2026-27: Top EBM Updates From The Medical Literature

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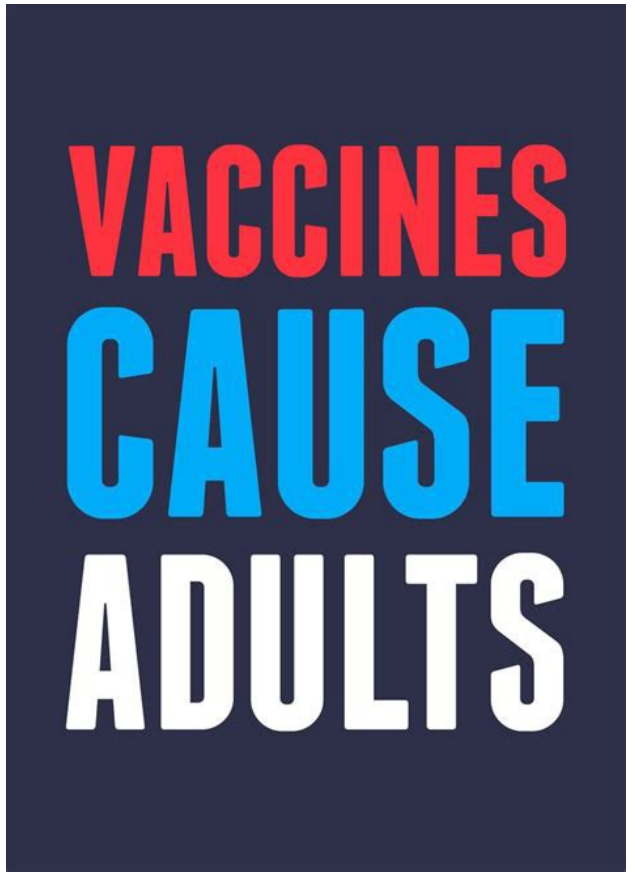
PODCAST: **Frankly Speaking About Family Medicine**

By the end of this session, the learner will:

1. Consider practice changing data that can applied to your patients the next day.
2. Help understand and interpret the medical statistics from these studies into plain language.
3. Be reminded of the need to keep a skeptical approach to new findings in the medical literature.



Disclosure

- Editor: 5 Minute Clinical Consult
- Author: Manual Medicine for the Allopathic Team
- Open Evidence: Advisory Board
- Conference Chair & Podcast Host: Pri-Med's *Frankly Speaking About Family Medicine*

OpenEvidence®

Frankly Speaking
About Family Medicine

US Peri-Natal Mortality 2018 to 2023: Why US Women Die

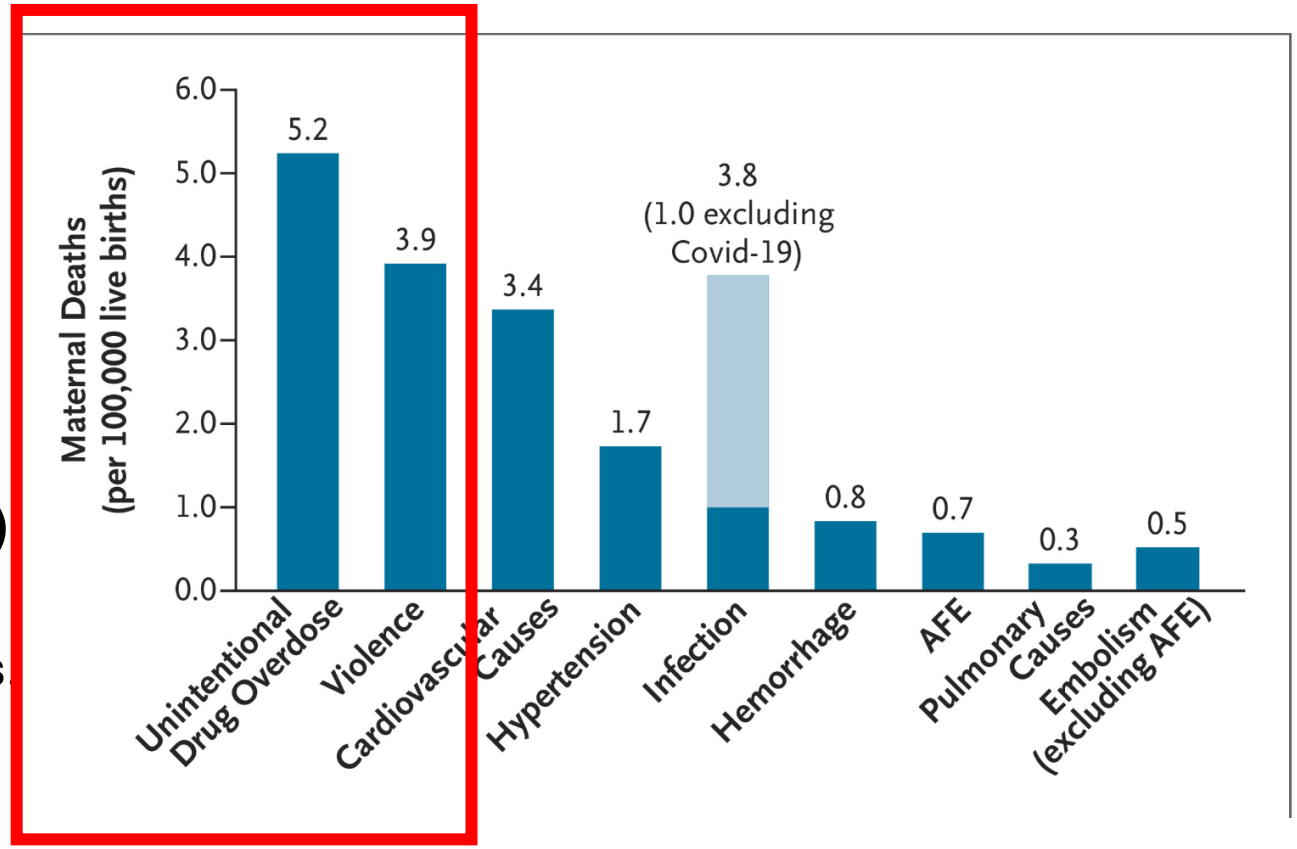
- **US Highest Maternal Death** rate of High-Income Countries
- Previous data NOT include deaths from Overdose, Suicide or Homicide
- All deaths in pregnancy thru 6 weeks PP →

  1580/year, 4.3/day
- **34/100,000→ Doubling** of rate vs prior CDC
- Leading cause of death was:

1. Unintentional overdose (1152 deaths, **~15%)**

2. **Violence** (homicide or suicide, 866, **11%).**

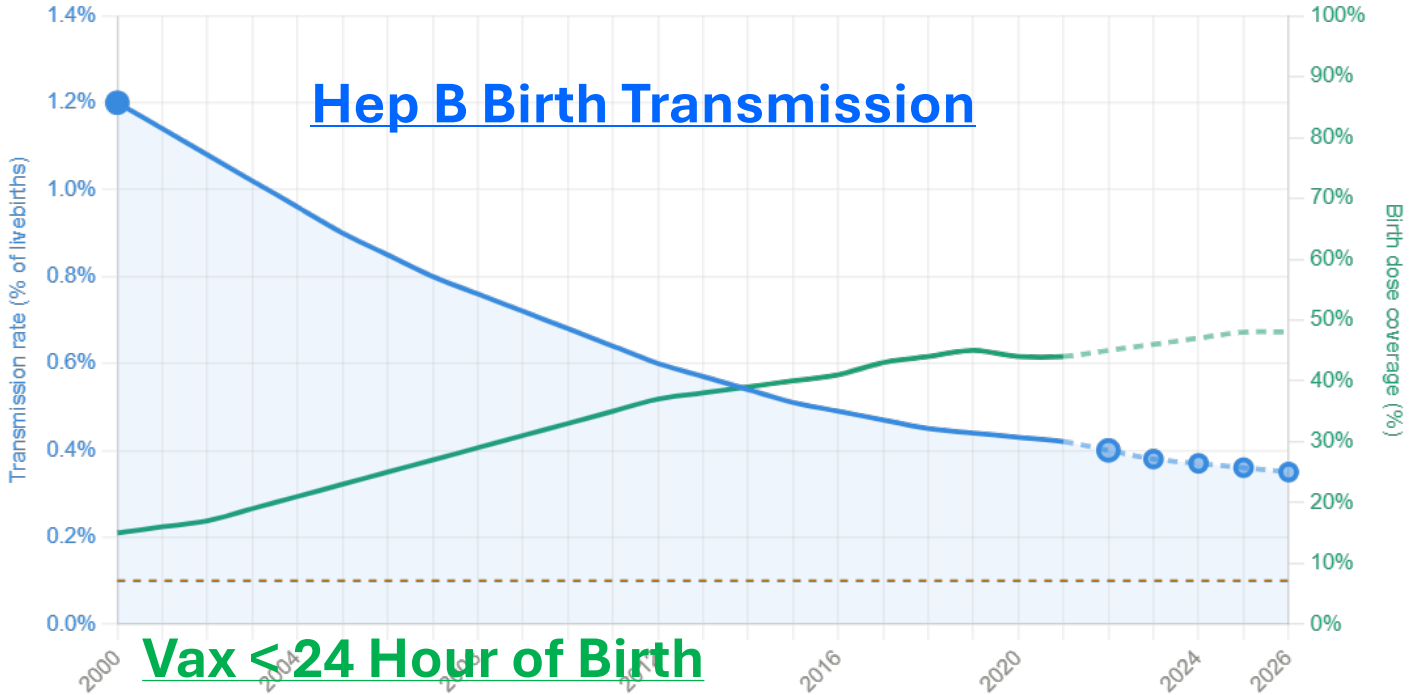
- Firearms: ~80% of homicides, 40% of suicides
- CV events, HTN, infection, and hemorrhage combined for 2141 deaths (27%)



NEJM 2026 Feb 12; 394:722. DOI: 10.1056/NEJMc2512078.

Hepatitis B Vaccine in 1st 24 HOURS
↓ Transmission to < 1%

- Hep B: vertical transmission → cirrhosis & hepatocellular cancer
- Europe: UNIVERSAL Health Care; <u>everyone</u> gets Pre-Natal Care and <u>everyone</u> is screened;
- **~20% of US Births are to Under or Uninsured → <u>Late/No Prenatal Care</u>**
- **Vax at birth best potential to prevent transmission**



~90% of perinatally infected infants develop chronic infection; ~ 25% of those will die prematurely from cirrhosis or liver cancer
JAMA Pediatr. 2026.
doi:10.1001/jamapediatrics.2026.1221

Vaccine Presidential Executive Order

- Separating MMR vaccine into 3 single-disease vaccines *and "administering <u>all childhood immunizations at separate</u> appointments whenever possible."*
- Vaccinate for 11 diseases, ↓from 18
- <u>No longer recommended by the CDC:</u> Hepatitis A, Hepatitis B, Rotavirus, Meningococcal disease, Influenza & Covid-19

