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—ALASKA NATIONAL GUARD—

1. Alaska Army National Guard rescues injured man near Noorvik

Army.mil by Alaska National Guard/May 19

JOINT BASE ELMENDORF-RICHARDSON, Alaska — The Alaska Army National Guard helped rescue an injured man in Coffin Camp.

At about 5 a.m. May 16, the Guard's 1st Battalion, 207th Aviation Regiment's Army Aviation Operations Facility in Nome was contacted by the Alaska Rescue Coordination Center on JBER to pick up and transfer a man who had stepped on nails at a fishing camp west of Noorvik.

The injured man required assistance because his injuries, mixed with the difficult terrain that comprised flooded trails and a frozen river, rendered him unable to evacuate himself.

"He had been staying at his camp and was likely planning to leave when the river broke up," said Alaska Army National Guard Chief Warrant Officer 3 Paul Jones, the pilot for the rescue mission, "He stayed there about a week after sustaining his injuries, but he ended up calling the village public safety officer (VPSO) for assistance because he didn't want it to get to the point where he couldn't help himself."

The Noorvik VPSO contacted the Alaska State Troopers, who requested help from the AK RCC, and they delegated the rescue mission to the AAOF in Nome.

The UH-60 Black Hawk helicopter piloted by Jones departed Nome at 7:15 a.m. and landed in Noorvik at 9 a.m. to pick up the officer.

“The VPSO was picked up to help scout the area,” Jones said, “It gives us an advantage since he can use local knowledge.”

The aircraft left three minutes later for Coffin Camp, seven miles west of Noorvik, where the distressed individual was quickly located and picked up at 9:15 a.m. The UH-60 returned the VPSO to Noorvik and flew to Kotzebue, where the injured man was transported by ambulance to Maniilaq Health Center for treatment.

Link:https://www.army.mil/article/235740/alaska_army_national_guard_rescues_injured_man_near_noorvik

Also at: <https://alaska-native-news.com/alaska-army-national-guard-helps-rescue-injured-individual-near-noorvik/49183/>

<https://www.nationalguard.mil/News/Article/2191029/alaska-army-national-guard-rescues-injured-man-near-noorvik/>

2. National Guard assists with harbor safeguards

Kodiak Daily Mirror by Staff report/May 18

Ten Alaska Army National Guard soldiers and one Alaska State Defense Force soldier assigned to Joint Task Force-Alaska have been working alongside Kodiak Harbor personnel as part of a coordinated effort with the city of Kodiak to ensure COVID-19 pandemic safeguards are followed at the ports of entry, according to a news release.

“This mission has highlighted the adaptability and flexibility of the Alaska Guard,” said Alaska State Defense Force Capt. Ryan Sharratt, Commander of C Co. 2nd Special Troops Battalion, who has been working as the Joint Task Force-Alaska liaison officer in Kodiak.

“We’ve had the right soldier, in the right formation, at the right time and the city of Kodiak deserves nothing short of that standard.”

Since May 1, the guardsmen have been patrolling the harbor, providing public outreach and ensuring that safety measures are in place and proper guidance is given related to COVID-19 mandates.

The soldiers have relayed all quarantine directives to incoming captains and their crews. The local harbor masters, not the guardsmen, are responsible for any potential enforcement actions.

Lima flags have been issued for crews who have recently traveled to a port outside of Kodiak. The lima flag is an international maritime signal flag code for infectious disease. The crew is then required to quarantine for 14 days before entering the Kodiak community. As of Thursday, 14 vessels in Kodiak were flying the lima flag.

The quarantine precautions are even more significant as of May 12, when intrastate travel to Kodiak became permitted under Gov. Mike Dunleavy’s health mandate 18, allowing vessels to come to Kodiak for both essential and nonessential purposes.

Kodiak is the nation's fourth-busiest fishing fleet, with a consistent influx of maritime vessels. Managing the harbor is a 24-hour operation. The soldiers have been working in shifts that allow for full coverage of the harbor at all times.

Logistics for the Kodiak effort are run locally out of the Kodiak Emergency Operations Center. The soldiers have integrated into the staff to assist local employees in their effort to keep Kodiak safe.

