

THE ASSEMBLY ON

Environmental, Occupational, and Population Health

NEWSLETTER



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Dear EOPH Members,

In this September issue of the EOPH Newsletter, we include some of our members' recent "epub ahead of print" articles. If you have a recent publication that you would like to share in the upcoming newsletter, please send the citation or link to tara.nordgren@medsch.ucr.edu.

Would you like to become more engaged with our social media accounts, but don't know where to start? Beginning last month, we have been sharing tips for doing just that. Check out our Twitter Tips section in this newsletter to learn more.

Are you interested in getting more involved with ATS and the EOPH assembly? Register [HERE](#) to indicate your interest!

Do you have a topic you would like to hear more about or a journal article that you would like to hear discussed? Send all ideas/announcements to tara.nordgren@medsch.ucr.edu.

Sincerely,

Your EOPH and TID Web Editorial Committee





Recent Publications

This section highlights some of our assembly members' exciting research that was recently "e-published" or were submitted for inclusion in this newsletter. It is possible that our search may miss your best work, so please send your recent publications to tara.nordgren@medsch.ucr.edu.

Air Pollution and Environmental Exposures

[Lung health and exposure to air pollution in Malawian children \(CAPS\): a cross-sectional study.](#)

Rylance S, Nightingale R, Naunje A, Mbalume F, Jewell C, Balmes JR, Grigg J, Mortimer K. *Thorax*. 2019 Aug 29. pii: thoraxjnl-2018-212945. doi: 10.1136/thoraxjnl-2018-212945. [Epub ahead of print] PMID:31467192

[Inhalable and Respirable Particulate and Endotoxin Exposures in Kentucky Equine Farms.](#)

Hwang J, Golla V, Metwali N, Thorne PS. *J Agromedicine*. 2019 Aug 20:1-11. doi: 10.1080/1059924X.2019.1656128. [Epub ahead of print] PMID: 31430228

[Vehicular Particulate Matter \(PM\) Characteristics Impact Vascular Outcomes Following Inhalation.](#)

Zychowski KE, Tyler CRS, Sanchez B, Harmon M, Liu J, Irshad H, McDonald JD, Bleske BE, Campen MJ. *Cardiovasc Toxicol*. 2019 Aug 13. doi: 10.1007/s12012-019-09546-5. [Epub ahead of print] PMID: 31410643

[Serum matrix metalloproteinase-9 in children exposed to arsenic from playground dust at elementary schools in Hermosillo, Sonora, Mexico.](#)

García-Rico L, Meza-Figueroa D, Beamer PI, Burgess JL, O'Rourke MK, Lantz CR, Furlong M, Martinez-Cinco M, Mondaca-Fernandez I, Balderas-Cortes JJ, Meza-Montenegro MM. *Environ Geochem Health*. 2019 Aug 1. doi: 10.1007/s10653-019-00384-6. [Epub ahead of print] PMID: 31372863

[Short-term associations between daily mortality and ambient particulate matter, nitrogen dioxide, and the air quality index in a Middle Eastern megacity.](#)

Amini H, Trang Nhung NT, Schindler C, Yunesian M, Hosseini V, Shamsipour M, Hassanvand MS, Mohammadi Y, Farzadfar F, Vicedo-Cabrera AM, Schwartz J, Henderson SB, Künzli N. *Environ Pollut*. 2019 Aug 28;254(Pt B):113121. doi: 10.1016/j.envpol.2019.113121. [Epub ahead of print] PMID: 31493628

[Ambient air pollution exposure and risk and progression of interstitial lung abnormalities: the Framingham Heart Study.](#)

Rice MB, Li W, Schwartz J, Di Q, Kloog I, Koutrakis P, Gold DR, Hallowell RW, Zhang C, O'Connor G, Washko GR, Hunninghake GM, Mittleman MA. *Thorax*. 2019 Aug 7. pii: thoraxjnl-2018-212877. doi: 10.1136/thoraxjnl-2018-212877. [Epub ahead of print] PMID: 31391318



[Air pollution, particulate matter composition and methylation-based biologic age.](#)

