

For the Health of It

October, 2021

Clark County Health Department

NOTABLE NEWS

VOLUME 4
ISSUE 4

TESTING SITE

When the COVID-19 Delta variant set in, testing sites across Clark County saw an increase in demand and appointment slots filled to max capacity. In the past 60 days (08/01/2021 – 09/30/2021) Clark County saw 40,681 COVID-19 tests administered. 4,173 of those test were positive over that same period. This averages out to over 678 tests per day and over 69 positive results per day for the last 60 days. The rising number of test and positive cases began to flatten and start decreasing towards the end of August. The hope is this downward trend will continue. Many testing sites are available

throughout the county including the drive-thru testing site located in the CCHD parking lot at 1201 Wall St. This site will continue to run 6 days a week for the foreseeable future. For information on COVID-19 testing sites see <https://www.coronavirus.in.gov/2524.htm>.

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VACCINATION SITE

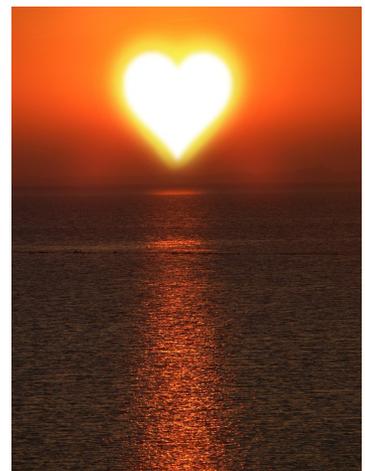
At the risk of sounding like a broken record, vaccination is highly encouraged for anyone who is able to receive it. At this time CCHD is only administering Pfizer. The Pfizer-BioNTech COVID-19 Vaccine, which will now be marketed as Comirnaty, received FDA approval August 23, 2021 for individuals 16 and older. The Pfizer vaccine also continues to be available under emergency use authorization (EUA), including for individuals 12 through 15 years of age and for the administration of a third dose in certain immunocompromised individuals. Moderna's vaccine is still available at other vaccine sites under EUA for individuals 18 and older and for the administration of a third dose in certain immunocompromised individuals. Johnson & Johnson's COVID-19 vaccine is still available at other vaccine sites under EUA for individuals 18 and older, but no additional doses have been approved yet. COVID-19 Vaccine booster shots are available for Pfizer-BioNTech vaccine recipients who completed their initial series at least 6 months ago and are 65 years and older, age 18+ who live in long-term care settings, age 18+ who have underlying medical conditions, age 18+ who work in high-risk settings, or age 18+ who live in high-risk settings. For information on vaccine administration sites see www.ourshot.in.gov..coronavirus.in.gov/2524.htm.

NATIONAL BONE AND JOINT HEALTH ACTION WEEK IS OCTOBER 12TH TO OCTOBER 20TH

Many are familiar with the form and function of bones in the human body. Generally providing support and structure for surrounding bodily tissues, bones are known to be incredibly strong; however, human bones are known to weaken over time and decrease in mass. Bone mineral density (BMD) is heavily influenced by genetics, but also is known to be greatest between early adulthood and menopausal age in women.⁽³⁾ Osteoporosis is a systemic skeletal disease in which bone mass decreases and bone tissue deteriorates, allowing for an increase in bone fragility and fractures.⁽²⁾ Fragility fractures are known to be common in patients diagnosed with osteoporosis and are known to frequently occur in the spine, hip, and distal forearm.⁽⁶⁾ It is approximated that 5-20% of hip fracture victims will die within one year of their incident, and more than 50% of surviving victims will become incapacitated.⁽²⁾



Although there are medications utilized to combat the symptoms of osteoporosis, preventative measures have been found to be incredibly effective in bone health maintenance. Controllable factors influencing bone health include adequate nutrition, appropriate weight bearing exercise, strength training, and adequate calcium and vitamin D.⁽³⁾ Vitamin D assists in maintaining a healthy, mineralized skeleton and provides preservation of neuromuscular and cellular functions.⁽⁴⁾ And the best way to get vitamin D? Well, it's really a walk in the park. The most common, major source of vitamin D for humans is exposure to sunlight.⁽⁴⁾ Just make sure to grab the sunscreen on your way out.