<u>Results:</u>

--No lower risk of Febrile Seizures

--Higher Costs

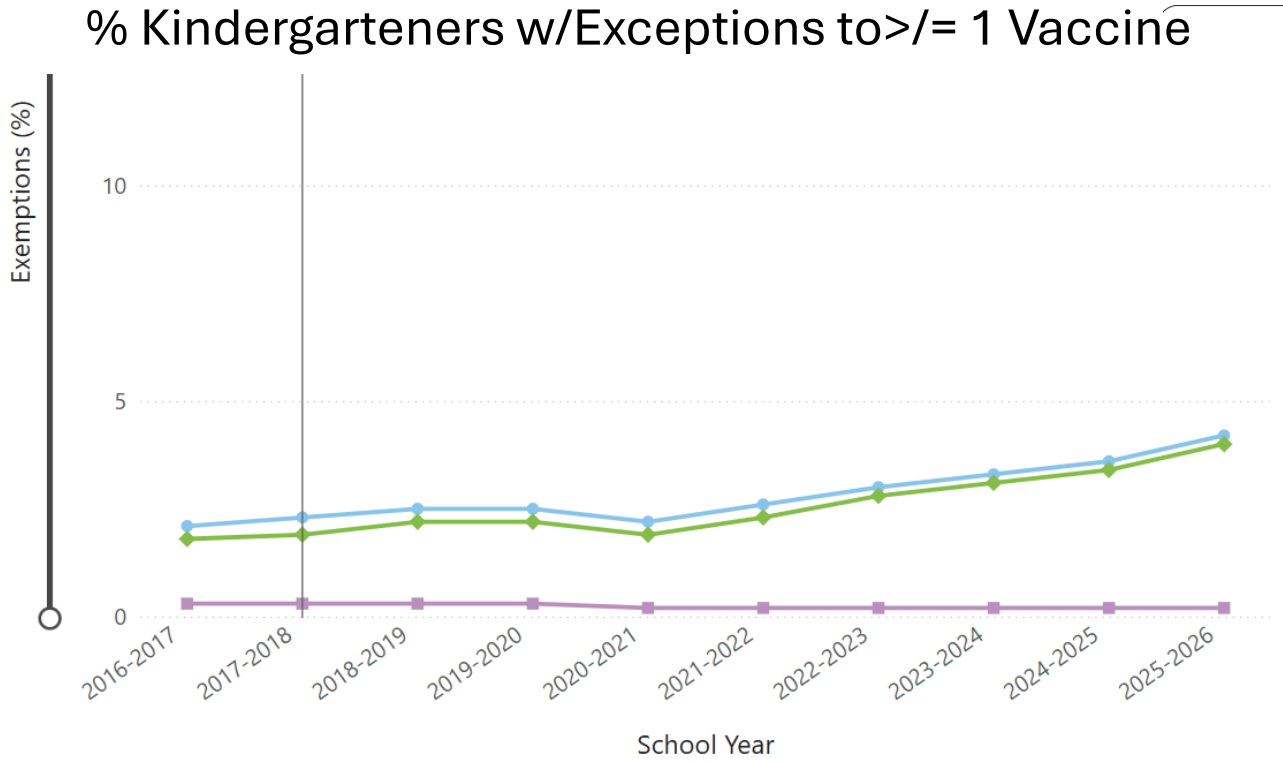
--Higher Measles, Mumps & Rubella

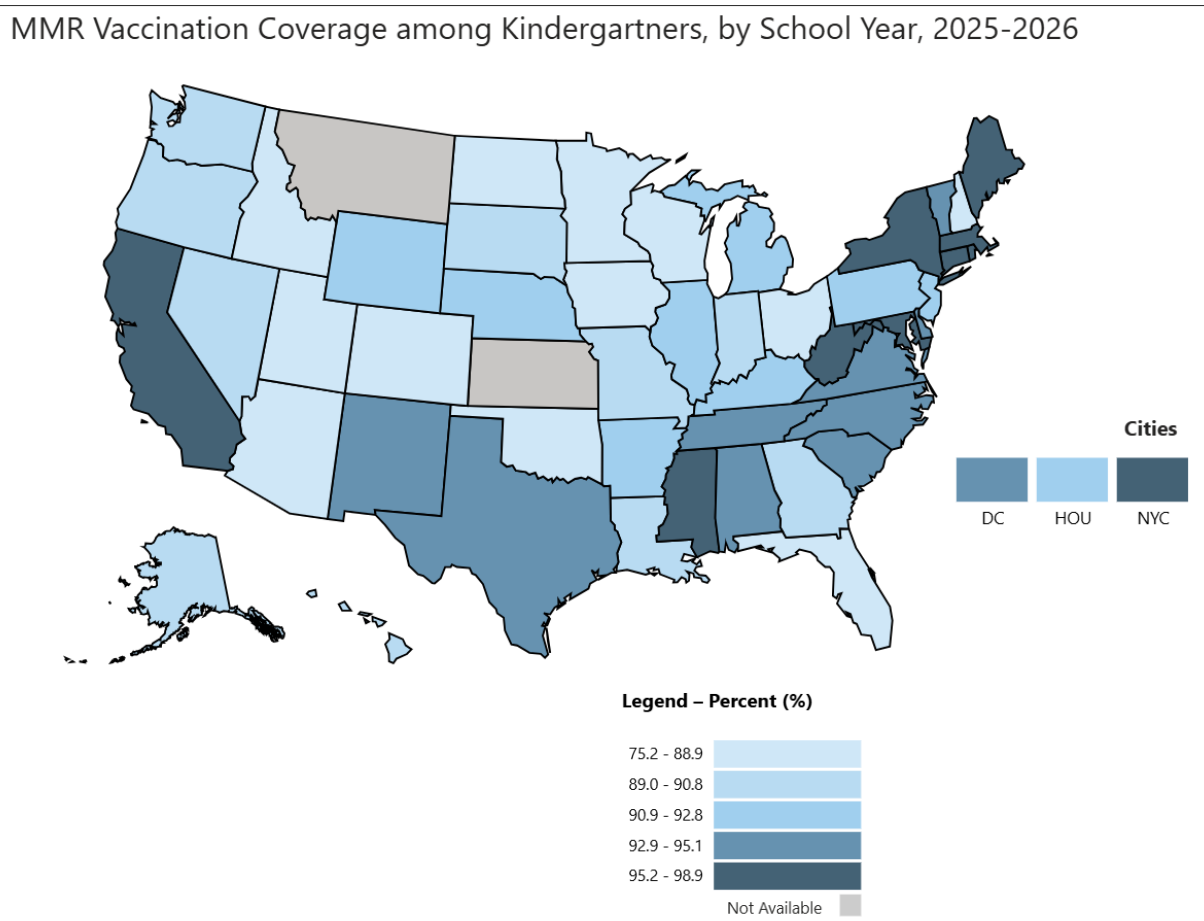
--Dehydration & Death from Rotavirus

--Meningitis, Flu, COVID

1. CDSR: DOI: 10.1002/14651858.CD004407.pub5.

% of Kindergartners w/ Vaccine Exceptions Entering School at Record High





[Vaccination Coverage and Exemptions among Kindergartners | SchoolVaxView | CDC]

Chatbot will See You… Anytime you Want
~ 20% of Adolescents

- 2025: survey 1,009 12 to 21 years, 56.5% female; median 17 Yrs
- ~20% used AI chatbot for mental health advice. ↑~12.5% 2024
- 42.8% once a month, 10.8% weekly, ***5.8% almost daily***
- 91.7% found advice to be *somewhat* (66.7%) *or very helpful* (25%
- Black: aOR, 5.45; Hispanic aOR= 2.20 vs White 1.0
- *63.3%* ***not told anyone*** *using chatbot:* ***SO ASK!***

Alongside
(School)

Flourish

JAMA Pediatr. 2026;180(8):884–890. doi:10.1001/jamapediatrics.2026.2015

- **988 Suicide/Crisis Lifeline:** Call or text **988 & ASK**

Ash


LOOKS LIKE I
PICKED THE WRONG WEEK
@denooky1
TO QUIT SNIFFING GLUE
ifunny.co


AIRPLANE!

Teens & Inhalant Use Disorder

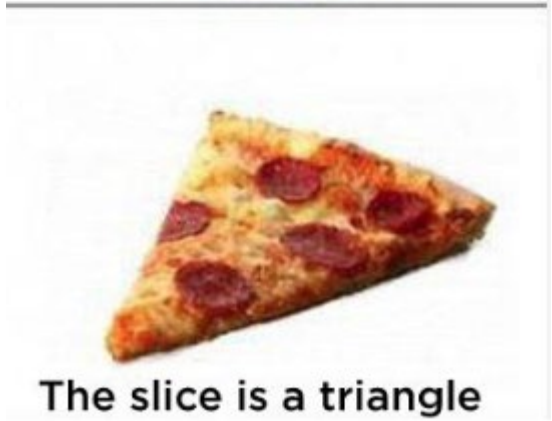
- Inhalants: invisible, volatile substances (glue, paint thinners, aerosol sprays, nitrous oxide)
- 2025: 30 videos (TikTok, YouTube) re: nitrous oxide –**averaged 23 million views**.
- 16.7% showed use, 10% promoted free trials. Messengers: **Male** (70%) and **Black** (73.3%)

  J of Studies Alcohol Drugs, 2026; https://doi.org/10.15288/jsad.25-00301

- 2026: Study analyzed data from a national survey on drug use; >33,000 teens 2021-2023.
- **2.2% of teens reported Inhalant use in past year**, = **>500,000 U.S. adolescents**, 0.70% reported past-month use, and 0.3% met criteria for inhalant use disorder (IUD)
- *Stealing* (largest) then Tobacco, then Fighting: association with IUD.
- **Females & Younger adolescents** (ages 12–13) had higher odds of IUD compared to males.

  Preventive Medicine, 2026, 208:https://doi.org/10.1016/j.ypmed.2026.108567.

Things That Do NOT Make Sense



"This practice must discontinue ASAP"

Kate Canales

https://youtu.be/5CvlKCBrPHI?si=tbRdExlK8WrVww3W

5/26: FDA Approves Fruit Flavored Vapes

"safer than cigarettes"

AP Follow

FDA's e-cigarette authorization: Fruity vapes not significantly better than tobacco ones

MATTHEW PERRONE
Updated Thu, June 11, 2026 at 8:35 AM MDT
3 min read

Add Yahoo on Google 5

IN-STORE MERCHANDISE

8/26

FDA Authorizes 4 New on! Nicotine Pouches

Yea, but is it Legal?

At what age can you legally buy tobacco products: Cigarettes, e-cigarettes, Fruit Flavored Vapes and nicotine pouches?

- 21 Years
- 20 Years
- 18 Years

Answer: Age 21 for Nicotine & EtOH

- Survey US **caregivers** of adolescents aged 10–19 years
- "What is the federal minimum legal age (MLA) to purchase the following products in the US?" for cigarettes, e-cigarettes/vapes, nicotine pouches (eg, Zyn), and alcohol"

- Percent Correct (**21 years**):
- E-Cig & All Vapes: 47.1% (CI, 44.9–49.2)
- Cigarettes: 47.7% (CI, 45.5–49.8)
- Nicotine Pouch: 46.7% (CI, 44.5–48.8)
- Alcohol: 81.6% (CI, 79.9–83.2)

- Most common incorrect response for each product was age 18 years

Pediatrics 2026; e2025074761. 10.1542/peds.2025-074761

School Night Screen Use

- Minimum of >/= 8 hours of sleep recommended for adolescents.
- Survey: 657 adolescents (15.29 years; 59.1% male)
- School night (Sun-Thur) Smartphone use: (10:00 PM- 6:00 AM)
- **Adolescents $\bar{x}$=50 minutes** use during school nights
- **Social Media**, Entertainment, Games, Communication, & Music.
- 52.1% used smartphone in ***middle* of the night**; **23.7minutes**.

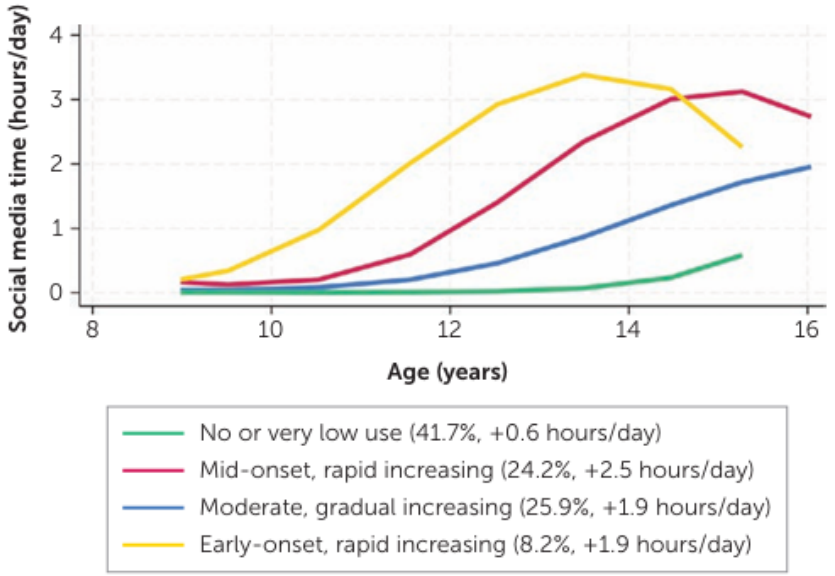
JAMA Pediatr. Published online May 18, 2026. doi:10.1001/jamapediatrics.2026.1707

Screen Time & Substance Use
It's When They Start

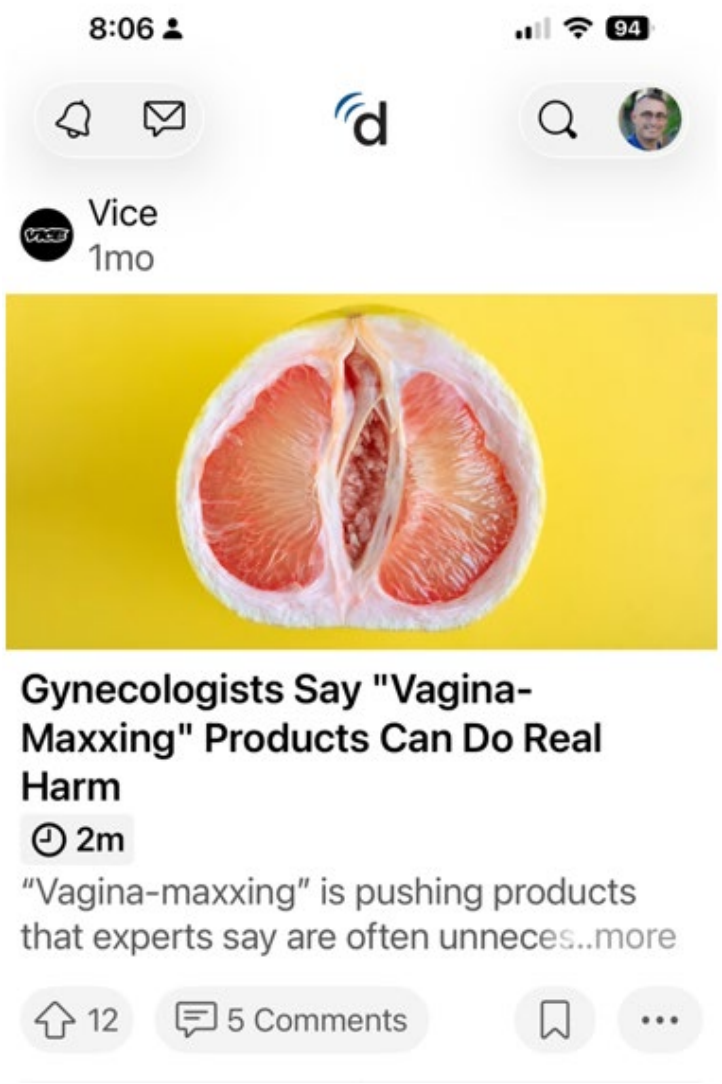
- Prospective 7,166 Adolescents (x=10 years; 48% female) @ (9-11) to year 5 (13-16) on **Social Media use & Substance Use**
- Alcohol, cannabis, and nicotine experimentation were assessed at year 5
- For **Early-Onset, Rapidly Increasing SM** use →
- Alcohol experimentation: OR=3.18 (2.34, 4.
- **Nicotine** experimentation: **OR 14.02** (8.46, 23.22)
- **Cannabis** experimentation: **OR=16.86** (10.28, 27.65) (all p<0.001)

Am J Psych 2026; https://doi.org/10.1176/appi.ajp.20251292

FIGURE 1. Social media time trajectories from ages 9 to 16 among participants in the Adolescent Brain Cognitive Development Study[a]



- **Monitor the Future 2026: 12% of Adol used MJ in previous 30 Days**
- ****Ask: IUD/MJ/Vaping, Screen Time at Night and Chatbot Use****



Thought

VOICE

Vagina-Maxxing

Social media trend pushing women to alter the appearance, smell, tightness, or general perceived attractiveness of their vulva and vagina

Looksmaxxing

Clavicular, online influencer (Braden Eric Peters) admitted to hitting his own face with a hammer as part of a **Looksmaxxing** practice called

“bonemashing”

Looksmaxxing?