White AJ, Kresovich JK, Keller JP, Xu Z, Kaufman JD, Weinberg CR, Taylor JA, Sandler DP.
Environ Int. 2019 Aug 3;132:105071. doi: 10.1016/j.envint.2019.105071.
[Epub ahead of print] PMID: 31387022

[Personal carbon monoxide exposure, respiratory symptoms, and the potentially modifying roles of sex and HIV infection in rural Uganda: a cohort study.](#)

North CM, MacNaughton P, Lai PS, Vallarino J, Okello S, Kakuhi B, Tsai AC, Castro MC, Siedner MJ, Allen JG, Christiani DC.
Environ Health. 2019 Aug 20;18(1):73. doi: 10.1186/s12940-019-0517-z. PMID: 31429759

[Indoor measurements of air pollutants in residential houses in urban and suburban areas: Indoor versus ambient concentrations.](#)

Jeong CH, Salehi S, Wu J, North ML, Kim JS, Chow CW, Evans GJ.
Sci Total Environ. 2019 Jul 18;693:133446. doi: 10.1016/j.scitotenv.2019.07.252. [Epub ahead of print]
PMID: 31374501

Research Methods, Therapeutics, and Clinical Strategies

[Cranioplasty in infants less than 24-months of age: a retrospective case review of pitfalls, outcomes, and complications.](#)

Behbahani M, Rosenberg DM, Rosinski CL, Chaudhry NS, Nikas D.
World Neurosurg. 2019 Aug 26. pii: S1878-8750(19)32262-4. doi: 10.1016/j.wneu.2019.08.106.
[Epub ahead of print] PMID:31465852

[Development of a comprehensive protein microarray for immunoglobulin E profiling in horses with severe asthma.](#)

White S, Moore-Colyer M, Marti E, Coüetil L, Hannant D, Richard EA, Alcocer M.
J Vet Intern Med. 2019 Aug 20. doi: 10.1111/jvim.15564. [Epub ahead of print] PMID: 31429513

[The term 'Pilot Study' is misused in veterinary medicine: a critical assessment.](#)

Rishniw M, White ME.
Vet Rec. 2019 Aug 19. pii: vetrec-2019-105377. doi: 10.1136/vr.105377. [Epub ahead of print] PMID:
31427406

[Association Between Weight Loss and Glycemic Outcomes: A Post Hoc Analysis of a Remote Patient Monitoring Program for Diabetes Management.](#)

Michaud TL, Siahpush M, Estabrooks P, Schwab RJ, LeVan TD, Grimm B, Ramos AK, Johansson P, Scoggins D, Su D.
Telemed J E Health. 2019 Aug 14. doi: 10.1089/tmj.2019.0030.
[Epub ahead of print] PMID: 31411552

[Endotracheal Tube Mucus as a Source of Airway Mucus for Rheological Study.](#)

Markovetz MR, Subramani DB, Kissner WJ, Morrison CB, Garbarine IC, Ghio A, Ramsey KA, Arora H, Kumar PA, Nix DB, Kumagai T, Krunkosky TM, Krause DC, Radicioni G, Alexis NE, Kesimer M, Tiemeyer M, Boucher RC, Ehre C, Hill DB.
Am J Physiol Lung Cell Mol Physiol. 2019 Aug 7. doi: 10.1152/ajplung.00238.2019.
[Epub ahead of print] PMID: 31389736



[Impact of a Reduction in Susceptibility Testing for Pseudomonas aeruginosa in a Cystic Fibrosis Program.](#)

Ponce MC, Svendsen E, Steed L, Flume PA.

Am J Respir Crit Care Med. 2019 Aug 30. doi: 10.1164/rccm.201903-0576LE.

[Epub ahead of print] No abstract available. PMID: 31469583

[Using transitional changes on HRCT to monitor the impact of cyclophosphamide or mycophenolate on systemic sclerosis-related interstitial lung disease.](#)

Kim GHJ, Tashkin DP, Lo P, Brown MS, Volkmann ER, Gjertson DW, Khanna D, Elashoff RM, Tseng CH, Roth MD, Goldin JG.

Arthritis Rheumatol. 2019 Aug 20. doi: 10.1002/art.41085.

[Epub ahead of print] PMID: 31430058

[Accidental and Unintentional Findings From the Midstream Clean-Catch Urine Contamination Study: Insights From Applying the Behavior Engineering Model.](#)

Castner J.