Bones do in fact provide support and structure and support to the human body, but truly what is on the inside is what counts. Bone marrow is located on the inside bones of the body and is composed of mesenchymal stem cells, capable of producing fat or bone, and hematopoietic stem cells, responsible for producing all the cells in blood.⁽²⁾ Stem cells are simply very young cells that have not fully developed.⁽⁸⁾ As these cells are not fully mature, they can be utilized to replace bone marrow cells previously destroyed by chemotherapy or radiation in patients treated for cancers affecting bone marrow. These cancers may include leukemias, multiple myeloma, and lymphomas, all of which start within blood cells.⁽⁸⁾



Bone marrow is generally harvested from the bones containing a large number of stem cells, such as the pelvic bone, once a donor has been identified and matched to a patient.⁽⁸⁾ Human Leukocyte Antigen's or HLA's are found on the majority of cells within the body and are utilized to match a donor to a patient.⁽⁹⁾ Although this process can take an extensive amount of time due to difficulty finding adequate matches, the typical time commitment for a donation is only approximately 20-30 hours of time over a four-to-six-week period.⁽⁹⁾ If you or someone you know is interested in making a bone marrow donation, reach out to BeTheMatch.org to register online.



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(2) Caplan, A.I. Are All Adult Stem Cells The Same?. *Regen. Eng. Transl. Med.* 1,4–10 (2015). <https://doi.org/10.1007/s40883-015-0001-4>

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(5) Michael F. Holick, Vitamin D and Bone Health, *The Journal of Nutrition*, Volume 126, Issue suppl_4, April 1996, Pages 1159S–1164S. https://doi.org/10.1093/jn/126.suppl_4.1159S

(6) Kanis JA. Assessment of fracture risk and its application to screening for postmenopausal osteoporosis: synopsis of a WHO report. WHO Study Group. *Osteoporos Int.* 1994 Nov;4(6):368-81. doi: 10.1007/BF01622200. PMID: 7696835.

(7) Kevin D. Cashman, Diet, Nutrition, and Bone Health, *The Journal of Nutrition*, Volume 137, Issue 11, November 2007, Pages 2507S–2512S. <https://doi.org/10.1093/jn/137.11.2507S>

(8) <https://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/stem-cell-transplant/why-stem-cell-transplants-are-used.html>