↑Creatine Use: Better than Steroids

Creatine:
Combined 3 Amino Acids:
arginine, glycine, and methionine
To enhance physical ability
and appearance.

In Teens, Steroid Use is Down, Creatine is UP

- Annual cross-sectional national survey of US 8th-, 10th-, and 12th-grade students; 870,000+ surveyed; 50.9% female; 53.0% White
- Between 2019-24:
- Steroid use declined from 2% to < 1%
- Creatine use DOUBLED:
  Males: 8.71%->16.57% Females: 1.22%-> 3.27%

Ann Epidem 2026;
https://doi.org/10.1016/j.annepidem.2026.110107

FDA panel narrowly backs unapproved peptide drugs favored by RFK Jr. and wellness influencers

- ***BPC-157** (Body Protection Compound 157) synthetic peptide derived from human gastric juice, **tissue repair, gut healing**, and anti-inflammatory effects
- ***TB-500** (veterinary use in racehorses & greyhounds): wound healing.
- ***KPV: Wound Healing and IBD**
- ***MOTS-c**, (from mitochondrial DNA): obesity and osteoporosis
- ***Semax:** (**Russia: attention and memory** formation)
- ***Epitalon:** (**pineal extract from cattle): insomnia**
- **May be Compounded Legally**

Frankly Speaking
About Family Medicine

***None of these 6 peptides have robust RCT data in humans.**

5/11/26


Play To Win
CASINO
REAL
MONEY
GAMES!


BEST ONLINE CASINO
APPS

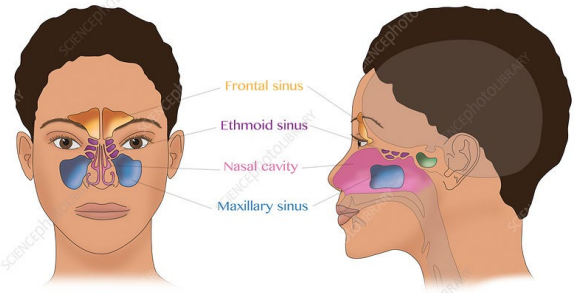
Gambling Addiction:

- 2018: 1 State: Legalized sportsbook betting (gambling); ~$5 BILLION
- 2025: 40 states, with mobile & online betting → > **$121 BILLION (24x↑)**
- RF: male, single, living alone, low level of education, single parent household, + parental addiction problems
- APA Screen: **Lie/Bet Questionnaire** (Lie, Stop Betting)
- Treatment: CBT/MI, Naltrexone, ? GLP1.

Apps: Gambling Addiction Calendar Reset

JAMA Intern Med. 2025;185(4):382–389. doi:10.1001/jamainternmed.2024.8193

Acute Sinusitis: Best Treatment?



- 2012, IDSA recommended amoxicillin/clavulanic acid (***low-quality evidence)***
- 2026: Retrospective analysis >230,000 adults: amoxicillin ***as effective*** VS amox/clav
- Amox/clav TRIPLED rate diarrhea (NNH = 10), doubled *C diff* infection,
  → 40% more vaginal yeast infections.

  JAMA. 2026;335(19):1694–1705. doi:10.1001/jama.2025.26902

- Diagnostic criteria for acute sinusitis (2025 AAO-HNS guideline and IDSA)
  Antibiotics Indicated only if :
  - Persistent symptoms ≥10 days without improvement
  - Severe symptoms for ≥3 consecutive days—fever >39 °C (102 °F), purulent nasal discharge, and facial pain
  - *"Double worsening"* symptoms initially improve then worsen after 5-10 days

  - 2026 Retrospective Study of 1000 encounters with Acute Sinusitis Dx
    Abx Given in 80.2% of Encounters that did not meet criteria.

    Antimic Steward & Healthcare Epid. 2026;6(1):e193. doi:10.1017/ash.2026.10743

Which LOWERS ALL-CAUSE MORTALITY in the General Population?

- Mammography for Breast Cancer
- Colonoscopy or Stool testing for Colon Cancer
- PSA Testing for Prostate Cancer
- Lp(A), ApoB, hsCRP testing for premature CVD
- High Dose Influenza Vaccine
- Lifestyle Modification

What Does Lower All-Cause Mortality

- **Lifestyle: "Largest magnitude of all-cause mortality reduction" 12–14 additional years of life expectancy**
  - Physical Activity (150 MVPA/week)
  - Mediterranean Diet (high Fruit/Veg, EVOO)
  - BMI < 25, Limit EtOH, Reduce Sedentary Behavior

    Circulation. 2018 Jul 24;138(4):345-355.

- Pharmacologic:
  - Anti-Hypertensives & Statins

    Health Technol Assess. 2025 Jul;29(37):1-65. doi: 10.3310/RLDH7432
  - Flu & Pneumo. Vax, Measles Vax in Children, COVID Vax

    Cardiology. 2021;146(6):772-780. doi: 10.1159/000519469
  - SGLT2i, GLP1 in Diabetes

    J Am Geriatr Soc. 2022 Feb;70(2):415-428. doi: 10.1111/jgs.17521

Magnitude: What Reduces All-Cause Mortality

Intervention	All-Cause Mortality Reduction	Population
5 healthy lifestyle factors combined	74% (HR 0.26)	General population
Physical activity (aerobic + strength)	40% (HR 0.60)	General population
Smoking cessation	56% relative reduction	General population
Antihypertensives	18% (RR 0.82)	Primary prevention
Statins	8% (RR 0.92)	Primary prevention
SGLT2 inhibitors	14% (RR 0.86)	Type 2 diabetes
GLP-1 receptor agonists	12% (RR 0.88)	Type 2 diabetes
ARNi	25% (HR 0.75)	HFrEF
Beta-blockers	22% (HR 0.78)	HFrEF
MRA	24% (HR 0.76)	HFrEF
Influenza + pneumococcal Vax	54% (RR 0.46)	Cardiovascular disease
Sigmoidoscopy screening	2% (RR 0.98)	General population

CRC Screening

- All CURRENT modalities **reduce CRC-specific mortality to a similar degree** but….**None demonstrated reduction in all-cause mortality**.
  Int J Cancer. 2025 Jul 1;157(1):126-138. doi: 10.1002/ijc.35381
- **Annual FIT most cost-effective strategy;** colonoscopy, mt-sDNA > $$$.

- **Colonoscopy**: → **↓~26 CRC deaths per 1,000 screened** (ages 45–75)
  NEJM 2022; **DOI: 10.1056/NEJMoa2208375**
- **Fecal Immunochem. Testing: ↓ 25 CRC deaths per 1,000 screened**
  Lancet. 2025 Apr 12;405(10486):1231-1239. doi: 10.1016/S0140-6736(25)00145-X.
- **mt-sDNA (every 3 years):** Higher sensitivity for CRC (92–95%) than FIT, ***but no direct mortality outcome data from trials***.

CRC Screening: PREVENTING Cancer is GOOD

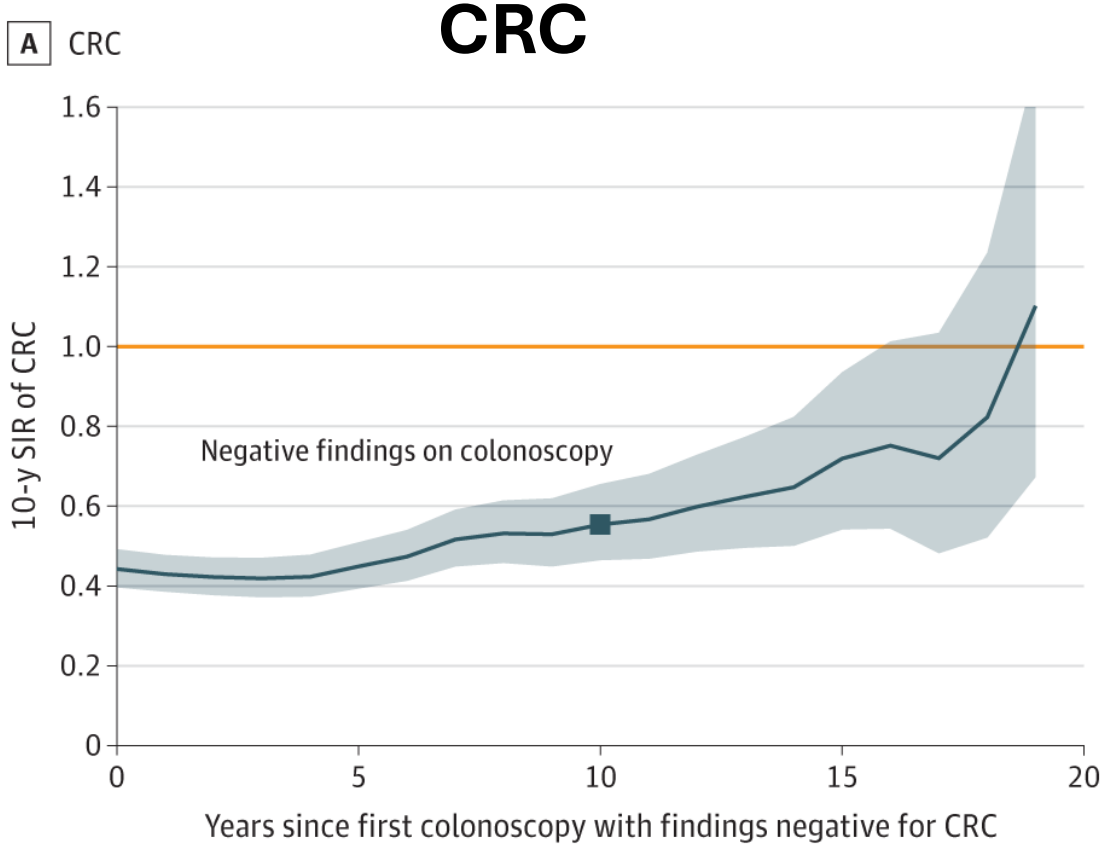
Characteristic	Cologuard (Multitarget Stool DNA Test)	Fecal Immunochemical Test (FIT)	References	**Colonoscopy**
Sensitivity for CRC	92.3%	73.8%	[1-2]	**1.0**
Sensitivity for Advanced Precancerous Lesions	42.4%	23.8%	[1-2]	**94%**
Specificity for CRC	86.6%	94.9%	[1-2]	**86%**
Detection Mechanism	DNA markers (methylated BMP3, NDRG4, mutant KRAS, β-actin) and hemoglobin	Hemoglobin	[1-2]	
Testing Frequency	Every 1-3 years	Annually	[1-2]	
Guideline Recommendations	Recommended by the American College of Gastroenterology and the US Multi-Society Task Force on Colorectal Cancer	Recommended by the American College of Gastroenterology and the US Multi-Society Task Force on Colorectal Cancer	[1-2]	

So, Maybe Do Colonoscopy First (Precancerous Lesions) THEN FIT or Cologuard

1. Am J Gastro. 2017;112(1):37-53. doi:10.1038/ajg.2016.492.
2. NEJM: 2024;390(11):984-993. doi:10.1056/NEJMoa2310336.
   Annals of Int Med. 2023;176(8):1092-1100. doi:10.7326/M23-0779

After First Negative Colonoscopy; What To Do? Colorectal Cancer (CRC) Incidence Ratio (SIR) and Mortality Ratio (SMR)

