



The beginning or the END?

Robyn Davis MSN, RNII, CNL, CSPI

The health risks from cigarette smoking and second hand smoke exposure have been well documented. Despite these risks, smoking continues to be a public health concern across adolescents and adults. To prevent the glamorization of smoking to our youth, the tobacco industry is prohibited from advertising on TV, radio, billboards, or in magazines that appeal to youth and the only flavoring that's permitted is menthol. The expectation of these restrictions was to limit children's exposure to anything that encouraged smoking. These measures have caused the tobacco industry to get creative.

Tobacco companies have started marketing Electronic Nicotine Delivery Systems (ENDS), also known as electronic cigarettes, e-hookahs, and vape pens. These deliver nicotine through a liquid that is aerosolized and inhaled into the lungs just like cigarette smoke. The 'vape' liquids come in all kinds of different flavors and concentrations and are sold in convenience stores, gas stations, online, or head shops. There are no federal regulations prohibiting the sale or advertisements to target children.

The chemicals in the vapor solutions contain lower levels of toxicants and carcinogens than cigarettes but many of the ingredients have been found to cause respiratory disease. The flavors in the ENDS liquids have been certified as 'generally recognized as safe' for ingestion, but there is no evidence that they are safe for inhalation.

A recent Canadian research study specifically looked at what happens to the body at a cellular level with exposure to ENDS. The objective was to see what happens to the ENDS, specifically cell viability, cell metabolic activity, and inflammatory cytokine production. The researchers used five different flavors in 6 different types of ENDS (disposable e-cigarettes, rechargeable e-cigarette, eGo tank system, personal vaporizer, ePipe, eCigar). The study concluded that the ENDS do cause toxicity to lung cells in varying degrees but it was unclear if the flavors, nicotine carrier, nicotine concentration, or battery output voltage affected cellular toxicity. A second study concluded that some flavors and higher battery output voltage increase toxicity of ENDS aerosol. The long term effects from exposure to ENDS and their flavorings are unknown and further investigation is necessary.

In addition to the unknown long term health risks from the ENDS there are other public health concerns with these concentrated nicotine liquids. Accidental ingestions in small children is a concern. As more and more households have ENDS, accidental pediatric exposures are likely. Nicotine ingestions in children can be particularly dangerous—it can cause vomiting, affect their heart rate, blood pressure, muscle weakness and even death. These vaping liquids can be concentrated with unclear labels making it difficult for healthcare professionals to assess the risk for severe symptoms following an accidental ingestion.

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E-Cigarette Explosions

Deborah Donald MSN, RN II, CSPI

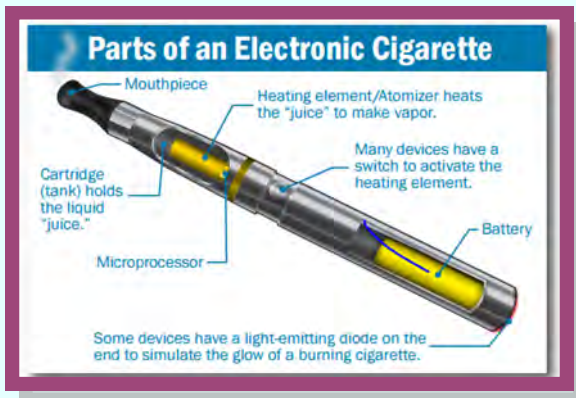


Fig 1: Part of an e-cigarette



Fig 2: Oral trauma



Fig 3: Injuries of the face, hands and thighs caused by e-cigarette explosions

In 2014, the U.S. Fire Administration (USFA) reported that they found several incidents of fire and explosions caused by e-cigarettes. The information they reviewed came from internet searches of media reports ranging from the years 2009-2014. The agency was not able to use the results to form a quantitative analysis, but the qualitative information from the media reports was summarized. There were 20 fires when the batteries were being charged, 2 fires when the batteries were in use, 1 fire when the batteries were stored or transported and 2 fires of unknown etiology. The twenty-five incidents of fire and explosions included nine injuries, two serious burns, and zero deaths.

The inhalation of vapors from e-cigarettes and the health ramifications was the focus of regulation by the U.S. Food & Drug Administration (FDA). The lithium-ion battery including all other components (Fig 1) of the physical e-cigarette did not undergo regulatory review (U.S. Fire Administration, 2014).

