

Friday Night [under the] Lights...

2019



Happy Friday...

I hope everyone is doing well. Pretty cold across the US tonight. I'm writing from Austin and we have snow flurries.

Always fun to hit the grocery store on days like today when you live in Texas. It's not the end of the world, but you'd certainly think it was in my store. What was on my list that was no where to be found on the shelves?

- Tortillas (these really bad for you homemade butter tortillas)
- Gallon jugs of Fat Free milk (I choose to get my fat from the tortillas obviously)
- Onions.

Onions. How can a grocery store run out of onions?

I guess that's the power of a blizzard...

▪ *Speaking of cold weather...*

I remember growing up with my mom (probably much like your mom) telling me to bundle up when I went outside, or I would catch a cold.

Made really good sense at that age. Everybody's mom said the same thing – grandparents said it. Teachers said it.

Cold weather led to catching colds. It was Law.

Then I got to college and started getting a little smarter – I vividly remember talking to my parents and telling them that cold weather didn't actually cause colds. Colds, you see, are caused by viruses – and there's no reason to believe that there are more viruses around when it's colder.

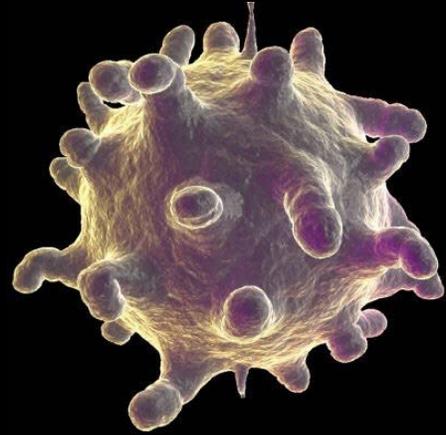
This was just one of the many things I was able to teach my parents once I became a bona-fide smarter-than-everyone college student.

And then I got to Med School and sure enough, as anyone who is a parent knows – my mom turned out to be right after all.

So, here's more than you probably ever wanted to know about the common cold (which, by the way, 5% of you have right now)

...

- There are actually more than 200 different known viruses which can cause the symptoms we know as the "common cold".
- The most common virus is Rhinovirus (that beauty pictured here) – Rhinovirus is responsible for about 50% of the cases of common colds.
- Estimates are that Americans have about 1 Billion colds a year. More than 22 million school days are lost each year and 50 million work days.
- Studies have shown that people are more likely to get colds if they are fatigued (there's another mom word of wisdom in that one), under emotional stress or suffer from significant allergies.
- Kids are at higher risk for colds for a variety of reasons (children get between 5-7 colds per year!):
 - o They spend more time in close quarters and have a higher incidence of coming into direct physical contact at school than adults do at work (It's OK, I had my own visual as well when I typed that...)
 - o Kids are not as vigilant about protecting others from droplets during coughing or sneezing – they are less likely to "sneeze in your sleeve"
 - o Kids have immature immune systems
- Here's what you might not know...
 - o The most common cold-causing viruses survive longer in low, not high humidity (I would have actually guessed the opposite)
 - o Colder weather makes the lining of the nose drier and more subject to infection by a virus (I hear my mom reading that one...)
 - o "Colds" are the single leading cause for visits to primary care physicians
 - o Antibiotics are prescribed for more than 60 percent of common colds, despite the fact that bacteria are involved in only two percent
 - o The velocity of a sneeze is about as fast as a professional baseball pitcher can throw a fastball – about 100 miles per hour.
 - o A single cold virus can have more than 16 million offspring within 24 hours



The facts...

- A 1968 study published in the New England Journal of Medicine examined 44 volunteers for experimentally induced rhinovirus infections and found that exposure to low temperatures (approximately 39 to 50°F) did not influence the frequency or severity of colds resulting from the strain of rhinovirus used in the study.

And finally, never ever forget that mom is always right.

EBM – “Evidence Based Mothering” ...

