The Arising

OCTOBER 15, 2026

DAILY ISSUES



EDITORIAL ILLUSTRATION / AN ARTISTIC INTERPRETATION

A wider view of living well.

MIDLIFE / MOVEMENT / NEW POSSIBILITIES

The full original issue follows, with its articles and sources preserved.
Editorial review copy. This illustration update is not a new evidence audit.

ARISING HEALTH

The Arising

HEALTH INTELLIGENCE

LONGEVITY
SCIENCE
MARKETS
HUMAN HEALTH

Tracking emerging Medical Intelligence from a Physician's View

THURSDAY, OCTOBER 15, 2026 | VOL 1 NO 13 | ARISING HEALTH

10 stories across 2 desks | ~26 minutes to read | 179 briefs grouped by topic

LONGEVITY & HEALTHSPAN

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HEALTH INTELLIGENCE

THURSDAY, OCTOBER 15, 2026 · LONGEVITY & HEALTHSPAN DESK

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LONGEVITY & HEALTHSPAN · STANDARD READ · 2 MIN

THE MENOPAUSE SOCIETY

Menopause Hormone Therapy Linked to Greater Semaglutide Weight Loss in Midlife Women

Midlife women who took menopause hormone therapy while on semaglutide lost more weight than those who did not, according to The Menopause Society's report of a new study. The finding is an association, and the lead researcher says it is too early to act on it.

This article is based on that report. The study paper itself was not reviewed.

The question matters because of who is using these drugs. According to the Society, about one in five women aged 50 to 64 report current or past use of a GLP-1 obesity medication. That is the highest share of any demographic group in the U.S. The report notes that weight gain at midlife is common. It says the gains are largely driven by aging, though menopause-related factors can contribute to fat accumulation and redistribution.

According to the report, the study was a retrospective observational cohort. It included nearly 2,400 women taking semaglutide and nearly 1,500 taking tirzepatide. All were over 45 with a body mass index above 27. The researchers concluded that hormone therapy was associated with significantly greater and sustained weight loss with semaglutide.

Tirzepatide told a different story. Women using hormone therapy lost more weight at first. By the end, the difference did not reach statistical significance, according to the report. In plain terms, the gap was too small or too uncertain to rule out chance. The report gives no figures for how much extra weight the hormone users lost.

The design limits what the result can say. A retrospective study looks back at records of what women already did. It cannot show that hormones caused the extra weight loss. Women who use hormone therapy may differ from those who do not in ways that also affect weight. That is a general caution about this kind of study, not a finding from the report.

Lead author Dr. Regina Castaneda of Mayo Clinic Florida called the signal consistent with earlier, smaller studies. She said it is biologically plausible, citing preclinical data that suggest estrogen and GLP-1 signaling may work together. She also noted the effect was stronger with semaglutide than tirzepatide, which she said deserves further study.

She was direct about the limits. According to the report, she said: "it is too early to draw firm conclusions." She added that the findings need confirmation in well-designed prospective trials. She also said weight loss is not an indication for menopause hormone therapy.

That is the main takeaway for women on a GLP-1. This result does not support starting hormones to lose weight. Dr. Stephanie Faubion, the Society's medical director, said more research is needed. She said the study highlights the value of considering menopause-specific factors in personalized weight management. Readers should not start or stop hormone therapy or a GLP-1 medication without talking to their clinician first.

The full results will be presented at The Menopause Society's 2026 Annual Meeting in San Diego, October 20–24. The next test is a prospective trial that compares women on a GLP-1 with and without hormone therapy.

Source: The Menopause Society

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LONGEVITY & HEALTHSPAN · STANDARD READ · 2 MIN NATURE AGING · 2 SOURCES

Falling Cardiolipin Levels May Explain Why Aging Muscles Lose Power

Aging muscle has a puzzle at its core: as mitochondria, the cell's energy units, work less well, muscle shifts toward fibers that rely on them more. A new study in Nature Aging suggests a single fat in the mitochondrial membrane, called cardiolipin, may explain why.

The evidence comes mainly from mice, with some work in human muscle. It is a peer-reviewed paper published in 2026 by a large team, led by Fabian Finger and Zachary Gerhart-Hines at the University of Copenhagen, according to Earth.com's coverage. We could review only the abstract, which does not give the number of animals or people studied. Anything beyond the abstract below is attributed to Earth.com.

According to the abstract, aging brings two changes that seem to conflict. Mitochondrial function in skeletal muscle declines. Yet muscle composition shifts toward fibers rich in mitochondria. The authors report that cardiolipin links the two. Its levels fall in aging mouse and human muscle.

To test cause, the researchers lowered cardiolipin in young mice. They deleted a gene called Crls1, which makes an enzyme needed to build the fat, only in muscle and only on cue. This reproduced key hallmarks of aging, including a shift from glycolytic fibers to oxidative ones. Glycolytic fibers burn sugar quickly. Earth.com describes them as the fast, powerful fibers.

The abstract also describes how the shift happens. Mitochondria send a signal to the cell nucleus through a protein called estrogen-related receptor γ. That signal promotes sugar uptake that is sensitive to reactive oxygen species, which are damaging byproducts of energy production. It also reroutes sugar to support the cell's antioxidant defenses.

Some of the damage was also reversible in the mice. When the authors restored Crls1 in adult mice that had lost it, cardiolipin levels returned, muscle atrophy began to reverse and premature death was fully rescued, according to the abstract. The abstract does not say whether the fiber-type shift itself reversed.

Earth.com reports a result that the abstract does not describe. Cardiolipin-depleted mice given the antioxidant N-acetylcysteine for eight weeks ended up with smaller muscles, not healthier ones. Finger told Earth.com: "The fiber switch is not the muscle failing, but the muscle trading power for protection." Earth.com says these groups were small, with three to six mice each.

That is the basis for the question many readers will ask about antioxidant pills. The study does not answer it. The mice had been engineered to lack cardiolipin, and the study did not test supplements in older people. Earth.com also notes that the human data were limited to stored muscle samples from nine men, which showed only that cardiolipin was lower with age. Readers should not start or stop any supplement or medication without talking to their clinician.

The same goes for exercise. The abstract does not mention training, so we cannot say whether building power slows this fiber shift. What the study does suggest is that the loss of powerful fibers may have a specific biological cause. That makes the cause a possible target for future treatments. It is not yet a guide to what anyone should do.

Earth.com reports that the authors' next step is to raise cardiolipin in naturally old mice and see whether that protects their muscles. That result will show whether this pathway matters beyond a model of early muscle aging.

Sources: Nature aging (2026), Earth.com (reporting on a University of Copenhagen study in Nature Aging)

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LONGEVITY & HEALTHSPAN · STANDARD READ · 3 MIN

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2 SOURCES

Swedish 47-Year Study: Aerobic Fitness and Endurance Peak Between 26 and 36

Physical capacity in ordinary adults appears to peak between the mid-20s and mid-30s and then slowly fall, according to a 47-year Swedish study in the Journal of Cachexia, Sarcopenia and Muscle. Strength was not tracked across the decades; the study followed aerobic capacity, muscular endurance and leg power, with grip strength measured only at 63. Press coverage describes the finding as 'fitness and strength' declining around 35, but the paper's peaks range from 26 to 36.



Photo: "Top Track - Great Field Halloween parkrun" by dorsetbays, CC BY-SA 2.0

This is an observational study in people. It followed 427 individuals (48% women), all born in 1958 and randomly selected as 16-year-old pupils in 1974 to represent Swedish adolescents. They were tested at ages 16, 27, 34, 52 and 63. An observational study can describe a pattern. It cannot prove what causes it.

The team measured aerobic capacity, which is how well the body uses oxygen during effort. They estimated it with a submaximal cycle test. At age 16 they converted a 9-minute run result instead. They also measured muscular endurance with bench press repetitions, and leg power with a standing jump test.

Estimated aerobic capacity and muscular endurance peaked between ages 26 and 36 in both sexes. The decline then began at 0.3% to 0.6% per year. By age 63 it had sped up to 2.0% to 2.5% per year, according to the paper.

Total (absolute) aerobic capacity peaked at 35 in women and 36 in men. From that peak to age 63, it fell by 30% in women and 33% in men. Aerobic capacity adjusted for body weight peaked earlier in men (age 26) than in women (age 31). From about age 40, the rate of decline was similar in both sexes.

People also drifted apart over time. The spread in absolute aerobic capacity between individuals grew fivefold from age 16 to 63. At 63, no men and four women fell below the European cut-offs for low grip strength or slow chair stands, which are used to flag sarcopenia, the age-related loss of muscle. Decline in the group, then, did not mean disease for most people.

The authors say the pattern matches what is seen in elite athletes, who tend to peak around 35 even while training. They conclude that a decline in physical capacity can be seen before age 40. They add that it can later lead to clinically significant physical

problems, especially in people with a sedentary lifestyle. That is their interpretation of the pattern, not something the study tested directly.

The press coverage went further on exercise. ScienceDaily, relaying a Karolinska Institutet release, reports that average performance at 63 was roughly 30% to 48% below peak. It also reports that people who became active in adulthood improved their capacity by about 5% to 10%. Those figures come from that coverage, not from the parts of the paper reviewed here. ScienceDaily quotes lead author Maria Westerståhl: "It is never too late to start moving. Our study shows that physical activity can slow the decline in performance, even if it cannot completely stop it."

