

10 January 2020

Army Public Health Weekly Update

Army Public Health Center



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U.S. MILITARY

Air Force studies fatigue, sleep to enhance readiness

31 December- The Air Force is studying sleep habits among Airmen to find ways to improve performance and ensure their readiness to support the mission. Researchers with the Air Force Research Laboratory's 711th Human Performance Wing, Wright-Patterson Air Force Base in Ohio, are looking for ways to better equip Airmen and their leadership with crucial data to ensure that Airmen are getting the necessary rest and to maximize mission execution. A team of human performance experts is looking at sleep and fatigue from several perspectives. They are tracking sleep habits in pilots and other operators, while also evaluating sleep-monitoring technology to ensure its accuracy and ability to work in an operational setting. "It's a multi-pronged approach to studying sleep and fatigue," said Dr. Glenn Gunzelmann, training core technical competency lead for the Airman Systems Directorate in the 711th HPW. "Providing Airmen with information on their sleep patterns and history helps Airmen understand how sleep effects their operational effectiveness. Giving leadership this data also helps inform policy and how to account for sleep needs in their planning." Gunzelmann, along with Air Force Lt. Col. Dara Regn, Internal Medicine Branch chief for the U.S. Air Force School of Aerospace Medicine in the 711th HPW, participate in a NATO aircrew fatigue management working group. Regn leads the working group, which also includes Army and Navy researchers. The goal is to pool their expertise and research to address common issues and challenges. "Our current operations cross over multiple time zones, resulting in circadian rhythm issues, sleep deprivation or insufficient sleep," said Regn. "As partner nations we all deal with similar challenges like increased mission tempo, long-range missions and pilot shortages. We are working together to optimize our pilots and bring back the importance of sleep." This NATO working group is currently building a "sleep toolbox" for aviators and those who take care of them. The toolbox helps them identify and mitigate sub-optimal sleep habits. According to Regn, the sleep toolbox will have educational resources on fatigue risk assessment with ways to mitigate this. It will also have information on insomnia, including cognitive behavioral therapy for insomnia and other sleep disorders. Health.mil

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Navy Medicine demonstrates Virtual Health options to Africa

6 January- Members from the Regional Health Command Europe and Army and Navy Virtual Health teams traveled to Djibouti, located in the Horn of Africa, to unveil a plan to bring Virtual Health options to the region. Djibouti hosts the largest U.S. American military base on the African continent, Camp Lemonnier. With more than 4,000 personnel on the base, Virtual Health technologies can augment care and bring portable solutions to keep them healthy, focused and mission ready. Currently, personnel often have to travel to a military treatment facility to seek care. Technology today allows medical staff to provide care in ways never seen before, and without leaving their assigned duty station. "Our active duty service members should not have to sacrifice on the level of care they receive when they are deployed," said Navy Capt. Valerie Riege,

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Chief Innovation and Integration Officer for the Navy's Bureau of Medicine and Surgery. "Virtual health is a game changer in medicine today and will bring quality health care to the warfighter when and where they need it." [Health.mil](#)

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GLOBAL

Cases spike in Wuhan mystery pneumonia cluster

3 January- The number of patients infected in an unexplained pneumonia cluster in the Chinese city Wuhan jumped from 27 to 44, with questions swirling around not only about what pathogen is sickening people, but also how patients were exposed. Wuhan's health department said in an update today that of the 44 patients, 11 have severe infections, and 121 close contacts are under observations, according to an official statement translated and posted by FluTrackers, an infectious disease news message board. [CIDRAP](#)

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CDC issues travel notice for Wuhan, China due to pneumonia cluster

7 January- The US Centers for Disease Control and Prevention (CDC) issued a travel notice Monday for travelers to Wuhan, Hubei province, China due to the cluster of cases of pneumonia of an unknown etiology. Authorities say as of January 5, 2020, local, provincial, and national health commissions in China have reported a total of 59 cases with no deaths. The cluster is centered at the Wuhan South China Seafood City (also called the South China Seafood Wholesale Market and the Hua Nan Seafood Market). In addition to seafood, the market sells chickens, bats, marmots, and other wild animals. The market has been closed since January 1, 2020, for cleaning and disinfection. Health authorities in China are monitoring more than 150 close contacts for illness. To date, there have been no reports of spread from person to person or to health care workers. [Outbreak News Today](#)