Effects of Drinking Hot Water, Cold Water, and Chicken Soup on Nasal Mucus Velocity and Nasal Airflow Resistance

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Abstract Full Text References

Nasal mucus velocity and nasal airflow resistance were measured in 15 healthy subjects before and at 5 and 30 minutes after drinking hot water by sip or straw, hot chicken soup by sip or straw, and cold water by sip. A sham drinking procedure with straw was also employed. Hot water by sip increased nasal mucus velocity from 6.2 to 8.4 mm per min, hot chicken soup by sip from 6.9 to 9.2 mm per min, and chicken soup by straw from 6.4 to 7.8 mm per min five minutes after administration. These increases were statistically significant compared to cold water, hot water by straw and sham. All values returned to their baseline at 30 minutes except cold water which significantly decreased the nasal mucus velocity from 7.3 to 4.5 mm per min. There were no significant changes from baseline in nasal airflow resistance 5 and 30 minutes following the above treatments. We conclude that drinking hot fluids transiently increases nasal mucus velocity in part or totally through the nasal inhalation of water vapor. Hot chicken soup, either through the aroma sensed at the posterior nares or through a mechanism related to taste, appears to possess an additional substance for increasing nasal mucus velocity. Finally, hot liquid might be superior to cold liquids in the management of fluids in upper respiratory tract infections.

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▪ Measles...

You've probably read about the increasing measles concern in the past 30 days.

Measles (Rubeola) was declared eliminated (absence of continuous disease transmission for greater than 12 months) from the United States in 2000. There were a lot of reasons, but two biggies were a concerted effort to vaccinate everyone and the addition of a second dose of MMR which dramatically boosted population immunity.

Nowadays, cases of Measles in the US are usually associated with travelers who become infected overseas in areas with outbreaks and low immunization rates. The infected travelers infect other unimmunized patients and the disease becomes an "outbreak" in the US when there are 3 or more cases reported.

As of today, there are 3 identified outbreaks of Measles in the US:

- New York State
- New York City
- Washington State



Measles Can Be Serious



About 1 out of 4 people who get measles will be hospitalized.



1 out of every 1,000 people with measles will develop brain swelling due to infection (encephalitis), which may lead to brain damage.



1 or 2 out of 1,000 people with measles will die, even with the best care.

Why is Measles an issue for us?

The initial presentation of Measles can look very much like a simple common cold before the characteristic rash appears. The disease itself is highly contagious and can spread rapidly through impacted communities.

The disease course itself is not benign – Complications can include hepatitis, meningitis, encephalitis and a rare complication called subacute sclerosing panencephalitis (SSPE). A small percentage of patients will die from the disease.

What's important for us in EMS is suspicion, protection and vigilance.

Measles in the US usually originates overseas. So, when patients present with the very common symptoms of a fever, runny nose, GI distress, coughing, etc (all very non-descript symptoms), think about asking for a travel history. If the patient states they have been exposed to Measles or they have the typical rash, protect yourself with droplet PPE Remember the principles of PPE and good hand hygiene after patient contact.

The best way to prevent Measles is up-to-date vaccination. Most of you reading this have had appropriate vaccination.

Of note, a dose of the MMR vaccine can also be given to anyone over 6 months of age if they're at immediate risk of catching measles.

For example, this could be if:

- There's an outbreak of measles in your local area
- You have been in close contact with someone who has measles
- You're planning on travelling to an area where the infection is widespread

...and Chicken Soup does nothing for this one...

Measles will probably get worse before it gets better. Please stay vigilant on the activity near you.

The CDC has good info - <https://www.cdc.gov/measles/cases-outbreaks.html>



CONSIDER MEASLES

in patients presenting with febrile rash illness and clinically compatible measles symptoms (cough, coryza, and conjunctivitis)

Ask patients about recent travel internationally or to domestic venues frequented by international travelers, as well as a history of measles in the community.

www.cdc.gov/measles/hcp/index.html



- Inaugural EMS Grant Recipients Announced by NAEMSP



Several years ago, AMR established a Foundation to support the advancement of the art & science of out of hospital medicine through research and education. This year, the Foundation awarded two research grants that were announced at the National Association of EMS Physicians annual meeting in Austin.