CRC

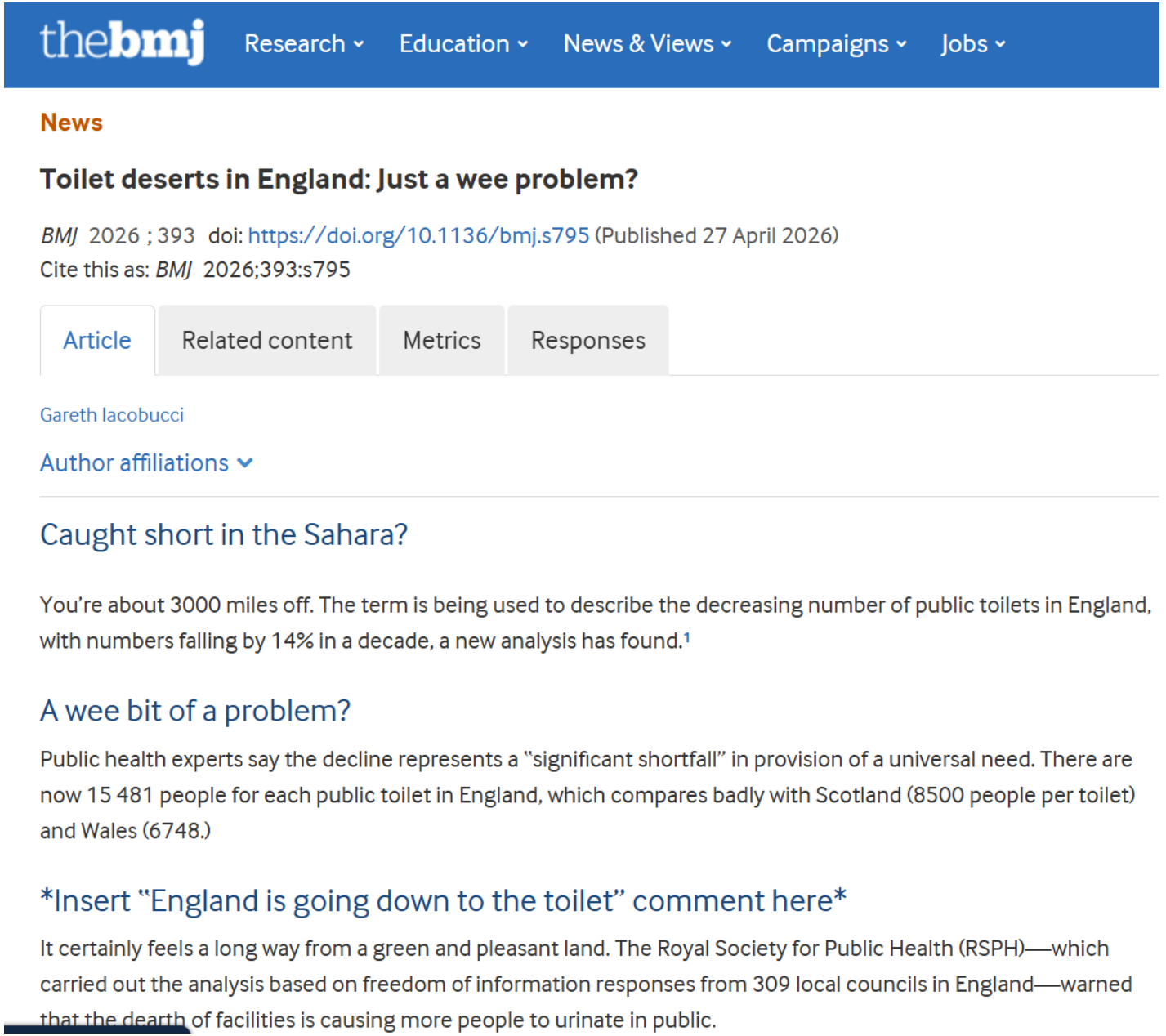


JAMA Oncol. 2024;10(7):866–873. doi:10.1001/jamaoncol.2024.0827

“A Wee Problem”

	PPT*
Wales:	6,748
Scotland:	8,500
England:	15, 481

**Persons Per Toilet*



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News

Toilet deserts in England: Just a wee problem?

BMJ 2026 ; 393 doi: https://doi.org/10.1136/bmj.s795 (Published 27 April 2026)
Cite this as: *BMJ* 2026;393:s795

Article | Related content | Metrics | Responses

Gareth Iacobucci

Author affiliations

Caught short in the Sahara?

You’re about 3000 miles off. The term is being used to describe the decreasing number of public toilets in England, with numbers falling by 14% in a decade, a new analysis has found.[1]

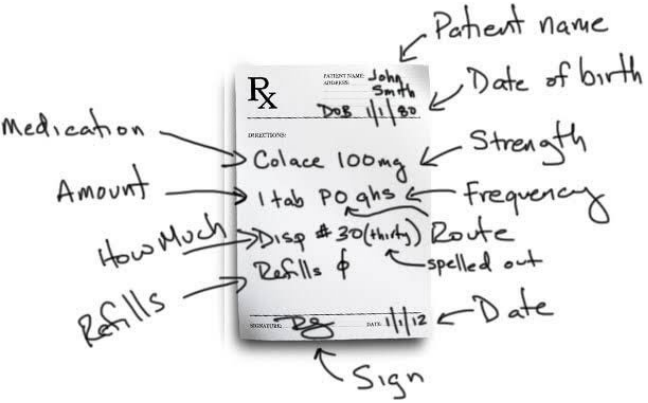
A wee bit of a problem?

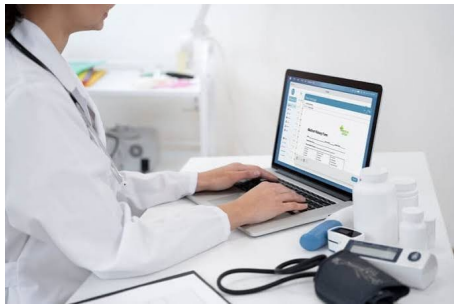
Public health experts say the decline represents a “significant shortfall” in provision of a universal need. There are now 15 481 people for each public toilet in England, which compares badly with Scotland (8500 people per toilet) and Wales (6748.)

Insert “England is going down to the toilet” comment here

It certainly feels a long way from a green and pleasant land. The Royal Society for Public Health (RSPH)—which carried out the analysis based on freedom of information responses from 309 local councils in England—warned that the dearth of facilities is causing more people to urinate in public.

Debunking “AI Deskilling” & Hallucinations: AI in Clinical Practice





- **<u>Deskilling</u>**: reduce needed skill level; **<u>(TPN)</u>**
- **<u>AI Scribe</u>**: AI Scribing documents better typing or dictating. → **Improved HPI & ROS, improved coding**; No Deskilling; just “New Skilling”

- **<u>Hallucinations</u>**: computer model makes up false or incorrect information & presents it with confidence;
- **<u>Human-in-the-loop (HITL)</u>** person guiding, fixing, or approving work of an automated or AI system

- AI cannot put in an IUD or (so far) able to get a reluctant adolescent to talk or help a new parent or reassure someone as their loved one is dying.
- **<u>We need to be that person.</u>**

Multicancer Early Detection Testing?
MCED: Does NOT lower All-Cause Mortality

- MCED detect **circulating cell-free DNA (cfDNA)** in peripheral blood; **"cancer signals"** across >50 cancer types
- **High specificity (>96-99%); Sensitivity *variable* & lower early-stage cancers**

- **2023:PATHFINDER Trial**: (Grail) 6621 participants; Positive result in **1·4%** (92)
- **True +: ~38%** (35 diagnosed w/cancer); **False + 62%** (57) no cancer diagnosis

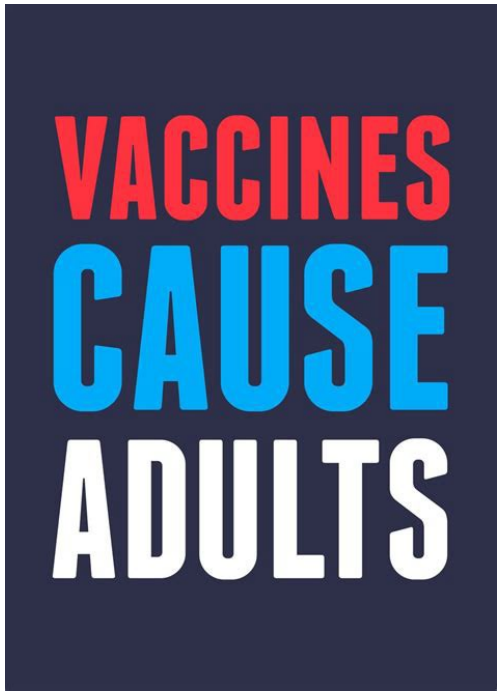
Lancet. 2023 Oct 7;402(10409):1251-1260. doi: 10.1016/S0140-6736(23)01700-2

- **2025: "Real-world Trial"(**Grail) >110,000 tests →**+ 0.91%** (1011/111,080)
- Reported outcome for ONLY 459 of 1011 (45%) individuals with + MCED tests
- Estimate Specificity of 99.5% (False Negative Rate 0.5%)
- 258/459 had an invasive cancer → **True +: 56%; False + 44%**

Nat Commun. 2025 Oct 31;16(1):9625. doi: 10.1038/s41467-025-64094-7

COVID Vaccines are SAFE AND EFFECTIVE

- 2025-26 COVID vaccines reduced risk for hospitalization by 55% & Death ~75%
  JAMA Netw Open. 2026;9(6):e2625152. doi:10.1001/jamanetworkopen.2026.25152
- Dr. Jay Bhattacharya, NIH director & Acting CDC Director prevented effectiveness paper
- **Jeremy Faust, MD, MS,** Brigham and Women's Hospital

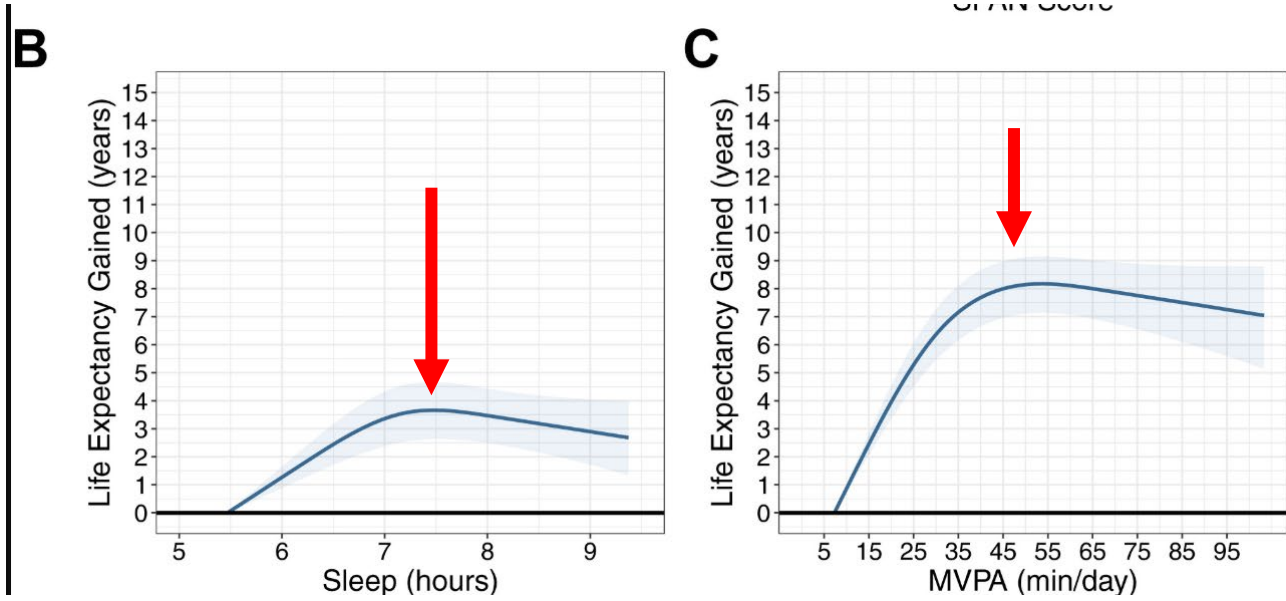


Lifestyle Counseling Failure…

Increase your Life SPAN
Small Changes COMBINED → Huge Impact

- Cohort study (UK): smart watch for 7 days on **Lifespan** & ***Healthspan***.
  - Adding **5 min/day of sleep, ~2.0 min/day MVPA, and an additional ½ serving of vegetables/day adds → ↑ 1 year of lifespan** (95% CI: 0.69, 1.15)
  - Adding **24 min/day of sleep, ~4.0 min/day of MVPA, and 2 servings of vegetables/day → ↑ 4.0 Yr HEALTHSPAN** (95% CI: 0.50, 8.61)
  - Ideal SPAN Combo?
    7.2-8 hours of sleep/night, > 42 minutes per day of MVPA 8-10 servings of fruits/veg/day

eClinicalMedicine 2025: 103741

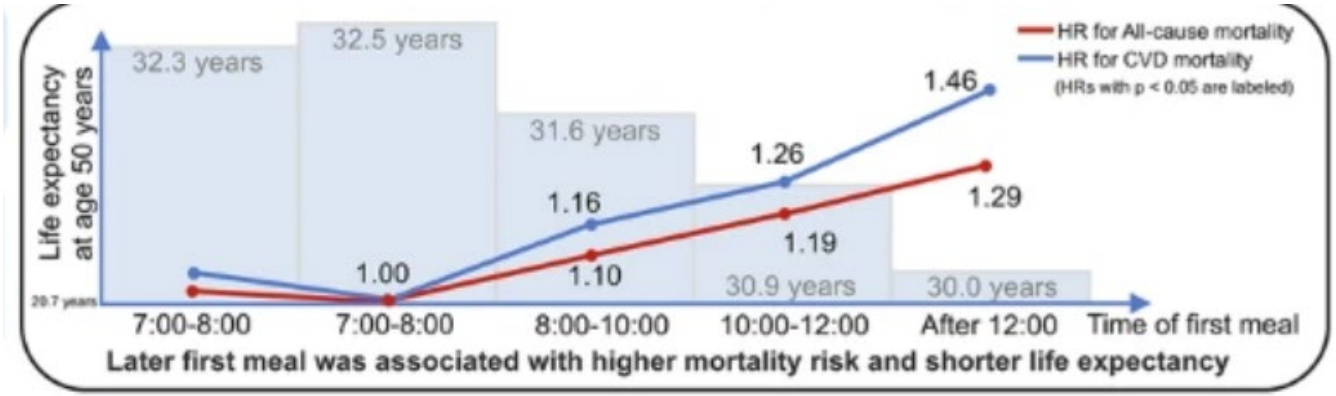


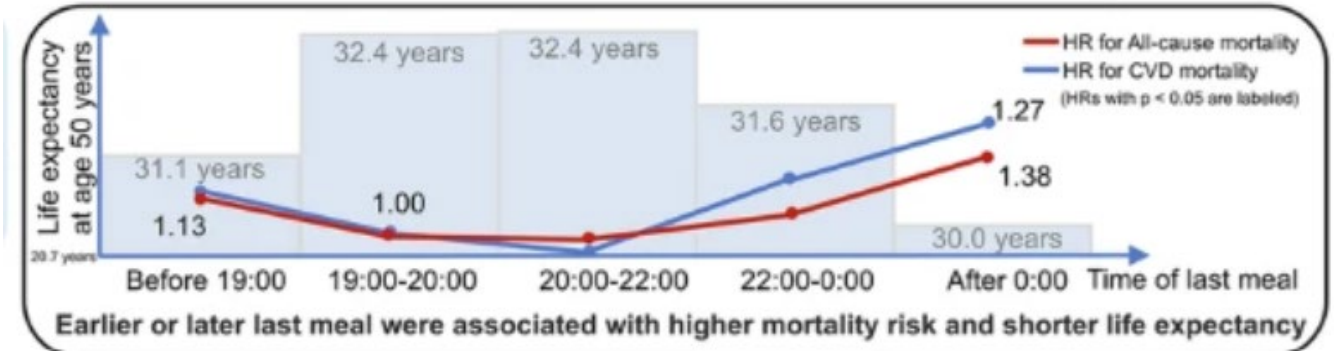
Breakfast BEFORE 8 PM; Dinner Before 8 PM