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Drug developers take fresh aim at 'guided-missile' cancer drugs

6 January- Dozens of drugmakers are conducting human trials for a record 89 therapies that pair antibodies with toxic agents to fight cancer, evidence of renewed confidence in an approach that has long fallen short of its promise, an analysis compiled for Reuters shows. These antibody-drug conjugates, or ADCs, from companies including AstraZeneca and GlaxoSmithKline, are described by researchers as "guided missiles" packing a powerful anti-cancer punch. They are engineered to zero in on tumors and then release cytotoxins that deliver up to 10,000 times the potency of standard chemotherapy, while minimizing damage to healthy tissue. The approach has for decades been a major biotech industry focus. Many experimental ADCs, however, failed due to

Military Crisis Line

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The Surgeon General Weekly Read Book

The Surgeon General Weekly Read Book is available with articles classified up to the **SECRET** level on the APHC SIPRNet site:

<https://intelshare.intelink.sgov.gov/sites/medcom-g2/SitePages/Home.aspx>

To access this version, you will need a **SECRET** clearance and a SIPRNet account.

the complexity of pairing the right antibody with the appropriate toxic agent. Some were abandoned as too weak; others were too harmful. From 2000 to 2018, only five ADCs won approval. Just one, Roche's (ROG.S) Kadcyla, approved in 2013 for breast cancer, has surpassed \$1 billion in annual sales after data last year showed it boosted disease-free survival for some patients compared with the standard treatment, Roche's Herceptin. Over time, however, scientists devised better ways to connect payloads and antibodies and more precisely reach tumors. There is a growing understanding, too, of how to design ADCs to kill even surrounding cancer cells that previously evaded destruction. "What we're seeing now are the benefits of the science becoming mature," said ADC pioneer Chris Martin, CEO of Switzerland's ADC Therapeutics ADCT.N. "It took at least a decade, probably more like 15 years, to really begin to turn the art into a science." In 2019, U.S. regulators approved three ADCs, the most ever in a single year, as last-ditch treatments based on studies showing they helped patients whose survival outlook was bleak. [Reuters](#)

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Early treatment for autism is critical, new report says

6 January- In December, the American Academy of Pediatrics put out a new clinical report on autism, an extensive document with an enormous list of references, summarizing 12 years of intense research and clinical activity. During this time, the diagnostic categories changed — Asperger's syndrome and pervasive developmental disorder, diagnostic categories that once included many children, are no longer used, and we now consider all these children (and adults) to have autism spectrum disorder, or A.S.D. The salient diagnostic characteristics of A.S.D. are persistent problems with social communication, including problems with conversation, with nonverbal communication and social cues, and with relationships, together with restricted repetitive behavior patterns, including repetitive movements, rigid routines, fixated interests and sensory differences. Dr. Susan Hyman, the lead author on the new report, who is the division chief of developmental and behavioral pediatrics at Golisano Children's Hospital at the University of Rochester, said in an email that much has changed over the past 12 years. She pointed in particular to increased medical awareness and understanding of conditions that often occur together with A.S.D., and to a greater emphasis on planning — together with families — how to support children as they grow. [The New York Times](#)

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Investigators offer hope for drug that would cure C. diff

3 January- It's not a cure for Clostridioides difficile, but it's certainly a huge step toward finding one for the deadly infection that claims 15,000 lives a year in the United States alone, according to investigators who say they have identified the toxin that the most virulent strains of C. diff releases. Investigators with CUNY's Structural Biology Initiative pulled out all the stops in tracking down CDTb, the toxin released by the most dangerous strains of C. diff. The research team, whose findings were published in PNAS, used cryogenic electron microscopy, X-ray crystallography, nuclear magnetic resonance, and small angle X-ray scattering to determine that CDTb needs 2 components to function, making it a binary toxin. Its lethality mimics anthrax in