(9) <https://bethematch.org/support-the-cause/donate-bone-marrow/donation-faqs/>

(10) <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/bone-marrow>

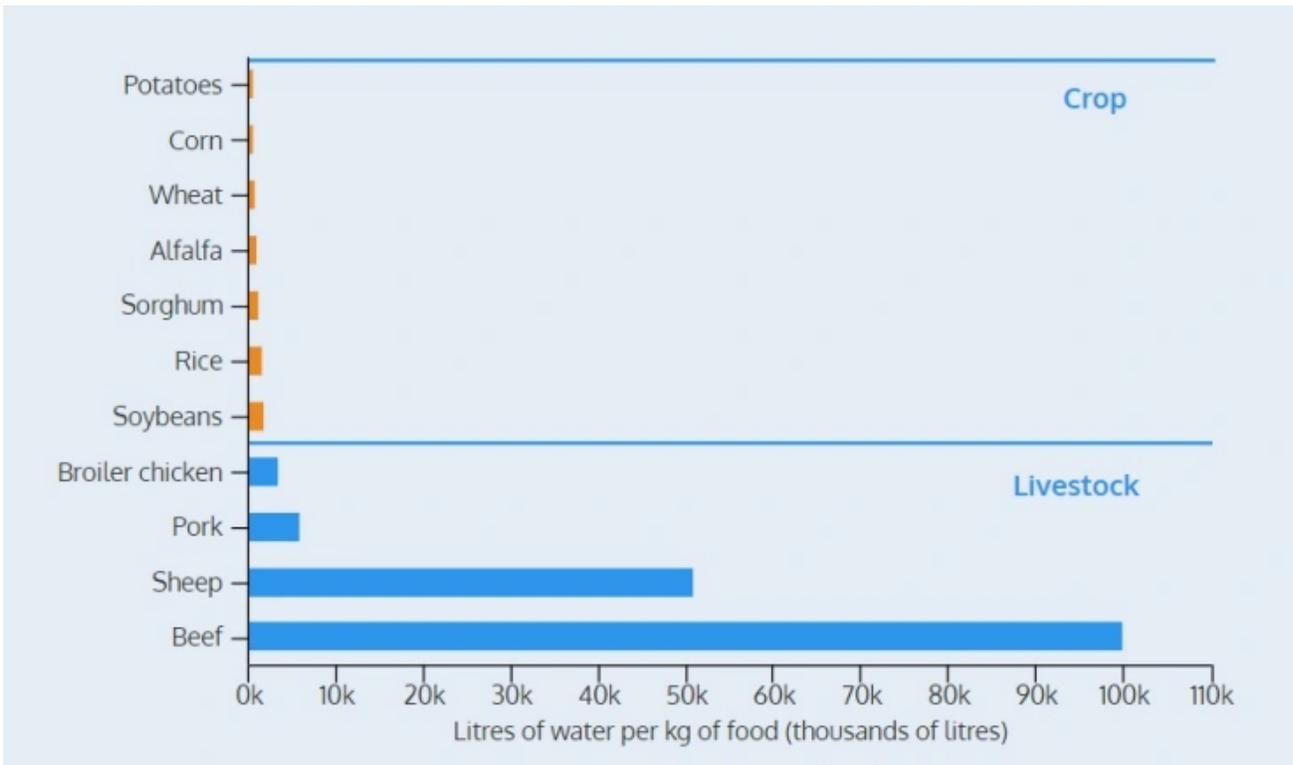
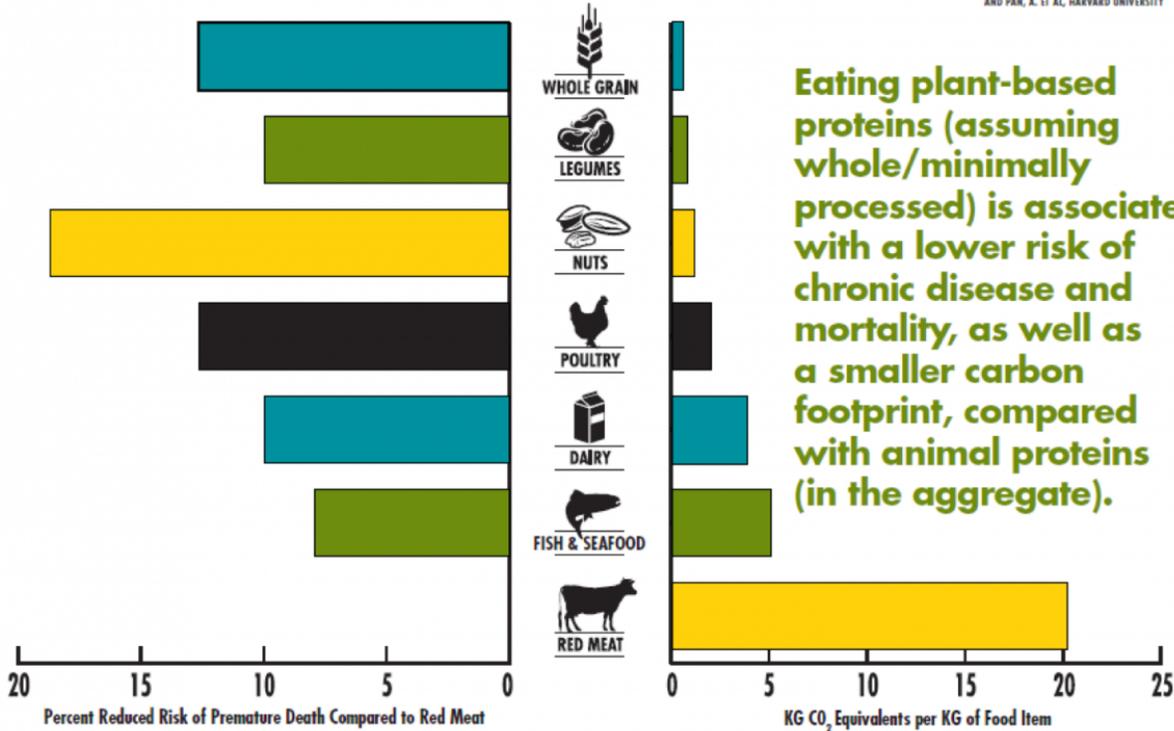
THE PROTEIN FLIP



October 1st
World
Vegetarian Day!