The reason the lithium-ion battery explodes is due to the overheating of the flammable liquid electrodes that surround the metallic cylinder core. The air tight seal prevents leakage, evaporation, and flexibility within the metal can and it will erupt from increased pressure. The battery ejections have been summarized as flying projectiles, bullets, or rockets (U.S. Fire Administration, 2014). The damaging effects of rocket explosions during use of e-cigarettes shown in Figure 2 have caused burns to lips, removal of teeth and hard and soft tissue (Roger, Abayon, Elad, & Kolokythas, 2016). Figure 3 depicts another example of bodily injuries from rocket flame burns and flaming explosions to the face, hands, and thighs (Brownson et al., 2016). Currently, tobacco products are regulated by the FDA, but the power source for the e-cigarette is not regulated. Additional education regarding the fire and explosion consequences of using e-cigarettes is needed (Roger, Abayon, Elad, & Kolokythas, 2016).

Panels A and B show the common injury pattern of flame burns to both the thigh and the hand after a lithium-ion battery explosion in a patient's pocket.

Panel C shows a flame burn and blast injury to the face after an e-cigarette device exploded during use, which led to traumatic tattooing of the right cheek.

Panel D shows a wound from an e-cigarette explosion, with a rim of discoloration characteristic of an alkali chemical burn.

References

U.S. Fire Administration. Electronic cigarette fires and explosions. (2014, October). Retrieved from http://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf

Roger, J. M., Abayon, M., Elad, S., & Kolokythas, A. (2016). Oral trauma and tooth avulsion following explosions of e-cigarette. *Journal of Oral and Maxillofacial Surgery*, 74(6), 1181-1185. doi.org/10.1016/j.joms.2015.12.017

Brownson, E. G., Thompson, C. M., Goldsberry, S., Chong, H. J., Friedrich, J. B., Pham, T. N.,... G. J., Gibran, N. S. (2016). Explosions injuries from e-cigarettes. *New England Journal of Medicine*, 375, 1400-1402. DOI: 10.1056/NEJMc1608478

Check out our webpage and blog

<http://www.cincinnatichildrens.org/service/d/dpic/default/>

<http://cincinnatichildrensblog.org/category/safety-and-prevention/>

Codeine in Children

Rob Goetz PharmD, DABAT



The American Academy of Pediatrics recently published a report to update and guide clinicians on the status of the use of codeine in children. While the report specifically states it does not indicate an exclu-



sive course of therapy or serve as documentation of a standard of care, the document does provide context for understanding the increasing concerns and restrictions that have appeared over the last several years from the FDA and other regulatory agencies worldwide .

These restrictions include the removal of codeine from the WHO essential medicines list and, in 2013, the FDA's addition of a black box warning to the labeling of codeine and codeine containing preparations, recommending that other pain medicines be prescribed – chiefly acetaminophen or ibuprofen in children after tonsillectomy and adenoidectomy. The concerns center on both the safety and the efficacy of codeine.

Codeine is a prodrug. Its analgesic activity depends entirely upon its conversion to morphine by cytochrome P450 2D6 (CYP 2D6). However, the activity of CYP 2D6 is subject to significant genetic variability, which can result in either inadequate analgesia or dangerous adverse effects. Patients can be classified as poor, extensive or ultra-rapid metabolizers . The prevalence of different levels of 2D6 activity varies among patients with different ethnic background. At least 74 different variants have been discovered, but it is impossible to know ahead of time where on the spectrum of activity a patient will fall and

testing for these variants is both expensive and inconvenient at this time.

Most people (77-92%) are extensive metabolizers and will convert roughly 10% of a codeine dose to morphine. The prevalence of CYP 2D6 poor metabolizers (PMs) and subsequently poor analgesia with codeine is highest in persons of northern European descent comprising up to 10% of individuals while PMs comprise just 0-1.2% of Chinese, Korean and Japanese patients and roughly 1.8-4.8% of persons from India and other population groups in Southeast Asia. Africans have the largest PM variability with a range of 0-19%, while African Americans have a prevalence of 1.9-7.3%, and roughly 2.2-6.6% of Hispanics are poor metabolizers.

At the other extreme, CYP 2D6 ultrafast metabolizers (UMs) may convert up to 30% of codeine to morphine with resultant opioid toxicity. This phenotype is present in 1-3.6% of Northern European Whites, 7-10 % of Southern Europeans, and roughly 4.3% of American whites and 4.9% of African Americans. The highest prevalence of UMs occurs in Black Ethiopians (16%) and Saudi Arabians (20%).

While reports of lack of effect are rarely published in the medical literature, a number of case reports of life threatening or fatal respiratory depression have been published. These reports prompted the

FDA to search the FDA Adverse Event Reporting System (AERS) from 1969 through 2012. This search revealed 10 pediatric deaths and 3 cases of respiratory depression in children between 21 months and 9 years after recommended doses of codeine. Most of these cases occurred during the postoperative period after adenoidectomy or combined adenoidectomy/ tonsillectomy. An additional three pediatric deaths were recorded AERS in 2013.