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the way it enters cells, first binding to them and then creating a pore-forming channel that allows CDTb to get in and wreak havoc. Unlike anthrax, CDTb “does not require a lipid bilayer or presence of detergents to form.” Amédée de Georges, the study’s principal investigator, said in a press release that investigators were “able to combine several increasingly popular biophysical imaging techniques to visualize and characterize every atom of this binary toxin and show us where they are positioned. These details provide a critical and extremely useful starting point for designing drugs that can prevent C. diff infection.” They also discovered a novel calcium binding site on one of CDTb’s domain, which suggests that calcium plays a crucial part in allowing C. diff to infect cells. Taken together, the investigators say that “the structures of active CDTb will contribute next to answering important new questions regarding the molecular mechanisms of the C. difficile toxin, which can also benefit drug discovery. Xingjian Xu, a CUNY PhD student and an investigator in de Georges’ lab, explained that the research team “observed 2 similar but distinct forms of the C. diff toxin—1 where we see the pore-forming channel and 1 where it is invisible. This gives us clues as to how to prevent the formation of the channel and stop the bacteria from entering the cell.” This research was funded by the National Institutes of Health, National Science Foundation Division of Chemistry, and the US Department of Health and Human Services. [Infection Control Today](#)

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New hope for migraine sufferers

6 January- If you live with or work with someone who suffers from migraine, there’s something very important you should know: A migraine is not “just a headache,” as many seem to think. Nor is it something most sufferers can simply ignore and get on with their lives. And if you are a migraine sufferer, there’s something potentially life-changing that you should know: There are now a number of medications available that can either prevent or alleviate many attacks, as well as a newly marketed wearable nerve-stimulating device that can be activated by a smartphone to relieve the pain of migraine...There are four oral drugs in two different classes that have been approved by the Food and Drug Administration for the prevention of migraine: two anti-seizure drugs and two beta-blockers. In addition, patients with chronic migraine who have symptoms every day or every other day can get injections of Botox. “Forty percent of people with migraine should be on preventive medication,” Dr. Silberstein said, “but only 13 percent get it.” To treat an attack of migraine, doctors have long relied on drugs called triptans that act like the nervous system chemical serotonin to quiet nerves that transmit pain signals. There are now also biologic drugs, monoclonal antibodies that can be given once a month or once every three months, Dr. Dodick said. They were specifically developed to treat migraine by targeting a protein or its receptor that transmits pain signals. [The New York Times](#)

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The horror of the Australian bushfires and air pollution

6 January- Wildfires have been ravaging Australia for several months, with fires beginning in September and continuing to spread today (January 6). Although wildfires are part of the Australian eco-system and are an important process for regenerating land, these fires are the worst since records began, with climate change being partly to blame. According to reports, an estimated 4 million hectares of land has been destroyed so far, with 2,000 homes lost to the flames which as a result has forced thousands of people to seek shelter elsewhere. The current death toll has reached 25 people, which includes three firefighters, and it is estimated that over 500 million animals have been affected. Wildfires can start for a number of reasons, from natural causes such as dry vegetation or a lightning strike to human arson such as abandoned cigarette butts or irresponsible fireworks. In a report published by the Climate Council, it is described that due to climate change, since the mid-1990s, southeast Australia has experienced a 15% decline in late autumn and early winter rainfall and a 25% decline in average rainfall between April and May. This decreased rainfall has led to drought which means that vegetation is more flammable and susceptible to extreme fires. Across Australia, the average temperature has also increased, with temperatures reaching a record-breaking 48.9 degrees last month (December). These higher temperatures exacerbate the dry conditions, enabling the fires to take hold and spread quickly. As well as the immediate dangers that these bushfires pose to the residents of affected areas, wildfires also pose an increased threat to the long-term health of the whole population of Australia, due to increased air pollution. According to a report, an estimated 90% of the total particle mass emitted from wildfires is fine particles, this, therefore, makes particulate matter (PM2.5) the number one public health threat from long-term exposure to wildfire smoke. Air Quality News has regularly reported on the health impacts of PM2.5 exposure, which can range from respiratory tract irritation to asthma, reduced lung function, heart failure and premature death. [Air Quality News](#)