The Alaska Department of Military and Veterans Affairs employs military personnel who are equipped, trained and ready to render assistance as needed in response to the governor's public health disaster emergency declaration for COVID-19.

Link: http://www.kodiakdailymirror.com/extra/article_dee98e70-989a-11ea-8a18-4b9a287d0062.html

3. Wings and Blades of Hope

Dvidshub.net by Capt. David Bedard/May 18

In the case of the HH-60 Pave Hawk and HC-130J Combat King II combat search and rescue aircraft, the first "H" stands for "help."

Both machines and crews, of the Alaska Air National Guard's 210th and 212th rescue squadrons respectively, provide that help by training every day for their combat mission of going behind enemy lines and inserting pararescuemen (PJs) to rescue downed pilots and other isolated allied troops.

At home station, the crews partner with PJs of the 212th Rescue Squadron to provide civil search and rescue statewide.

It was only appropriate then that the 176th Wing Airmen of the three rescue squadrons went a little out of their way May 13 to fly low and slow over Eagle River, Palmer and Wasilla near JBER.

Later, aircraft from U.S. Air Force and Air National Guard units in Alaska honored frontline COVID-19 responders and essential workers with flights over 23 communities in the state May 15.

The Salute to Alaska flyovers, allowed as part of an approved training mission, are part of the Air Force Salutes initiative designed to show appreciation to the heroes around the world battling the pandemic, and to lift morale in communities across America.

Participating JBER aircraft during the week included the C-17 Globemaster III, F-22 Raptor, HC-130 and HH-60. Participating Eielson Air Force Base aircraft were the F-16 Fighting Falcon, F-35 Lightning II, and KC-135 Stratotanker.

The flyovers were a collaborative salute to healthcare workers, first responders, and other essential personnel to showcase solidarity with all of Alaska during the COVID-19 pandemic.

During the May 13 sortie, both aircraft went their separate ways to carry out unique training profiles before meeting again to accomplish the community flyover.

Alaska Air National Guard Lt. Col. Jeremy Groat, 210th RQS commander, said he wanted to expose Maj. Ryan Wiese to Alaska airspace.

An experienced command pilot who just came from the elite U.S. Air Force Weapons School at Nellis Air Force Base, Nevada, Groat said Wiese nonetheless needed to build familiarity with Alaska's unique weather and terrain.

To accomplish their goal, Groat guided the Pave Hawk to the ascending and plunging Chugach Mountains, still covered in snow and ice from last winter. The cement-gray helicopter appeared like a mosquito against the backdrop of a refrigerator as the crew expertly navigated the folds and contours of the terrain.

"We wanted to get Major Wiese out to the mountainous and snow-covered glacier fields east of JBER," Groat said. "We completed glacier landings and complex hovers."

Miles away, Capt. Christopher Brunner, 211th RQS rescue pilot, and his crew were focused on a completely different set of tasks.

Beginning over JBER's Malemute Drop Zone, the HC-130's loadmasters kicked out container delivery systems, which safely delivered supplies and equipment under the canopy of parachutes.

The pilots then pulled on the yoke, bringing the aircraft to 10,000 feet. In the whisper-thin air, PJs stepped into the summery void, falling thousands of feet before pulling their parachute releases, precisely gliding to a simulated isolated survivor.

Finally, the two aircraft rendezvoused across the frigid, restless ocean water at Mount Susitna, where they would undertake a synchronized waltz at altitude when the HC-130's refueling boom delivered fuel midair to the thirsty whirlybird.

The airborne duo speared east and north on their route to show the Alaska Air National Guard's colors to communities slowly emerging from lockdown.

Though they soared above migrating geese and nesting eagles, they said they still felt a connection to the community.

"I saw some people waving; some people taking pictures," Brunner recalled. "I ended up getting some pictures sent to me directly saying how cool it was."

"It was a good way to show the community as a whole that this is the piece we can do to show solidarity and our support of the community at large as well as first responders and hospital workers," Groat said.

While they were tracking along the goodwill route, Brunner said he could hear approving chatter from pilots passing through the area.

"From the sky to the ground, it seemed like there were a lot of excited people," he said. "I thought it was awesome. It's good to go out there and show the military still has a presence in Alaska. We're here to assist in any way we can, including defending our country."