Despite warnings and restrictions, codeine continues to be a commonly prescribed medicine for children. Pediatricians have considered using other opioids like oxycodone, morphine and hydrocodone, as well as non-traditional pain medicines like tramadol and tapentadol. However, several of these medicines are converted to more potent substances by CYP 2D6 or there is insufficient evidence in children to recommend their widespread outpatient use. It may be most prudent to use non-opioid analgesics like ibuprofen and acetaminophen for patients who can take oral medicines and intravenous acetaminophen or ketorolac for those patients that can't take medicines orally.

Reference:

Zhou, S.F. (2009). Polymorphism of Human Cytochrome P450 2D6 and Its Clinical Significance. *Clinical Pharmacokinetics*, 48 (11), p. 689-723.

Cannabinoid Hyperemesis and Capsaicin

Robert Williford UC PharmD Candidate 2017



According to the National Institute of Health, the percentage of Americans who reported using marijuana in the past year more than doubled between 2001-2002 and 2012-2013. Due to social and political changes, marijuana use is steadily increasing in the United States, and with this increased use comes an increased incidence of adverse effects. One effect in particular, which was first described in 2004, is known as cannabinoid hyperemesis syndrome (CHS). This syndrome is characterized by cyclical episodes of nausea, vomiting and abdominal pain and is associated with chronic and heavy cannabinoid use, often greater than 2 years. A majority of patients who present with CHS use marijuana at least daily and up to 5-6 times daily. One of the defining characteristics of CHS is the frequent use of hot showers or baths to relieve symptoms. Patients often present to emergency departments after running out of hot water.

As CHS has only been described since 2004, there is no definitive set of diagnostic criteria. There is, however, a list of proposed diagnostic criteria that originated as a result of a case-series reviewing 98 patients at an institution who were diagnosed with CHS. The diagnosis is broken down into essential, major and supportive criteria. Essential criteria include long-term cannabis use. Major criteria include severe cyclic nausea and vomiting, resolution with cannabis cessation, abdominal pain, and relief of symptoms



with hot showers or baths. Supportive criteria include age less than 50 years, weight loss greater than 5 kg, morning predominance of symptoms and normal bowel habits. Once diagnosed, treatment of CHS can be difficult.

Unfortunately for these patients the nausea, vomiting and abdominal pain is often refractory to antiemetics. Although supportive care with intravenous fluids and antiemetics is the current standard of care in the hospital, abstinence from cannabis use appears to be the only sure-fire treatment. One additional treatment option, however, has been proposed and used with success. Postulating that hot showers and baths might be the key to understanding the treatment of CHS, one toxicologist applied 0.025% capsaicin cream to the abdomen of seven patients resulting in complete resolution of symptoms within 45 minutes. The toxicologist hypothesized that the hot showers may have been activating the TRPV1 receptor, which is agonized by temperatures greater than 109° F, and incidentally, is the only receptor in the

body stimulated by capsaicin. If this syndrome is encountered and nothing else appears to be effective, capsaicin cream may be of benefit.

References:

Simonetto DA, Oxentenko AS, Herman ML, Szostek JH. Cannabinoid hyperemesis: a case series of 98 patients. *Mayo Clin Proc.* 2012 Feb;87(2):114-9. doi: 10.1016/j.mayocp.2011.10.005.

Gussow, Leon. Toxicology Rounds: Cannabinoid Hyperemesis Syndrome? Bring on the Hot Sauce. *Emergency Medicine News:* 2015 Feb;37(2):14. doi: 10.1097/01.EEM.0000461009.92588.7f

<https://www.nih.gov/news-events/news-releases/prevalence-marijuana-use-among-us-adults-doubles-over-past-decade>

It's that time of the year again...Carbon Monoxide

Sara Pinkston RNII, CSPI



And, no, I am not talking about the Holidays! It's that time of year when carbon monoxide (CO) exposures become more common. According to the Centers for Disease Control (CDC), more than 400 Americans die each year from unintentional CO poisoning not linked to fires. More than 20,000 Americans visit the emergency room, and more than 4,000 are hospitalized (CDC.gov).



Carbon Monoxide is a colorless, odorless gas found in fumes produced any time fuel is incompletely burned in cars, small engines, stoves, lanterns, grills, fireplaces, gas ranges, or furnaces. You get the picture. That is why it is so important to have furnaces cleaned and checked regularly. CO can build up indoors when these items are not working properly, and they can poison people and animals who breathe it.

The most common symptoms of CO poisoning are headache, dizziness, weakness, upset stomach, vomiting, chest pain, and confusion...often referred to as flu-like symptoms. Breathing in a significant amount of CO may cause someone to pass out, and it could be fatal. People who are sleeping or drunk can die from CO poisoning before they even know they have symptoms.