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Trump's plan to curb teen vaping exempts some flavors

4 January- U.S. health officials will ban most flavored e-cigarettes popular with underage teenagers, but with major exceptions that benefit vaping manufacturers, retailers and adults who use the nicotine-emitting devices. The Trump administration announced Thursday that it will prohibit fruit, candy, mint and dessert flavors from small, cartridge-based e-cigarettes that are popular with high school students. But menthol and tobacco-flavored e-cigarettes will be allowed to remain on the market. The flavor ban will also entirely exempt large, tank-based vaping devices, which are primarily sold in vape shops that cater to adult smokers. Together, the two exemptions represent a significant retreat from President Donald Trump's original plan announced four months ago, which would have banned all vaping flavors — including menthol — from all types of e-cigarettes. The new policy will preserve a significant portion of the multibillion-dollar vaping market. And the changes are likely to please both the largest e-cigarette manufacturer, Juul Labs, and thousands of vape shop owners who sell the tank-based systems, which allow users to mix customized flavors. [Fox News](#)

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Venomous menace: Snakebite treatments are failing in India

7 January- Home to more than 60 species of venomous snakes, India bears the world's largest burden of death and disability caused by snakebites. The gold-standard treatment is an antivenom raised against the combined venom of four widespread species that are responsible for most attacks, collectively referred to as the "big four." Although this critical treatment routinely saves lives, a new study published in early December in PLOS Neglected Tropical Diseases shows that it comes up short against the venoms of other Indian snakes whose bites can be deadly. Kartik Sunagar, an evolutionary biologist at the Indian Institute of Science in Bangalore, co-authored the study. It examined the venom compositions of Sochurek's saw-scaled viper, two populations of monocled cobras, the banded krait and the Sind krait—perhaps the most toxic snake in India—and three of their closest big-four cousins. Working with herpetologists Romulus Whitaker of the Madras Crocodile Bank Trust and Center for Herpetology in Chennai, and Gerard Martin, founder of a conservation organization called the Gerry Martin Project in the Mysore District, the researchers identified 45 snakes and extracted their venom. Once they identified the proteins and toxins in the samples, they used mouse models to test their toxicity and the efficacy of existing antivenoms. Alarming, the team found that the most widely marketed antivenom failed against venoms from both populations of the monocled cobra, the Sind krait and northern populations of the common krait. [Scientific American](#)

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INFLUENZA

APHC: U.S. Army Influenza Activity Report

Week ending 28 December 2019 (week 52):

The number of positive influenza A laboratory results increased by 49% from week 50 to week 52. In week 52, influenza B continues to represent the majority of positive respiratory specimens with 47.8% of the total positive specimens, followed closely by influenza A with 42.5% of the total positive specimens. In week 52, the average age of patients with any positive respiratory test was 20 years old. The number of influenza-associated hospitalizations increased in recent weeks, with fifteen influenza-associated hospitalizations reported with onset dates in week 51 and 52. Of those hospitalized so far this season, 32 (65%) tested positive for influenza B, and 16 (32%) were positive for influenza A. The peak of the influenza season has not yet occurred; to decrease the spread of influenza, ill Service Members should be placed on quarters and the flu vaccine should be administered to unvaccinated individuals. [APHC](#)

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CDC: Flu View - Weekly U.S. Influenza Surveillance Report

Key Updates for Week 52, ending December 28, 2019: Seasonal influenza activity in the United States is high and continues to increase. Activity has been elevated for eight weeks. [CDC](#)

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U.S. on track for one of the worst flu seasons in decades