A separate paper from the same cohort, in Scientific Reports in 2026, looked at the heart and blood vessels. Higher aerobic capacity at 34 and at 52 predicted less arterial stiffness at 63, a marker of cardiovascular risk. The link held after accounting for obesity, smoking, blood pressure and cholesterol measures. The design is observational. The authors' wording leans toward cause, suggesting that maintaining aerobic capacity from early adulthood can reduce arterial stiffness and cardiovascular risk, but the data show an association. The press coverage says plainly that the results do not establish that better fitness directly prevented arterial stiffening.

There are limits. The cohort is a single birth year from one country. The study says people with a university degree or an active youth were more likely to keep taking part, though the analysis included everyone from the start to reduce that bias. Activity was recorded with a simple yes-or-no question. Aerobic capacity was estimated, not directly measured. The study also describes group averages, so no one should treat 35 as a personal deadline.

The authors say their next step is to look for the biological mechanisms behind the early peak and behind exercise's partial protection.

Sources: Journal of cachexia, sarcopenia and muscle (2025), ScienceDaily (Karolinska Institutet; Journal of Cachexia, Sarcopenia and Muscle)

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LONGEVITY & HEALTHSPAN · STANDARD READ · 2 MIN NATURE AGING · 2 SOURCES

Gene SRSF1 Made Aged Cells Look Younger; Linked to Longer Mouse Life

Turning up a single gene made aged human skin cells look and behave more like young ones, and in old mice it was linked to slower decline and a longer median life, according to a new study in Nature Aging. The lifespan finding is an association, not proof that the gene extends life, and the mouse groups were small.

This is early evidence. The work combines experiments in cultured human cells with tests in worms and mice. The mouse lifespan result came from small groups of 9 to 10 animals each. It is not a human trial, and nothing here shows a benefit for people.

The gene is SRSF1. It makes a protein that helps process RNA, the working copies of genes that cells read to build proteins. Plesa, Jung and colleagues first built a "transcriptomic age" predictor in human fibroblasts, a common type of skin cell. The predictor reads which genes are switched on and off and estimates how old the cells are.

They then ran a screen. They added many different genes to aged cells using a cDNA overexpression approach, and checked which ones shifted the cells toward a younger gene-activity pattern. SRSF1 came out as the standout. The abstract does not say how the screen was laid out in detail.

Why does this matter? Earlier attempts to turn back cellular age used Yamanaka factors, a set of genes that can reset cells. According to the paper, toxicity and efficacy concerns limit their use in living animals. The authors report that SRSF1 produced youthful gene-activity patterns without the cells losing their identity. A skin cell stayed a skin cell.

In cultured cells, switching on SRSF1 reduced senescence, which is when cells stop dividing and linger in a damaged state. It also reduced proteostatic stress, meaning strain on the cell's system for handling proteins, and inflammatory signaling.

In aged mice, inducible SRSF1 expression reduced frailty progression by 44%. It was also associated with a 14% longer median lifespan. Median lifespan is the age by which half the animals have died. The abstract uses the word "associated" for lifespan, and that caution is worth keeping. With 9 to 10 mice per group, chance can play a large role. This is the weakest part of the argument.

Only the abstract was available to us, and the full paper is behind a paywall. So we cannot say how the gene was delivered, how much was used, whether results differed between male and female mice, or whether there were side effects. The abstract also does not explain how SRSF1 produces its effects.

FOR YOU

For personal health, our reading is cautious: this study gives no basis for splicing-related supplements or tests today. Cells in a dish and mice are a long way from a safe, proven treatment for people. Any therapy would also need a way to deliver the gene safely and at the right dose. The abstract does not address either point. Do not start or stop any medication, treatment or supplement without consulting your clinician.

The authors call SRSF1 "a promising geroprotective target", meaning a possible route to protecting against aging. That is a reasonable description of where things stand. What to watch next: larger animal studies, independent replication, and the first safety data on any approach that changes SRSF1 activity.

Sources: Nature Aging (2026), Nature Aging (publisher page)

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LONGEVITY & HEALTHSPAN · STANDARD READ · 3 MIN NATURE · 2 SOURCES

Scans of 100,000 Patients Link Active Brown Fat to Better Metabolic Health

People who carry active brown fat tend to have healthier blood sugar, cholesterol and hearts. A large new analysis suggests they may also have lower rates of psychiatric disease. But the finding shows a link, not a cause, and it does not mean anyone should start a blood pressure drug to get more of this tissue. Do not start, stop or change losartan, other blood pressure drugs of its class, SSRIs or any medication without talking to your clinician.

The work was published in Nature in 2026. It is an observational study in people, not a trial. Researchers drew on a cohort of 101,243 patients at a large cancer centre. They also ran a proof-of-concept test of the drug losartan, which the study reports increased brown fat cell activity and whole-body energy expenditure. Observational data can show that two things go together. They cannot show that one causes the other.

Brown fat is different from the white fat that stores energy. According to the study's abstract, brown adipose tissue uses energy to produce heat. Earlier work had linked detectable brown fat in humans to a lower prevalence of cardiometabolic disease, meaning conditions that affect the heart and metabolism. What was missing, the authors write, was a full picture of which health conditions it relates to, and a fast way to measure how active the tissue is in many people.

The team used big data and artificial intelligence to fill that gap. In an unbiased sweep across all diagnoses, cardiovascular and psychiatric diseases were less prevalent in people with brown fat. Then a machine learning approach semi-automatically measured brown fat activity in about 8,700 patients.

Higher activity was tied to lower odds of cardiometabolic disease and to a healthier distribution of white fat. This was especially true for brown fat in the axillary depot, the area around the armpit. People with brown fat also had more favourable blood sugar measures, lipid profiles, inflammatory markers and echocardiographic indices, which are measures taken from heart ultrasound.

The medication analysis produced the headline-friendly result. Use of angiotensin receptor blockers, a class of blood pressure drugs, was positively associated with having brown fat. As a proof of concept, the authors showed that one of them, losartan, increased brown fat cell activity and whole-body energy expenditure.

Here the coverage goes further than the abstract. News-Medical, summarising a Rockefeller University release, reports that the energy findings came from experiments in cultured cells and in healthy mice, which kept a steady body weight. It also quotes first author Nicolás Gómez-Banoy saying losartan acts on brown fat through different molecular pathways than its blood pressure effect. That could, he says, allow future therapies to stimulate brown fat in people with normal blood pressure. The abstract does not give those details, so they should be read as the researchers' view, not settled fact.

That is why the drug link is not a reason to take losartan. The human data show only that people on these drugs were more likely to have brown fat. They do not show that the drug created it, or that taking it would improve anyone's health. Losartan is a prescription medicine for people with a medical need. The study frames its result as a platform for drug repurposing, not as a recommendation.

The mental health finding also needs care. Gómez-Banoy told News-Medical that metabolically healthy people tend to have lower rates of psychiatric disease, so brown fat may simply track with better metabolic health. The coverage also reports that SSRI antidepressants were associated with dampened brown fat activity, and that the researchers want to look at possible downsides, including osteoporosis and skin disease. None of those points is in the abstract. Anyone taking an SSRI should not read this as a reason to change treatment.

Other limits matter too. The patients were being monitored for cancer, so they may not represent the general public. This is also where the argument is weakest: an association in a single hospital cohort cannot say whether brown fat improves health, whether it is a marker of it, or whether drugs shape it. The abstract does not settle these questions, so they remain open.

For now, the practical message is modest. Brown fat looks like a marker of metabolic health, and this study gives researchers a way to measure it at scale. Watch for work that tests whether activating brown fat in people improves health outcomes, and whether other drugs flagged in the data do the same. Senior author Paul Cohen told News-Medical, "This is just a start."

Sources: Nature (2026), News-Medical (Rockefeller University release; study in Nature)

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MARKETS & STRATEGY · STANDARD READ · 2 MIN

REGENERON PRESS RELEASE

Regeneron Plans Trial in Older Adults After Muscle-Sparing Antibody Preserves Lean Mass

Regeneron is betting that the next way to stand out in the crowded GLP-1 market is not more weight loss, but better weight loss, and it has picked older adults as the place to test that idea.

On October 1, 2026, the company reported 52-week results from its Phase 2 COURAGE trial. The trial tested trevogrumab, an antibody that blocks myostatin, alongside semaglutide 2.4 mg in people with obesity. According to Regeneron, the data were presented at the European Association for the Study of Diabetes meeting and are in press with The Lancet.

The numbers come from the lower-dose portion of the trial, with lean mass measured by DXA scan. Over 52 weeks, people on semaglutide plus placebo lost 7.3% of their lean mass. Those who also took 25 mg of trevogrumab lost 5.8%. Those who took 75 mg lost 4.2%, which Regeneron describes as 42.5% preservation relative to

placebo. In an MRI substudy of participants with evaluable data, the lower doses preserved about 69% to 72% of the thigh muscle that semaglutide alone would have cost at 52 weeks.

The drug did not add to the weight loss itself. Regeneron says lower-dose trevogrumab did not meaningfully enhance the weight loss achieved with semaglutide alone. Adverse events were reported by 77% of lower-dose trevogrumab participants and 82% of those on placebo. The most common were nausea, constipation, diarrhea and vomiting.

The strategic signal is in the next step. Regeneron plans a Phase 2 trial of trevogrumab with GLP-1-based therapies in older adults with obesity and decreased muscle mass and/or strength. A prespecified subgroup analysis supports that choice. Participants with low lean mass at the start, defined using the imaging part of the sarcopenia definition from the Foundation for the National Institutes of Health, lost more lean mass on semaglutide alone. They also showed numerically more preservation with trevogrumab.

Regeneron's Boaz Hirshberg said the approach addresses "not the quantity, but rather the quality, of weight loss." The company frames adiposity as the main driver of obesity-related disease, and says its aim is to raise the share of weight lost that is fat.