If you think you may have been exposed to CO fumes and are symptomatic, get out of the house and call 911. If you are not symptomatic but think you may have CO fumes in your home, leave the area and call your local fire department. Do not open windows before leaving the area. The Fire Department will be able to measure the CO levels in your home. If you have a furnace or gas powered device that is not working properly, turn it off and call for maintenance right away.

What can you do to prevent CO poisoning?

Here is a list of recommendations from the CDC:

- * Install a battery-operated or battery back-up CO detector in your home and check or replace the battery when you change the time on your clocks each spring and fall. Place your detector where it will wake you up if it alarms, such as outside your bedroom. Consider buying a detector with a digital readout. This detector can tell you the highest level of CO concentration in your home in addition to alarming. Replace your CO detector every five years.
- * Have your heating system, water heater, and any other gas, oil, or coal burning appliances serviced by a qualified technician every year.
- * Do not use portable flameless chemical heaters indoors.
- * If you smell an odor from your gas refrigerator have an expert service it. An odor from your gas refrigerator can mean it could be leaking CO.
- * When you buy gas equipment, buy only equipment carrying the seal of a national

testing agency, such as Underwriters' Laboratories.

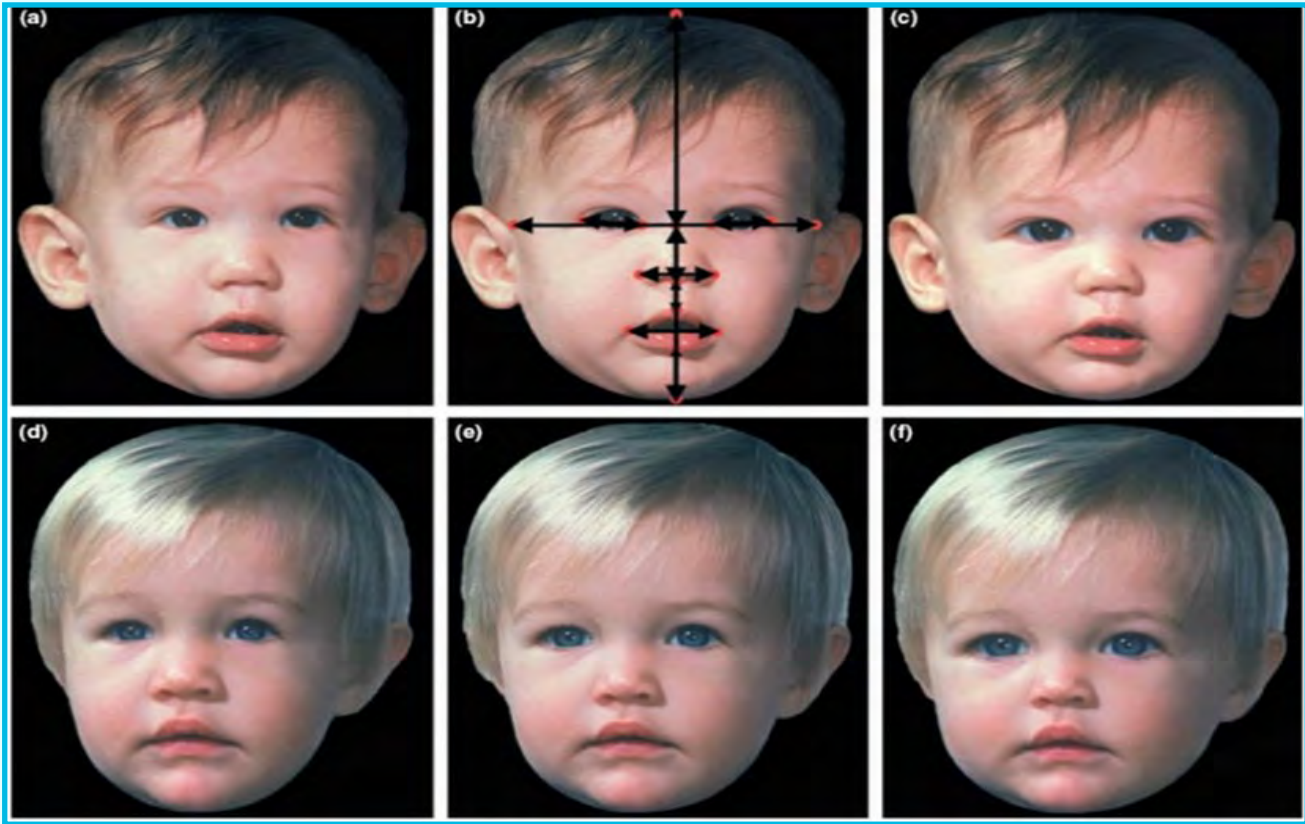
- * Make sure your gas appliances are vented properly. Horizontal vent pipes for appliances, such as a water heater, should go up slightly as they point outdoors. This prevents CO from leaking if the joints or pipes aren't fitted tightly.
- * Have your chimney checked or cleaned every year. Chimneys can be blocked by debris. This can cause CO to build up inside your home or cabin.
- * Never patch a vent pipe with tape, gum, or something else. This kind of patch can make CO build up in your home, cabin, or camper.
- * Never use a gas range or oven for heating. Using a gas range or oven for heating can cause a build up of CO inside your home, cabin, or camper.
- * Never burn charcoal indoors. Burning charcoal - red, gray, black, or white - gives off CO.
- * Never use a portable gas camp stove indoors. Using a gas camp stove indoors can cause CO to build up inside your home, cabin, or camper.
- * Never use a generator inside your home, basement, or garage or less than 20 feet from any window, door, or vent.
- * These recommendations and more can be found on the CDC.gov website. Let this time of year mean celebrating the Holidays...not falling victim to CO!