3 January- This flu season is shaping up to be one of the worst in decades, according to the United States' top infectious disease doctor. Dr. Anthony Fauci, director of the National Institute of Allergies and Infectious Diseases, said while it's impossible to predict how the flu will play out, the season so far is on track to be as severe as the 2017-2018 flu season, which was the deadliest in more than four decades, according to the US Centers for Disease Control and Prevention. "The initial indicators indicate this is not going to be a good season -- this is going to be a bad season," Fauci said. So far this flu season, at least 2,900 people in the US are estimated to have died of the flu, according to data released Friday by the CDC. That's 800 more deaths than estimated the previous week. Flu cases and hospitalizations because of the flu have also risen sharply since the season began in October. CDC estimates there have been at least 6.4 million flu illnesses and 55,000 hospitalizations. Fauci said it's possible this steep rise in flu activity could reverse itself soon, in which case the season wouldn't end up being so severe. "Hopefully this turns around and comes down, but if it continues on the trajectory it's on, it's not going to be good," he said. Fauci pointed out a CDC graph to compare the current flu season to two of the most severe in recent decades. In the graph below, designed by CNN based on the CDC data, the red line indicates flu activity from September 29 through December 28. The other lines show the 2014-2015 and 2017-2018 flu seasons, two of the worst in recent decades. [CNN](#)

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VETERINARY/FOOD SAFETY

Australian Salmonella outbreak grows; bush fires threaten food safety

8 January- Nearly 90 people are part of a Salmonella outbreak across Australia after eating a particular brand of frozen microwave meals. A total of 84 people in New South Wales (NSW), Queensland, South Australia, Western Australia and the Australian Capital Territory (ACT) reported eating Core Powerfoods products before becoming sick. The number of people ill in the Salmonella Weltevreden outbreak previously stood at 46. Core Ingredients issued a recall in October. Products were available for sale at IGAs and Coles stores nationally, independent retailers in NSW, ACT, Queensland, Victoria, South Australia, Western Australia and the Northern Territory and some Woolworths metro stores in Victoria. [Food Safety News](#)

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Cargill recalls mislabeled dark chocolate malted balls sold in Pennsylvania

3 January- Cargill has recalled 39 one-pound bags of packaged Wilbur Dark Chocolate-covered Cashews over an undeclared wheat allergen. The recall was posted Friday on the Food and Drug Administration website as a public service. The recalled product was sold locally through the Wilbur Chocolate Store in Lititz, PA. Wheat allergic individuals and/ or those with celiac disease (gluten intolerance) should not consume the incorrectly packaged Dark Chocolate Malted Milk Balls. The Wilbur Dark Chocolate Malted Milk Balls were mistakenly labeled and packaged as Dark Chocolate Covered Cashews. They contain wheat, not listed among the ingredients on the label. The Dark Chocolate Covered Cashews do, however, bear a "may contain wheat" statement. The recalled items can be identified as: Wilbur Dark Chocolate Covered Cashews, lot #19100301WH & Bar Code 200172-16 [Food Safety News](#)

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Ducktrap River of Maine recalls herring with cream sauce that is labelled as wine sauce

5 January- Ducktrap River of Maine says its goal is to "wow" each customer, but a Saturday recall of Herring Center Cuts is more likely just confusing. Located in Belfast, ME, Ducktrap has been smoking seafood since 1978. Over the weekend, it announced the recall of Herring Center Cuts in Wine Sauce identified with a sell-by date Jul 29, 2020, because these products contain undeclared milk due to an incorrect label. No adverse allergic reactions or illnesses are linked to the Herring Center Cuts. At the time of the recall, sales of the Ducktrap product were underway in Alabama, Georgia, Louisiana, Maine, Massachusetts, Missouri, New Hampshire, New York, North Carolina, Ohio, South Carolina, Tennessee, Vermont, and Virginia. Here's where the confusion comes in: The product in the containers is Herring Center Cuts in Creame Sause, which does contain milk, but the "Herring Center Cuts in Wine Sauce" was put on the label. Ducktrap's investigation found the mistake involved only one lot of the product. That product comes in a 12-ounce glass container with a sell-by dale of Jul 29, 2020, located on the jar lid. Ducktrap is known for sourcing premium-grade seafood, using traditional smoking techniques, and combining the natural flavor of custom recipes with the savory smoke from local apple, cherry, maple, and oak woods. Its other various products include Atlantic Salmon, Wild Sockeye, Rainbow Trout, Wild Mackerel, and Shellfish. Only the Herring Center Cuts in Wine Sauce are involved in the current recall. Ducktrap is cooperating with the U.S. Food and Drug Administration in managing the recall. The company has apologized for any inconvenience caused by the recall and promises it is taking steps to address the issues that caused it. [Food Safety News](#)