J Emerg Nurs. 2019 Sep;45(5):484-487. doi: 10.1016/j.jen.2019.07.013. No abstract available.

PMID: 31445625

[Innovating Emergency Nursing Tools and Technology: Work Design for Quality and Patient Safety.](#)

Castner J.

J Emerg Nurs. 2019 Sep;45(5):481-483. doi: 10.1016/j.jen.2019.07.012. No abstract available.

PMID:31445624

[Advancing the symptom science model with environmental health.](#)

Castner J, Amiri A, Rodriguez J, Huntington-Moskos L, Thompson LM, Zhao S, Polivka B.

Public Health Nurs. 2019 Jul 16. doi: 10.1111/phn.12641. [Epub ahead of print] PMID: 31310379

[The Symptom Science Model: A Shared Mental Model to Advance the Next Generation of Knowledge in the Emergency Nursing Specialty.](#)

Castner J.

J Emerg Nurs. 2019 Jul;45(4):349-351. doi: 10.1016/j.jen.2019.05.008. No abstract available. PMID: 31280765

COPD

[Radiographic Lung Volumes Predict Progression to COPD in Smokers with Preserved Spirometry in SPIROMICS.](#)

Arjomandi M, Zeng S, Barjaktarevic I, Barr RG, Bleecker ER, Bowler RP, Buhr RG, Criner GJ, Comellas AP, Cooper CB, Couper DJ, Curtis JL, Dransfield MT, Han MK, Hansel NN, Hoffman EA, Kaner RJ, Kanner RE, Krishnan JA, Paine R 3rd, Peters SP, Rennard SI, Woodruff PG; SPIROMICS Investigators.

Eur Respir J. 2019 Aug 22. pii: 1802214. doi: 10.1183/13993003.02214-2018.

[Epub ahead of print] PMID: 31439683

[Obstructive Sleep Apnea and Airway Dimensions in COPD.](#)

Koch AL, Brown RH, Woo H, Brooker AC, Paulin LM, Schneider H, Schwartz AR, Diette GB, Wise RA, Hansel NN, Putcha N.

Ann Am Thorac Soc. 2019 Aug 19. doi: 10.1513/AnnalsATS.201903-220RL.

[Epub ahead of print] No abstract available. PMID: 31425663



Neuroscience and Traumatic Brain Injury

[Fibrinolytic Activation in Patients with Progressive Intracranial Hemorrhage after Traumatic Brain Injury.](#)

Fair K, Farrell D, McCully B, Rick E, Dewey EN, Hilliard C, Dean R, Lin AL, Hinson HE, Barbosa RR, Schreiber M, Rowell SE.

J Neurotrauma. 2019 Aug 6. doi: 10.1089/neu.2018.6234.

[Epub ahead of print] PMID: 31382848

[Exposure to American Football and Neuropsychiatric Health in Former National Football League Players: Findings From the Football Players Health Study.](#)

Roberts AL, Pascual-Leone A, Speizer FE, Zafonte RD, Baggish AL, Taylor H Jr, Nadler LM, Connor A, Grashow R, Stillman AM, Marengi DA, Weisskopf MG, Courtney TK.

Am J Sports Med. 2019 Aug 30;363546519868989. doi: 10.1177/0363546519868989.

[Epub ahead of print] PMID: 31468987

[Influence of pain anticipation on brain activity and pain perception in Gulf War Veterans with chronic musculoskeletal pain.](#)

Lindheimer JB, Stegner AJ, Ellingson-Sayen LD, Van Riper SM, Dougherty RJ, Falvo MJ, Cook DB.

Psychophysiology. 2019 Aug 20:e13452. doi: 10.1111/psyp.13452.

[Epub ahead of print] PMID: 31429944

Asthma and Allergy

[Prenatal Oxidative Balance and Risk of Asthma and Allergic Disease in Adolescence.](#)

Sordillo JE, Rifas-Shiman SL, Switkowski K, Coull B, Gibson H, Rice M, Platts-Mills T, Kloog I, Litonjua AA, Gold DR, Oken E.

J Allergy Clin Immunol. 2019 Aug 19. pii: S0091-6749(19)31048-6. doi: 10.1016/j.jaci.2019.07.044.

