

For the Health of It

Clark County Health Department

October 1, 2024

NOTABLE NEWS

VOLUME 7
ISSUE 4

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EMS UPDATE



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It's virtually impossible to turn on the news these days and not hear something about EMS in Southern Indiana. There is no shortage of drama, and a lot of people across the area have worked really hard to stabilize the situation. Any time there is a transition like this, it is a good time to step back and evaluate the situation as a whole. I think there are a few very important things for everyone to understand:

If you call 911, EMS will arrive in a timely manner and take good care of you. Response times in Clark County are under 10 minutes overall and even shorter for high acuity conditions. The crews providing care are experienced and well-trained. The level of care in the county overall is high.

Clark County has a lot of talented EMS professionals. Both in clinical skills and understanding of EMS operations, we have talented providers all over the county. Using their knowledge to think outside the box, we are developing comprehensive plans for service in the future. We don't want to simply have a stable service, we want to be a model for the state and region for EMS service delivery. Mobile integrated health, alternative destination protocols, patient navigators, and several other initiatives are being developed. We also want to develop our citizens' abilities to respond to an emergency with widespread CPR training, Narcan access, and connection to our Pulse Point initiative and our AED registry to decrease the time to lifesaving care.

What you see now is only the beginning. There remains a lot of work to do. Our current provider, Heartland EMS, is doing an outstanding job. Determining future coverage will be a priority in the next few weeks. We also have a couple of municipalities exploring options for coverage. Navigating the support of those initiatives while blending them in with current resources is a focus. What we have currently is a band-aid. What we want is a permanent, high-quality system that impacts our citizens in a positive manner for years to come and we have to be willing to look at all options in order to do that.

We need your help. 911 is for emergencies only. We still see a lot of calls for minor illness. Calling an ambulance just for a ride or because you think it might make your wait to be seen less only takes resources away from your neighbors who may have a medical emergency. Please be a good community partner. We also want your input. As a citizen of Clark County, this is YOUR service. Attend our meetings, advocate for your community, lend your expertise, get involved.

I look forward to being able to update you on the process as it moves forward. Nothing is more important to our Health Department than the health and well-being of our citizens and we will continue to work diligently to provide that support.



Syphilis in Indiana: A Growing Concern for Adults and Newborns

In recent years, Indiana has faced a significant public health challenge: the alarming resurgence of syphilis. This sexually transmitted infection, once thought to be on the decline, has re-emerged at concerning rates, affecting both adults and newborns across the state.

Syphilis, caused by the bacterium *Treponema pallidum*, has been on a steep upward trajectory in Indiana. The Indiana Department of Health (IDOH) reports a staggering increase in cases from 2018 to 2023, mirroring a national trend that demands urgent attention.

Why the Surge?

One of the most insidious aspects of syphilis is its often symptomless early stages. Many infected individuals unknowingly pass the disease to their sexual partners, contributing to its rapid spread. This "silent" phase makes control and prevention particularly challenging.

Key Risk Factors

The IDOH has identified several risk factors associated with syphilis infection:

- Multiple sexual partners
- Exposure to other sexually transmitted infections
- Recent incarceration
- Drug use, including both injected and non-injected drugs like methamphetamines and heroin
- Men who have sex with men are at higher risk
- Inconsistent use of protection during sexual activity

Recognizing Syphilis

Early signs may include:

- Sores at the infection site (genitals, anus, rectum, or mouth)
- These sores are typically firm, round, and painless

Later stages can present with more severe symptoms, including:

- Skin rashes, especially on the palms of the hands and soles of the feet
- Fever
- Swollen lymph glands
- Sore throat
- Patchy hair loss
- Headaches
- Weight loss
- Muscle aches
- Fatigue



Congenital Syphilis: A Preventable Tragedy

Alongside the rise in adult cases, Indiana has seen a troubling increase in congenital syphilis - a condition where a pregnant woman transmits syphilis to her unborn child.

