or through your favorite RSS feed. Until next time, stay safe and prepared.