[Epub ahead of print] PMID: 31437488

[Soluble fibre supplementation with and without a probiotic in adults with asthma: A 7-day randomised, double blind, three way cross-over trial.](#)

McLoughlin R, Berthon BS, Rogers GB, Baines KJ, Leong LEX, Gibson PG, Williams EJ, Wood LG.

EBioMedicine. 2019 Aug;46:473-485. doi: 10.1016/j.ebiom.2019.07.048. Epub 2019 Jul 31. PMID: 31375426

Cigarettes, E-cigs, and Cannabis Smoke Exposure

[A source of bias in studies of e-cigarettes and smoking cessation.](#)

Pierce J, Messer K, Leas E, Kealey S, White MM, Benmarhnia T.

Nicotine Tob Res. 2019 Aug 9. pii: ntr143. doi: 10.1093/ntr/ntz143.

[Epub ahead of print] No abstract available. PMID: 31398246

[Chronic E-Cigarette Use Increases Neutrophil Elastase and Matrix Metalloprotease Levels in the Lung.](#)

Ghosh A, Coakley RD, Ghio AJ, Muhlebach MS, Esther CR Jr, Alexis NE, Tarran R.

Am J Respir Crit Care Med. 2019 Aug 7. doi: 10.1164/rccm.201903-0615OC.

[Epub ahead of print] PMID: 31390877



[The effect of e-cigarette aerosol emissions on respiratory health: a narrative review.](#)

Polosa R, O'Leary R, Tashkin D, Emma R, Caruso M.

Expert Rev Respir Med. 2019 Aug 2;1-17. doi: 10.1080/17476348.2019.1649146.

[Epub ahead of print] PMID: 31375047

Cellular Mechanisms

[Surfactant Protein-D Modulation of Pulmonary Macrophage Phenotype is Controlled by S-Nitrosylation.](#)

Guo C, Atochina-Vasserman EN, Abramova E, Smith LC, Beers MF, Gow AJ.

Am J Physiol Lung Cell Mol Physiol. 2019 Aug 14. doi: 10.1152/ajplung.00506.2018.

[Epub ahead of print] PMID: 31411060

[Therapeutic targeting of Notch signaling and immune checkpoint blockade in a spontaneous, genetically-heterogeneous mouse model of T-cell acute lymphoblastic leukemia.](#)

Gao J, Van Meter M, Lopez SH, Chen G, Huang Y, Ren S, Zhao Q, Rojas J, Gurer C, Thurston G, Kuhnert F. Dis Model Mech. 2019 Aug 9. pii: dmm.040931. doi: 10.1242/dmm.040931.

[Epub ahead of print] PMID: 31399482

[Age-Dependent Translocation of Gold Nanoparticles across the Air-Blood Barrier.](#)

Tsuda A, Donaghey TC, Konduru NV, Pyrgiotakis G, Van Winkle LS, Zhang Z, Edwards P, Bustamante JM, Brain JD, Demokritou P.

ACS Nano. 2019 Aug 16. doi: 10.1021/acsnano.9b03019.

[Epub ahead of print] PMID: 31397554

Cancer

[Recurrence, death, and secondary malignancy after ovarian conservation for young women with early-stage low-grade endometrial cancer.](#)

Matsuo K, Cripe JC, Kurnit KC, Kaneda M, Garneau AS, Glaser GE, Nizam A, Schillinger RM, Kuznicki ML, Yabuno A, Yanai S, Garofalo DM, Suzuki J, St Laurent JD, Yen TT, Liu AY, Shida M, Kakuda M, Oishi T, Nishio S, Marcus JZ, Adachi S, Kurokawa T, Ross MS, Horowitz MP, Johnson MS, Kim MK, Melamed A, Machado KK, Yoshihara K, Yoshida Y, Enomoto T, Ushijima K, Satoh S, Ueda Y, Mikami M, Rimel BJ, Stone RL, Growdon WB, Okamoto A, Guntupalli SR, Hasegawa K, Shahzad MMK, Im DD, Frimer M, Gostout BS, Ueland FR, Nagao S, Soliman PT, Thaker PH, Wright JD, Roman LD.