Congenital syphilis can cause a range of complications, including:

- Stillbirth or early infant death
- Low birth weight
- Bone deformities
- Severe anemia
- Enlarged liver and spleen
- Jaundice
- Brain and nerve problems, including blindness or deafness

From just two reported cases in 2018, the number jumped to 48 in 2024 - a 2,300% increase. This trend mirrors a national crisis, with congenital syphilis cases rising 755% across the United States between 2012 and 2021.

Most distressing is the preventable nature of this crisis. The Centers for Disease Control and Prevention (CDC) reports that nearly 9 out of 10 newborn syphilis cases in 2022 could have been avoided through timely testing and treatment during pregnancy.

Treatment for Pregnant Women with Syphilis

Fortunately, syphilis during pregnancy is treatable, and early intervention can significantly reduce the risk of transmission to the baby. Here's what expectant mothers need to know:

- Penicillin is the primary and most effective treatment for pregnant women.
- Doxycycline is not the recommended treatment for syphilis in pregnant women due to adverse effects.
- Early detection and treatment lead to better outcomes.
- Treatment varies based on the stage of syphilis.
- Regular follow-up testing ensures adequate treatment.
- Partner treatment is crucial to prevent reinfection.



Taking Action

- 1. Get Tested Regularly:** The Clark County Health Department offers free testing at 1201 Wall Street, Jeffersonville.
 - Recommended every 3-6 months for those at higher risk.
- 2. Prenatal Care is Crucial:** More than half of congenital syphilis cases were among mothers who tested positive during pregnancy but didn't receive adequate or timely treatment.
- 3. Seek Treatment Immediately:** If pregnant and positive, getting treated prevents transmission to your unborn child.
- 4. Free Help Available:** Contact Clark County Health Department at (812) 282-7521 for assistance.
- 5. Stay Informed:** For more information, visit the Indiana Department of Health's Congenital Syphilis Clinician Toolkit:
<https://www.in.gov/health/audiences/clinicians/clinical-guidelines-and-references/congenital-syphilis-clinician-toolkit/>

OCTOBER 1
WORLD
VEGETARIAN
DAY

NOVEMBER 1
WORLD
VEGAN
DAY

Thinking about becoming Vegetarian or Vegan?

Facts

US & Global Impact

Methane!

- “In the US, about 31% of CH₄ emissions are generated from enteric fermentation (primarily cows) and manure management”
- “...livestock farming uses 70% of agricultural land overall and a third of arable land”
- “It is reported that animal production accounts for 12% of all groundwater and surface water used for irrigation”
- “... for each gram of beef protein consumed in the human diet, beef production requires 42 times more land use, 2 times more water use and 4 times more nitrogen, while it generates 3 times more GHGEs than the staple plant foods”
 - Source: Chai, Bingli Clark, et al. "Which diet has the least environmental impact on our planet? A systematic review of vegan, vegetarian and omnivorous diets." Sustainability 11.15 (2019): 4110.

Greenhouse Gas Emissions

Environmental Impact

- A 2017 study concluded “The omnivorous choice generated worse carbon, water and ecological footprints than other diets”
 - Rosi, Alice, et al. "Environmental impact of omnivorous, ovo-lacto-vegetarian, and vegan diet." Scientific reports 7.1 (2017).

Table 4 | Land use, water use, eutrophication and biodiversity impact by diet group, standardized to 2,000kcal and by age and gender