Reference:

Www.cdc.gov

The Opioid Disconnection: Why kids are placed in Harm's Way

Jan Scaglione MT, PharmD, DABAT



By now we've all seen pictures over the Internet depicting children crying next to their overdosed parent in a department store, or strapped in the back seat of a car while their parents lie slumped over in the front seat. Most of us shake our heads and wonder how they could do such things. How could these people subject innocent children to such horrors of addiction, almost ensuring that they grow up with these images as part of what they will call "normal" in the future. New research from the Perelman School of Medicine at the University of Pennsylvania may help answer these burning questions.

The research results were quite astounding. They scanned the brains of 47 women and men before and after they underwent treatment for opioid dependence. While these subjects were in the scanner, they showed them various images of babies, then measured the brain's response to the images. They took these scans and then compared them to 25 healthy people.

The subjects were unaware that the baby face images had been manipulated to adjust for "baby schema", a term used to describe the set of facial and other features that make our brains register babies as irresistible, causing our natural instincts to kick in to care for them. Some of the

facial features that induce irresistibility include round faces and big eyes. See the picture (above) to get an idea of how this was achieved. Pictures on the left were manipulated to be less appealing with reduction of chubby cheeks and eyes, while the pictures on the right are the cute baby images. Studies have shown that having a higher baby schema activates a part of a 'reward pathway' in the brain, the ventral striatum.

The brains of those with opioid dependence did not react as strongly to the cute baby images as those with normal healthy brains. Here's the really interesting part though. When the opioid dependent individuals were given naltrexone, an opioid blocker, their brains produced more normal responses to the cute baby pictures.

The data also called into question whether prescription opioids may affect social cognition in general. While the study included only a small number of people, it provides some insight into the parenting behaviors of an opioid addicted individual. Societal disconnection, produced as a result of opioid dependence, infects many areas of an addict's life, and this research illustrates negative effects influencing a parent's normal desire to protect their children from harm.

Reference:

[http://
www.nytimes.com/2016/10/13/well/
family/opioids-may-interfere-with-
parenting-instincts-study-finds.html?
_r=0](http://www.nytimes.com/2016/10/13/well/family/opioids-may-interfere-with-parenting-instincts-study-finds.html?_r=0)

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Comparison chart of opioid toxicity

Rob Goetz PharmD, D ABAT



Analgesic	Strength (relative)	Equivalent dose (10 mg oral morphine)	Bioavailability	Half-life of active metabolites (hours)
<u>Morphine (IV/IM)</u>	3	3.33 mg	100%	2–3
Oxycodone(PO)	1.5	6.67 mg	≤87%	3–4.5
Heroin (IV/IM) [↓]	4–5	2–2.5 mg	100%	<0.6
Fentanyl	50–100	0.1 mg (100 mcg) IM/IV	33% (SL); 92% (TD)	0.04 (IV); 7 (TD)
Sufentanil	500–1,000	10–20 µg		4.4
Furanyl fentanyl	50-100	0.1 mg (100 µg) IM/IV		
3-methylfentanyl	1000-1500	2-3µg		
U-47700	7.5	0.444mg		
<u>Etorphine</u>	1,000–3,000	3.3–10 µg		
Dihydroetorphine	1,000–12,000	20–40 µg		
Carfentanil	10,000–100,000	0.1–1.0 µg		7.7

Key: TD: transdermal, SL: sub-lingual, IV: intravenous, IM: intramuscular, PO: per os, or by mouth, mg= milligrams, ug= micrograms. Note: 1,000ug = 1 milligram.

The chart above describes the relative equivalency of different opioids that are currently available. Of particular note, are the comparison of Fentanyl (50-100x relative strength) and Carfentanil (10,000-100,000x relative strength). Morbidity and mortality continue to climb from heroin overdoses.

