For the Health of It

Clark County Health Department

April 1, 2024

VOLUME 7
ISSUE 2

NOTABLE NEWS

RABIES CLINIC

Our rabies clinic was a huge success! We vaccinated 125 dogs and 18 cats. Thanks to our sponsors for all of their help and hard work!

IN THIS ISSUE

LEGIONELLA

Legionella is a bacterium that can cause a serious type of pneumonia called Legionnaires' disease and a less serious illness called Pontiac fever. The bacteria are found naturally in freshwater environments but become a health concern when they can grow and multiply in man-made water systems. Legionnaires' disease is spread by aerosolized water droplets in the air that contain Legionella bacteria. People may become sick if they breathe in the water droplets containing the bacteria. Points of exposure may include shower heads and sink faucets, hot tubs, decorative fountains, hot and cold-water storage tanks, water heaters, humidifiers, infrequently used water equipment like eye water stations, CPAP machines, and nebulizers. It is important to properly clean and disinfect these machines if not used frequently.

People at increased risk for Legionnaires' Disease are those 50 years and older, current or former smokers, and people with chronic disease or weakened immune systems due to cancers or certain medications. Having chronic lung disease, such as emphysema or chronic obstructive pulmonary disease (COPD) also puts someone at a higher risk for illness. Symptoms may include cough, shortness of breath, fever, chills, muscle aches, or headaches. Legionnaires' disease can also be associated with other symptoms such as diarrhea, nausea, and confusion. Symptoms usually begin 2 to 14 days after being exposed to the bacteria, but it can take longer. Doctors use chest X-rays or physical exams to check for pneumonia. Your doctor may also order tests on a sample of urine and sputum (phlegm) to see if your lung infection is caused by Legionella.

Legionnaires' Disease is serious; there is no vaccine, but it can be treated with antibiotics. Most people who get sick need care in a hospital but make a full recovery. However, about 1 out of 10 people who get Legionnaires' disease will die from the infection. In general, people do not spread Legionnaires' disease to other people.Prevention includes maintaining water temperatures outside the ideal range for Legionella growth, preventing water stagnation, ensuring adequate disinfection, and maintenance of plumbing and medical devices to prevent sediment, scale, corrosion, and biofilm all of which provide habitat and nutrients for Legionella.

Nearly 10,000 people in the US will get Legionnaires' disease this year, and there are at least 20 outbreaks reported each year. Most identified outbreaks are in buildings with large water systems, such as hotels, long-term care facilities, and hospitals.

For more info: https://www.cdc.gov/legionella/about/index.html

HEALTHY HOMES AND ENERGY EFFICIENCY

Hi there home owners, home renters, and, well...anyone who doesn't live in a cave. April is National Healthy Homes Month. Do you know there are 8 principals to keeping a healthy home? It's time for some housekeeping! And did I mention, you can save money, too? See...now I have your attention.

1. Keep it dry.

2. Keep it clean.

3. Keep it safe.

4. Keep it well-ventilated- fresh air in and stale air out!

5. Keep it pest-free- we're mostly talking about the 4,6, and 8 legged creatures. You're on your own with the in-laws.

6. Keep it contaminant-free. Toxic stuff is bad. Need I say more?

7. Keep your home maintained.

8. Keep it thermally controlled.

Many of these overlap with ways to save energy in your home. Saving energy is good for both the environment and your bank account! Follow these tips for a healthy and cost effective home:

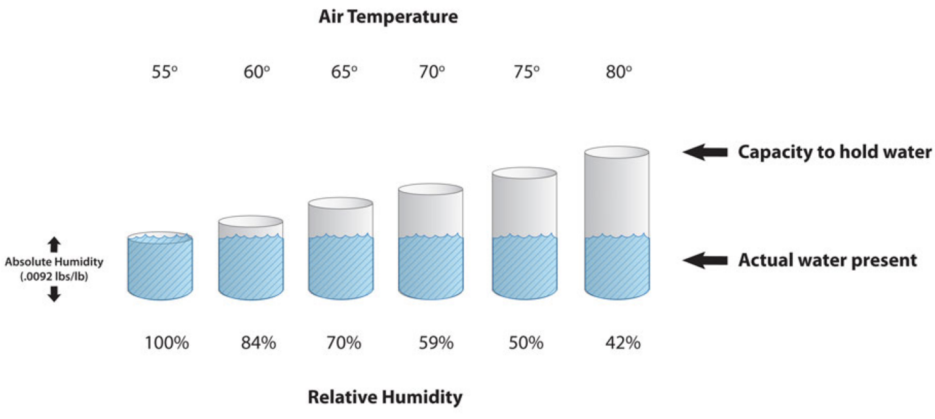
APRIL IS NATIONAL HEALTHY HOMES MONTH

1. Check all plumbing for leaks. A dripping faucet can drain your wallet! 120 drips per minute can waste 11 gallons per day, or 330 gallons per month. This could cost $6 per month per faucet!