What this could mean for the market is analysis, not something the release states. A product aimed at older or sarcopenic patients would compete on a different measure than weight-loss totals. It might support a separate patient group, separate pricing arguments and a separate regulatory case. The release says nothing about pricing, trial endpoints or how regulators would view such a claim. It also reports lean mass and muscle volume, not strength or physical function, and it gives no numbers for the higher-dose arm. This is the weakest part of the argument: preserved lean mass has not been shown here to mean better function.

Important limits apply. The results are company-issued. Regeneron states that the safety and efficacy of trevogrumab and olatorepatide have not been evaluated by any regulatory authority. The company also holds rights outside the Chinese Mainland, Hong Kong and Macau to olatorepatide, a GLP-1/GIP receptor agonist that its partner Hansoh has tested in a Phase 3 trial in Chinese patients. Any pairing with trevogrumab would be speculation; the release does not suggest one. Readers should not start, stop or change any medication or treatment, including semaglutide, without talking to their clinician.

Watch for the design of the older-adult trial, especially whether it measures strength and function alongside lean mass, and for the full Lancet publication.

Source: Regeneron press release via BioSpace

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MARKETS & STRATEGY · STANDARD READ · 2 MIN SUNRISE SENIOR LIVING ; BISNOW

BDT & MSD to Buy Sunrise Senior Living From PSP Investments

An investment firm known for hotels, resorts and apartment operators has agreed to take control of one of the best-known names in senior living, and the deal tests whether hospitality skills can win in a care-driven business. The release cites no earlier senior housing holdings for the buyer, but it does not say whether this is its first such investment.

On October 6, 2026, Sunrise Senior Living announced that funds affiliated with BDT & MSD Partners signed a definitive agreement to acquire the company from the Public Sector Pension Investment Board, known as PSP Investments. BDT & MSD will be the majority investor. Sunrise's senior leadership team, led by CEO Jack R. Callison, Jr., will stay in place and invest significant personal capital alongside the buyer. The deal is expected to close in 2027, subject to customary regulatory approvals. The release does not disclose a price.

The asset is large. According to the company, Sunrise operates more than 230 communities in the United States and Canada and serves more than 22,000 residents. Its platform includes a third-party management business, an active joint venture investment platform and a development pipeline of more than 50 new communities. The expected development cost of that pipeline is about $7.5 billion.

The buyer's record is in other property sectors. According to the release, BDT & MSD has invested in or partnered with Greystar, Speed Bay and Auberge Collection. It owns and operates Four Seasons Hualalai, The Boca Raton and Four Seasons Jackson Hole. The release cites no earlier senior housing holdings. It says the firm's hospitality and residential experience gives it a differentiated view of a business where hospitality, customer care, brand and real estate meet.

That framing is the strategic point. Sunrise describes itself as an operator, owner and developer of private-pay luxury and premium communities, and Callison pointed to "lifestyle, wellness, hospitality and care." If a hospitality-minded owner pushes that mix further, rival operators may face pressure on service standards and brand. This is interpretation, not something the release states. Whether it changes competition will depend on results the release does not give.

The seller's view is plain. PSP Investments first invested in Sunrise in 2014 and became sole owner in 2023. Simon Marc, a PSP senior vice president, said the sale "reflects our portfolio rotation strategy, recycling capital from a successfully executed investment into new opportunities." J.P. Morgan Securities and Jones Lang LaSalle Securities advised PSP Investments.

Both buyer and seller point to demographics. The release says generational shifts are driving growing demand for high-quality senior living. Coburn Packard of BDT & MSD said the need is growing and that Sunrise has the leadership and platform to meet it. These are company statements, not independent findings.

Several questions remain open. The release gives no price, financing details or plans for changes in operations. It does not say how the buyer will balance hospitality-style service with the memory care and other specialized services Sunrise also provides. Regulatory review will also shape the timeline, though the release names no specific approvals.

Watch for the closing steps through 2027, any disclosure of terms, and whether other non-specialist investors with hospitality or residential backgrounds make similar moves into senior living.

Source: Sunrise Senior Living (PR Newswire); Bisnow

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MARKETS & STRATEGY · STANDARD READ · 3 MIN STAT

Whoop Moves From Athletes to Medicare Seniors Through Outcome-Based ACCESS Pilot

Whoop built its brand on performance athletes. Now it is asking Medicare to tie its full payment to whether older patients' health measures improve or stay controlled.



Photo: "Suunto 9 Peak on the wrist" by ozfir, CC BY 2.0

According to STAT, Whoop is one of the first consumer wearable companies accepted into Medicare's ACCESS program. The pilot runs for 10 years. It makes the device available at no cost to many traditional Medicare patients

ages 65 and up. Whoop is among 55 companies in the program's initial directory, which was published last month.

The payment model is the key change. Through ACCESS, patients get chronic condition management for little or no cost. Medicare pays the companies based on health outcomes. Whoop serves patients with high blood pressure, high cholesterol, obesity and prediabetes. It will provide a wearable, a 12-month app subscription and access to clinicians who can help patients interpret their data.

To receive full payment, Whoop must show it improved or controlled measures tied to these conditions. These include blood pressure, hemoglobin A1C and LDL cholesterol. Chief medical officer Ami Bhatt, speaking at the STAT Summit in Boston, described the logic this way: "The goal is, how do we bring technology closer to the patient, but not put the cost on the patient — rather, put the demand on the company."

For the market, this shifts risk. A consumer subscription business earns revenue from engagement and retention. Under ACCESS, full payment depends on clinical results. Bhatt acknowledged the gap. Users open the Whoop app about eight times a day, she said. But research on continuous glucose monitors suggests that engagement does not necessarily lead to better health outcomes. Bhatt said Whoop has shown a blood pressure drop of about five millimeters of mercury among its users. STAT's report does not give details of that finding, and it was not described as coming from the ACCESS population.

The product also has to change. Bhatt said simplifying the app is the top item on the roadmap. She cited surveys suggesting that even people older than 80 trust their clinicians with their data. In her words, the issue is how easy it is for them to share it. Whoop is working with the National Council on Aging and AARP on personalizing the product for older adults.

Competitive positioning matters here too. Whoop recently raised $575 million from investors including Mayo Clinic and the sovereign wealth fund of Qatar. Few consumer wearable brands have a Medicare outcomes contract. That could give Whoop a head start in showing payers that its data leads to results. STAT's report does not say how other wearable makers are positioned.

The regulatory line is the main risk. Whoop long sold a product it deliberately kept in the wellness category. The FDA issued a warning letter saying the company's blood pressure-estimating feature qualified as a medical device, not a wellness

feature. The agency later closed the letter after Whoop changed the feature, according to STAT. Whoop also announced this year that users can discuss their wearable data with clinicians.

That history shows the tension. Moving toward clinical use brings payment and credibility. It also brings closer scrutiny of what a feature claims to do. A company that measures blood pressure outcomes in a Medicare program will likely face questions about where its wellness features end and its medical claims begin. The source does not say how the FDA would treat future features.

Bhatt also pointed to a practical problem. As a physician, she had patients who brought printed binders of wearable data. A 20-minute visit could not absorb them. She suggested Whoop could send clinicians a contextualized report. It would combine continuous data with a patient's journal entries and conversations with the app's coach. Readers managing a chronic condition should talk with their clinician before relying on wearable data.

WHAT TO WATCH NEXT

Whether Whoop can show improvements in blood pressure, A1C and LDL cholesterol among Medicare patients, and whether regulators treat its clinician-facing tools as wellness features or medical devices.

Source: STAT

IN THIS EDITION · MARKETS & STRATEGY

1. Regeneron Plans Trial in Older Adults After Muscle-Sparing Antibody Preserves Lean Mass
2. BDT & MSD to Buy Sunrise Senior Living From PSP Investments
3. Whoop Moves From Athletes to Medicare Seniors Through Outcome-Based ACCESS Pilot
4. **Typical Medicare Beneficiary Loses Four Advantage Drug Plan Options for 2027**
5. CMS Finalizes Narrowed GLOBE Model Benchmarking Part B Drugs to Foreign Prices

MARKETS & STRATEGY · STANDARD READ · 2 MIN COMPETITIVE LANDSCAPE · KFF

Typical Medicare Beneficiary Loses Four Advantage Drug Plan Options for 2027

The average Medicare beneficiary will have 28 Medicare Advantage prescription drug plans to choose from in 2027, down from 32 in 2026, according to a KFF analysis published October 1.

That is a loss of four options for the typical person. The count peaked at 36 in 2024. It had grown steadily from 2010 to that point. For 2027, it remains above the 2021 level of 27 and every year before it.

The decline shows up across the wider market too. Counting all Medicare Advantage plans open to general enrollment, with or without drug coverage, the average beneficiary will see 35 plans in 2027, compared with 39 in 2026, according to KFF. KFF's figures exclude special needs plans and employer plans.

The pullback is uneven by state. Texas has the largest drop in drug-plan options for the average beneficiary (nine fewer). Illinois and Ohio each lose eight. Minnesota, New Mexico and Washington each lose seven. Nine states keep the same number as in 2026, and four states gain options, according to KFF. Alaska has none in either year.

Some states remain crowded. Pennsylvania, Michigan and Ohio each offer the average beneficiary at least 40 drug-plan options. In 26 states and Puerto Rico, the average beneficiary has at least 20. At the other end, nine states and the District of Columbia have fewer than 10.