Gynecol Oncol. 2019 Aug 16. pii: S0090-8258(19)31458-1. doi: 10.1016/j.ygyno.2019.08.007.

[Epub ahead of print] PMID: 31427143

[Interstitial Lung Abnormalities and Lung Cancer Risk in the National Lung Screening Trial.](#)

Whittaker Brown SA, Padilla M, Mhango G, Powell C, Salvatore M, Henschke C, Yankelevitz D, Sigel K, de-Torres JP, Wisnivesky J.

Chest. 2019 Aug 9. pii: S0012-3692(19)31448-5. doi: 10.1016/j.chest.2019.06.041.

[Epub ahead of print] PMID: 31404527

[Pro-apoptotic protein BIM as a novel prognostic marker in mantle cell lymphoma.](#)

Wang JD, Katz SG, Morgan EA, Yang DT, Pan X, Xu ML.

Hum Pathol. 2019 Aug 16. pii: S0046-8177(19)30141-8. doi: 10.1016/j.humpath.2019.08.008.

[Epub ahead of print] PMID: 31425695



Occupational Exposures

[Severe lung disease characterized by lymphocytic bronchiolitis, alveolar ductitis, and emphysema \(BADE\) in industrial machine-manufacturing workers.](#)

Cummings KJ, Stanton ML, Nett RJ, Segal LN, Kreiss K, Abraham JL, Colby TV, Franko AD, Green FHY, Sanyal S, Tallaksen RJ, Wendland D, Bachelder VD, Boylstein RJ, Park JH, Cox-Ganser JM, Virji MA, Crawford JA, Green BJ, LeBouf RF, Blaser MJ, Weissman DN.

Am J Ind Med. 2019 Aug 28. doi: 10.1002/ajim.23038.

[Epub ahead of print] PMID: 31461179

[Association of Concussion Symptoms With Testosterone Levels and Erectile Dysfunction in Former Professional US-Style Football Players.](#)

Grashow R, Weisskopf MG, Miller KK, Nathan DM, Zafonte R, Speizer FE, Courtney TK, Baggish A, Taylor HA, Pascual-Leone A, Nadler LM, Roberts AL.

JAMA Neurol. 2019 Aug 26. doi: 10.1001/jamaneurol.2019.2664.

[Epub ahead of print] PMID: 31449296

[Chrysotile fibers in tissue adjacent to laryngeal squamous cell carcinoma in cases with a history of occupational asbestos exposure.](#)

Wronkiewicz SK, Roggli VL, Hinrichs BH, Kendler A, Butler RA, Christensen BC, Marsit CJ, Nelson HH, McClean MD, Kelsey KT, Langevin SM.

Mod Pathol. 2019 Aug 5. doi: 10.1038/s41379-019-0332-7.

[Epub ahead of print] PMID: 31383968

[The Prevalence of Pulmonary Nodules on Computed Tomography in World Trade Center Rescue and Recovery Workers.](#)

Sigel KM, Xu D, Weber J, Wisnivesky JP, Celedón JC, de la Hoz RE.

Ann Am Thorac Soc. 2019 Sep 9. doi: 10.1513/AnnalsATS.201907-517RL. [Epub ahead of print] No abstract available. PMID: 31499008

[Respiratory follow-up pre- and post-engineering controls or cessation of added diacetyl at four microwave popcorn facilities.](#)

Lockey JE, Hilbert TJ, LeMasters G, Dunning KK, McKay RT, Levin LS, Rice CH.

ERJ Open Res. 2019 Aug 12;5(3). pii: 00042-2019. doi: 10.1183/23120541.00042-2019. eCollection 2019 Jul.

PMID: 31423448

Updates from Terrorism and Inhalation Disasters Section



Videocasts on TID Section Website:


[Dr. Shama Ahmad, PhD](#), Associate Professor of Department of Anesthesiology and Perioperative Medicine, the University of Alabama at Birmingham (UAB) created two videocasts in collaboration with OESO at UAB and colleagues at Duke University. One video is about donning and doffing a full face respirator which is primarily informative to patients in the event of inhalation disaster. The second video shows fit testing a full-face respirator. This video is primarily instructional to the physicians and also highlights the importance of fit testing of respirators for the patients. Please check the [VIDEOS](#) on our TID Section website.