2. Replace old windows. Charming but maybe harming! Not only could they be a lead paint hazard, it will help your HVAC run more efficiently.

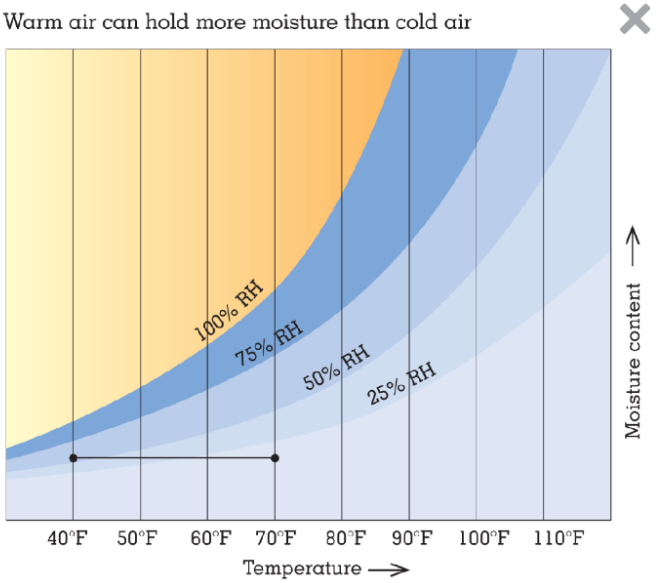
3. Seal cracks and holes around piping to reduce air leaks and keep pests out!

4. Clean out your ventilation systems, including changing your air filters and ensuring kitchen and bathroom vents are in working order. This will improve air quality and lower humidity throughout the home. You know what loves humidity? DUST MITES. Don't make me go there....



4. Make minor repairs in the home now before they become bigger and more costly problems. Safety first!

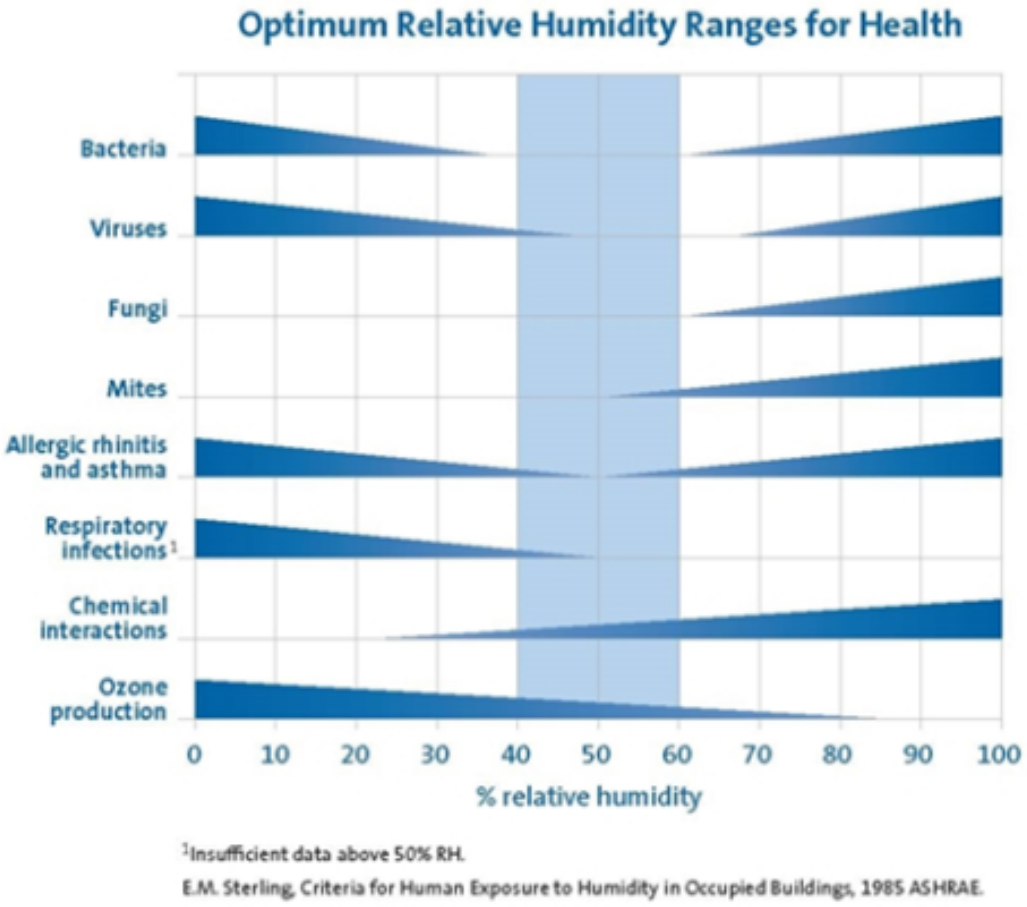
5. Turn down the thermostat a few degrees in the winter, or up in the summer. This will save money and energy, Additionally, air will have a lower relative humidity when it is warmer leading to less moisture and reducing possible mold problems in the home.