Studies on a mobile integrated healthcare (MIH) pilot program and on the role of ventilation in resuscitation are the focus of two inaugural \$5,000 research grants awarded by the National Association of EMS Physicians (NAEMSP®) and the AMR Foundation for Research and Education. The NAEMSP/AMR-FRE EMS Fellows Research Grants have been awarded to Dr. Tiffany Abramson, Keck School of Medicine, University of Southern California, and Dr. Matthew Neth, University of Cincinnati.

Abramson's project will assess the feasibility of completing post-encounter surveys to evaluate patient safety, experience and perceived quality of care among APRU-attended patients and matched controls to expand the Los Angeles Fire Department's MIH pilot program using nurse practitioners (NP) and firefighter/paramedic teams to treat, release and refer select 911-patients on scene.

Neth will focus on quantifying ventilation characteristics in simulated out-of-hospital cardiac arrest resuscitations, an area currently lacking sufficient study and guidelines. He hopes his research can have an impact on future OHCA management and outcomes.

A critical part of advancing our collective knowledge in EMS and changing practice to improve outcomes comes from thoughtful research that addresses challenging questions.

It's important that all of us realize how crucial sound research is for the art & science of EMS Practice.

Congrats to our two awardees – *Make us proud...*

- **AMR Life...**

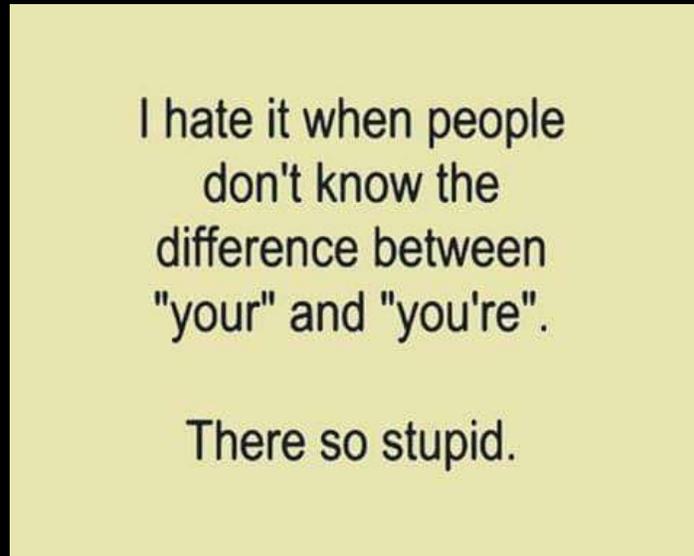
Brandon Carroll (SW Virginia), John Kanuza (Spokane), Ethan Zerpa (Boulder) and Jacob Sheffer (Sonoma) - our inaugural IMSA AMR Safety Team coverage at the Daytona International Speedway...



- *What the...?*

Tonight's WTH comes from our friend and longtime EMS Consultant Steve Athey...

He had something to say about my discussion on apostrophe's...



- *And – One more visual from my grocery store...*

I think sometimes a medical mind sees things differently than a store employee.

Maybe that's where all the home-made buttery tortillas went?





▪ *Epilogue...*

This past Saturday morning, Michael Arinder got up early, dressed quietly, made his lunch, grabbed the dog and fishing equipment, slipped quietly into the garage to hook the boat up to the truck, and proceeded to back out into a torrential downpour.

The wind was blowing 50 mph. He pulled back into the garage, turned on the radio, and discovered that the weather would be bad throughout the day.

So, he went back into the house and slipped back into bed, where his wife was turned away from him. He whispered to her, "The weather out there is terrible."

His loving wife of 20 years replied, "Can you believe my stupid husband is out fishing again in that mess?"

Michael doesn't fish anymore.



So, that's it from my world. *Happy Friday.*

Keep bundled up (my mom said that too...) this weekend. Thanks so much for what you do and how you do it.

Take it easy on the buttery tortillas – safer to just eat chicken soup...

Ed

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