Reference: <https://en.wikipedia.org/wiki/Equianalgesic>

Contaminants all around us: What is in your glass of water?

Shannon Staton-Growcock RN, CSPI



So who remembers the unexpected hit movie Erin Brockovich from 2000? It wasn't the typical movie we expect to be a bit box office hit. However, there's something appealing about seeing a film that's centered on facts and that appeal is evident with it being one of the highest-grossing biopics of all time. As time has gone by, who would have expected the topics in that film to be an even bigger environmental issue more than twenty-four years after Ms. Brockovich's original crusade began, and the toxin chromium-6 was identified in the public water supply?

This past year there has been a large investigation into a few major cities water supply. The city of Flint Michigan was confirmed to have lead contaminants at dangerously high levels. In turn, other cities began looking more closely into their water supply which exposed countless other areas of the country being identified as also having toxic contaminants in their drinking water.

However, it is not just lead that has been found, but more recently it has come to light that the same component that was the substance of concern in the Erin Brockovich movie: chromium-6 is in approximately two-thirds of all Americans drinking water (according to a report from the Environmental Working Group (EWG). Chromium -6 occurs naturally in the environment, but high quantities are also produced by industry. The Environmental Protection Agency (EPA) has been conducting a comprehensive health review of chromium-6 since 2010 when the first nationwide tests for the carcinogen began.

As technology improves, scientists are able to detect more pollutants and at smaller concentrations. Con-

taminants ranging from birth control pills and sunscreen to pesticides and petroleum often appear as a chemical cocktail in our water supply. Exposures to environmental pollutants during windows of developmental vulnerability in early life can cause disease and death in infancy and childhood as well as chronic, non-communicable diseases that may manifest at any point across the life span.

The quality of drinking water from the tap can vary depending on whether its source is a regulated water system, an unregulated small community system or a private well. It is important to remember the shared nature of our national water supply. (Dan Petersen). The Safe Drinking Water Act (SDWA) is the federal law that protects public drinking water supplies throughout the nation. Under the SDWA, the EPA sets standards for drinking water quality and continue to support measures that strengthen these guidelines to help everyone have access to safer drinking water. In the meantime, people should know where their drinking water (tap or bottled) comes from, how it has been treated, and whether it is safe to drink.

Fast Facts

- Every day 2 million tons (1.8 billion kilograms) of human waste are disposed of in waterways around the world.
- On average, billions of pounds of fertilizers and chemicals are used each year. (Dan Petersen)
- Some U.S. cities are actively pursuing "green roofs" and "green streets" to prevent sewer overflows into rivers. For example, Chicago, IL now has more than 517,000 acres of vegetated roofs which is helping to catch storm water, cool the urban environment, and provide opportunities for rooftop gardens.
- If the sewer system is neglected, when it rains, what we flush can flow into the river untreated. (Dan Petersen)

References:

Dan Petersen PhD, (personal communication November 23, 2016) University of Cincinnati

<https://www.epa.gov/sdwa>

<https://www.epa.gov/ground-water-and-drinking-water>

<https://www.cdc.gov/healthyhomes/bytopic/water.html>

http://www.who.int/topics/drinking_water/en/

Opioid exposures—American Association of Poison Control Centers

55,622

OPIOID EXPOSURES*

Jan. 1 - October 31, 2016

**These numbers reflect multiple substance exposures to opioids reported to poison centers*

National Poison Database System statistical analyses indicate that all analgesic exposures including opioids are increasing year after year. Each day, almost 1,000 people are treated in emergency departments for using these drugs in a manner other than as directed. Opioid dependence and opioid-related deaths are growing public health problems.



Cincinnati Children's to Study the Impact of Childhood Trauma

New federal grant aims to promote healthy behaviors in minority youth



Traumatic events that children witness often result in emotional harm and can lead to long-term physical and mental health consequences.

“Children today are exposed to so much including shootings, violence and drug abuse. We need a resource to help children learn the coping skills that address these various issues,” said Marsha Polk, manager of Education and Outreach at the Drug and Poison Information Center at Cincinnati Children’s.

Recently, the U.S. Department of Health and Human Services awarded \$2.8 million dollars to seven organizations nationwide to help children exposed to trauma. Researchers at Cincinnati Children’s received \$393,000 to develop a program intended to promote healthy behaviors specifically in minority and/or disadvantaged youth.

“Unresolved trauma is a risk factor for nearly all behavioral health and substance use disorders,” said Polk.

The federal grant establishes a local foundation titled Cincinnati Com-

munity Oriented Trauma System or C-COTS. It includes nine community-based organizations to develop innovative approaches to provide support for children and their families.