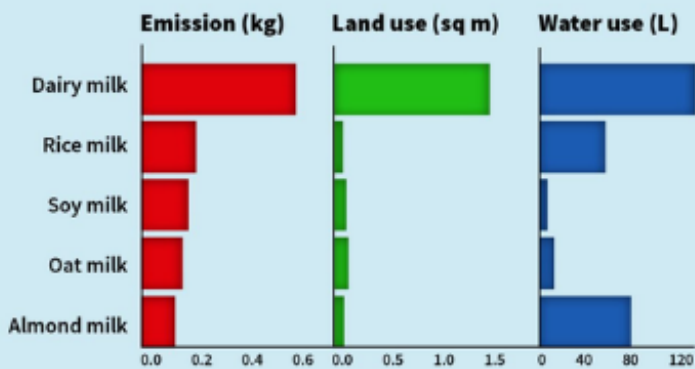
Diet group	Land use (m ² d ⁻¹)	Water use (m ³ d ⁻¹)	Eutrophication (gPO ₄ ed ⁻¹)	Biodiversity impact (x10 ⁻¹² species extinction per day)
Vegans	4.37 (3.59, 5.90)	0.41 (0.26, 0.77)	10.70 (8.61, 16.28)	1.12 (0.73, 2.55)
Vegetarians	6.01 (5.04, 9.32)	0.53 (0.38, 0.89)	17.27 (14.36, 22.09)	2.08 (1.19, 5.38)
Fish-eaters	6.31 (5.20, 9.68)	0.71 (0.48, 1.63)	21.09 (17.36, 26.52)	2.10 (1.24, 5.51)
Low meat-eaters	8.31 (5.91, 12.95)	0.71 (0.48, 1.70)	23.55 (19.17, 28.88)	2.29 (1.34, 5.90)
Medium meat-eaters	11.28 (7.38, 26.32)	0.78 (0.54, 2.02)	29.61 (23.96, 36.62)	2.77 (1.56, 6.78)
High meat-eaters	16.78 (10.31, 60.84)	0.89 (0.63, 2.04)	40.80 (31.26, 52.27)	3.69 (1.92, 8.92)

Results presented for all adults (N=55,504). All results are presented as median (2.5th percentile, 97.5th percentile) from a Monte Carlo analysis with 1,000 iterations.

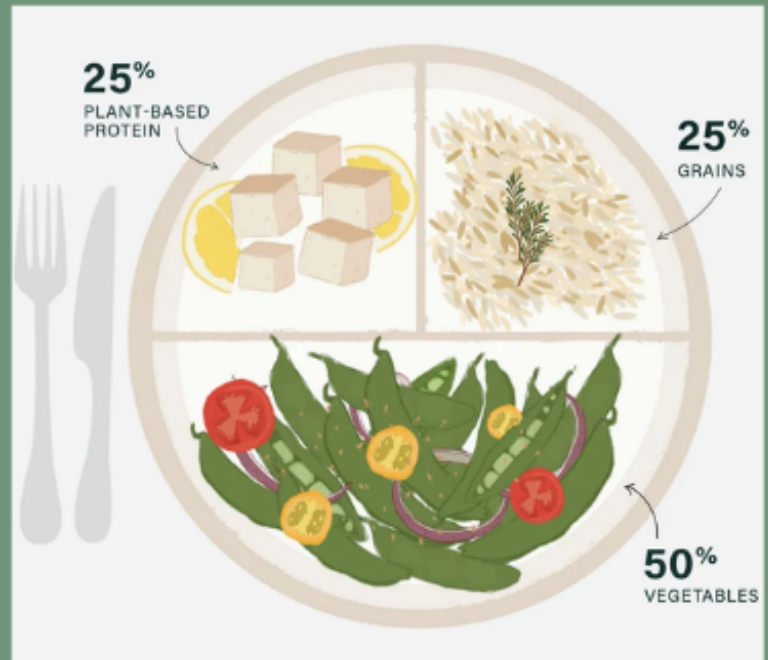
Scarborough, Peter, et al. "Vegans, vegetarians, fish-eaters and meat-eaters in the UK show discrepant environmental impacts." Nature Food 4.7 (2023): 565-574.

Which Milk Should I Choose?

Environmental impact of one glass (200ml) of different milks



Source: Poore & Remick (2018), Science. Additional calculations, J. Poore



Health

- Type 2 diabetes is 1.6 to 2 times lower in vegetarians than in the general population.-Kahleova, H.; Pelikanova, T. Vegetarian Diets in the Prevention and Treatment of Type 2 Diabetes. J. Am. Coll. Nutr. 2015, 34, 1-11.
- A meta-analysis has shown vegetarian diets were associated with a significantly lower concentration of HDL, LDL, and blood total cholesterol.- Oussalah, Abderrahim, et al. "Health outcomes associated with vegetarian diets: An umbrella review of systematic reviews and meta-analyses." Clinical Nutrition 39.11 (2020).