- Cohort 31,044 adults from NHANES; 1999–2018 x 8.6 Years
- Breakfast: After 8 AM→ ↑ACM & CVD Mortality:
  By 50, 1st meal after 12 Noon
  → 2.46 years shorter Life

- Dinner:
- 7-8 PM Lowest Risk

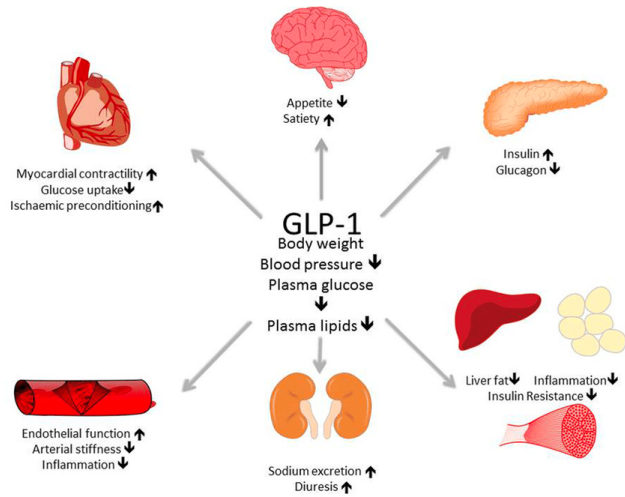
Eur J Clin Nutr (2026).
https://doi.org/10.1038/s41430-026-01796-1





Why EVERYONE will be taking a GLP-1 Agonist

- **In CVD (& no DM)**
- ↓ **All-cause mortality** HR 0.68; 95% CI 0.53 to 0.88; p = 0.003)
- ↓ Acute myocardial infarction HR 0.63; 95% CI 0.41 to 0.98; p = 0.040),
- ↓ Heart failure hospitalization HR 0.61; 95% CI 0.39 to 0.95; p = 0.028);
  Am J Cardiol. 2026 May 6;272:1-8. doi: 10.1016/j.amjcard.2026.05.004
- ↓ Atrial Fibrillation: (HR = 0.75; 95% CI, 0.64-0.88; *P* < .001)
- Treats MASH: J Clin Endocrinol Metab. 2025 Sep 16;110(10):2964-2979.
- Improves Knee Osteoarthritis & **Treats** Obstructive Sleep Apnea
- Addiction: ↓Alcohol, cannabis, cocaine, nicotine, & opioid use disorders (Cohort)
  Lancet. 2026 May 2;407(10540):1687-1698. doi: 10.1016/S0140-6736(26)00305-3
- **<u>In T2DM</u>**: Amputation rates (NNT 50), hospitalization, All Cause Mortality (NNT=25)
  J Am Heart Assoc. 2026 Jul 1:e045664. doi: 10.1161/JAHA.125.045664
- **In DM: ↓ All Cause Dementia**: (OR, 0.55 [95% CI, 0.35-0.86])
  JAMA Neurol. 2025;82(5):450–460. doi:10.1001/jamaneurol.2025.0360



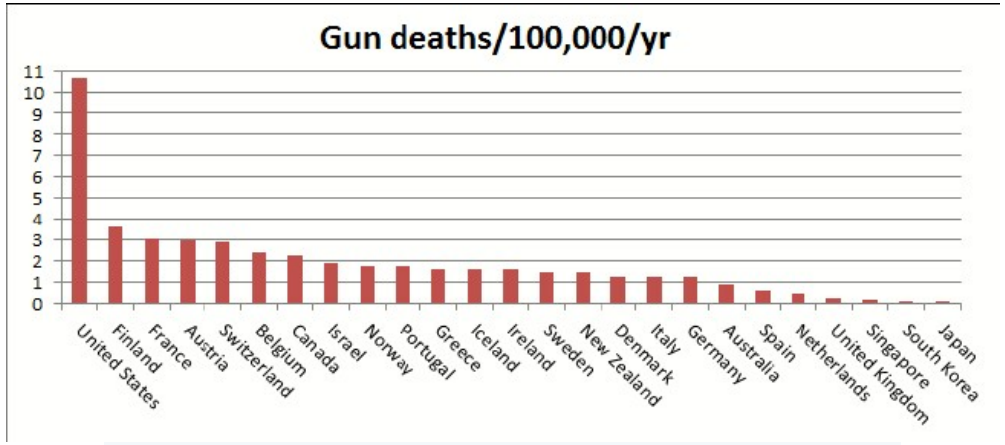
Good News

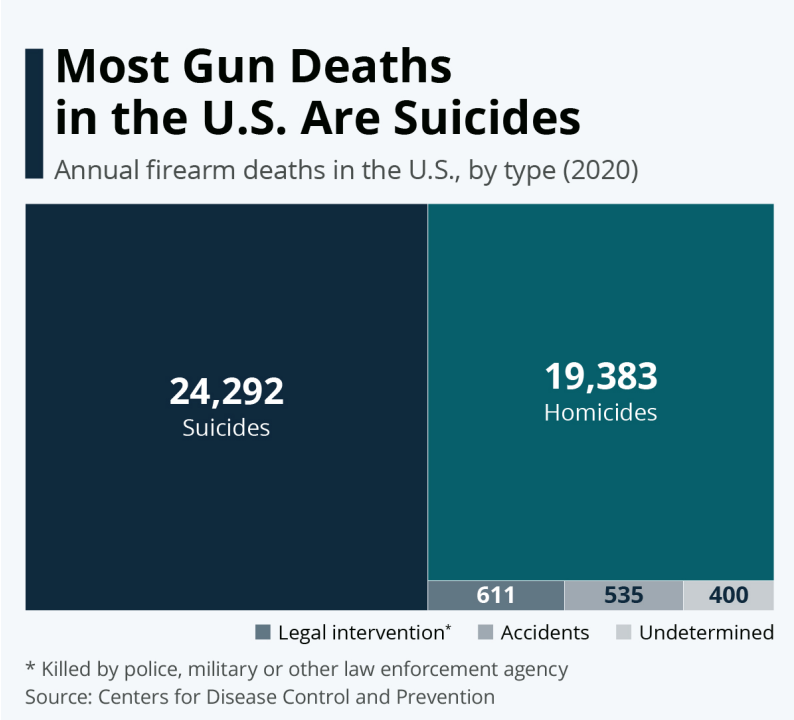
Bad News

WORSE News

- Good: Firearm deaths ↓ by 5% from 2023 to 2024 in the U.S
- Bad: ~44,447 Americans died of firearm injuries; **1 EVERY 12 Minutes** in US
- WORSE: Firearm suicides (27,593 or 75/DAY or **1 EVERY 19 Minutes**) All-time high; > Homicide
- Demographic For BOTH Homicide & Suicide: --Black, Asian, Pacific Islander, Hispanic/Latino & Women

https://publichealth.jhu.edu/sites/default/files/2026-07/2024-CGVS-gun-violence-in-the-united-states.pdf.





33% of Americans Cut Back to Cover Healthcare Expenses

Reported Trade-Offs to Pay for Healthcare Expenses

In the last 12 months, which of the following, if any, have you done to pay for healthcare or medicine? Select all that apply.

	U.S. adults (%)	Estimated millions of Americans
Prolonging current prescription	15	39
Borrowed money	15	38
Skipped a meal	11	28
Drove less	11	28
Cut back on utilities	9	23
One or more trade-offs	**33**	**82**

West Health-Gallup Center on Healthcare, June 9-Aug. 25, 2025

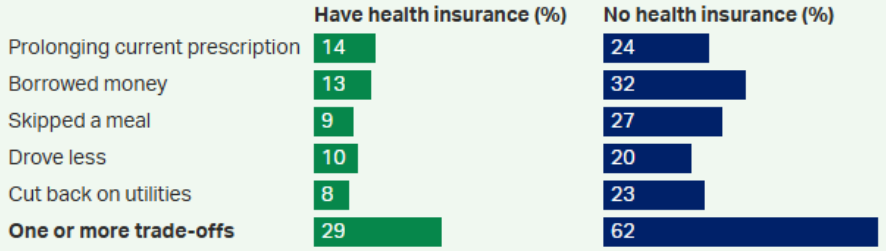
Estimated millions of Americans is derived from projection weights; it is an estimate, not an actual count or official record.

Get the data • Download image

GALLUP

Trade-Offs to Pay for Health Expenses, by Insurance Status

In the last 12 months, which of the following, if any, have you done to pay for healthcare or medicine? Select all that apply.



West Health-Gallup Center on Healthcare, June 9-Aug. 25, 2025

Eighty-nine percent of respondents report having insurance, while 8% report having no insurance and 3% say they "don't know." These figures are consistent with official federal statistics.

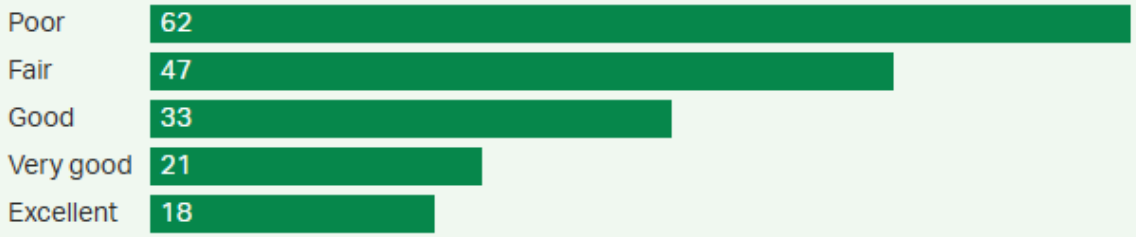
Get the data • Download image

GALLUP

Trade-Offs to Pay for Healthcare, by Reported Health Status

In the last 12 months, which of the following, if any, have you done to pay for healthcare or medicine? Select all that apply.