Researchers are at the start of a five-year program that will involve 50 children at two elementary schools who are at risk for poor health and poor life outcomes because of childhood trauma.

For the next several months, mental health professionals, counselors and social workers will be collecting assessments of school children who range from kindergarten to the 5th grade. Once the assessments are made, researchers will then begin addressing interventions and services needed for the students.

“We know mental health also impacts physical health,” said Alysia Longmire, coordinator of the C-COTS grant and preventive specialist at Cincinnati Children’s. “That’s why it’s so important children have the coping skills to carry into their teen years and adulthood.”

Marsha Polk



The nine community groups include:

- Positive Influence Team (PIT)
- Addictions Services Council Inc.
- Urban Minority Alcoholism and Drug Abuse Outreach Program (UMADAOP)
- Families and Children in Trauma (FACT)/Parent Advocate Connection (PAC)
- A Sound Mind Counseling Services
- 4 – Compassionate Hearts Assisting, Rebuilding, Instructing and Serving (IV-CHARIS)
- Central Community Health Board-Early Prevention Intervention Project (CCHB-EPIP)
- Urban National Alliance on Mental Illness (NAMI)
- Epiphany Community Services.

Poison Control Center QR Code



The DPIC Education and Outreach team has launched a campaign to promote use of this tech savvy feature. The national number automatically connects callers to the closest local poison center. No matter where a person calls from, he or she will be connected to the closest poison center based on the phone’s area code. Specially trained nurses, pharmacists, doctors and other health care professionals answer calls 24 hours a day, 7 days a week. Scan the QR code and the number will be programmed automatically into your cell phone or mobile device.