SOME PROTEINS* ARE BETTER THAN OTHERS FOR THE HEALTH OF THE PLANET AND THE POPULATION

SOURCE: WASSERMAN, A., CHANGING TASTES, AND PAH, A. ET AL, HARVARD UNIVERSITY

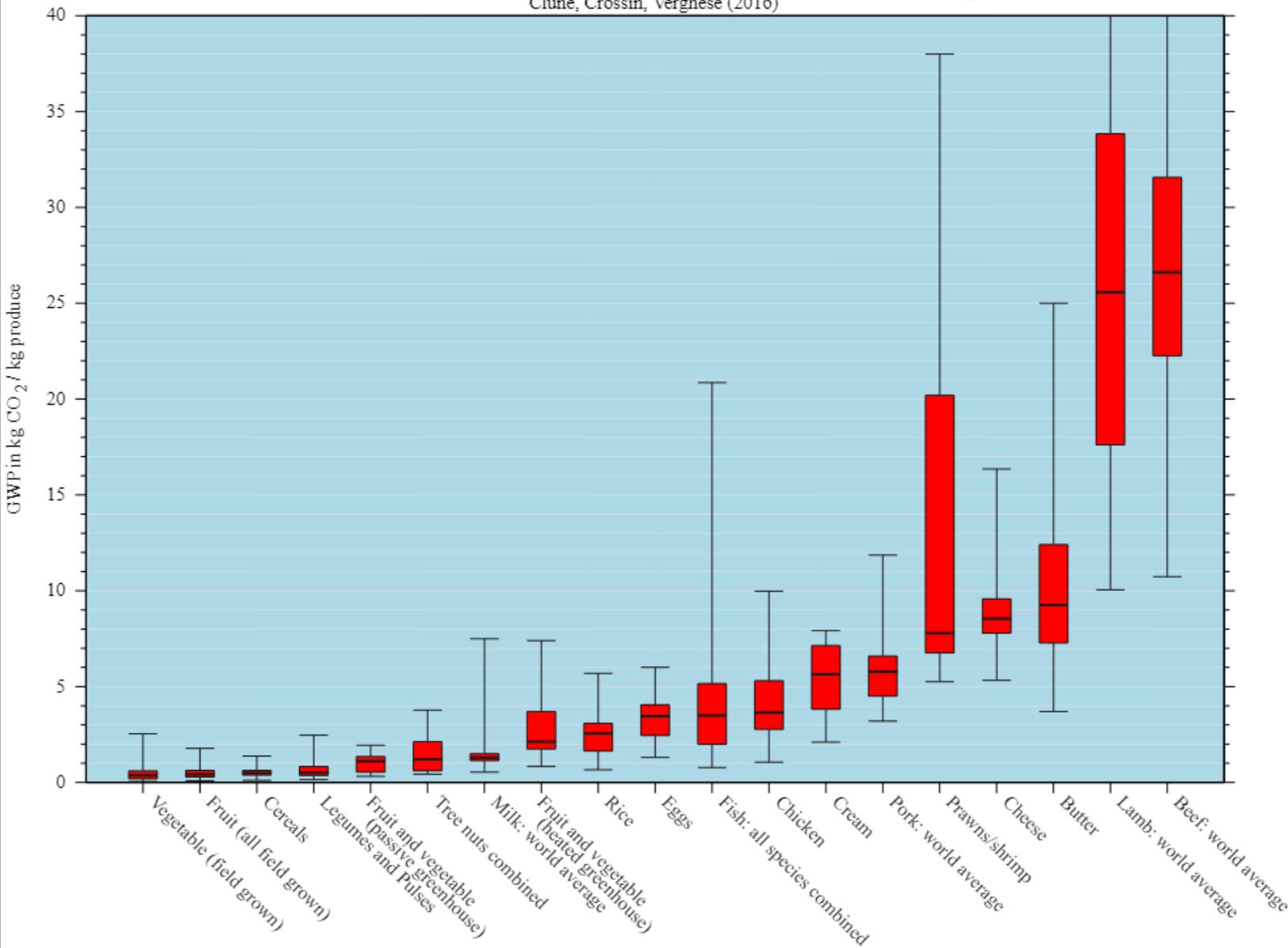


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Pimentel D., Houser J., Preiss E., White O., Fang H., Mesnick L., Barsky T., Tariche S., Schreck J. and Alpert S. (1997). Water resources: Agriculture, the environment, and society. *BioScience*, 47,2, 97-106.