6. Clean those light fixtures! Reduction of dust will help allergies and dirty lights won't be as bright. You may end up turning on more lights, and using more energy, than you need.

7. Turn off the water when you are brushing your teeth. This can lower humidity and your water bill.

8. Dust off those ceiling fans-then use them! Utilize fans and windows and hold off on running your whole house AC in the summer.



ONE HEALTH: Alpha-gal syndrome

Alpha-gal (galactose-α-1,3-galactose) is a sugar molecule found in mammal meat (beef, venison, rabbit, lamb, pork) and meat-based products (milk and other dairy). It is also found in gelatin, glycerin, magnesium stearate, anti-venoms, bovine extract, marshmallows (say what?!- yep made with good ol' beef bits) and even some medications and gel capsules. Unfortunately, it is also found in the guts and saliva of the lone star tick. Not dining on ticks anytime soon? Probably for the best, but the alpha-gal can be transmitted into a human by the bite of a tick.

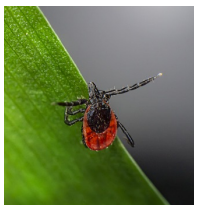
Recently, a relatively new tick borne disease has been making the headlines: Alpha-gal syndrome (AGS). This begins when a lone star tick bites a human, and transfers some alpha-gal into the body. The immune system responds, creating antibodies. Now the body becomes sensitive to alpha-gal from other sources, eating meat. The body definitely holds grudges!

Unrelated to infections, AGS symptoms, including severe allergic reactions, can occur after eating foods containing alpha-gal. The CDC highlights a number of other symptoms, including:

- Hives or itchy rash
- Nausea or vomiting
- Heartburn or indigestion
- Diarrhea
- Cough, shortness of breath, or difficulty breathing
- Drop in blood pressure
- Swelling of the lips, throat, tongue, or eye lids
- Dizziness or faintness
- Severe stomach pain

So, what's the best way to avoid this life changing syndrome? The key is to avoid tick bites! Here are some suggestions :

- Reduce leaf litter and mow tall grass or brush that may serve as tick habitat.
- Reduce time spent in potentially tick-infested habitats such as tall grass and shrubs.
- Walk in the center of trails to avoid contact with adjacent vegetation. Ticks don't jump. They stand there with their legs out grasping at anything that walks by.
- Wear a good quality insect repellent.
- Keep ticks away from skin by wearing long-sleeved shirts, long pants, and high boots.
- Tuck shirts into pants and pants into socks to cover gaps in your clothing. Sure you look a little silly, but who's going to look silly while you munch on that steak while your friend picks at the salad!
- Wear light-colored clothing to be able to see ticks more easily.
- Check the entire body for ticks and remove them quickly. Don't forget to check your pets!