Link: <https://www.dvidshub.net/news/370268/wings-and-blades-hope>

— NOVEL CORONAVIRUS/COVID-19 IN ALASKA—

4. Three new COVID-19 cases reported Monday bring state total close to 400 cases

KTUU by Cheyenne Mathews/May 18

ANCHORAGE, Alaska (KTUU) - The Alaska Department of Health and Social Services is reporting 399 cases of COVID-19 in the state, with three new cases reported in two Alaskan communities on Monday.

There was one case reported in the Mat-Su Borough and two new cases reported in the Anchorage Municipality. This brings the total active cases in the state to 44.

There were no new deaths reported over the weekend but there are nine people currently hospitalized with the virus or suspected to have the virus. Since the first case of coronavirus, the state has had 43 hospitalizations and 345 recovered cases. On Monday the state reported one recovery.

The age group with the most cases of the virus in Alaska is 30-39 with almost 20% of the state's cases being in this demographic. The next highest category is those aged 50-59 with almost 18% of the total cases being in this age group.

Municipality of Anchorage: 205

- Anchorage: 182
- Chugiak: 7
- Eagle River: 13
- Girdwood: 3

Kenai Peninsula Borough: 26

- Anchor Point: 2
- Homer: 5
- Kenai: 6
- Seward: 3
- Soldotna: 6
- Sterling: 3
- Other: 1

Kodiak Island Borough: 1

- Kodiak: 1

Fairbanks North Star Borough: 85

- Fairbanks: 66
- North Pole: 18
- Other: 1

Southeast Fairbanks Census Area: 3

- Delta Junction: 1
- Tok: 2
- Yukon-Koyukuk Census Area: 1
- Other: 1

Matanuska-Susitna Borough: 22

- Palmer: 9
- Wasilla: 12
- Willow: 1

Nome Census Area: 1

- Nome: 1

Southeast Alaska: 53

- Juneau: 30
- Ketchikan: 16
- Petersburg: 4
- Craig: 2
- Sitka: 1

Bethel Census Area: 2

- Bethel: 1
- Other: 1

Link: <https://www.ktuu.com/content/news/Three-new-COVID-19-cases-reported-in-570573751.html>

5. First Mat-Su case in nearly a month reported in Willow

Anchorage Press by Tim Rockey/May 18

The Alaska Department of Health and Social Services response hub shows a new case of COVID-19 confirmed in Willow, the first case in the Mat-Su Valley since April 18.

The DHSS website shows that 13 Intensive Care Unit beds in the borough are currently being used and only one remains vacant. As of May 18, Alaska has 399 people who have tested positive for COVID-19 and the Mat-Su Valley accounts for 22 of those. A total of 3,761 Mat-Su residents have been tested, accounting for 3.53 percent of the total population in the Mat-su.

Of the 22 total cases in the Mat-Su, four are currently active with 17 people who have recovered and one COVID-19 related death. Palmer has had nine people test positive and Wasilla has had 12 positive tests, with the newest positive listed in Willow as still under investigation. Of the 44 people in Alaska actively experiencing symptoms of COVID-19, four of those are located in the Mat-Su. Of the 399 total people who have tested positive in Alaska, 345 have recovered. Gov. Mike Dunleavy is scheduled to address the press at 5 p.m. on Monday evening.

Link: https://www.anchoragepress.com/news/coronavirus/first-mat-su-case-in-nearly-a-month-reported-in-willow/article_672179a0-9950-11ea-9531-f3bdb936078b.html

6. Governor says Alaska ready to move into next phase of reopening economy

ADN by Zaz Hollander/May 18

Gov. Mike Dunleavy on Monday said he believes Alaska is ready for the next phase of reopening the state's economy from shutdowns related to the novel coronavirus.

Businesses closed March 18 under a statewide health mandate to limit the spread of COVID-19, the infectious disease caused by the virus.

Since, the state to date has moved through two of the five phases in the governor's reopening plan, allowing limited capacity operations of personal-care services like salons, bars and restaurants, gyms and theaters. Religious and social gatherings can now include up to 50 people with social distancing guidelines. The state also began allowing elective medical procedures in early May.