For insurers, the figures point to a market that is trimming overlap rather than leaving. KFF notes that the Centers for Medicare and Medicaid Services (CMS) emphasized stability in the overall marketplace. KFF's data do not say why plans were dropped, so any link to insurer margins, payment rates or regulation would be interpretation, not finding. Still, with the number of options falling in most states, the remaining plans in a county compete against a smaller field.

For beneficiaries, the effect depends on where they live and what plan they hold. KFF says most people whose plan exits live in counties that still have many Medicare Advantage options, plus traditional Medicare. Some can move to another plan from the same insurer. Many will be moved automatically if the insurer has a plan of the same type, such as an HMO or PPO, in the same county. Others must choose a new plan or will default to traditional Medicare.

That puts weight on the enrollment window. Marketing began October 1. Open enrollment runs from October 15 through December 7. Yet KFF reports that most beneficiaries say they do not compare coverage options each year. Earlier focus groups found people overwhelmed by the number of choices. Plans also change premiums, cost sharing, out-of-pocket limits, prior authorization rules, drug lists and provider networks each year.

Most Medicare Advantage enrollees are in plans that include drug coverage, according to KFF. About 4% of 2026 enrollees were in plans without it. Most pay no premium beyond the Part B premium.

WHAT TO WATCH NEXT

CMS releases plan benefit and cost data separately, and KFF says a fuller analysis will follow. Those details will show whether fewer plans also means thinner benefits or tighter rules.

Source: KFF

IN THIS EDITION · MARKETS & STRATEGY

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MARKETS & STRATEGY · STANDARD READ · 3 MIN COVINGTON & BURLING

CMS Finalizes Narrowed GLOBE Model Benchmarking Part B Drugs to Foreign Prices

Medicare's plan to tie Part B drug rebates to foreign prices just shrank from a sweeping program to a narrow one. According to Covington & Burling, the federal government now projects $440 million in net Part B savings from the GLOBE Model, down from $11.9 billion in the proposal.

The Centers for Medicare & Medicaid Services (CMS) issued the final rule on September 30, 2026. Covington's alert is dated October 2. The model is mandatory for the drugs it covers. Under it, a manufacturer owes a rebate when the U.S. price of a covered drug exceeds a benchmark based on prices abroad. This replaces the usual Part B inflation rebate, which applies when price increases outpace inflation. CMS relies on Section 1115A of the Social Security Act for this change.

The covered drugs are Part B rebatable single-source drugs and sole-source biologics. They must fall in one of seven drug classes and have more than $100 million in annual Part B spending over a 12-month period. The classes are antigout agents, antineoplastics, blood products and modifiers, central nervous system agents, immunological agents, metabolic bone disease agents and ophthalmic

agents. Cancer, bone and eye products used by older patients are squarely in scope. Generics, biosimilars and drugs with a negotiated Medicare price already in effect are exempt.

The benchmark draws on a basket of 19 reference countries, including Canada, Germany, Japan and the United Kingdom. Prices are adjusted for GDP, and the final rule uses World Bank data for that adjustment. Manufacturers can rely on pricing information CMS gathers from third parties (Method I) or submit their own (Method II). CMS clarified that a company may choose Method II even when a licensing partner limits its access to some foreign price data. In that case, the company must explain each missing data element, and CMS will review the explanation.

Two things drive the smaller impact, and the source does not rank them. Covington calls the new exclusions, discussed below, likely one factor. CMS also confirmed that manufacturers that signed Participation Agreements for the GENEROUS Model, its Medicaid pricing model, by August 17, 2026 will be exempt from GLOBE. The exemption applies for each calendar quarter in which the company takes part in GENEROUS. CMS says the reason is that GLOBE could make it harder to isolate GENEROUS effects. Using an illustrative set of drugs, CMS estimates participating manufacturers fall from 19 to 4.

That makes the Medicaid decision a Part B decision as well. Companies that joined GENEROUS by the deadline avoid GLOBE rebates. The few that did not now carry the exposure. Covington does not say which companies fall into which group, and the 19-to-4 figure is based on illustrative drugs, not a final list. Whether the exemption is worth its cost depends on the terms of GENEROUS, which differ materially from GLOBE according to Covington.

The rule also carves out whole product categories. Orphan-only drugs are excluded, which CMS said was done out of caution for beneficiaries with rare diseases who may rely on them. Commenters had warned that the proposal could discourage rare disease research. Certain approved cell and gene therapies on the FDA's list are excluded because of manufacturing complexity. CMS said it may revisit them through future rulemaking. Plasma-derived products are also out. CMS did not state its reasoning, though it had earlier asked whether shortage risk and reduced rebates justified exclusion.

The timeline moved back. The model's start slipped from October 1, 2026 to January 1, 2027. The first performance year begins April 1, 2027, two quarters later than proposed. The performance period runs through March 31, 2032, and the payment

period through March 31, 2034 so that accrued rebates can be paid. Manufacturer data submission runs from January 1 to March 31, 2027.

Beneficiaries may see effects too. Per the rule, cost sharing will be reduced for people in the model cohort who receive a GLOBE drug, and Medicare premiums may fall for people in Part B or Medicare Advantage. Patients should not change treatment because of pricing changes and should talk to their clinician or plan with questions.

For the companies still covered, the benchmark may still matter beyond Medicare. That is an interpretation, not something the source states. The precedent of foreign reference pricing in a mandatory Medicare program is the strategic issue, even at a reduced dollar scale. The weakest part of this analysis is the split between causes of the smaller savings: the source supports both the exclusions and the GENEROUS exemptions as factors but does not say which matters more.

WHAT TO WATCH NEXT

The final rule for the companion GUARD Model, which remains under review at the Office of Management and Budget, and the model's first performance year, which begins April 1, 2027.

Source: Covington & Burling (CMS final rule, Federal Register, Oct. 2, 2026)

The Arising

HEALTH INTELLIGENCE

THURSDAY, OCTOBER 15, 2026 · BRIEFS

IN THIS EDITION · BRIEFS · 179 SHORT STORIES IN 15 TOPICS

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Each brief is a short summary of one published study, preprint, registered trial or news report, checked against its source by a second reviewer. These are for information only and are not medical advice.

VO2 MAX & ZONE 2 TRAINING 7

Pro-inflammatory diets common in kidney disease, higher scores linked to central fat

A cross-sectional observational study in the Jornal brasileiro de nefrologia looked at 51 adults with stage 3-5 chronic kidney disease. Their diets were mostly pro-inflammatory. Higher dietary inflammation scores were linked to a higher conicity index, a measure of central body fat. Other markers showed no significant link. The design cannot show cause.

JORNAL BRASILEIRO DE NEFROLOGIA · 2026-10-01

Personality traits linked to fitness performance in U.S. Air Force personnel

A longitudinal study in Military Medicine followed 186 active duty U.S. Air Force and Space Force personnel through a 12-week training program. Personality traits were associated with physical performance. Higher neuroticism went with lower aerobic capacity, anaerobic power and muscular endurance. Conscientiousness was positively associated with aerobic performance. These are associations, not proof of cause.

MILITARY MEDICINE · 2026-09-30

Exercise may modestly help muscle strength in children with coordination disorder, but evidence is weak

A systematic review in Physical & Occupational Therapy in Pediatrics pooled ten randomised trials of exercise in young people with Developmental Coordination Disorder. Some trials showed immediate gains in muscle strength or power. Certainty was low. Evidence on heart-lung fitness, speed, agility and lasting activity habits was very low certainty. The trials were too varied to combine statistically.

PHYSICAL & OCCUPATIONAL THERAPY IN PEDIATRICS · 2026-09-30

Rural Guinea study: poorer households have less access to malaria bed nets

A cohort study in Tropical Medicine and Health followed children and adolescents aged 1 to 19 in rural Guinea. Middle- and high-wealth households had higher odds of net access than poorer ones. Among those with access, use exceeded 80% in all groups. The authors conclude that gaps in access, not behaviour, drive the inequality.

TROPICAL MEDICINE AND HEALTH · 2026-09-29

Review of studies maps fitness growth in young male athletes

A meta-analysis in Sports Medicine - Open pooled 28 studies of male youth athletes across nine sports. Jump and endurance performance improved fastest at about 13.2 and 13.8 years. That roughly matches the typical period of peak height growth. Sprint performance improved steadily from ages 12 to 17. Female athletes were left out because too few studies existed.

SPORTS MEDICINE - OPEN · 2026-09-29

Night shifts linked to bigger blood sugar swings in hospital workers

A study in npj Biological Timing and Sleep followed 72 Swiss hospital shift workers through three night and three day shifts using wearables and apps. Night shifts involved lower calorie intake but more glucose variability and higher post-meal spikes. Cortisol and heart rate measures also changed. Exploratory findings linked nighttime eating to greater glucose variability. These are associations.

NPJ BIOLOGICAL TIMING AND SLEEP · 2026-09-29

Canadian spine surgery patients waited nearly a year, and waits grew

An observational study in the Canadian Journal of Surgery used data from 3963 surgical patients with lumbar spine problems, covering 2015 to 2019. The median wait from primary care referral to surgery was 272 days. Cumulative waits rose by an average of 25 days per year. Almost 30% missed the benchmark in 2019.

CANADIAN JOURNAL OF SURGERY. JOURNAL CANADIEN DE CHIRURGIE · 2026-09-29

EPIGENETIC REPROGRAMMING & AGE REVERSAL 1

Blocking KDM5C made breast cancer cells more sensitive to capivasertib in lab tests

This is cell-line research reported in Molecular Cancer Therapeutics, not a human trial. A genome-wide CRISPR screen found that losing KDM5C made ER+ breast cancer cells more sensitive to the drug capivasertib. Knockout or drug inhibition of KDM5C boosted the effect, including in resistant cells, with more cell stress, DNA damage and cell death.