% One or more trade-offs, by self-rated health status

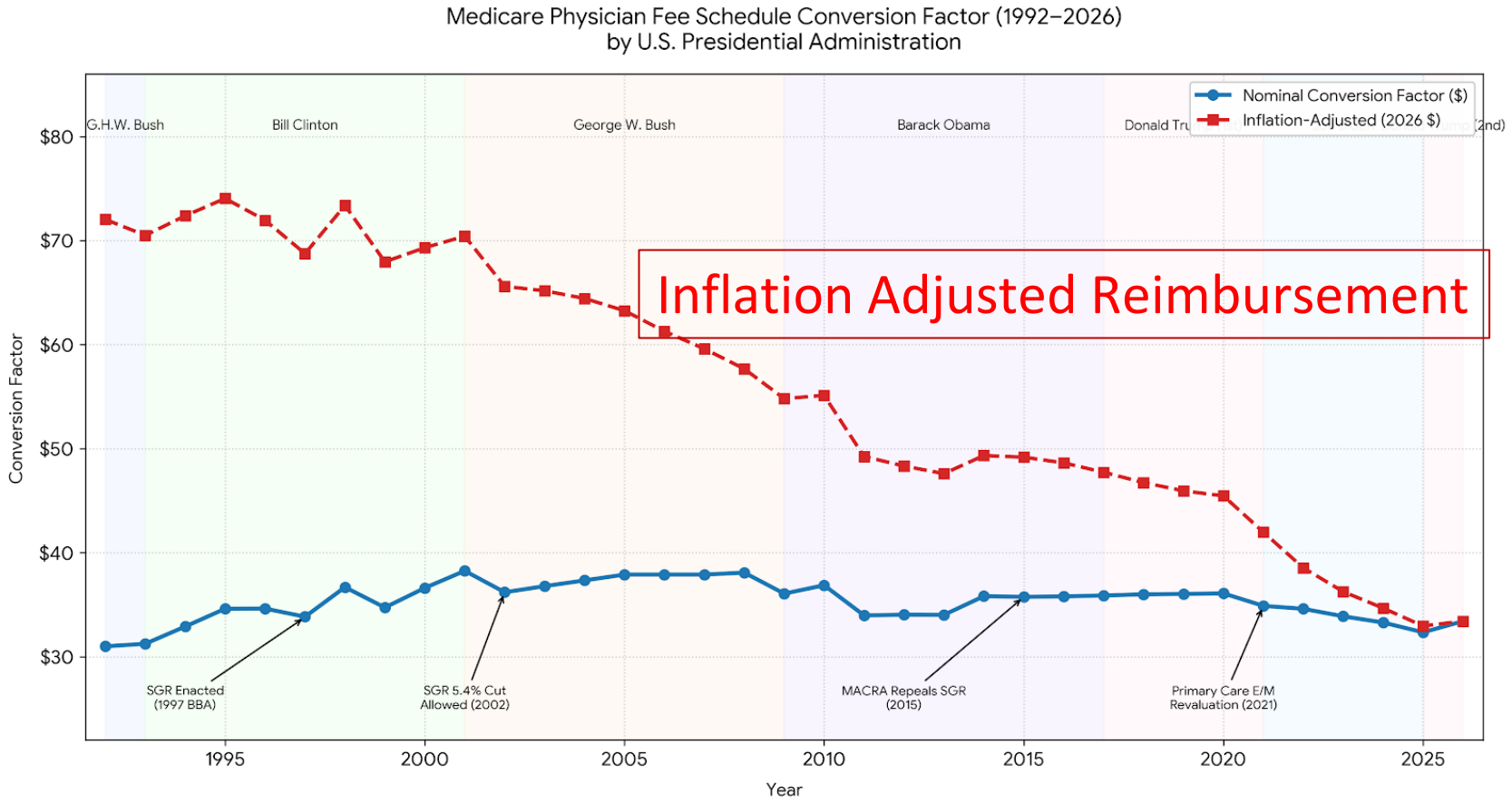


West Health-Gallup Center on Healthcare, June 9-Aug. 25, 2025

Get the data • Download image

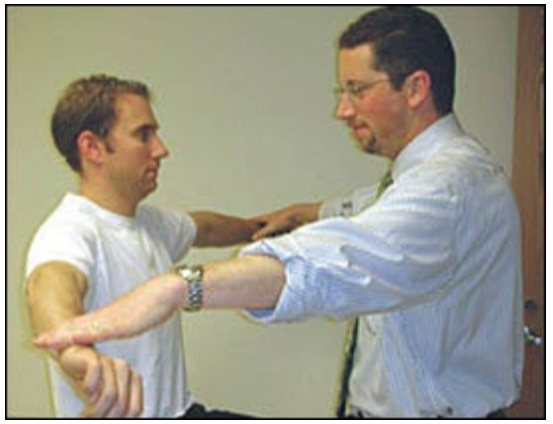
GALLUP

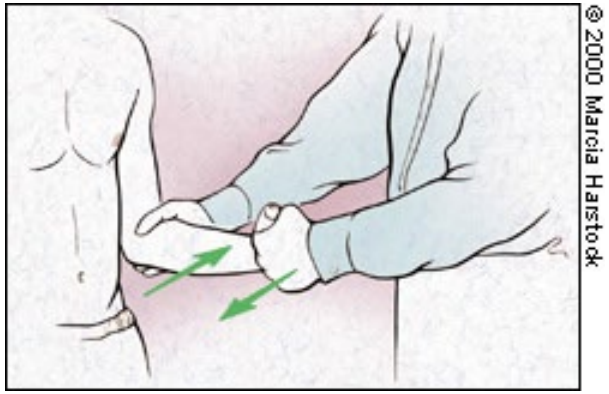
You Are Getting HALF of What You Used To….



Subacromial Pain Syndrome (SAPS)
Shoulder Impingement Syndrome, RTC Tendonitis

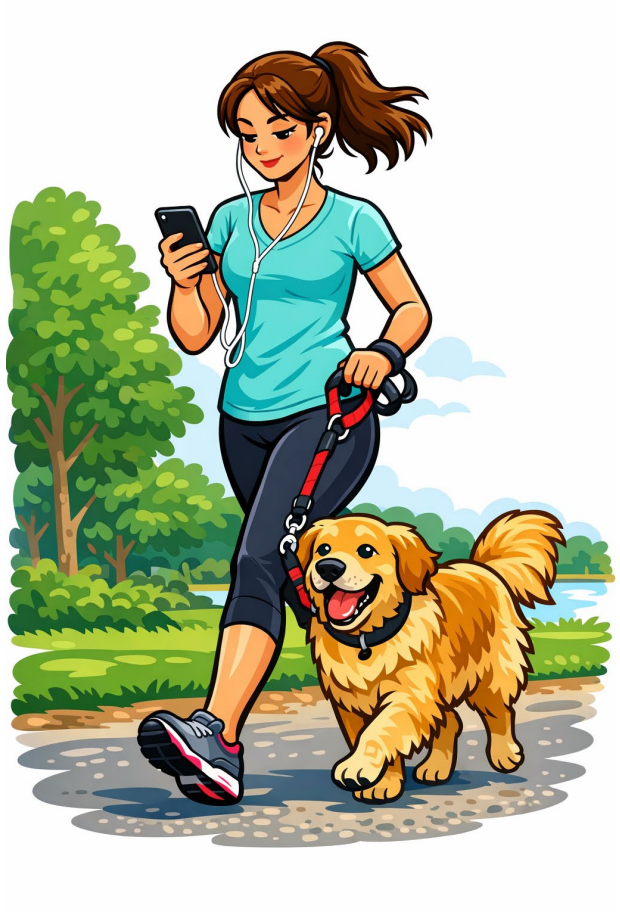
- Dutch Ortho Society Guideline
- PE: Empty-Can test (Suprasp) PLUS Resisted External Rotation (Subscap) have the highest + predictive values.
- Ultrasound is the preferred imaging modality
- PT/Exercise for long-term resolution of SAPS.
- NSAIDs &/or subacromial corticosteroid injections → facilitate pain-free exercise.
- <u>Surgical treatment only if 3 to 6 months of nonoperative treatment has been ineffective.</u>



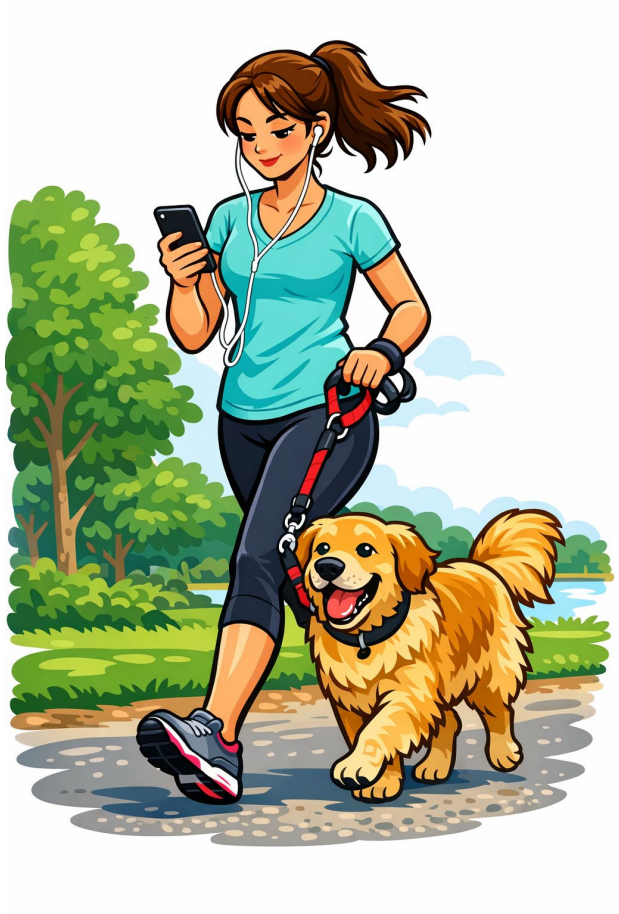


Acta Orthop 2026 Feb 16; 97:91. DOI: 10.2340/17453674.2026.45365

FOCUS people…

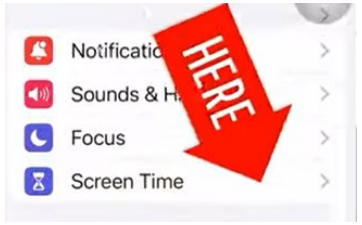


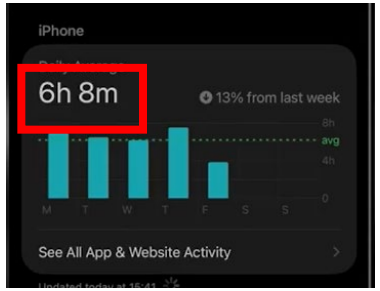
How Many Hours per Day are you on your PHONE????



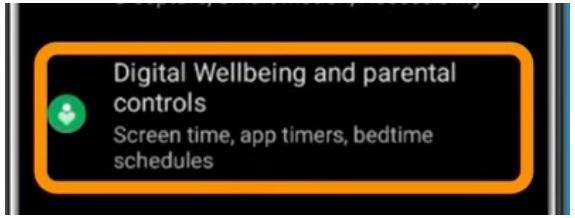
1. </=2 Hours
2. 2-5 Hours
3. 5-8 Hours
4. > 8 Hours per day?

Take out your Phone
Average Hours Per Day on your Phone

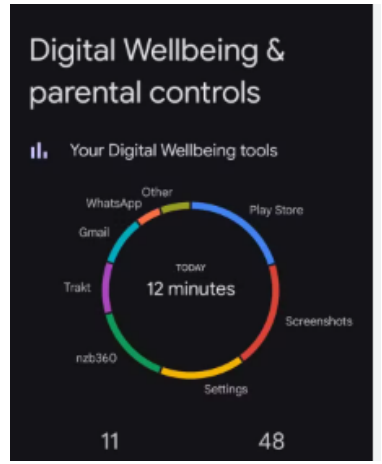




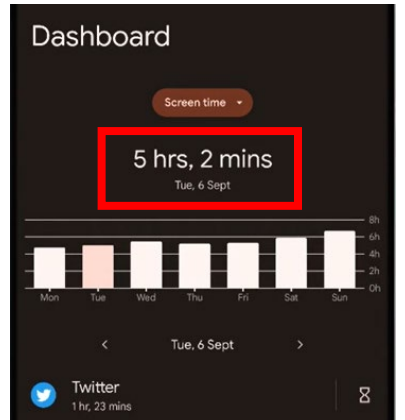
- <u>iPhone</u>
- Go to **Settings > Screen Time > See All Activity**
- **Drill down click “See All App & Website Activity”**



- <u>Android</u>
- Go to **Settings > Digital Wellbeing & parental controls**.



- Tap Pie Chart
- See average hours and most used apps



↑ Screen Time in Adults:

- **<u>Depression</u>**:
- SR of 12 cross-sectional & 7 longitudinal studies.
  ↑ Screen time → OR for depression was 1.28; **<u>worse for women</u>**

  BMC Pub Health **19**, 1524 (2019).doi.org/10.1186/s12889-019-7904-9
- **<u>Obesity</u>**: Cohort 7,105 participants x 24 years,
  Each additional hour of screen time/day associated with 0.06 INCREASE in BMI, **waist circumference** (AOR 1.17), **obesity** (AOR 1.09), & **diabetes** (AOR 1.17)

  J Gen Intern Med. 2023 Jun;38(8):1821-1827. doi: 10.1007/s11606-022-07984-6
- **<u>Metabolic Syndrome</u>**: 3.40 hours/day → OR 1.63, **stronger for women**

  BMC Med. 2025 Feb 21;23(1):107.
- **<u>↓Smartphone screen</u> time to ≤2 hours/day x 3 weeks improved Depressive symptoms, Stress, Sleep Quality, and Well-Being**

  BMC Med **23**, 107 (2025). https://doi.org/10.1186/s12916-025-03944-z

Screens ↑ & All Cause Mortality

- 2011:Prospective eval of 4,512 of adults >/= 35 years
- Compared < 2 h/d to ≥4 h/day of screen time (adjusting for age, sex, ethnicity, obesity, smoking, social class, chronic illness, marital status, DM, HTN):
- ≥4 h/day → 50% ↑ All Cause Mortality HR = 1.52 (95% [CI]: 1.06 to 2.16)
- ≥4 h/day → DOUBLED CVD Events: HR= 2.30 (95% CI: 1.33 to 3.96)
- Physical activity **slightly** attenuated associations
  -- All-cause mortality: HR: 1.48, 95% CI: 1.04-2.13;
  -- CVD events: HR: 2.25, 95% CI: 1.30 to 3.89)

  Am J Cardiol 2011; 57(3); doi:10.1016/j.jacc.2010.05.065
- 2026: SR of SR & MA (n = 2,778,595) positive relationship between sedentary time or television viewing time with all-cause mortality.

  Eur J Epidemiol. 2018 Sep;33(9):811-829. doi: 10.1007/s10654-018-0380-1.