Investigators at Duke University and Yale University are investigating health effects of flavored e-cigarettes in response to vaping crisis. Find out more details [HERE](#) and [HERE](#).


National Center for Environmental Health Agency for Toxic Substances and Disease Registry, Center for Disease Control (CDC) issued guidelines for safety on aircraft: It is best not to bring actual or suspected munitions onboard. If munition is brought onboard and if you must handle it, you should follow [THESE](#) recommendations to protect yourself (also see picture at right).

STEPS


It is best not to bring actual or suspected munitions onboard. If munition is brought onboard and if you must handle it, you should follow these recommendations to protect yourself:


- 

1. Isolate: You should keep unneeded crew members upwind and as far away as possible. The captain should steer the vessel into the wind to help minimize vapor exposure.
- 


2. Decide on action: You should quickly decide if you will need to handle the munition. The longer the munition is exposed to ambient temperatures the more likely it is to leak. Beware of any leaking substances—vapors are toxic and liquids can cause burns. If crew members are not trained to properly handle munitions and how to safely wear PPE, or if you do not have the appropriate equipment, stop and request assistance from the U.S. Coast Guard on channel 16 (156.800 MHz) or by calling (800) 424-8802 or (215) 271-4960.
- 

3. Protect responding crew members: Crew members who are properly trained and will approach and handle the munition should wear appropriate PPE to protect their skin from leaking liquids. PPE should be put on (donned) in the following order:

 - a. Inner pair of gloves
 - b. Suit
 - c. Apron
 - d. Face shield
 - e. Outer pair of gloves
- 


4. Take action: Crew members trained to handle munitions should jettison or secure the munition as necessary. If jettisoning the munition, using a two person team to place munition in a plastic tote and lift to gunwale. You should toss both the tote and munition onboard. If securing the munition, you should use a two person team to place the munition in a plastic tote before securing. When handling the munition, perform these actions as efficiently as possible to minimize contact.
- 


5. Decontaminate: Decontaminate equipment and individuals that are potentially contaminated with liquid that leaked from the munition by physically removing the warfare chemical with soap and water. Make sure the wash solution and rinse water do not enter the vessel or come into contact with you or your coworkers. The wash solution and rinse water should be handled as hazardous waste and disposed of in accordance with applicable standards. Follow your company's policy regarding how to determine when equipment is properly decontaminated.


 - o Equipment: Wash and rinse contaminated surfaces with soap and water (using cold or warm water).
 - o People: If you or a coworker are exposed to liquid from the munition, remove all clothing and place into sealed plastic bags. Thoroughly wash and rinse the contaminated skin using a soap and water solution. You should wash the individual starting at their head and working your way down to their toes. Rinse the individual's eyes with clean water for at least 20 minutes. Be careful not to scratch or break the skin and cover all open wounds. Cover the individual to prevent shock and loss of body heat. Exposed individuals should seek immediate medical attention.
- 

6. Remove PPE: After handling the munition and decontaminating surfaces, remove PPE and place into sealed plastic bags. When removing PPE, the outer surface should be treated as potentially contaminated and care should be taken to not touch the outside surface, roll PPE downward, and avoid pulling PPE off over the head. Remove (doff) the PPE in the following order:


 - a. Outer pair of gloves
 - b. Apron
 - c. Face shield
 - d. Suit
 - e. Inner pair of gloves

PPE should be disposed of in accordance with applicable standards.
- 


7. Alert: Notify the U.S. Coast Guard on channel 16 (156.800 MHz) or by calling (800) 424-8802 or (215) 271-4960.
- 

8. Look: Look for symptoms. Symptoms can happen right away or up to 48 hours after exposure. Symptoms include sudden weakness, burning eyes, skin blisters, trouble breathing, redness, and burning skin. If you suspect you were exposed, go to the emergency room.
- 

9. Protect the public: Follow your company's policy regarding the catch. Fishing vessels that have come into contact with chemical agents must not bring their catch ashore until it has been checked and released by the appropriate state's department of environmental health. Sea life contaminated by chemicals is unsuitable for human or animal consumption.