Greenhouse impact across Food Categories

Clune, Crossin, Verghese (2016)



WINTER CAR EMERGENCY KIT CHECKLIST

- Non-clumping Cat Litter
- Booster Cables
- Fix-a-Flat
- Heated Emergency Blanket
- Hand Warmers
- First Aid Kit
- Flashlight
- Bottled Water & Protein Bars
- Ice-Scraper
- Ice Shovel
- A Book Bag
- A battery-powered radio
- Extra batteries
- Matches
- Extra hats, scarves, & mittens
- Necessary medications
- A tow chain or rope
- Emergency flares
- Pieces of bright or reflective cloth
(to tie to antenna or door handle if stranded)
- An old cell phone
(even old phones that are not on a plan can make emergency calls)



Winter Driving Tips

- 1.) Put on Snow Tires
- 2) Drive Slowly
- 3)South.
- 4) Continue until you see palm trees
- 5) Apply brakes and sunscreen (safety first!)
- 6) Enjoy Winter

HEALTH OFFICER'S PERSPECTIVE

An Ounce of Prevention

BY DR. ERIC
YAZEL,
CLARK COUNTY
HEALTH OFFICER



Lost in all the dialogue over masks, vaccines, and quarantines, has been one of the most important and least emphasized aspect of the pandemic: prevention. And by prevention, I don't mean vitamins, distancing, and all the other things we do to keep safe in the short term. I mean addressing the co-morbid medical conditions that make us so susceptible to the virus in the first place.

Metabolic syndrome is rampant in our country. Diabetes, obesity, high cholesterol, and elevated blood pressure are all approaching epidemic proportions. Our diet is one of the first problems. I'm as guilty as anyone. I always joke that my food pyramid during the pandemic had a base layer of Monster energy drinks and Thornton's burritos. During COVID, I am constantly reviewing data from countries Iceland, Zimbabwe, Israel and other place all over the globe (yes, I need to get a hobby). From the first sentence, I know that there will be a confounder no matter what the country- our BMI, diet, and health habits in the United States.

We have to change, and our healthcare system has to change. Everything we do is reactionary in nature. We initiate treatment when blood pressure gets high, start meds when blood sugar gets out of balance, and on and on. Those should be looked at as failures in the prevention process, not the initial points of intervention. We need to make changes upstream such as improving our diet, improving our sleep hygiene, exercising daily, and focusing on wellness in general. We also have to increase our attention to health equity and ensure that all populations have the same access to the tools needed to address personal health. Medicine needs to adjust focus to these chronic conditions before they have reached the point of needing medical intervention.

There is a consistent shift at the national level moving toward value-based care in medicine. There is no greater value than preventing a condition from occurring in the first place. It will require a change in focus and habits from both patients and providers, but if we have learned anything in the last 18 months or so, it's that now time to take that step.



ONE HEALTH: ANIMALS, PEOPLE, AND THEIR ENVIRONMENT: BACKYARD POULTRY

Who doesn't love farm fresh eggs (except for you vegans, of course ;-). Backyard chicken and duck keeping is becoming more widespread as people look to sustainable living and self-reliance.

We have previously discussed public health considerations with large factory farms, but what about just a few hens outside your door? Is that any safer? We know that our health is intertwined with that of the environment and our food sources, so what does that mean for backyard flocks?

The health and safety of your flock is probably first on your mind. Ensure they are contained in an environment where predators cannot access them. Learn about what parasites can affect your birds and how to treat them. Vet treatment may be necessary, as with any pet in your care. Feed them a commercial feed and supplement with fresh fruits, vegetables, and insects.



A healthy environment will help maintain healthy birds. Ensure clean water is always available and remove waste regularly. Clean and sanitize equipment used for the flock. Keep rodents and flies away from the feed and coop.

Although there are many reasons to keep chickens and ducks, eggs are probably #1. The CDC offers the following advice for safe egg handling:

- Collect eggs often. Eggs that sit in the nest can become dirty or break.
- Throw away cracked eggs. Germs on the shell can more easily enter the egg through a cracked shell.



Rub off dirt on eggs with fine sandpaper, a brush, or a cloth. Don't wash them because colder water can pull germs into the egg.

- Refrigerate eggs to keep them fresh and slow the growth of germs.
- Cook eggs until both the yolk and white are firm, and cook egg dishes to an internal temperature of 160°F to kill all germs.



Zoonotic Diseases are a concern with any animal, and backyard chicken flocks are no different. We commonly think of Salmonella as the main illness acquired from chicken and eggs.

SALMONELLA	Symptoms	Treatment
<p>Cause</p> <ul style="list-style-type: none"> • Bacteria in the intestine of the chicken • Passed as a bird 'dropping' • Picked up by another bird that may be pecking 	<p>Depressed</p> <p>Ruffled feathers</p> <p>Diarrhea</p> <p>Eyes closed</p> <p>Hunched up</p> <p>Decreased appetite</p>	<p>Antibiotics</p> <p>Vaccine</p>

Salmonella

Common Symptoms

- headache
- fever
- watery diarrhea
- abdominal pain or cramps
- nausea or vomiting



Campylobacter is another zoonotic disease tied to birds.