Health cont'd

- A 2017 meta analysis showed significant reduced levels of body mass index, total cholesterol, LDL-cholesterol, and glucose levels in vegetarians and vegans versus omnivores
 - Dinu, Monica, et al. "Vegetarian, vegan diets and multiple health outcomes: A systematic review with meta-analysis of observational studies." Critical reviews in food science and nutrition 57.17 (2017).

Ethical Considerations

- Although numbers vary wildly, a conservative estimate in a study by Animal Charity Evaluators suggests that 105 animals can be saved per person per year who adopts a plant-based diet.
 - <https://animalcharityevaluators.org/research/reports/dietary-impacts/effects-of-diet-choices/#results>
- "If you grew as fast as a chicken, you'd weigh 349 pounds at age 2. As a result, 90 % of broiler chickens have painful leg problems and 26 % suffer chronic pain as a result of bone disease."
 - Richards, R. J., & Richards, E. L. (2011). Cheap meat: how factory farming is harming our health, the environment, and the economy. Ky. J. Equine Agric. & Nat. Resources L., 4, 31.

ONE HEALTH: Lymphocytic Choriomeningitis Virus (LCMV)

Ever heard of it? Neither had I!

LCMV is a virus with probable worldwide distribution. Up to 5% of Americans who have been shown to possess antibodies stemming from a prior infection. So why is it so unknown?

LCMV is a single stranded RNA virus in the arenaviridae family. The carrier: rodents. Found typically in mice, other rodents such as hamsters and guinea pigs are also carriers. It has even been found in rabbits, dogs, and primates. The virus is secreted in their urine, feces, saliva, and can also be transmitted by the disturbance of nesting material or by direct contact with the animal. One study has shown that 9% of urban mice in Baltimore were found to be infected with LCMV. Many rodents can be carriers without showing signs of illness.



Symptoms of LCMV are typical of many illnesses, which often leads to under diagnosis. Symptoms can last about a week and include headaches, weakness, fever, nausea and vomiting. Unfortunately, a few of those infected can have a more severe reaction, including neurological symptoms like confusion, stiff neck and inability to move. Permanent nerve damage and miscarriages are also severe complications as well as seizures, organ dysfunction and respiratory failure. Generally, infection has less than a 1% mortality rate, but severe cases can have up to a 30% mortality rate.

There are no vaccines or approved antivirals for LCMV so prevention is the best way to stay safe and healthy.

- Avoid contact with wild mice
- Take precautions when handling pet rodents and always wash your hands after handling them or their environment
 - Clean cages in well ventilated area
 - Wear gloves
 - Practice good hand hygiene
 - Wear gloves if using frozen “feeder” rodents for snakes and other pets
- If you find a rodent nest in your house, avoid stirring up dust. Saturate the area with water before cleaning, or hire a professional
- Rodent breeders or laboratory workers should use proper PPE when handling animals
- Landlords, tenants, and homeowners should take all necessary action to eliminate rodent breeding or harborage conditions in properties

References:

<https://emedicine.medscape.com/article/220796-treatment?form=fpf#d7>

<https://www.healthline.com/health/infection/lymphocytic-choriomeningitis#prevention>

https://www.cfsph.iastate.edu/FastFacts/pdfs/lymphocytic_choriomeningitis_F.pdf

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4256959/>

<https://www.cdc.gov/lymphocytic-choriomeningitis/about/index.html>

MENTAL HEALTH: BRAINGAMES

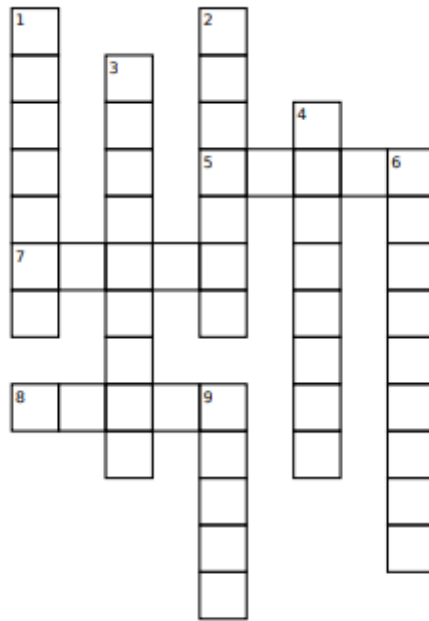
G N I P P O H S H S O F M O D
 B N R F G U Z Z D V A F W K Q
 B V L S U W S A C X G C L S F
 R D T S R L H H W V O T M B M
 B E V N N E X P G N D G U T N
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 O O Z Y A G W O A H W S V J H
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 A I J L U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