Example of Burns and Blisters from Mustard Exposure



National Center for Environmental Health Agency for Toxic Substances and Disease Registry

CS26210-0



The CDC, the U.S. Food and Drug Administration (FDA), state and local health departments, and other clinical and public health partners are investigating a multistate outbreak of lung injury associated with e-cigarette product (devices, liquids, refill pods, and/or cartridges) use. Learn more [HERE](#).

The screenshot shows the CDC website page for 'Smoking & Tobacco Use'. The main heading is 'Outbreak of Lung Injury Associated with E-Cigarette Use, or Vaping'. Below the heading is a 'Related Pages' section with three links: 'For the Public: What You Need to Know', 'For Healthcare Providers', and 'For State and Local Health Departments'. The left sidebar contains a navigation menu with 'Basic Information' selected.

There are 530* cases of lung injury reported from 38 states and 1 U.S. territory. Seven deaths have been confirmed in 6 states.

The CDC has received complete sex and age data on 373 of 530 case:

- Nearly three fourths (72%) of cases are male
- Two thirds (67%) of cases are 18 to 34 years old
- 16% of cases are under 18 years and 17% are 35 years or older

All reported cases have a history of e-cigarette product use or vaping.

Based on initial data from certain states we know: Most patients have reported a history of using e-cigarette products containing THC. Many patients have reported using THC and nicotine. Some have reported the use of e-cigarette products containing only nicotine

However, the agencies do not yet know the specific cause of these lung injuries. The investigation has not identified any specific e-cigarette or vaping product (devices, liquids, refill pods, and/or cartridges) or substance that is linked to all cases.

New TID Publications

[Toxic Effects of Chlorine Gas and Potential Treatments: A Literature Review.](#)
Achanta S, Jordt SE.



Toxicol Mech Methods. 2019 Sep 18;1:1-34. doi: [10.1080/15376516.2019.1669244](https://doi.org/10.1080/15376516.2019.1669244). [Epub ahead of print] PMID: 31532270

[Designing and executing a functional exercise to test a novel informatics tool for mass casualty triage.](#)

Donevant SB, Svendsen ER, Richter JV, Tavakoli AS, Craig JBR, Boltin ND, Valafar H, DiNardi SR, Culley JM. J Am Med Inform Assoc. 2019 Oct 1;26(10):1091-1098. doi: 10.1093/jamia/ocz087. PMID: 31246255

[Temporal Trends in Cardiovascular Hospital Discharges Following a Mass Chlorine Exposure Event in Graniteville, South Carolina.](#)

Howell AV, Vena JE, Cai B, Lackland DT, Ingram LA, Lawson AB, Svendsen ER. Front Public Health. 2019 May 8;7:112. doi: 10.3389/fpubh.2019.00112. eCollection 2019. PMID: 31134174

[Changes in murine respiratory dynamics induced by aerosolized carfentanil *inhalation*: efficacy of naloxone and naltrexone.](#)

Tuet WY, Pierce SA, Racine MC, Tressler J, McCranor BJ, Sciuto AM, Wong B. Toxicol Lett. 2019 Sep 17. pii: S0378-4274(19)30283-8. doi: 10.1016/j.toxlet.2019.09.012. [Epub ahead of print] PMID: 31539569

[Nasal lavages as a tool for monitoring exposure to organic pollutants.](#)

Velázquez-Gómez M, Lacorte S. Environ Res. 2019 Sep 6;178:108726. doi: 10.1016/j.envres.2019.108726. [Epub ahead of print] PMID: 31539821

[PAHs increase the production of extracellular vesicles both *in vitro* in endothelial cells and *in vivo* in urines from rats.](#)

Le Goff M, Lagadic-Gossmann D, Latour R, Podechard N, Grova N, Gauffre F, Chevance S, Burel A, Appenzeller BMR, Ulmann L, Sergent O, Le Ferrec E. Environ Pollut. 2019 Sep 10;255(Pt 1):113171. doi: 10.1016/j.envpol.2019.113171. [Epub ahead of print] PMID: 31539851

[Serum concentrations of legacy and emerging halogenated flame retardants in a Norwegian cohort: Relationship to external exposure.](#)

Tay JH, Sellström U, Papadopoulou E, Padilla-Sánchez JA, Haug LS, de Wit CA. Environ Res. 2019 Sep 9;178:108731. doi: 10.1016/j.envres.2019.108731. [Epub ahead of print] PMID: 31539819