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Drank too much over the holidays? Here's how to track your alcohol consumption this 2020

7 January- According to a study, the average American drinks twice as much alcohol over the holidays. But this is not surprising, especially when we're so used to the notion that alcohol plays a big role in festivities and celebrations. The thing is, drinking during the holidays is considered relatively normal in the United States that is has become a huge public health and law enforcement concern. So if you're one to overindulge and binge on drinks amid these festivities, perhaps it's time to take a step back and do some much-needed reflection. Since it's also that time of the year when everyone's making a list of resolutions (and hoping against all the odds to stick to those lists), consider resolving to cut down on your drinking this year.

How to Track and Control Your Alcohol Intake:

One no-fuzz way to keep track of your alcohol consumption is to use an application that you can access on your mobile devices. Alcohol tracker apps like My Limit shows you're drinking history over a day, week, month, or even a year. Click the "Add a Drink" button, choose from their directory of over a hundred thousand drink choices, and the app will automatically tally your blood alcohol content (BAC) over time. Ideally, the figures on Drink History will make you want to slow down a bit on your drinking. Apart from tracking your BAC, My Limit tells if you're safe to drive and provides a guesstimate of the hours until you're fully sober. The alcohol tracking app asks for your gender and bodyweight upon setup, so they can give you an estimate of your own alcohol limit. Of course, the app can't provide a 100% accurate BAC calculation. But it's still useful if you want to keep track of how many bottles of beer, ounces of champagne, or shots of cocktail you've let in your system for a specific period. This way, when your doctor asks about your average alcohol intake, you won't have to lie and say "two bottles" when it's really more than that. [Tech Times](#)

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Hope, happiness and social connection: Hidden benefits of regular exercise

4 January- If ever there was a time to up your fitness game, the arrival of the new year and the new decade is it. But after the allure of the new gym membership wears off, our sedentary habits, more often than not, consume our promise of daily workouts. It doesn't have to be this way, says health psychologist and author, Kelly McGonigal. In her new book, *The Joy of Movement: How Exercise Helps Us Find Happiness, Hope, Connection, and Courage*, the Stanford University lecturer offer new motivation to get moving that has less to do with how we look, or feeling duty-bound to exercise, and everything to do with how movement makes us feel. She shares with readers the often profound, yet lesser-known benefits of exercise that make it a worthy, lifelong activity whether you're young, old, fit or disabled. "I want them to understand [exercise] in a different way than the usual conversation we always have about weight loss, preventing

disease and making our bodies look a certain way," McGonigal tells NPR. Among its many life-altering rewards: the generation of hope, happiness, and a sense of purpose, greater life satisfaction and rewarding connections with others. "These benefits are seen throughout the life span," she writes. "They apply to every socioeconomic strata and appear to be culturally universal." And they aren't activity-specific and they don't require you to be a superathlete. Whether you run, swim, dance, bike, lift weights, do yoga or participate in team sports — it doesn't matter, McGonigal says — moderate physical activity does far more than make us physically stronger and healthier. Here are five of the ways movement can help you enjoy life.

1. Activate pleasure
2. Become a "more social version of yourself"
3. Help with depression
4. Reveal hidden strength
5. A boost for the brain [NPR](#)