Anchorage municipal officials followed similar reopening pathways though several days later.

Travelers arriving in Alaska are still required to quarantine for 14 days. The governor last week extended that mandate to June 2 but promised daily evaluations and changes that could be announced this week.

Dunleavy on Monday said Alaskans should be prepared for “a much larger opening” that leaves out just a few areas such as big gatherings and concerts. A state chart defines the next reopening phase as 75 percent capacity for most businesses and larger gatherings allowed including non-household members.

“Pretty soon, I think you’re going to recognize the Alaska that we once had,” the governor said.

The state has low COVID-19 numbers and enough health-care capacity to handle any surge in positive cases, Dunleavy said.

Thousands of Alaskans have filed for unemployment benefits and numerous businesses say the shutdowns put them under financially. Domestic violence shelters report higher levels of demand.

Dunleavy said he expected to make more specific announcements this week. The governor’s next briefing is tentatively scheduled for Wednesday, a spokesman said.

Alaska had 44 active COVID-19 cases as of Monday. Ten Alaskans have died with the virus, several after contracting it out of state.

The Alaska Department of Health and Social Services on Monday reported three new cases — two from Anchorage and one from Willow, the first for that Mat-Su community — and no new cases in visitors from out of state. One patient was between 10 and 19, one was in their 20s, and one was in their 30s.

The new cases bring Alaska’s total to 399 with 345 patients considered recovered.

The state’s total COVID-19 hospitalizations rose last week. That tally stayed at 36 for 10 days last month, then rose to 40 with four more hospitalizations in late April and early May. Five more hospitalized COVID patients last week brought the total to 43.

Alaska’s chief medical officer Anne Zink said Monday that the state’s numbers are so low, it’s “a little hard to know at this point” why the hospitalizations rose.

Alaska’s rate of roughly six hospitalizations per 100,000 residents remains far below the national overall cumulative rate: 60.5 per 100,000, mostly in people 65 and older and then between 50 and 64, according to the Centers for Disease Control.

Link: <https://www.adn.com/alaska-news/2020/05/18/governor-says-alaska-ready-to-move-into-next-phase-of-reopening-economy/>

— NOVEL CORONAVIRUS/COVID-19 NATIONAL GUARD NEWS—

7. National Guard COVID-19 Response

WADS Airman sews 150 masks for Alabama hospital workers; Joint innovation a hallmark of Michigan Guard’s response; Wyoming National Guard helps increase state COVID-19 testing

Latest news articles: <https://www.nationalguard.mil/coronavirus/>

8. ‘Hard stop’: States could lose National Guard virus workers

Politico by Alice Ollstein/May 19

More than 40,000 National Guard members currently helping states test residents for the coronavirus and trace the spread of infections will face a “hard stop” on their deployments on June 24 — just one day shy of many members becoming eligible for key federal benefits, according to a senior FEMA official.

The official outlined the Trump administration’s plans on an interagency call on May 12, an audio version of which was obtained by POLITICO. The official also acknowledged during the call that the June 24 deadline means that thousands of members who first deployed in late March will find themselves with only 89 days of duty credit, one short of the 90-day threshold for qualifying for early retirement and education benefits under the Post-9/11 GI bill.

The looming loss of crucial frontline workers, along with questions about whether the administration is shortchanging first responders, would require a delicate messaging strategy, the official — representing FEMA’s New England region — told dozens of colleagues on the interagency call.

“We would greatly benefit from unified messaging regarding the conclusion of their services prior to hitting the 90-day mark and the retirement benefit implications associated with it,” the official said.

Top National Guard and other federal officials on the call did not dispute the June 24 cutoff or raise the possibility of an extension. In a statement, FEMA acknowledged that President Donald Trump’s current order for the federal government to fund the troops expires on June 24. But a National Guard spokesperson said a decision to extend the deployments could still be made in the coming weeks.

“We’re not there yet on the determination,” the spokesperson, Wayne Hall, said. “Nobody can say where we’ll need to be more than a month down the road.”

Governors and lawmakers in both parties have been pleading with the White House to extend the federal order for several more months or until the end of the year, warning in a letter to Trump that terminating federal deployments early in the summer just as states are reopening “could contribute to a possible second wave of infection.”