Aldosterone Screening & HTN

Don’t Forget….Dementia is Coming

- Dementia > 57 million worldwide, 2050: ↑153 million
- 2024 Lancet Commission: **14 modifiable risk factors**
  -if addressed, could ***prevent or delay ~45% of all cases***
- RF: HTN, ↑ LDL, obesity, physical inactivity, smoking, diabetes, untreated hearing loss, social isolation, depression, and air pollution
- Greater Risk in Black and Native Americans vs White in US
- Disparities in midlife: obesity, physical inactivity, education; Lower-income → higher prevalence of almost all risk factors
- Multimodal interventions: diet, exercise, cognitive stimulation, and vascular risk management → improve cognitive outcomes

JAMA Intern Med. 2024;184(1):54–62. doi:10.1001/jamainternmed.2023.6279

Daylight and Dementia

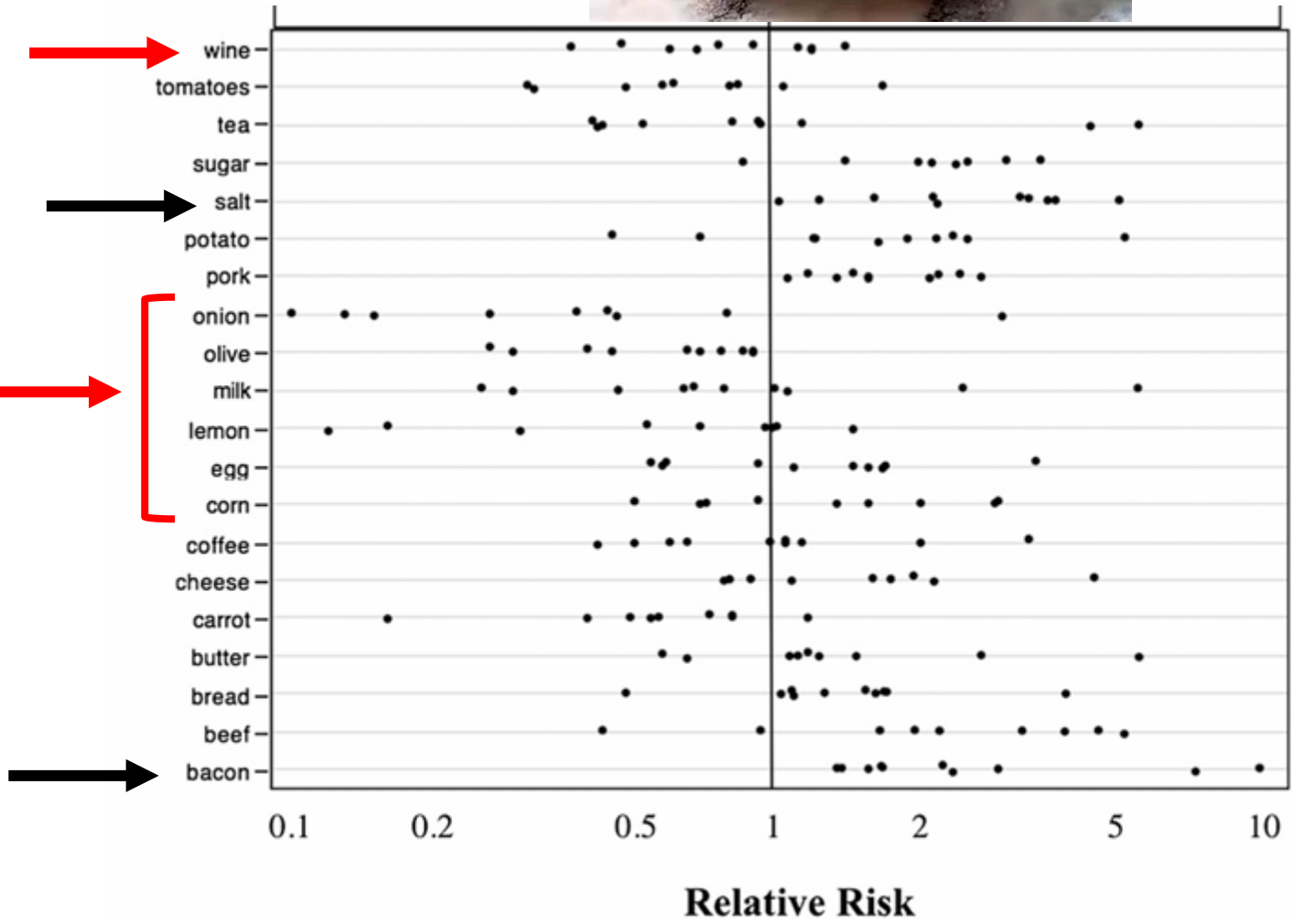
- ~88,000 adults (x 62 Yrs) Wrist device x 7 days measured their light exposure around the clock UK; followed x 8 years dementia risk
- Results:
- **40–45 minutes/day** in bright light (1000 lux vs indoor or outdoors on a partly cloudy day) → dementia risk ↓HR 0.84, 95% CI 0.71-0.99, *p* = 0.039).

- Well lit office 300-500 Lux; Living room 100-300 Lux, Light Box: 3000 Lux
- Longer exposure (≥ 0.70 h & ≥ 5000 lux (Outdoor) → further reduction.

Gen Psych. 2026;39:e70039. https://doi.org/10.1002/gps3.70039

Everything Gives You Cancer

- 50 common ingredients from random recipes
- 264 papers on relation of @ ingredient to cancer risk.
- 72% of papers → association ↑ (n= 103) or ↓(n = 88) cancer risk
- Meta-analyses → only 13 (26%) increased (4) or decreased (9) risk



Am J Clin Nutrition 2026; 97(1); doi.org/10.3945/ajcn.112.047142

What are they Smoking at the ACC/AHA????

***NO RCT LEVEL EVIDENCE TO SUPPORT**

- HTN (2025):
  Normal BP: <120/<80;
  *Elevated; 120-129/<80; LS
  *Stage 1: 130-139/80-89; 1 Rx/LS
  *Stage 2: ≥140/≥90; 2 Rx/LS
- Dyslipidemia (2026):
  *Start Screening in Childhood
  *LDL Goals of for 1º& 2º (<55)
  *ApoB & Lp(A) screening
  *Treat ↑ Triglycerides
- *hsCRP Screening (2026):
  *Screen Everyone for 1º& 2º
  “clinicians will not treat what they do not measure”

REVIEW ARTICLE | Originally Publi

2025 AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

Practice Guideline > J Am Coll Cardiol. 2026 Mar 13:S0735-1097(25)10254-4.
doi: 10.1016/j.jacc.2025.11.016. Online ahead of print.

2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

ELSEVIER

JACC
Volume 87, Issue 11, 24 March 2026, Pages 1381-1404

ACC Scientific Statement

Inflammation and Cardiovascular Disease: 2025 ACC Scientific Statement: A Report of the American College of Cardiology

2025 ACC/AHA Hypertension Guidelines

1. Use PREVENT TM calculator & Home BP Monitoring
2. Lifestyle Changes (LS): healthy weight, DASH diet, ↓Na, ↑ K+, moderate physical activity, manage stress, & ↓/eliminate alcohol
3. Range

- Normal: <120/80mmHg
- Elevated: 120-129/<80: Lifestyle Modification (LS)
- **Stage 1: 130-139/80-89**: if PREVENT > 10%, DM, CKD:→ LS & Rx
  If < 10%: → LS
- **Stage 2: >140/>90**: Initiate **2 Meds** (Euro: start 1 Rx at >140/90)

Circul 2025; 152(11): /doi.org/10.1161/CIR.0000000000001356

What is the OPTIMAL BP GOAL?

- U.S. Veterans Affairs records of 2.4 million veterans, 94% male (>120,00 female), 71% White, x=66 Yr.
- BP from outpatient visits; adjusted for demographics and comorbidities
- Annual all-cause mortality at all SBP levels vs SBP of ≥160 mm Hg.

- <u>Results:</u>
- Mortality *lowest* for patients with SBP of **<u>130-139 mmHg</u>** (aHR= 0.83).
- Systolic BP of <119 mm Hg was associated with ***higher*** **mortality**
- Results were consistent across subgroups with & w/o CVD or CKD.

Hypertension. 2026;83:00–00. DOI: 10.1161/HYPERTENSIONAHA.125.25787

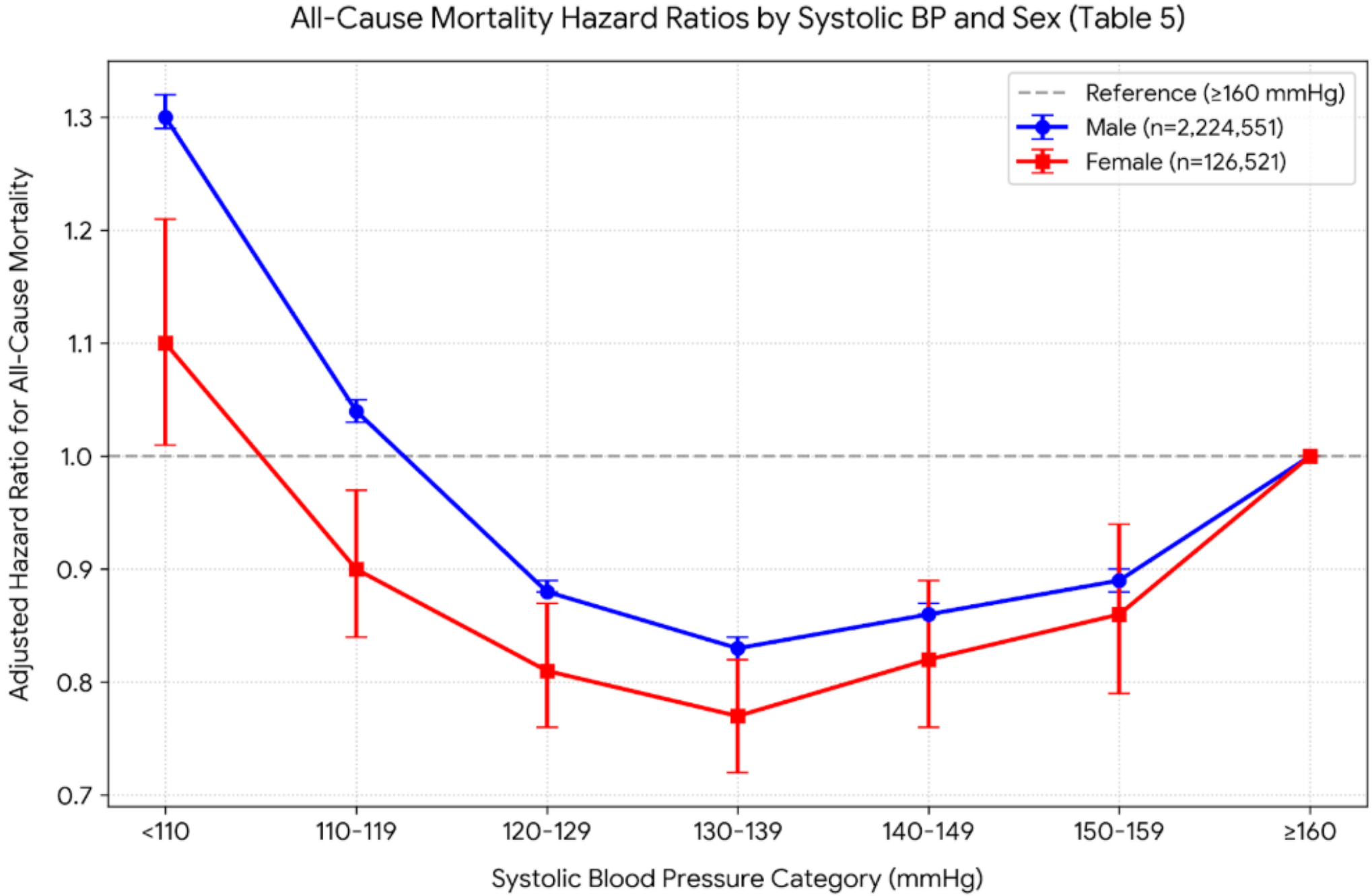

All-Cause Mortality Hazard Ratios by Systolic BP and Sex (Table 5)
Reference (≥160 mmHg)
Male (n=2,224,551)
Female (n=126,521)
Adjusted Hazard Ratio for All-Cause Mortality
1.3
1.2
1.1
1.0
0.9
0.8
0.7
<110
110-119
120-129
130-139
140-149
150-159
≥160
Systolic Blood Pressure Category (mmHg)

Table 3. Hazard Ratios (95% CIs) of All-Cause Mortality Associated With Time-Varying BP Categories Stratified by CVD History (Table view)

Characteristics	Systolic BP (mm Hg)	Hazard ratio per 12 mo in systolic BP category	95% CI
History of CVD	<110	1.33	1.30–1.35
n=509 693	110–119	1.10	1.08–1.12
	120–129	0.93	0.92–0.95
	130–139	0.87	0.86–0.89
	140–149	0.90	0.88–0.92
	150–159	0.91	0.89–0.93
	≥160	1 (ref)	
No history of CVD	<110	1.29	1.27–1.31
n=1 841 379	110–119	1.00	0.99–1.01
	120–129	0.86	0.85–0.87
	130–139	0.81	0.81–0.82
	140–149	0.85	0.84–0.86
	150–159	0.88	0.87–0.89
	≥160	1 (reference)	

Table 4. Hazard Ratios (95% CIs) of All-Cause Mortality Associated With Time-Varying BP Categories Stratified by Kidney Function (Table view)