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USAFRICOM

Burundi malaria epidemic reaches 8.5 million cases, Travel alert issued

5 January- In a follow-up on the malaria epidemic in the African country of Burundi, health officials report a cumulative total of 8,571,897 malaria cases including 3,170 deaths (case fatality ratio 0.04%) across the country of some 12 million people. This is a 93 percent increase in the number of malaria cases compared to the same period in 2018 and is an increase in cases and deaths, compared to those reported in the last five years. The last malaria epidemic in Burundi was recorded in 2017. It affected all districts of the country and resulted in 6,218,058 cases and 2,752 deaths (case fatality ratio 0.04%) being recorded from January to October 2017. Malaria is endemic in most parts of Burundi with an increase in cases usually observed from April to May and from November to December. However, in 2019 the usual decrease observed after May has not been seen. The malaria epidemic in Burundi has prompted the Centers for Disease Control and Prevention (CDC) to issue an advisory for travelers to the country. CDC recommends travelers take prescription medicine to prevent malaria. Resistance to chloroquine (one of the drugs used to prevent malaria) is high in Burundi, so travelers should use daily atovaquone-proguanil, daily doxycycline, or weekly mefloquine to prevent malaria. [Outbreak News Today](#)

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Diphtheria update in South Darfur, Sudan

5 January- In a follow-up on the diphtheria outbreak in Alsunta locality in South Darfur State, Sudan, the Ministry of Health in South Darfur State is now reporting 80 cases of confirmed diphtheria, including 10 deaths in Alsunta locality, according to a 3 Ayin report. Health authorities attributes this recent resurgence of diphtheria cases in this locality to the prolonged absence of primary healthcare services, which manifested in the closure of some health facilities and inadequate vaccination services provided to the local population. The director general of the state's Ministry of Health, Dr. Muhammad Idris Abd al-Rahman told local media, "Immediately after the appearance of the disease, the ministry spent several days and took samples and sent six of them to the reference laboratory that proved a positive condition." [Outbreak News Today](#)

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USCENTCOM

Kabul: 17 killed due to hazardous levels of air pollution

31 December- Officials have been cracking down on local businesses thought to be the main contributors to air pollution in Kabul. At least 17 people have died of respiratory infections in Kabul over the past week due to hazardous levels of air pollution, Afghanistan's health ministry said. More than 8,800 patients have visited government hospitals in a week, suffering from health conditions, including lung problems, as air quality worsened in the capital, Deputy Minister of Public Health Fida Mohammad Paikan, told reporters on Monday. [Al Jazeera](#)

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UAE reports MERS case in man from Abu Dhabi region

8 January- Health officials in the United Arab Emirates (UAE) reported one laboratory-confirmed case of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in late December 2019. According to the World Health Organization (WHO), the case is a 74-year-old male national who owns a camel farm located in Al Ain City, Abu Dhabi region in UAE where he is living. He first presented with symptoms on Dec. 8 and was later admitted to the hospital and then the ICU. He has a number of comorbidities to include hyperkalemia, diabetes mellitus with diabetic nephropathy, heart disease, asthma and hypertension. [Outbreak News Today](#)

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USEUCOM

Europe records more than 100K measles cases in first 10 months of 2019

3 January- UN health officials report the number of measles cases reported in Europe from January to October 2019 exceeds the total cases for 2018 and nearly quadruples 2017's total. 101,280 measles cases were reported during the first ten months of 2019, including 44 deaths. This compares with more than 88,000 cases reported in all of 2018 and nearly 26,000 cases reported in 2017. In May 2019, the World Health Organization activated a Grade 2 emergency response to measles circulation in the European Region. This allows WHO to mobilize the needed human and financial resources to support the affected countries. Countries reporting the most measles in Europe from November 2018-October 2019 include Ukraine (75,084), Kazakhstan (12,334) and Georgia (4,611). Other countries in the region recording high numbers of cases include the Turkey, France, Israel and the Russian Federation. [Outbreak News Today](#)

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USINDOPACOM

Sydney: 5 locally acquired measles cases reported

4 January- Officials with NSW Health are reporting five measles cases in people who hadn't travelled outside Sydney. All five people first developed symptoms between Christmas and New Year's Day and there may be other people infected with measles who haven't yet seen a doctor or been tested. One is a Queensland resident who is now back in Queensland, but who was in Sydney at the time that they would have been infected. Dr. Christine Selvey, NSW Health Acting Director of Communicable Diseases said, "It's important that all people with measles are diagnosed with a test, so that public health measures can be taken to prevent further spread of this serious disease." "Early symptoms of measles include a fever, sore red eyes, runny nose and a cough. Three or four days later, the characteristic red, blotchy rash appears; this starts on the face and neck and then spreads to the chest and the rest of the body." Anyone who develops symptoms should arrange to see their GP and call ahead to ensure that the GP surgery can take precautions to prevent spread to other people in the surgery. [Outbreak News Today](#)