MOLECULAR CANCER THERAPEUTICS · 2026-10-01

Mouse muscle-wasting from spaceflight, aging and disuse shows partly different gene-control patterns

A computational analysis in PLOS One reused three existing mouse datasets covering spaceflight, old age and hindlimb unloading. Of 732 transcription factors scored, 47 showed shared changes across all three conditions. Activity patterns were most alike for spaceflight and disuse, and least alike for spaceflight and aging. This is mouse data, not human.

PLOS ONE · 2026-10-01

Public-data analysis flags shared proteins linking osteoarthritis and osteoporosis

A computational study in PLoS ONE combined public gene-activity datasets from osteoarthritis and osteoporosis tissues. Both diseases showed signatures involving immune signaling, bone remodeling and the extracellular matrix. The analysis ranked proteins including HLA-DRB1, CTSK, SPP1 and APOE as shared candidates. This is a modeling study, not a test in patients.

PLOS ONE · 2026-10-01

Metformin eased harms of a high-sugar diet in fruit flies

A study in fruit flies, published in PLoS ONE, tested high-sucrose diets with and without metformin. High sugar reduced survival and movement, raised trehalose levels and lowered antioxidant enzyme activity. Metformin partly reversed several of these changes. This is animal research, so it does not show the same effects in people.

PLOS ONE · 2026-10-01

Review: diabetes drugs may affect male fertility, but human evidence is limited

A review in Reviews in Endocrine & Metabolic Disorders looked at SGLT2 inhibitors and GLP-1 drugs. In preclinical models, they appeared to improve sperm parameters and reduce testicular damage. Clinical evidence is limited and partly conflicting. It is unclear whether these effects help people, and the authors call for better prospective studies.

REVIEWS IN ENDOCRINE & METABOLIC DISORDERS · 2026-10-01

Review: melatonin may act through SIRT1, but evidence is limited

A review in Molecular Biology Reports looks at melatonin's effects across disease models, focusing on SIRT1, a protein tied to aging and stress resistance. The authors say available evidence suggests melatonin may modulate SIRT1 and affect inflammation, oxidative stress and cell death. They stress that evidence for SIRT1's role remains limited.

MOLECULAR BIOLOGY REPORTS · 2026-10-01

Review proposes glycogen buildup may contribute to diabetic kidney disease

A narrative review in the Journal of Diabetes Investigation gathers animal and human evidence on kidney disease in diabetes. Abnormal glycogen buildup has been seen in experimental models and human biopsy samples. The authors propose it may add to disease progression. This is a hypothesis, and the authors say observational findings need further study.

JOURNAL OF DIABETES INVESTIGATION · 2026-10-01

Review of lab studies finds vitamin D generally protects insulin-producing cells from death

A systematic review in Apoptosis covered 26 studies in cells, tissue and animal models. Vitamin D signalling generally protected pancreatic β-cells from death caused by inflammation, oxidative stress and metabolic stress. Effects depended on the model, and insulinoma tumour-cell models showed growth inhibition and more cell death. No studies in people were reviewed, so human benefit is not shown.

APOPTOSIS : AN INTERNATIONAL JOURNAL ON PROGRAMMED CELL DEATH · 2026-10-01

Review examines GLP-1 drugs as possible kidney protection in diabetes

A review in Clinical Science looked at clinical and preclinical evidence on GLP-1 receptor agonists in chronic kidney disease. The authors say trials in people with type 2 diabetes and kidney disease show fewer major cardiovascular events, slower decline in kidney function and less albuminuria. They also discuss proposed mechanisms and safety risks.

CLINICAL SCIENCE (LONDON, ENGLAND : 1979) · 2026-10-01

Mouse study maps protein changes in the inner ear after loud noise

A study in Cell Biology International examined the inner ear of mice after damaging noise. Researchers identified an 80-protein signature that differed from normal-hearing mice. The proteins relate to metabolism, mitochondria, and stress responses. Some matched a separate dataset. The work is descriptive and was done in mice, so it does not show causes or treatments.

CELL BIOLOGY INTERNATIONAL · 2026-10-01

Computer analysis flags three placental genes as possible markers of gestational diabetes

A study in the American Journal of Reproductive Immunology analysed existing gene data from placentas using machine learning. Three genes, CACNA1C, CCDC102B and KIF21A, distinguished gestational diabetes samples well in two outside datasets. The genes were also linked to certain cell pathways. The authors say they may be biomarkers, but this is computational work.

AMERICAN JOURNAL OF REPRODUCTIVE IMMUNOLOGY (NEW YORK, N.Y. : 1989) · 2026-10-01

Review: decline in protein quality control is tied to ageing

A review in Philosophical Transactions of the Royal Society B covers proteostasis, the cell's system for making, folding and clearing proteins. It says three main pathways decline with age and are interconnected. This is linked to age-related disease. The authors say understanding these links may offer strategies to support healthy lifespan.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON. SERIES B, BIOLOGICAL SCIENCES · 2026-10-01

Brain injury reshapes protein-quality-control gene activity differently across brain cell types

A study in Philosophical Transactions of the Royal Society B reanalysed existing mouse and human gene-activity data. It found that traumatic brain injury changes the activity of genes that manage protein quality, with shared and cell-type-specific effects. Some responses were conserved between mouse and human. The authors say this points to potentially modifiable mechanisms.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON. SERIES B, BIOLOGICAL SCIENCES · 2026-10-01

Review: cell clean-up systems may shape Parkinson's-type and tau-related brain diseases

A short review in Philosophical Transactions of the Royal Society B looks at alpha-synuclein and tau, two proteins that form clumps in neurodegenerative diseases. The authors conclude the cell's protein-quality network appears to be a master regulator. Disease progression may depend on whether it can clear or break down varied clumps. This is a review, not new trial data.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON. SERIES B, BIOLOGICAL SCIENCES · 2026-10-01

Review argues HSF1 protects tissues beyond its known role in cell protein care

A opinion piece in Philosophical Transactions of the Royal Society B discusses a protein called HSF1. It has long been linked to protecting proteins in the cell's main fluid compartment. The author argues HSF1 also supports other cell structures, including mitochondria and lysosomes. The author says the current model of how HSF1 supports tissue health should be expanded. This is an argument, not new experimental data.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON. SERIES B, BIOLOGICAL SCIENCES · 2026-10-01

Review proposes neurodegeneration depends on fit between protein clumps and cell defenses

A review in Philosophical Transactions of the Royal Society B proposes a framework for neurodegenerative disease. It argues that the structure of misfolded protein aggregates and the makeup of a cell's protein quality control network interact. The same aggregate may be cleared in one cell type but persist in another. This is a proposed model, not new trial data.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON. SERIES B, BIOLOGICAL SCIENCES · 2026-10-01

SLEEP SCIENCE & CIRCADIAN BIOLOGY

Case report finds signs of two abnormal proteins in a patient with a GRN mutation

A single-patient case report in Molecular Neurodegeneration describes a person with a GRN mutation who first had parkinsonism and later early frontotemporal dementia. Tests on olfactory mucosa and skin suggested mixed TDP-43 and α-synuclein pathology. The authors say combining these tests could help study underlying disease processes. One case cannot be generalised.

MOLECULAR NEURODEGENERATION · 2026-10-01

Review maps barriers and enablers to nature-based health prescriptions

A systematic review of qualitative studies in BMC Medicine examined green health prescribing. In this approach, clinicians or qualified health or social care professionals prescribe nature-based activities, which the authors frame as a way to support healthy ageing. Across 25 studies the review identified ten overarching factors. Barriers included programme accessibility, gaps in services and professionals' knowledge, and prescriber hesitancy. It examined access and delivery, not health outcomes.

BMC MEDICINE · 2026-10-01

Nature-based programmes for older adults often show wellbeing gains, review finds

A systematic review in BMC Medicine examined 21 studies, 11 of them randomised trials, of nature-based activities for adults aged 50 and over. These included gardening, green-space exercise and horticultural therapy. Many studies reported improvement in at least one health or wellbeing outcome. The text provided is cut off, so the review's wider caveats are not shown here.

BMC MEDICINE · 2026-10-01

Review outlines workplace risk factors for post-traumatic stress disorder

A narrative review in the Journal of Occupational Medicine and Toxicology covers PTSD and work. Risk is elevated in military service, public safety and disaster management, and jobs with frequent severe incidents. Risk depends on the type, severity and recurrence of trauma. Prevalence varies widely between studies, so figures are not directly comparable.

JOURNAL OF OCCUPATIONAL MEDICINE AND TOXICOLOGY (LONDON, ENGLAND) · 2026-10-01

Australian endocarditis prevalence rate quadrupled since 1990 as deaths per case fell

An analysis of Global Burden of Disease 2021 data, published in Internal Medicine Journal, examined infective endocarditis in Australia from 1990 to 2021. The age-adjusted prevalence rate quadrupled, from 2.63 to 10.18 per 100,000 people. Deaths and disability per hundred cases fell, while heart failure per hundred cases rose. Males had higher mortality and disability, and females had more heart failure. This is a database analysis.

INTERNAL MEDICINE JOURNAL · 2026-10-01

Review links sleep apnea, obesity and cancer through shared pathways

A review in the International Journal of Obesity describes obesity, sleep apnea and cancer as an interconnected triad. It reports that sleep apnea is associated with several cancers, even after accounting for obesity, though leftover confounding remains a challenge. Low oxygen at night appears to predict cancer outcomes better than the standard apnea measure. The review is not a trial of treatment.