More than 40,000 Guard members are currently serving under federal orders known as Title 32, which grants them federal pay and benefits but puts them under local command, in 44 states, three territories and the District of Columbia — the largest domestic deployment since Hurricane Katrina.

Tens of thousands of them have been working full-time since early March on a wide range of sensitive and dangerous tasks, such as decontaminating nursing homes and setting up field hospitals, along with performing tests for the virus. They’ve provided a crucial backup for understaffed and underfunded state public health agencies trying to contain the pandemic.

The cost of the deployment is as much as \$9 million per month for every 1,000 troops, according to the National Council of State Legislatures — an expense that states would have to shoulder should Title 32 expire. In addition, state deployments do not count toward federal education and retirement benefits.

The 45,000-member National Guard Association and some state officials told POLITICO that they suspect the Trump administration timed its orders to limit the deployment to 89 days — one short of the number that would qualify the earliest participants for certain education and retirement benefits.

Guard members must serve for 20 years to qualify for a pension at age 60. But for every 90 days serving during a federal emergency, Guard members can move up that retirement by three months. Ninety days of service also qualifies members for 40 percent off the tuition at a public college or university.

Because the National Guard members have to self-quarantine for two weeks before returning to civilian life to ensure they don't spread the virus after serving on the front lines, states could lose their services in early June.

Trump's original order calling up Guard members to help with the coronavirus crisis had been scheduled to expire on May 31. With the deadline approaching, Colorado's entire congressional delegation — Republicans and Democrats alike — wrote to the president asking for an extension until the end of the year. Senators from New Hampshire, Connecticut, West Virginia and Illinois sought an extension through the fall. And several officials, including Iowa Sen. Chuck Grassley and Illinois Gov. J.B. Pritzker, have written letters asking for an extension until at least June 30.

Instead, the White House issued an unusual 24-day extension that terminates the deployment mid-week.

"It seemed kind of weird to me," said retired Brig. Gen. J. Roy Robinson, president of the National Guard Association, the advocacy group for Guard members. "It's a Wednesday. And it also coincides with 89 days of deployment for any soldiers who went on federal status at the beginning. I was getting all kind of calls about it and I said, 'It's probably just a coincidence.' But in the back of my mind, I know better. They're screwing the National Guard members out of the status they should have."

The White House did not respond to multiple requests for comment.

The National Guard's Hall countered that the 90-day threshold is cumulative, meaning members can qualify for early retirement benefits on their next federal deployment if it falls within the same fiscal year, which ends on September 30. For the GI Bill education benefits, members can accumulate days across federal deployments without a time limit.

"If someone's new in the Guard, they won't be able to make that 90 days in one shot," Hall acknowledged. "But if two months from now they're called up for a hurricane or flood, they can make it then. The goal here is not to hurt Guardsmen."

Nonetheless, federal deployments are relatively rare, and the practical impact of a June 24 cutoff would be to prevent many Guard members from claiming potentially valuable benefits, the National Guard Association said.

Meanwhile, as the national death count climbs toward 100,000, many states are depending on Guard members to help enact testing programs, deep-clean public facilities and perform the kind of contact tracing of people exposed to the virus that's necessary to help states reopen — and say those needs will not go away anytime soon.

In Washington state, for example, Guard members comprise about a third of the state's contact-tracing force, working to identify coronavirus outbreaks and locate people who have been exposed. More than

500 Guard members are currently performing such duties. According to the governor's office, hundreds more are running community operations that have tested more than 1,600 people, assembled more than 28,000 testing kits and delivered nearly 14 million pounds of food to food banks and struggling families.

Casey Katims, the federal liaison for Gov. Jay Inslee, said that while the state will do what it can to keep Guard members on duty if the federal deployment ends in June, "that footprint will necessarily be smaller without federal support."

"All of the missions are going to continue for months to come," he said. "The need for testing, the need for meals, the need for contact tracing don't disappear on June 25. So if the administration allows [Trump's order] to expire, that will mean fewer personnel to assist Washington in each of these critical missions."