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U.S.: Illinois- Legionnaires' disease reported at Quincy Veterans home

4 January- The Illinois Department of Veterans' Affairs (IDVA) and the Illinois Department of Public Health (IDPH) are investigating a single case of Legionnaires' disease in a resident at the Illinois Veterans Home – Quincy (IVHQ). The resident has received medical treatment and is recovering at IVHQ. No other cases have been identified and IVHQ continues to follow its plans to monitor residents for respiratory illness. The last case of Legionnaires' disease at IVHQ was February 2018. IDPH infectious disease staff are working with the facility to collect information and further investigate the resident's illness. IVHQ has notified residents, staff, and families or power-of-attorneys. IVHQ continues to operate a robust water management program and is implementing best practices to control the growth and spread of waterborne pathogens. IVHQ provides additional water treatment, including filtration and disinfection, prior to use on its campus. IVHQ also maintains point of use filters on all fixtures in residential areas to reduce the possibility of transmission to susceptible individuals. IVHQ continues to conduct active surveillance for Legionella by monitoring residents and reviewing water quality data on an ongoing basis. [Outbreak News Today](#)

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U.S.: King County, Washington: White-nose syndrome confirmed in a fringed myotis bat for the first time

7 January- White-nose syndrome, an often-fatal disease of hibernating bats, has been confirmed for the first time in a fringed myotis (*Myotis thysanodes*) in King County, Washington. This finding brings the total number of bat species confirmed with the disease in North America to 13. First seen in North America in 2006 in eastern New York, white-nose syndrome is a fungal disease that has killed millions of hibernating bats in eastern North America and has now spread to 33 states and seven Canadian provinces. The disease does not affect humans, livestock, or other wildlife. The disease is caused by the fungus *Pseudogymnoascus destructans*, which attacks the skin of hibernating bats and damages their delicate wings, making it difficult to fly. Infected bats often leave hibernation too early, which causes them to burn through their fat reserves and become dehydrated or starve to death. The Cedar River Education Center near North Bend reported a dead bat outside its facility in April 2017. A biologist with the Washington Department of Fish and Wildlife (WDFW) retrieved the dead bat and did a field test using Ultraviolet (UV) light to detect the fungus that causes white-nose syndrome. Under UV light, bats with white-nose syndrome usually have an orange glow on their wings. [Outbreak News Today](#)

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Brazil: Bahia state reports 622 percent dengue increase in 2019

5 January- The Bahia Department of Health (Sesab) reported 67,373 probable cases of dengue as of December 10, representing an increase of 622.6% over the same period of 2018, in which 9,323 probable cases were reported, according to an Infosaj report. In addition, 85 deaths from dengue were reported during this period. In 2019, Brazil has reported some 2.1 million dengue cases this year, including 722 deaths. [Outbreak News Today](#)

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Costa Rica reports Naegleria fowleri case, 2nd case in history

8 January- The Costa Rica Ministry of Health reported Tuesday on the second ever Naegleria fowleri, or “brain-eating amoeba” infection in their history. The case is a 15-year-old who is presenting with a clinical picture of primary amebic meningoencephalitis (PAM) remains in a serious state at the Liberia Hospital. The investigation into the case shows the young man acquired the amoeba by inhaling water in the thermal springs of Guayabo de Bagaces. The first case of primary amebic meningoencephalitis in the history of Costa Rica was recorded in 2014 in an American child who later died. Naegleria fowleri is a microscopic amoeba which is a single-celled living organism. It can cause a rare and devastating infection of the brain called primary amebic meningoencephalitis (PAM). The amoeba is commonly found in warm freshwater such as lakes, rivers, ponds and canals. [Outbreak News Today](#)

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