INTERNATIONAL JOURNAL OF OBESITY (2005) · 2026-10-01

Tirzepatide safety reports show fewer 'drug ineffective' mentions than several similar drugs

A pharmacovigilance study in BMJ Open analysed reports in the European EudraVigilance database. Off-label use was the most frequently reported term. Tirzepatide reports had lower reporting odds of 'drug ineffective' than liraglutide, dulaglutide, exenatide and semaglutide. Healthcare professional reports showed no difference from semaglutide. Reporting data cannot show how well the drugs actually work.

BMJ OPEN · 2026-10-01

Age and sleep apnea linked to mismatched Alzheimer blood test results

A retrospective study in Neurology looked at 706 people in Mayo Clinic memory and aging studies. About 8.5% had blood p-tau217 results that disagreed with established Alzheimer biomarkers. Older age and obstructive sleep apnea were associated with mismatches. Kidney function and disease stage were also linked to specific error types. These are associations, not proven causes.

NEUROLOGY · 2026-10-01

Alzheimer's patients with agitation faced high yearly costs, mostly informal care

An observational cohort study in the International Journal of Geriatric Psychiatry followed 262 people aged 60 and older with moderate-to-severe Alzheimer's and agitation in southwest France for 12 months. Annual costs including supervision were €52,111 and €56,149 in two symptom-trajectory groups. For people living at home, informal care made up nearly 70% of total costs, mostly supervision.

INTERNATIONAL JOURNAL OF GERIATRIC PSYCHIATRY · 2026-10-01

One mitochondrial transporter links body clock, diet and cold to fat metabolism

A study in Science reports that a mitochondrial transporter called SLC25A34 integrates circadian rhythm, diet and temperature signals in fat cells. The body clock suppresses it during sleep. Cold or lipid-rich diets lift that suppression. The authors propose it supports lipid synthesis and mitochondrial oxidation. The text does not state human findings.

SCIENCE (NEW YORK, N.Y.) · 2026-10-01

Lung lining breakdown marker linked to worse outcomes in acute respiratory distress syndrome

A study in the American Journal of Physiology (Lung) examined fluid from the airspaces of patients with ARDS, a severe lung injury. Higher syndecan-1, a marker of damage to the lung's protective lining, was associated with poorer lung mechanics, lower oxygen, longer ventilation and higher mortality. These are associations in patient cohorts, not proof of cause.

AMERICAN JOURNAL OF PHYSIOLOGY. LUNG CELLULAR AND MOLECULAR PHYSIOLOGY · 2026-10-01

Small stroke rehabilitation study links sleep time and recovery in complex ways

An exploratory observational study in Neurological Sciences followed 29 stroke patients during rehabilitation. Longer sleep was linked to lower independence in unadjusted analyses. After adjustment, longer sleep was linked to higher independence only in patients who started more independent. The authors call the findings preliminary because of the small sample.

NEUROLOGICAL SCIENCES : OFFICIAL JOURNAL OF THE ITALIAN NEUROLOGICAL SOCIETY AND OF THE ITALIAN SOCIETY OF CLINICAL NEUROPHYSIOLOGY · 2026-10-01

Combined brain scans predict Lewy body dementia in REM sleep disorder

A small study in the Journal of Neurology followed 21 people with isolated REM sleep behaviour disorder. Researchers combined several PET and MRI scans. A pattern of inflammation, shrinkage and blood flow problems in the back of the brain, plus dopamine changes, predicted later dementia with Lewy bodies. The sample was small, so the findings are early.

JOURNAL OF NEUROLOGY · 2026-10-01

Ugandan mothers describe what helps and hinders kangaroo care for preterm babies

A qualitative study in Global Health Action interviewed 14 mothers in a Ugandan hospital ward about kangaroo mother care. Most found it acceptable and used it. Barriers included limited facilities, scarce materials, little education on the method and no adaptation for twins. Supportive staff, learning tools and seeing positive effects helped. The sample was small.

GLOBAL HEALTH ACTION · 2026-10-01

Gut hormone signals linked to higher fat storage in female fruit flies

A study in eLife examined gut hormones in fruit flies. Some hormone genes were more active in female guts. Switching off one of them, AstC, in gut cells lowered fat storage in females but not males. The work was in flies, so it does not show the same effect in people.

ELIFE · 2026-10-01

GUT MICROBIOME & BRAIN AXIS

14

Organ-specific aging clocks give mixed signals on alcohol, complicating the 'healthy drinking' paradox

This Perspective article in Aging Cell reviews studies using organ-specific protein aging clocks. Some found alcohol linked to slower aging in certain organs and faster aging in others. The author points to differences in clock design, alcohol measurement and confounding. Such observational findings may understate alcohol's known harms, so careful interpretation is needed.

AGING CELL · 2026-10-01

Gut microbes from elderly donors weakened gut barrier markers in pigs

In a study in Aging Cell, miniature pigs received fecal microbiota from young or elderly human donors. Pigs given elderly-donor microbes had shorter ileal villi and lower levels of gut barrier proteins. Blood metabolites and gene activity also differed. Some findings were checked in pig cells. This is animal and cell research, not a human trial.

AGING CELL · 2026-10-01

Delhi air samples contained Staphylococcus bacteria with a urease gene cluster

Researchers reported in Environmental Microbiology Reports on air sampled at six Delhi locations in November 2019. They found three Staphylococcus species that can act as opportunistic pathogens. Genome sequencing showed a urease gene cluster in two strains, which may give them a fitness advantage. This was a laboratory and genomic study, not a study of illness in people.

ENVIRONMENTAL MICROBIOLOGY REPORTS · 2026-10-01

Microbiome-derived bacterial strain lowers uric acid in lab tests, possible gout candidate

A study in MicrobiologyOpen screened microbiome-derived bacterial strains in the lab. One, Mitsuokella jalaludinii strain PMC73, cut uric acid by about 30% after 48 hours. In a macrophage cell model it also lowered uric acid and shifted immune signals toward anti-inflammatory cytokines. Safety tests, including an oral toxicity assessment in mice, found no pathogenic or toxic properties. No human data were reported.

MICROBIOLOGYOPEN · 2026-10-01

Review explains how the gut senses dietary fat and releases hormones

A review in Clinical Science describes how the gut detects fats from food. Lipid transporters, nutrient-sensing receptors, bile acids and chylomicron formation all play roles. These pathways trigger hormones such as GLP-1, PYY and CCK. The hormones help regulate digestion, appetite, blood sugar and fat metabolism. It summarises existing research rather than presenting new data.

CLINICAL SCIENCE (LONDON, ENGLAND : 1979) · 2026-10-01

Small pilot finds lower gut microbe diversity in children with ADHD

A pilot study in Developmental Neurobiology compared gut bacteria in ten children aged 6 to 12 who were recently diagnosed with ADHD and not yet medicated, and ten healthy children. Two diversity measures were significantly lower in the ADHD group. Specific bacterial groups did not differ significantly, and neither did sleep or eating scores. The authors urge caution because of the small sample and call for larger studies.

DEVELOPMENTAL NEUROBIOLOGY · 2026-10-01

Breast tissue bacterium linked to obesity and age promoted tumours in mice

A study in Cancer Research found more Akkermansia muciniphila in breast tissue from postmenopausal women with obesity. Body mass index also correlated with its abundance in a second tissue group. In mice on a Western diet, the bacterium increased tumours and oxidative stress. The human findings are associations. The causal tests were in mice.

CANCER RESEARCH · 2026-10-01

Review maps research on oral probiotics for skin health and aging

A scoping review in Nutrition Reviews mapped 516 studies on oral probiotics, prebiotics and synbiotics for skin. Most studied probiotics and atopic dermatitis. Only 54 studies looked at wrinkling, elasticity, aging or UV response. Just 15% of studies involved adults over 60. A scoping review maps research and does not test whether these products work.

NUTRITION REVIEWS · 2026-10-01

Timing of nerve block did not clearly change delirium after hip surgery

A randomised trial in PeerJ enrolled 79 people aged 65 and older having hip surgery after a fracture. A nerve block was given either the day before or one hour before surgery. Delirium within 7 days was 8.1% versus 12.8%, a difference that was not statistically significant. Early pain differences did not hold after statistical correction.

PEERJ · 2026-09-30

Oral algae-based nanomaterial eased Parkinson's-like signs in mice

A study in Biomaterials tested an oral material combining Spirulina with a light-responsive nanozyme in Parkinson's disease mice. Treated mice showed better movement, less gut dysfunction and less loss of dopamine neurons. The authors link this to gut bacteria and a metabolite called indole-3-lactic acid. It is preclinical mouse research.

BIOMATERIALS · 2026-09-30

Review maps signaling pathways that guide cell specialization and their links to disease

A review in Signal Transduction and Targeted Therapy covers pathways such as Wnt, Notch and Hedgehog, which guide how stem cells specialize. The authors say faulty signaling contributes to cancer, heart disease, neurodegeneration and other conditions. They also summarize drugs that target these pathways and separate early lab findings from clinical use.

SIGNAL TRANSDUCTION AND TARGETED THERAPY · 2026-09-30

Gut bacterium shortfall and leucine tied to diabetic cognitive decline in mice

According to a study in Gut Microbes, diabetic mice and patients had less of the gut bacterium Akkermansia muciniphila and more leucine, an amino acid. In mice, extra leucine worsened cognitive decline. The authors describe a pathway involving excessive clearing of damaged mitochondria in neurons. Most of the causal evidence comes from mice.