In North Dakota, a state with one of the highest per capita testing rates and the lowest rate of fatalities, more than 100 National Guard members have been running mobile testing sites since April, testing between 350 and 750 residents each day in places like the Fargodome parking lot, Grand Forks' Alerus Center and Standing Rock High School.

"Local public health is somewhat understaffed, so we bring the bodies," Major Waylon Tomac explained in a recent promotional video for the National Guard.

Another 30 or so members have been deep-cleaning long-term care facilities that have recently seen outbreaks — spraying disinfectant and wiping down every surface. Still more have been working the night shift at the state's labs, assembling coronavirus test kits.

Col. Tad Schauer, the director of military response for the North Dakota National Guard, told POLITICO that while his team is currently planning to wrap up its operations by June 24, it stands ready to keep working if the Trump administration extends the deployment or Gov. Doug Burgum asks it to transition to "State Active Duty."

"The people of North Dakota have been exceptional in fighting Covid-19 and we're here to support the state and its citizens regardless of our federal or state status," he said.

The May 12 conference call was one of a series of interagency meetings the Trump administration has convened daily during the pandemic. On those video conference calls, senior officials from HHS, FEMA and other government agencies update participants on the progress made on various fronts — including ongoing efforts to ramp up testing, acquire and distribute protective equipment and monitor hot spots around the country.

During that meeting, the official who raised the June 24 deadline was identified as "Russ" from FEMA's Region 1, which includes Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont and Maine. Captain Russell "Russ" Webster, the regional administrator whom the White House also tapped in March to be New England's coordinating officer for federal recovery operations, did not confirm or deny that he was the one speaking on the call when contacted by POLITICO.

While some Guard members could continue the same work under State Active Duty after the June deadline, the National Guard Association has warned that without federal orders and funding, most states won't be able to "support significant Guard deployments."

In addition to being unable to accrue time toward federal retirement and tuition benefits, Guard members under State Active Duty are ineligible for the military's health insurance for active duty members — an issue Sens. Joni Ernst (R-Iowa) and Joe Manchin (D-W.V.) are seeking to address in a new bill.

The health coverage question is especially pressing during a pandemic. The National Guard confirmed to POLITICO that as of Monday, 1,158 members have been diagnosed with Covid-19, including 617 active cases.

The National Guard notes that members whose federal active status expires can enroll in a different health insurance program, TRICARE Reserve Select. But that program charges members and their families significant premiums, deductibles and co-pays that regular TRICARE does not, and it doesn't cover any dental care or pharmaceuticals.

Robinson, while pushing for the passage of the Ernst-Manchin bill, said he's disappointed in the Trump administration's treatment of Guard members risking their health during a pandemic.

"They're working side-by-side with doctors, nurses and first responders," he said. "And we're going to cut them off and send them home with no health care coverage while they transition back to their civilian life. Not to mention, some of their jobs may have evaporated since they were deployed."

Link: <https://www.politico.com/news/2020/05/19/national-guard-coronavirus-267514>

— NOVEL CORONAVIRUS/COVID-19 NATIONAL & WORLD—

9. Staying safe isn't just about hygiene and distance. It's about time, too.

CNN by Eric Lipton/May 19

(CNN) — By now, you've likely heard the main pieces of advice to avoid the coronavirus.

Wear a mask. Wash your hands with soap. Stay at least 6 feet from others. If you do gather with others, go outside rather than inside.

Still, there's one more aspect to infection that has received less attention. Growing evidence suggests that Covid-19 infection, like with other illnesses, is related to prolonged *time* exposed to the virus. The longer you stay in an environment that may contain the virus, the higher the risk of getting sick.

Erin Bromage, a comparative immunologist and professor of biology at the University of Massachusetts Dartmouth, summed it up with a short and sweet equation: "Successful Infection = Exposure to Virus x Time."

Bromage's simplified formula was part of a recent blog post explaining ways to lower your risk of catching Covid-19 that has been read over 15 million times in the past two weeks, he told CNN.

The main idea is that people get infected when they are exposed to a certain amount of viral particles. That viral threshold can be reached by an infected person's sneeze or cough, which releases a large number of viral particles into the air. But an infected person talking or even just breathing still releases some virus into the air, and over a long period of time in an enclosed space, that could still infect others.