CAMPYLOBACTER



Cause

'Pick-up' the bug from insects, rodents, cross contamination from another species



Symptoms

Poultry

- Lethargy
- Diarrhea
- Weakness
- Looking unwell
- Keeping to itself



Humans

- Diarrhea
- Nausea
- Fever
- Vomiting
- Abdominal cramps



Treatment

Poultry

Rarely treated with antibiotics



Humans

Need rehydration and hospitalization



THE HAPPY CHICKEN COOP
WWW.THEHAPPYCHICKENCOOP.COM



Backyard flocks have also been linked to Histoplasmosis, Avian Flu, and *E. Coli*.

So, what can you do to keep healthy and reduce your risk of illness?

- Wash your hands thoroughly with soap and water immediately after touching poultry or anything in the area where they are kept.
- Avoid touching your mouth and face before washing your hands.
- Use hand sanitizer if soap and water are not readily available, but still wash your hands with soap and water at the earliest available opportunity.
- Supervise hand washing for young children.
- Do not eat or drink in the area where the birds live.
- Do not let your live birds inside the house, especially into areas where food or drink is prepared, served, stored, or where young children have access.



MENTAL HEALTH: BRAINGAMES

WORDSEARCH

LOVE
HOPE
CREATE
FORGIVE
HEALING
GENEROUS
PEACE
MINDFUL
UNDERSTANDING
LAUGHTER

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

BRAINTEASER

- 1) What did the carpenter say when he finished the house?
- 2) I am a god, a planet and I can measure heat. What am I?
- 3) What is able to go up a chimney when down but unable to go down a chimney when up?
- 4) What can eat a lot of iron without getting sick?

- 1) Nailed it!
2) Mercury
3) An umbrella
4) Rust

SCIENCE SPOTLIGHT

Long-Term Exposures to Air Pollution and the Risk of Atrial Fibrillation in the Women's Health Initiative Cohort

"Atrial fibrillation (AF) is associated with substantial morbidity and mortality. Short-term exposures to air pollution have been associated with AF triggering; less is known regarding associations between long-term air pollution exposures and AF incidence. Our objective was to assess the association between long-term exposures to air pollution and distance to road on incidence of AF in a cohort of U.S. women.

We assessed the association of high resolution spatiotemporal model predictions of long-term exposures to particulate matter (PM₁₀ and PM_{2.5}), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and distance to major roads with incidence of AF diagnosis, identified through Medicare linkage. Using time-varying Cox proportional hazards models adjusted for age, race/ethnicity, study component, body mass index, physical activity, menopausal hormone therapy, smoking, diet quality, alcohol consumption, educational attainment, and neighborhood socioeconomic status, we estimated the relative risk of incident AF in association with each pollutant.

A total of 16,348 incident AF cases were observed over 660,236 person-years of follow-up. Most exposure-response associations were nonlinear. NO₂ was associated with risk of AF in multi-variable adjusted models [Hazard Ratio(HR)=1.18; 95% confidence interval (CI): 1.13, 1.24, comparing the top to bottom quartile, *p*-for-trend= <0.0001]. Women living closer to roadways were at higher risk of AF (e.g., HR=1.07; 95% CI: 1.01, 1.13 for living within 50m of A3 roads, compared with ≥1,000m, *p*-for-trend=0.02), but we did not observe adverse associations with exposures to PM₁₀, PM_{2.5}, or SO₂.

..... In this study of postmenopausal women, NO₂ and distance to road were consistently associated with higher risk of AF. "

<https://doi.org/10.1289/EHP7683>

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7683>

Hart, Jaime E., et al. "Long-Term Exposures to Air Pollution and the Risk of Atrial Fibrillation in the Women's Health Initiative Cohort." *Environmental Health Perspectives* 129.9 (2021): 097007.

1201 Wall Street Jeffersonville, IN 47130

Office Hours

Monday 8:30am - 4:30pm

Tuesday 8:30am - 4:30pm

Wednesday 8:30am - 4:30pm

Thursday 8:30am - 4:30pm

Friday 8:30am - 4:30pm

Saturday - CLOSED

Sunday - CLOSED

Administration/Vital Records/Environmental

812-282-7521

Public Health Nurse

812-283-2459

HIV/STD Program Office

812-288-2706

Public Health
Prevent. Promote. Protect.

Clark County Health Department