GUT MICROBES · 2026-09-30

Trial planned to test augmented-reality Tai Chi for diabetes-related cognitive impairment

This is a trial protocol in BMJ Open, so there are no results yet. Researchers plan to randomly assign 246 adults aged 45 to 75 with diabetes-associated cognitive impairment to AR-assisted Tai Chi, instructor-led Tai Chi or standard care. Exercise groups would train three times weekly for 12 weeks. The main outcome is change in a cognitive test score.

BMJ OPEN · 2026-09-30

Machine learning models tested to triage colorectal polyp risk in China

According to a cross-sectional study in JMIR Medical Informatics, researchers in Wenzhou, China, evaluated nine machine learning models to triage colorectal polyp risk. They used noninvasive data from 4108 people aged 50 to 74 who had colonoscopy after an initial screening. XGBoost had the highest area under the curve, at 0.672. LightGBM was judged best for triage because of its higher recall, at 0.6503.

JMIR MEDICAL INFORMATICS · 2026-09-30

ALZHEIMER'S & COGNITIVE DECLINE PREVENTION 15

Wider retinal veins linked to later balance problems in middle-aged and older adults

An observational study in Investigative Ophthalmology & Visual Science followed 12,929 Canadian adults aged 45 to 85 for three years. Of these, 2378 developed balance impairment. Wider retinal venules were associated with higher odds, and larger arteriolar area with lower odds. These are associations, and the authors say results need confirming.

INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE · 2026-10-01

Long working hours linked to fewer dental check-ups among Chinese women

A cross-sectional study of 40,508 Chinese adults, published in the International Journal of Dentistry, found long working hours were linked to fewer routine dental check-ups in women, but not in men. Depressive symptoms accounted for a small share of that link, about 7% in women. The design shows association only. The authors call for longitudinal studies to confirm the findings.

INTERNATIONAL JOURNAL OF DENTISTRY · 2026-10-01

Thyroid hormone transporter MCT8 is widespread in aged human brains, including with Alzheimer's changes

A study in Acta Neuropathologica Communications mapped the MCT8 protein in eight brain regions from 14 aged donors. It was found in brain barriers, glial cells and some neurons. Levels did not differ significantly across Alzheimer's-related Braak stages. This is a descriptive tissue study of donated brains.

ACTA NEUROPATHOLOGICA COMMUNICATIONS · 2026-10-01

Parkinson's patients with more non-motor symptoms recovered less mobility after brain stimulation

A longitudinal study in the Journal of Neurology followed 100 people with Parkinson's disease who had deep brain stimulation. Higher non-motor symptom burden before surgery was associated with poorer mobility recovery. Mood symptoms later were linked to motor burden. The authors call the findings exploratory. These are associations, not proof of cause.

JOURNAL OF NEUROLOGY · 2026-10-01

Removing TMEM106B protein did not change prion disease course in mice

A study in eNeuro tested whether the protein TMEM106B affects prion disease. It has been linked to other neurodegenerative conditions in experimental models. Researchers removed it in mice and varied prion dose, strain and route of exposure. Disease progression did not change in any tested condition. The authors say this points to the protein's specificity.

ENEURO · 2026-10-01

Certain blood platelet measures linked to early memory-and-walking risk syndrome in Chinese adults

A cross-sectional study in BMJ Open analysed 4,080 adults in western China. About 7.8% had motoric cognitive risk syndrome, which combines memory complaints with slow walking. Higher platelet count and plateletcrit were linked to higher odds of it. Higher platelet distribution width and platelet-large cell ratio were linked to lower odds. This design cannot show cause. The authors call for prospective studies.

BMJ OPEN · 2026-10-01

People describe family doctors' role in delayed dementia diagnosis

A qualitative study in Family Medicine and Community Health interviewed people across Australia who had gone through dementia diagnosis, as patients or family and friends. Participants said clearly voicing concerns shaped the path to diagnosis. They named doctor time and workload pressures, limited dementia knowledge and inconsistent referral pathways as barriers. The findings reflect participants' own views.

FAMILY MEDICINE AND COMMUNITY HEALTH · 2026-10-01

Eleven blood proteins linked to later dementia in UK Biobank

A prospective cohort study in Geriatrics & Gerontology International screened blood proteins in 36,696 UK Biobank participants. An 11-protein score was strongly associated with later dementia diagnosis and improved risk prediction in the models tested. The authors say independent external validation is needed before any clinical use. The study shows a link, not a cause.

GERIATRICS & GERONTOLOGY INTERNATIONAL · 2026-10-01

Italian study of centenarians seeks genetic clues to healthy thinking

A protocol and early profile in Experimental Gerontology describes the COOL cohort study in Genoa, Italy. By July 2025, it had enrolled 88 people aged 99 to 108. Their cognitive health varied widely. Blood and DNA were stored for 67 participants. The goal is to find genetic markers tied to cognition. No genetic results are reported yet.

EXPERIMENTAL GERONTOLOGY · 2026-10-01

Two patients show rare progressive form of speech and swallowing disorder

A case series in Neurocase describes two patients with a rare, progressive form of anterior opercular syndrome. Both had severe speech and swallowing problems. Deliberate mouth movements were impaired, but reflexes like yawning and smiling at humor were preserved. Scans showed shrinkage in both frontal regions. With only two cases, the findings are early and descriptive.

NEUROCASE · 2026-10-01

Frailty and dementia linked to harder recovery after bladder cancer surgery in older adults

An observational study in the Journal of Geriatric Oncology used Medicare claims for 3,600 older adults who had bladder removal surgery. Frailty was linked to more care transitions, nursing facility stays, dialysis, feeding tubes and poorer survival. Dementia was linked to nursing facility admission regardless of frailty. These are associations, not proof of cause.

JOURNAL OF GERIATRIC ONCOLOGY · 2026-10-01

Review examines AI ethics and safety around surgery in seriously ill patients

A narrative review in JMIR Perioperative Medicine searched PubMed, Embase, CENTRAL and Scopus for studies from 2010 to July 2024. It assessed how far equity, ethics and safety are discussed when AI is used around surgery in seriously ill patients, such as those with cancer, organ failure, frailty, dementia or stroke. It aims to inform future ethical guidelines. The text gives no findings.

JMIR PERIOPERATIVE MEDICINE · 2026-10-01

Lower skin nerve fibre density linked to cognitive decline and brain shrinkage in Parkinson's

A cross-sectional study in Neurology compared 155 people with Parkinson disease and 50 healthy controls in China. Skin nerve fibre density fell step by step from controls to those with dementia. Lower density was linked to worse cognition. Brain shrinkage statistically mediated that link. The design shows association, not cause.

NEUROLOGY · 2026-10-01

Earlier family deaths linked to higher later risk of cognitive impairment

According to a study in the American Journal of Public Health, losing a parent, child or spouse at a younger age was associated with higher risk of cognitive impairment later. It used 20 years of US Health and Retirement Study data. The link for parent and spouse deaths faded after adjusting for health factors. The link for a child's death held. This observational study cannot show cause.

AMERICAN JOURNAL OF PUBLIC HEALTH · 2026-10-01

Older adults' multimorbidity patterns linked to higher death risk, differing by sex

A secondary analysis of 16,095 Australian ASPREE participants aged 70 and over, published in The Journals of Gerontology Series A, grouped chronic conditions into clusters. A cluster of frailty, depressive symptoms and osteoporosis was linked to higher mortality in both sexes. The authors call the findings hypothesis-generating and say more research is needed.

THE JOURNALS OF GERONTOLOGY. SERIES A, BIOLOGICAL SCIENCES AND MEDICAL SCIENCES · 2026-10-01

Australian women with chronic pelvic pain report delayed care and feeling unheard

An online cross-sectional survey of 465 Australian women, published in The Australian & New Zealand Journal of Obstetrics & Gynaecology, found 64.3% had pain before age 18, but 36.4% first sought help then. Of those seen by clinicians, 42.9% felt their pain was not validated. More threatening illness perceptions were associated with higher pain severity.

THE AUSTRALIAN & NEW ZEALAND JOURNAL OF OBSTETRICS & GYNAECOLOGY · 2026-10-01

Review: menopause after cancer treatment remains under-addressed in survivorship care

A review in Reproduction & Fertility synthesised evidence on menopause caused by cancer treatment, including ovary removal, chemotherapy, radiation and hormone-suppressing drugs. Symptoms are often substantial. Early menopause is associated with higher long-term risks, including reduced bone density and cardiovascular disease. Hormone therapy is effective but limited by recurrence concerns in hormone-sensitive cancers. The authors say few effective licensed therapies exist and specialist support is limited.

REPRODUCTION & FERTILITY · 2026-10-01

Review of first-person accounts maps the lived experience of trans people

A review in World Psychiatry, co-written by trans experts by experience and academics, drew on first-person narratives. It grouped them into four themes: lived experience, gender affirmation, social and cultural context, and receiving care. The authors describe a wide diversity of gender identity experiences. This is a qualitative narrative review, not a trial.

WORLD PSYCHIATRY : OFFICIAL JOURNAL OF THE WORLD PSYCHIATRIC ASSOCIATION (WPA) · 2026-10-01

Some diabetes drugs linked to better hearing thresholds in patients with type 2 diabetes

A retrospective observational study in Pharmacology Research & Perspectives compared 240 people with type 2 diabetes and 105 controls. Those with diabetes had worse hearing thresholds. GLP-1 drugs, metformin and pioglitazone were associated with better thresholds. This shows a link only, and the authors call for prospective studies.