Traveling to Florida for the holidays : Zika– what you should know

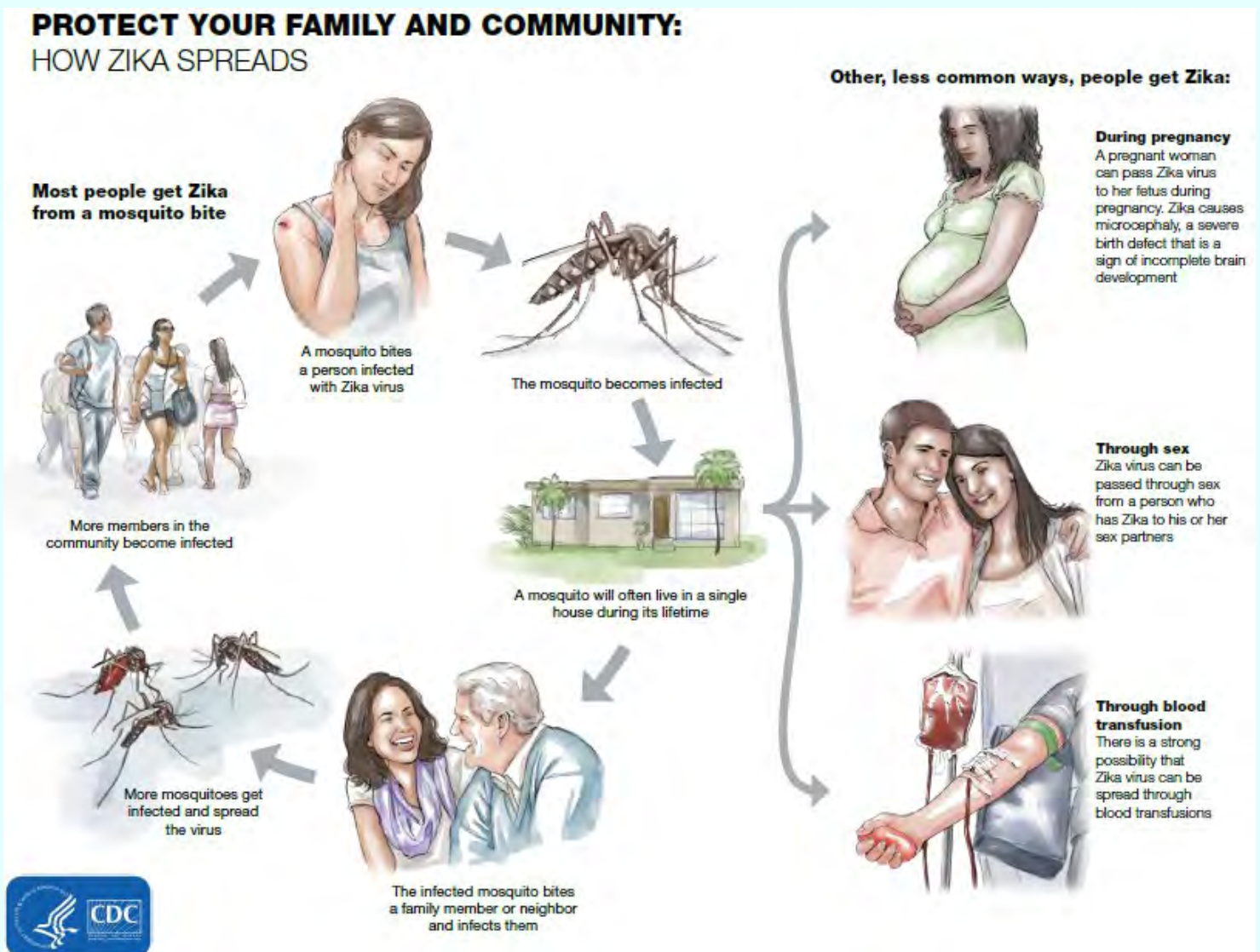
OCTOBER 19th, 2016

The U.S. Centers for Disease Control and Prevention (CDC) previously issued travel, testing, and other guidance related to areas of active Zika virus transmission in Florida. Because local transmission of Zika virus continues to be reported in Miami-Dade County, CDC is strengthening travel recommendations for pregnant women to Miami-Dade County and also reinforcing recommendations for use of protective measures to prevent exposure to Zika.

CDC is updating recommendations to emphasize testing for pregnant women with an epidemiologic link to Miami-Dade County.

Pregnant women who have an epidemiologic link to any area of Miami-Dade County after August 1, 2016 should be tested for Zika virus in accordance with CDC guidance

http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s_cid=mm6529e1



Simple Steps You Can Take to Protect Your Family from Lead Hazards

If you think your home has high levels of lead:

- Make sure your children eat healthy, low-fat foods high in iron, calcium, and vitamin C.
- Get your children tested for lead, even if they seem healthy.
- Get your home tested for lead if it was built before 1978. Call **1-800-424-LEAD** for more information.
- Always wash your hands before eating.
- Wash children's hands, bottles, pacifiers, and toys.
- Do not use imported pottery to store or serve food.
- Let tap water run for one minute before using.
- Use only cold water for making your baby's formula, drinking, and cooking.
- Regularly clean floors, windowsills, and other surfaces using wet methods that control dust.
- Wipe or remove shoes before entering your house.
- If you rent, it is your landlord's job to keep paint in good shape. Report peeling or chipping paint to your landlord and call your health department if the paint is not repaired safely.
- Take precautions to avoid exposure to lead dust when remodeling or renovating.
- Don't try to remove paint yourself!



For more information on childhood lead poisoning prevention:

Call

- Your child's pediatrician
- The National Lead Information Center
1-800-424-LEAD (424-5323)
- U.S. Environmental Protection Agency's (EPA) Safe Drinking Water Hotline
1-800-426-4791



Visit

- EPA Lead Program Web site
www.epa.gov/lead
- U.S. Centers for Disease Control and Prevention (CDC) Web site
www.cdc.gov/nceh/lead
- U.S. Department of Housing and Urban Development (HUD) Web site
www.hud.gov/offices/lead

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EPA: Lead effects on the body

Lead is a poisonous metal that our bodies cannot use. Lead poisoning can cause learning, hearing and behavioral problems, and can harm your child's brain, kidneys, and other organs. Lead in the body stops good minerals such as iron and calcium from working right. Some of these effects may be permanent.

Lead referrals:

- Cincinnati Health Department (513) 357-7200
- Hamilton County Health Department (513) 946-7800
- Cincinnati Lead Clinic (513) 803-3688

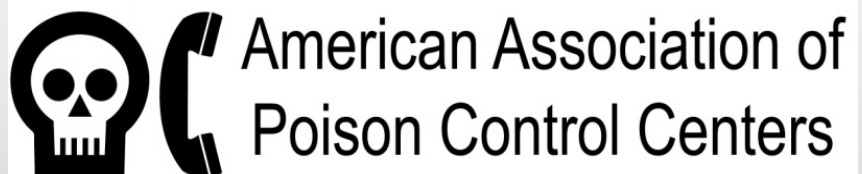
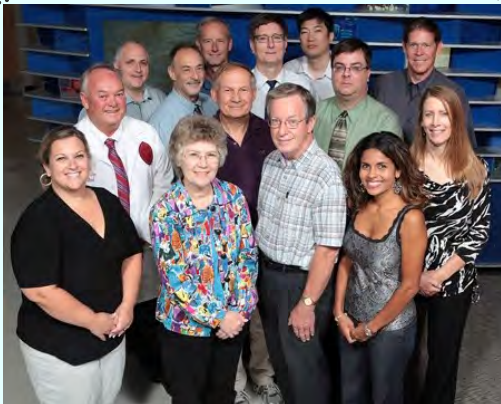
<https://www.cincinnatichildrens.org/service/e/environmental-health/pehsu>

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