"The longer time you spend in that environment -- so minutes or hours in there -- the more virus you breathe in, the more it can build up and then establish infection," Bromage said. "So it's always a balance of exposure and time. If you get a high level of exposure, it's a short time (to infection, and if you get a) low level of exposure, it's a longer time before that infection can establish."

The importance of time exposed to a virus is relevant for all infectious diseases, from measles to tuberculosis to Covid-19, said Dr. Kent Sepkowitz, an infectious disease specialist at Memorial Sloan Kettering Cancer Center in New York.

Indeed, it's the underlying theory behind contact tracing, which tries to locate and contact anyone who has spent prolonged time near an infected person.

Bromage said his simple formula suggests that a short shopping trip comes with a comparatively low risk of infection -- but employees in those same stores for eight-hour shifts have a higher risk.

"Even if there is virus in that environment, you hopefully haven't had that extended time needed to get to that infectious dose. The employees, though, are in that environment all day," he said. "So what wouldn't infect you and I because it didn't get to that infectious dose number, has a much stronger effect or larger effect on an employee that gets that low dose all day."

Gym class, restaurant and choir practice as examples

Several case studies of Covid-19 outbreaks over the past few months show the dangers of spending a long time in an enclosed space with an infected person, including at a choir practice in Washington state, a restaurant in China and a fitness studio in South Korea.

In Washington state, a single infected person attended a two-and-a-half hour choir practice on March 10, according to a report published by the Centers for Disease Control and Prevention. Of the 61 attendees, 53 people, or 87% of the group, developed Covid-19 afterward, the report said.

No one reported physical contact between the attendees at the practices, but they sat close together. The report said the chairs were 6-10 inches apart, but there were empty seats between some of the members. The choir broke into two groups for part of the practice, and members moved closer together for that 45-minute session, they said.

Another example of the dangers of prolonged exposure came at a restaurant in Guangzhou, China, on January 24. Over lunch that lasted about an hour, an infected person spread the virus to four people at their table, two people at a nearby table and three people at another nearby table.

The study concluded that the transmission of the virus was prompted by air-conditioned ventilation at the restaurant and recommended restaurants increase the distance between tables as well as improve their ventilation.

Finally, researchers in South Korea linked more than 100 coronavirus infections to a four-hour fitness instructor workshop from mid-February, according to research published in *Emerging Infectious Diseases*, a journal from the CDC.

Almost 30 instructors participated in the original workshop, which was held in Cheonan, South Korea. They trained intensely for four hours, and while none had symptoms at the time, eight instructors eventually tested positive for the virus.

Less than a month later, researchers had identified 112 coronavirus cases linked to dance classes in a dozen different facilities. Half of the cases were the result of direct transmission from instructors to students, and some people went on to infect others outside of class.

The classes linked to transmission had between five to 22 students and took place in small spaces for almost an hour. Out of 217 students exposed to infected instructors, 57 of them, or about one in four, ended up testing positive.

How long is too long?

Because experimenting with viruses on humans is unethical, data is limited on exactly how much exposure and time are needed for an infection. The number also varies by person, as older or immunocompromised people have lower thresholds to infection.

"Data are insufficient to precisely define the duration of time that constitutes a prolonged exposure," the Centers for Disease Control and Prevention says on its website. "Recommendations vary on the length of time of exposure but 15 min of close exposure can be used as an operational definition."

Sepkowitz similarly said that shorter exposure times are safer, but there is no hard and fast rule for how long is too long.

"Everyone has a little bit of risk per minute, and it's a cumulative thing," he said.

The other part of Bromage's equation -- the issue of "exposure to virus" -- also varies depending on the actions within that enclosed space. For example, he said that louder places are riskier because infected people emit more virus when they talk loudly or when they sing, such as in the chorus case study in Washington.

Quieter places with fewer airborne particles may also be lower risk. In the South Korea fitness case study, one of the infected instructors taught Pilates and yoga, and none of her students contracted the virus.

"We hypothesize that the lower intensity of Pilates and yoga did not cause the same transmission effects as those of the more intense fitness dance classes," the researchers said.

Link: <https://amp.cnn.com/cnn/2020/05/18/us/coronavirus-time-risk/index.html>

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