[Recent advances in \$\alpha,\beta\$ -unsaturated carbonyl compounds as mitochondrial toxins.](#)

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ATS is calling for [abstracts](#) for 2020 ATS international conference. Please choose EOPH as the primary assembly during the abstract submission so that the abstract will be appropriately reviewed and grouped in a thematic session. **SUBMISSION DEADLINE: WEDNESDAY, OCTOBER 30, 2019 (5 p.m. Eastern Time)**

The [Best of ATS Video Lecture Series \(BAVLS\)](#) is soliciting educational videos. The deadline for submission is November 15th, 2019.

[BARDA Industry Day 2019](#) will feature two days of exciting speakers, breakout sessions, and valuable networking opportunities on October 15-16th 2019. The audience will learn about U.S. Government medical countermeasure priorities, interact with BARDA and ASPR staff, and network with public and private sector colleagues working in medical countermeasures.



TID section is on [twitter](#)
Follow TID section on [@ATSTIDSection](#)



TID section is soliciting ideas for putting together **podcasts, webinars, and journal clubs**. Please contact Satya Achanta, DVM, PhD (satya.achanta@duke.edu), Web Director of TID section, if you are interested to lead any of these activities. Also, please email your publications, news articles, or presentations pertinent to TID section to include in the future EOPH newsletters.

Twitter Tips!

Would you like to become more engaged with our social media accounts, but don't know where to start? Beginning with our August 2019 Newsletter, we are providing tips on how to do just that. Last month, we provided tips on how to sign up for a Twitter Account. This month, we will be discussing how to optimize your Twitter profile, follow others on Twitter, and send your first tweet. Next month, we will provide additional information on how to optimize your Twitter account and increase engagement. We look forward to engaging with you on Twitter soon!



Optimizing Your Twitter Profile

Twitter allows you to create a short biography to introduce yourself to others on the Twitter Platform. This is your opportunity to establish yourself as an authority (including credentials, etc.) if you will be using Twitter in a professional capacity. In addition, or if using a personal Twitter account, you may want to put information about yourself including interests and hobbies. Here are some suggestions to get you started:

- 1) Make yourself easy to recognize by uploading a close-up headshot of yourself as your profile picture. Twitter's profile design dimensions: header photo = 1500 x 500 px | profile pic = 400 x 400 px.
- 2) Make the most of your Twitter bio. Discuss your skills and expertise.
- 3) Include your URL in your Twitter bio, not just the URL field, to optimize for mobile users.

Following others on Twitter

When you follow others (including individuals, businesses, or organizations with Twitter accounts), their tweets will show up in your Twitter feed (the list of tweets you see when you first log in or open your Twitter app).

- 1) In the upper right-hand corner of Twitter in the web platform (or in the bottom as a magnifying glass icon on your mobile app), you will see a "Search Twitter" line. In this line, type "ATS EOPH". You should see our Twitter account ([@ATS EOPH](#)) in the search results. If you click on this, it will take you to our profile. Here, you can click on the button "Follow" to begin following us!
- 2) Repeat this process to find other organizations or individuals you would like to follow. We suggest you also follow [@ATSTIDSection](#) to ensure you don't miss any articles, updates, or other news!

How to Send Your First Tweet

We will be providing additional details on tweeting in upcoming newsletters, but here are a couple tips to get you started with sending out your first tweets:

- 1) On the web platform, locate the top of the screen by your profile picture that states, "**What's happening?**" Here, you can type in whatever you would like to Tweet. On your mobile app, you will need to click on the blue circle with a "+" near the bottom right of your screen.
- 2) Once you have typed what you like, you can add a photo, link, or other information you would like to share.
- 3) If you want EOPH to see a post, you can mention their Twitter handle ([@ATS_EOPH](#)) in the message.

In the News

Dan Croft, MD from University of Rochester Medical Center, a member of our EOPH Early Career Professionals Working Group, was recently featured on NBC's nightly news program (9/11/19). Click [HERE](#) to see the video—Dr. Croft is at minute 1:30 in the video discussing the inflammatory effects of e-cigarette aerosols.