Characteristics	Systolic BP (mm Hg)	Hazard ratio per 12 mo in systolic BP category	95% CI
eGFR ≥60 mL/min per 1.73 m^2	<110	1.31	1.29–1.33
n=1 906 443	110–119	1.03	1.02–1.05
	120–129	0.88	0.87–0.89
	130–139	0.82	0.81–0.83
	140–149	0.87	0.85–0.88
	150–159	0.89	0.87–0.90
	≥160	1 (reference)	
eGFR 30–59 mL/min per 1.73 m^2	<110	1.28	1.25–1.31
n=415 940	110–119	1.04	1.03–1.06
	120–129	0.90	0.88–0.91
	130–139	0.85	0.83–0.86
	140–149	0.87	0.85–0.89
	150–159	0.89	0.87–0.91
	≥160	1 (reference)	
eGFR <30 mL/min per 1.73 m^2, but no dialysis	<110	1.23	1.16–1.31
n=28 689	110–119	0.98	0.93–1.03
	120–129	0.87	0.83–0.92
	130–139	0.83	0.79–0.86
	140–149	0.82	0.78–0.87
	150–159	0.85	0.80–0.90
	≥160	1 (ref)	

Table 5. Hazard Ratios (95% CIs) of All-Cause Mortality Associated With Time-Varying BP Categories Stratified by Sex (Table view)

Characteristics	Systolic BP (mm Hg)	Hazard ratio per 12 mo in systolic BP category	95% CI
Male	<110	1.30	1.29–1.32
n=2 224 551	110–119	1.04	1.03–1.05
	120–129	0.88	0.88–0.89
	130–139	0.83	0.82–0.84
	140–149	0.86	0.86–0.87
	150–159	0.89	0.88–0.90
	≥160	1 (reference)	
Female	<110	1.10	1.01–1.21
n=126 521	110–119	0.90	0.84–0.97
	120–129	0.81	0.76–0.87
	130–139	0.77	0.72–0.82
	140–149	0.82	0.76–0.89
	150–159	0.86	0.79–0.94
	≥160	1 (reference)	

In Short

BPS 130-139

What Benefits of Treating "Mild HTN" 140-159 / 90-99 mm Hg

- 2026 Cochrane SR: Anti HTN Rx improve outcomes in adults with **untreated mild hypertension (SBP 140–159 or DBP 90–99 mmHg) & no pre-existing CVD**. **Ave Age ~50**
- Older Meds: chlorothiazide, chlorthalidone, propranolol, atenolol, pindolol, fosinopril; w/methyldopa, clonidine, & reserpine as step-up therapy. No CCB or ARB… NOT STUDIED
- **Results: NO ↓ All Cause Mortality, CV events or CHD**; **Low quality evidence for CVA & AE's**

Cochrane Database Syst Rev. 2026 Apr 2;4(4):CD006742

Outcome	RR (95% CI)	Trials / Participants	GRADE Certainty
All-cause mortality	0.85 (0.64–1.14) **NS**	5 trials / 9,124	Low
Total cardiovascular events	0.93 (0.69–1.24) **NS**	4 trials / 7,292	Low
Stroke	**0.41 (0.20–0.84)**	4 trials / 7,292	Low
Coronary heart disease	1.12 (0.80–1.57) **NS**	3 trials / 7,080	Low
Withdrawal due to adverse effects	**4.80 (4.14–5.57)**	1 trial / 17,354	Low

NS: NOT SIGNIFICANT

Benefits?

- 2015 SR:
  Patients without CVD
  140-159/90-99 mmHg
- Included ACEi, CCB's, diuretics, and aggressive vs less intensive BP lowering.
- **Age: 63.5 Yrs** (vs 50)
- **40% had DM** at baseline
- Conclusion:
  Rx *BPS (140-159)* in older adults lowers CVA & CV Deaths & ALL CAUSE Mortality

Annals of IM 2015; 162(3):
https://doi.org/10.7326/M14-0773

Thanks Josh Steinberg, MD

In Short
Initiate Treatment at BPS 140
Goal: BPS 130-139

Feature	Cochrane 2026 (Wang et al.)	BPLTTC 2015 (Sundström et al.)
Total participants		te data)
Number of trial comparisons		BPLTTC)
Mean age		-BPLTTC)
Diabetes prevalence		TTC
Prior antihypertensive use	Excluded (treatment-naïve only)	**61% in BPLTTC trials** were on background therapy
Drug classes tested	Mostly thiazides, beta-blockers, centrally acting agents; 1 ACE inhibitor trial	ACE inhibitors, CCBs, diuretics, beta-blockers; more intensive vs. less intensive regimens
All-cause mortality	RR 0.85 (0.64–1.14) — not significant	OR 0.78 (0.67–0.92) — **significant**
Total CV events	RR 0.93 (0.69–1.24) — not significant	OR 0.86 (0.74–1.01) — borderline
Stroke	RR 0.41 (0.20–0.84) — **significant**	OR 0.72 (0.55–0.94) — **significant**
Coronary events	RR 1.12 (0.80–1.57) — not significant	OR 0.91 (0.74–1.12) — not significant
CV deaths	Not reported separately	OR 0.75 (0.57–0.98) — **significant**
GRADE certainty	Low for all outcomes	Not formally GRADE-assessed
Conclusion	Treatment may not reduce mortality or CV events; may reduce stroke	Treatment likely prevents stroke and death

ACC/AHA: Dyslipidemia 2026

1. Early Intervention & Primordial Prevention (youth, + FH, LDL ≥160 in young adults)	No RCT data demonstrating benefit
2. Use PREVENT-ASCVD Equations (vs PCE) @ 30 Yrs	No RCT data demonstrating benefit for **1°**
3. Primary Prevention Statins: "can" consider statins for PREVENT risk of 3% to <5% and "should" consider for those at 5% to <10%	No RCT data demonstrating benefit
4. Reintroduction of LDL-C and Non-HDL-C Targets	No RCT data demonstrating benefit
5 & 6. Measure Apolipoprotein B (ApoB) & Lp(a)	No RCT data demonstrating benefit (No Treatment)
7. Coronary Artery Calcium (CAC) to Refine Risk	No RCT data demonstrating benefit
8. Statins for High-Risk 1° Prevention (DM, CKD, HIV)	**1 RCT data for DM, CKD; 1 trial for HIV**
9. Aggressive 2° Prevention (LDL 50% reduction AND LDL<55 mg/dL) in Very High Risk ASCVD *"(COR1, LOE B-NR)"*	1 RCT data with benefit of <55 vs 70 mg/dl** RCT/MA benefit of <70 vs >70 mg/dl in Very High risk (Eur J Prev Card. 2022.doi: 10.1093/eurjpc/zwaa093
10. Hypertriglyceridemia Management	No RCT data demonstrating benefit (4S 2001)

Apolipoprotein B and Lipoprotein(a) to PREVENT → NO improvement of ASCVD Risk After age 40

- Elevations in lipoprotein(a) (Lp[a]) and apolipoprotein B (apoB) have been linked to excess cardiovascular risk.
- Pooled three large U.S.-based cohorts to identify ~10,000 adults (mean age, 48 years) without CVD at baseline; on influence of Lp(a) and apoB into the PREVENT; Follow-up x 21 years.
- When added to the PREVENT risk calculator, ApoB was associated with ↑ASCVD events in **ONLY adults aged 18 to 39 years:**.
- Neither biomarker improved ASCVD reclassification in adults aged >/= 40
- Bottom Line; Do NOT Order after age 40 years.

JAMA Netw Open 2026 Apr; 9:e265199. DOI: 10.1001/jamanetworkopen.2026.5199

No RCT has directly demonstrated that statin initiation before age 40 reduces hard cardiovascular endpoints

In ASCVD, Is <55 Better than <70 mg/dl? I Could Only Find 1 Trial….

- Open-label superiority trial conducted in **South Korea** to goals
- Age 19 to 80 years of age with history of ASCVD (previous MI or unstable angina), stable angina with imaging or functional studies, revascularization, stroke or transient ischemic attack, or peripheral artery disease)
- Goal: < 55 vs 70 mg/dL; Intervention: Statin or Statin + ezetimibe
- Composite Primary End Point: death from CV, nonfatal MI, nonfatal CVA, any revascularization or episode of unstable angina at 3 years
- Results: 6.6% S+E vs 9.7% S NNT 33 (HR: 0.67; 95% CI, 0.52-0.86; P=0.002).

N Engl J Med. 2026 Apr 9;394(14):1365-1375. doi: 10.1056/NEJMoa2600283

Risks and Benefits of Statins for 1º Prevention

- **NNH for statins inducing new-onset diabetes is ~ 255 x 4 years**
- **Benefits (using SR data from prior to 2022; not new LDL goals)**
  JAMA. 2022;328(8):754–771. doi:10.1001/jama.2022.12138

Primary Prevention NNTs (over 1–6 years of treatment):

Outcome	RR (95% CI)	Absolute Risk Difference	NNT (95% CI)
Composite CV outcomes	0.72 (0.64-0.81)	−1.28%	**78** (62-105)
Fatal/nonfatal MI	0.67 (0.60-0.75)	−0.85%	**118** (83-213)
Revascularization	0.71 (0.63-0.80)	−0.59%	**169** (130-244)
Fatal/nonfatal stroke	0.78 (0.68-0.90)	−0.39%	**256** (185-400)
All-cause mortality	0.92 (0.87-0.98)	−0.35%	**286** (175-714)

What about Ezetimibe vs PCSK9i?
2 Meta-Analyses Show **No Difference**

Outcome	Ezetimibe + Statin (RR)	PCSK9i + Statin (RR)	Direct Comparison
Non-fatal MI	0.87 (0.80-0.94)	0.81 (0.76-0.87)	**No difference** (95% CI: 0.6-4.34)
Non-fatal Stroke	0.82 (0.71-0.96)	0.74 (0.64-0.85)	**No difference** (95% CI: 0.03-8.01)
All-cause mortality	0.99 (0.92-1.06)	0.95 (0.87-1.03)	No difference
CV mortality	0.97 (0.87-1.09)	0.95 (0.87-1.03)	No difference

Khan, et al. BMJ. 2022 May 4:377:e069116. doi: 10.1136/bmj-2021-069116

MACE: RR 0.70 (95% CI 0.40-1.20, p=0.20) - **no significant difference**

Stroke: RR 0.38 (95% CI 0.09-1.69, p=0.20) - **no significant difference**

Myocardial infarction: RR 0.95 (95% CI 0.4[illegible]-1.90, p=0.88) - **no significant difference**

Cardiovascular death: RR 0.44 (95% CI 0.1[illegible]-1.43, p=0.17) - **no significant difference**

Ma, et al. Atherosclerosis. 2021 Jun:326:25-34. doi: 10.1016/j.atherosclerosis.2021.04.008

One MAJOR Difference

Ezetimibe:
$8.60/Month

Repatha (evolocumab):
$496/Month

Praluent (alirocumab):
$482/Month

7/26 FDA approved enlicitide
Oral PCSK9i →
60% ↓LDL
BUT No CVD Outcomes Reported

ACC hsCRP Screening?

Inflammation and Cardiovascular Disease: 2025 ACC Scientific Statement: A Report of the American College of Cardiology | JACC

- hsCRP is strongly predictive of CV events, even with normal lipids

1. **Evaluation and Risk Assessment Biomarkers**
   Universal screening of hsCRP in 1 & 2ndary prevention patients
2. **Primary prevention:** hsCRP >3 mg/L →
   --lifestyle interventions + statin therapy, irrespective of LDL cholesterol.
3. **Secondary prevention**
   As powerful predictor of recurrent vascular events as LDL cholesterol
4. LF: Mediterranean or DASH diet. High in fruits, vegetables, whole grains, legumes, nuts, and olive oil. Increase **dietary** omega-3 fatty acids; 2-3 fatty fish meals/wk. Minimize red and processed meats, refined carbohydrates, and sugary beverages.
   Engage in ≥150 min/wk of moderate exercise or 75 min/wk of intense exercise. Quit smoking. Maintain a healthy weight.

When to use a Coronary Calcium Score: If Prevent is > 7.5% in age > 55 Years

- **CAC scoring recommended as a *risk refinement tool* in asymptomatic adults with borderline 10-year ASCVD risk (5-20%)** with uncertainty about initiating statin therapy
- CAC = 0 No statin therapy
  CAC = 1 to 99 *favors* statin for individuals > 55 years
  CAC > 100 *requires* initiation of statin therapy.

  JAMA Cardiol. 2022;7(2):219–224.doi:10.1001/jamacardio.2021.3948
- Cancer Risk: If every US Adult had 1 CAC score → *8-20 additional cancer deaths* per 100,000 screened

  Arch Intern Med. 2009;169(13):1188–1194. doi:10.1001/archinternmed.2009.162

- **ACC:** ***"CAC scoring has limited value in patients with atypical chest pain and should generally NOT be used as a standalone diagnostic test in symptomatic patients."***

  JACC 2021: https://doi.org/10.1016/j.jacc.2021.07.053

Summary

- Post-Partum OD/Violence
- Gambling Addiction
- Sinusitis: Amoxicillin
- Lifestyle Δ's for ACM:
  PE, Diet, Vax
- 1 Colonoscopy ↓ CRC
  Mortality for > 20 years

- Life/HealthSpan:
  > 7 Hr Sleep, 42 Min PE, 8-10 Fruit/Veg/d &
  --BF & Dinner Before 8
- GLP1: ↓ CVD, Liver, OA, Addiction, Dementia, ACM
- Screentime: ↑ Depression, Obesity, ACM
- ACC: PREVENT: 7.5%-10,
  BPS 130-139,
  CCS to Refine Risk