WORDSEARCH

HOLIDAY
 LEFTOVERS
 JOY
 SHOPPING
 FALL
 SNOW
 SEASONS
 HARVEST
 GRATEFUL
 DECORATIONS

CROSSWORD

NOVEMBER 15 AMERICA RECYCLES DAY



Down:

1. Food scraps can be recycled into this
2. Reduce, reuse, and _____
3. Buy these as rechargeable instead of disposable
4. When you recycle, waste does not end up here
6. It takes over 500 years for ____ to decompose in a landfill
9. Energy produced by the Sun

Across:

5. It takes 200-500 _____ for an aluminum can to degrade in a landfill
7. _____ is the most recycled material in the world
8. Each ton of paper recycled saves 17 _____

Glucagon-like Receptor-1 agonists for obesity: Weight loss outcomes, tolerability, side effects, and risks

Wissam Ghusn, Maria D.Hurtad

Abstract

This review investigates the side effects of glucagon-like peptide-1 receptor agonists (GLP-1RAs) like liraglutide, semaglutide, and tirzepatide, medications known for their efficacy in promoting weight loss among individuals with obesity. The rationale is rooted in understanding the balance between their therapeutic benefits and associated risks.

This was a comprehensive clinical review, including systematic reviews, meta-analyses, randomized controlled trials (RCTs), and cohort studies. Data were extracted from databases such as PubMed, Scopus, Embase, MEDLINE, and Google Scholar, focusing on the tolerability, severity, and risks of these medications.

GLP-1RAs demonstrated significant weight loss outcomes. In clinical trials, liraglutide showed a placebo-corrected weight loss of around 5 %, semaglutide 12 %, and tirzepatide 18 %. Common side effects were predominantly gastrointestinal, including nausea, diarrhea, constipation, and vomiting. Rare serious adverse events included gallbladder disorders and acute pancreatitis. In addition, multiple studies identify new risks associated with GLP-1RAs including increased aspiration risk during anesthesia due to delayed gastric emptying and challenges with bowel preparation for colonoscopies.

While GLP-1RAs are effective in managing obesity, their use is associated with gastrointestinal side effects and rare but serious adverse events. The findings underscore the importance of individualized dosing and thorough patient assessment. Continuous research and vigilant monitoring are essential to optimize their safe use. Further studies are needed to refine guidelines, particularly regarding new concerns such as delayed gastric emptying and its implications for anesthesia.

GLPI-RA	Liraglutide	Semaglutide	Tirzepatide
Weight loss	9%	15%	20%
Common side effects	Nausea, diarrhea, constipation, vomiting		
Serious/rare side effects	Gastroparesis, gallbladder and biliary diseases		

Crossword Answers:

- 1. Compost
- 2. Recycle
- 3. Batteries
- 4. Landfill
- 5. Years
- 6. Styrofoam
- 7. Steel
- 8. Trees
- 9. Solar

<https://www.sciencedirect.com/science/article/pii/S2667368124000299>

Ghusn, Wissam, and Maria D. Hurtado. "Glucagon-like Receptor-1 Agonists for Obesity: Weight Loss Outcomes, Tolerability, Side Effects, and Risks." *Obesity Pillars*(2024): 100127.

Administration/Vital Records/Environmental

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Monday 8:30am - 4:30pm
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Wednesday 8:30am - 4:30pm
Thursday 8:30am - 4:30pm
Friday 8:30am - 4:30pm
Saturday - CLOSED
Sunday - CLOSED

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