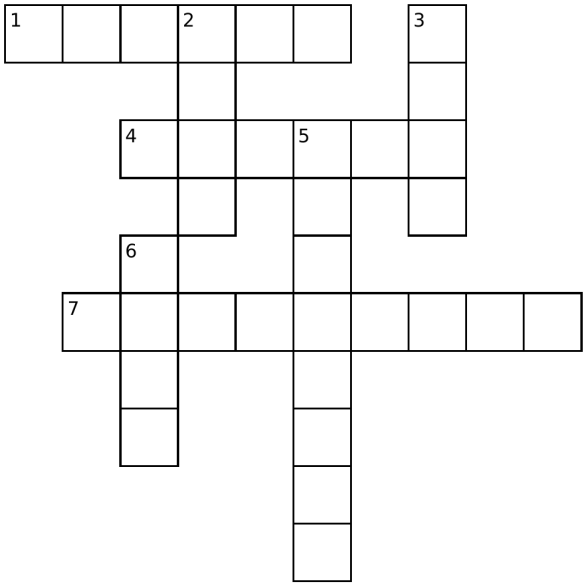
MENTAL HEALTH: BRAIN GAMES

WORD SEARCH

I	N	Z	S	B	S	R	S	H	B	D	N	M	P	U
Q	L	B	U	C	O	C	K	R	O	A	C	H	P	B
X	J	B	R	Q	D	U	U	H	Q	H	E	I	G	A
A	H	A	V	U	Q	I	Q	H	H	R	D	M	A	U
L	O	K	E	Y	U	N	S	A	M	N	X	C	E	W
L	V	J	I	U	T	A	A	O	V	T	R	U	B	Z
E	B	U	L	O	X	U	M	B	K	E	G	F	V	E
N	G	F	L	T	T	O	Y	B	C	D	C	L	P	W
O	E	C	A	S	N	I	W	G	I	Q	L	T	R	R
M	X	D	N	E	V	Y	U	F	T	S	B	T	O	D
L	Y	R	C	Z	S	A	A	Q	X	M	E	G	J	R
A	U	I	E	D	I	C	I	T	S	E	P	M	M	C
S	U	O	V	R	F	K	R	G	D	O	J	Y	D	W
X	H	V	E	A	N	N	G	H	M	Q	M	Q	P	C
Q	L	E	S	A	E	S	I	D	B	P	Y	K	W	D

TICK
MOSQUITO
VECTOR
DEET
SURVEILLANCE
PESTICIDE
COCKROACH
DISEASE
SALMONELLA
PHERMOMONE

CROSSWORD



Down:

2. Settles in the home. Made up of skin cell, dirt, hair and fibers
3. if your plumbing has this, it may lead to mold
5. When this is high, air in a home can feel sticky
6. Often found in paint, it can be toxic to children

Across:

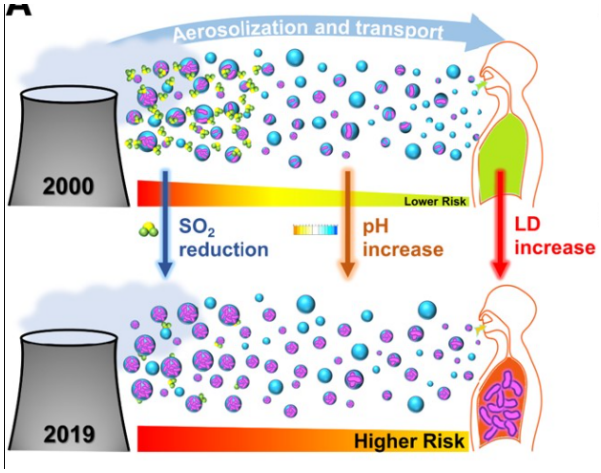
1. Open this for fresh air
4. Illness made worse by dust and pollution
7. when used appropriately, can help eliminate bugs in a home

SCIENCE SPOTLIGHT

Mysteriously rapid rise in Legionnaires' disease incidence correlates with declining atmospheric sulfur dioxide

Fangqun Yu,Arshad A Nair,Ursula Lauper,Gan Luo,Jason Herb,Matthew Morse,Braden Savage,Martin Zartarian,Meng Wang,Shao Lin

Legionnaires' disease (LD) is a severe form of pneumonia (~10–25% fatality rate) caused by inhalation of aerosols containing *Legionella*, a pathogenic gram-negative bacteria. These bacteria can grow, spread, and aerosolize through building water systems. A recent dramatic increase in LD incidence has been observed globally, with a 9-fold increase in the United States from 2000 to 2018, and with disproportionately higher burden for socioeconomically vulnerable subgroups. Despite the focus of decades of research since the infamous 1976 outbreak, substantial knowledge gaps remain with regard to source of exposure and the reason(s) for the dramatic increase in LD incidence. Here, we rule out factors indicated in literature to contribute to its long-term increases and identify a hitherto unexplored explanatory factor. We also provide an epidemiological demonstration that the occurrence of LD is linked with exposure to cooling towers (CTs). Our results suggest that declining sulfur dioxide air pollution, which has many well-established health benefits, results in reduced acidity of aerosols emitted from CTs, which may prolong the survival duration of *Legionella* in contaminated CT droplets and contribute to the increase in LD incidence. Mechanistically associating decreasing aerosol acidity with this respiratory disease has implications for better understanding its transmission, predicting future risks, and informed design of preventive and interventional strategies that consider the complex impacts of continued sulfur dioxide changes.



https://academic.oup.com/pnasnexus/article/3/3/pgae085/7624911

Fangqun Yu, Arshad A Nair, Ursula Lauper, Gan Luo, Jason Herb, Matthew Morse, Braden Savage, Martin Zartarian, Meng Wang, Shao Lin, Mysteriously rapid rise in Legionnaires' disease incidence correlates with declining atmospheric sulfur dioxide,*PNAS Nexus*, Volume 3, Issue 3, March 2024, pgae085,https://doi.org/10.1093/pnasnexus/pg

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Friday 8:30am - 4:30pm

Saturday - CLOSED

Sunday - CLOSED

Public Health
Prevent. Promote. Protect.

Clark County Health Department