PHARMACOLOGY RESEARCH & PERSPECTIVES · 2026-10-01

Six autistic transgender adults reported benefits from gender-affirming hormone therapy

A small interview study in the Australian Occupational Therapy Journal involved six autistic transgender and gender diverse adults on hormone therapy. Participants described better quality of life, mental health and sense of occupational identity. They also described difficulties navigating health-care and social settings. With only six people and no comparison group, the findings are limited.

AUSTRALIAN OCCUPATIONAL THERAPY JOURNAL · 2026-10-01

Higher stress-related body wear linked to later frailty in older adults

A study in Stress and Health used 12 years of data from 3,248 people aged 50 to 89 in the English Longitudinal Survey on Ageing. Higher allostatic load, a measure of prolonged stress on the body, was associated with later pre-frailty and frailty. Social support was identified as a possible modifiable factor. This is an observational finding, not proof of cause.

STRESS AND HEALTH : JOURNAL OF THE INTERNATIONAL SOCIETY FOR THE INVESTIGATION OF STRESS · 2026-10-01

Plant compound eased liver scarring in rats through a cannabinoid receptor

According to a study in Pharmacology Research & Perspectives, rats with chemically induced liver fibrosis were given β-caryophyllene for six weeks. Treated rats showed less inflammation, less collagen build-up and less scarring. Blocking the CB2 receptor removed these effects. This is animal research, so it does not show whether the compound would help people.

PHARMACOLOGY RESEARCH & PERSPECTIVES · 2026-10-01

Fertility hormone testing rose sharply in Australian general practice, 2011-2021

A retrospective cohort study in the Australian & New Zealand Journal of Obstetrics & Gynaecology analysed records for over 1.39 million women aged 20-44. AMH test requests rose from 0.32 to 4.33 per 1000 women between 2011 and 2021. Testing varied widely between practices. The authors say the increase does not appear evidence-based.

THE AUSTRALIAN & NEW ZEALAND JOURNAL OF OBSTETRICS & GYNAECOLOGY · 2026-10-01

Boosting ITCH protein eased steroid-induced muscle wasting in mice

A study in mice and cultured cells, published in Acta Physiologica, examined muscle wasting induced by the steroid dexamethasone. Raising ITCH protein levels in mouse muscle increased body weight, muscle mass and strength and promoted mitochondrial biogenesis. ITCH interacted with another protein, THBS1, and tagged it through ubiquitination. These are animal and cell findings, not human results.

ACTA PHYSIOLOGICA (OXFORD, ENGLAND) · 2026-10-01

Turkish pelvic floor symptom questionnaire shown to track change after exercise training

A retrospective study in Physiotherapy Research International included 200 women with pelvic floor dysfunction who completed 8 weeks of muscle training. It assessed how well the Turkish PFDI-20 questionnaire detects change. Responsiveness was excellent overall and for urinary symptoms, and moderate for prolapse and bowel subscales. The thresholds reported are preliminary.

PHYSIOTHERAPY RESEARCH INTERNATIONAL : THE JOURNAL FOR RESEARCHERS AND CLINICIANS IN PHYSICAL THERAPY · 2026-10-01

Fat-breaking enzyme may skip unsaturated fats, which build up in obesity

A study in Diabetes examined fat tissue from mostly midlife people with obesity. It found more unsaturated triacylglycerols, a type of stored fat. Experiments in fat cells suggested the enzyme ATGL breaks down saturated fats more readily than unsaturated ones. That may let unsaturated fats be retained. The cell work points to a mechanism, not a human treatment.

DIABETES · 2026-10-01

Bone loss over eight years was similar with and without type 2 diabetes

A longitudinal study in Diabetes Care followed 769 Framingham Study participants for about eight years using bone scans of the arm and leg. Bone loss did not differ between people with type 2 diabetes and those with normal blood sugar. The authors suggest bone deterioration alone does not explain the higher fracture risk in diabetes.

DIABETES CARE · 2026-10-01

Tau scan signal in healthy older adults linked to memory, blood marker

A study in the Journal of Nuclear Medicine scanned 166 cognitively unimpaired older adults and 13 young adults. Tau tracer binding in the temporal lobe was higher in women and linked to plasma p-tau 217. Higher binding and smaller hippocampal volume were associated with worse episodic memory. These are associations, not proof of cause.

JOURNAL OF NUCLEAR MEDICINE : OFFICIAL PUBLICATION, SOCIETY OF NUCLEAR MEDICINE · 2026-10-01

Time of day for prostate radiotherapy may affect side effects in people with certain gene variants

An observational analysis in Clinical Cancer Research used the REQUITE cohort of prostate cancer patients, with 877 included in the main models. Side-effect risk depended on the interaction between PER3 gene variants and treatment time. Predicted rectal bleeding risk differed by time of day for some genotypes. These are model predictions, not trial results.

CLINICAL CANCER RESEARCH : AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH · 2026-10-01

HPV found in most vaginal precancer and cancer cases in Chinese hospital study

A retrospective study in the Journal of Lower Genital Tract Disease reviewed 5,180 patients at one hospital in Shanxi, China. HPV was found in 95.5% of high-grade precancer cases and 86.0% of squamous cell vaginal cancers. HPV16, 52, 58, 53 and 18 were the most common types. The study describes patterns and cannot show cause.

JOURNAL OF LOWER GENITAL TRACT DISEASE · 2026-10-01

Practice article reviews causes and treatments of nighttime urination after menopause

Nocturia means waking at night to urinate. A Practice Pearl in the journal Menopause says it is common in postmenopausal women and affects quality of life. It describes hormonal, anatomical, functional and psychosocial changes that may contribute, and reviews available treatment strategies. It is a clinical overview rather than a new study.

MENOPAUSE (NEW YORK, N.Y.) · 2026-10-01

NITRIC OXIDE & VASCULAR HEALTH

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Plant-extract mouth gargle linked to fewer mouth sores in small cancer trial

In a randomised controlled trial reported in Supportive Care in Cancer, 56 head and neck cancer patients having chemoradiotherapy were studied. Oral mucositis occurred in 30.4% of the Boesenbergia rotunda gargle group versus 41.1% of controls (p = 0.04). Lip swelling was also less common. Other adverse events were similar. The trial was small.

SUPPORTIVE CARE IN CANCER : OFFICIAL JOURNAL OF THE MULTINATIONAL ASSOCIATION OF SUPPORTIVE CARE IN CANCER · 2026-10-03

Capybara oil nanoemulsion eased obesity-related kidney damage in mice

According to a study in Cell Biochemistry and Function, male mice with diet-induced obesity given a capybara oil-based nanoemulsion for 4 weeks had lower body mass and systolic blood pressure. Protein in the urine fell and kidney structure improved. Pro-inflammatory markers and fibrotic changes were reduced, and antioxidant defences increased. This was an animal study, so it does not show the same effect in people.

CELL BIOCHEMISTRY AND FUNCTION · 2026-10-01

Moringa nanoemulsion improved semen quality in heat-stressed goats

A small animal study in Reproduction in Domestic Animals gave 15 male goats moringa, a moringa nanoemulsion or a basic diet for eight weeks during summer heat. Goats given the nanoemulsion showed better testicular blood flow, testosterone, antioxidant markers and sperm quality. With five animals per group, it is early evidence in goats, not humans.

REPRODUCTION IN DOMESTIC ANIMALS = ZUCHTHYGIENE · 2026-10-01

Two dialysis patients tolerated one apheresis and dialyzer setup best

A case series in the Journal of Clinical Apheresis studied two patients with severe limb ischaemia on dialysis. Each had four sessions combining LDL apheresis with dialysis, using different membranes and circuit orders. One setup showed the smallest early blood pressure drop in both patients. With just two patients, the findings are very preliminary.

JOURNAL OF CLINICAL APHERESIS · 2026-10-01

Review: GLP-1 drugs modestly lower blood pressure, but mechanisms unclear

A review in Pharmacology Research & Perspectives examines GLP-1 receptor agonists, drugs used for type 2 diabetes. It says their blood pressure-lowering effect is well documented in clinical trials. How they do it remains incompletely understood, because most mechanism evidence comes from animal and cell studies rather than human studies.

PHARMACOLOGY RESEARCH & PERSPECTIVES · 2026-10-01

CEP135 gene variants tied to small head size and lung cilia disease in children

A case report in Pediatric Pulmonology describes three children from two families. All had congenital microcephaly and chronic respiratory disease consistent with primary ciliary dyskinesia. Genetic testing found variants in the CEP135 gene. Lab tests on nasal cells showed abnormal cilia movement. The authors propose CEP135 as a new cause of this combined condition. The sample is very small.

PEDIATRIC PULMONOLOGY · 2026-10-01

Review finds biologic drugs may help aspirin-exacerbated respiratory disease

A narrative review in Clinical and Translational Allergy examined 18 studies, including randomised trials and observational work, on biologic drugs for aspirin-exacerbated respiratory disease. Dupilumab was most consistently linked to better airway outcomes. The authors say evidence is limited by small samples and varied designs, and call for head-to-head studies.

CLINICAL AND TRANSLATIONAL ALLERGY · 2026-10-01

Case report: long-standing bronchiectasis was first sign of vasculitis

A case report and literature review in Respirology Case Reports describes a 74-year-old woman with seven years of bronchiectasis. She was later diagnosed with ANCA-associated vasculitis after new symptoms appeared. The authors suggest this lung-first pattern is a diagnostic blind spot. A single case cannot show how common this is.

RESPIROLOGY CASE REPORTS · 2026-10-01

Experimental compound relaxes uterine muscle in lab tests, pointing to possible preterm labour drug

A study in Uterine Research tested a compound called TK047 on human uterine muscle cells and on human and mouse uterine tissue. It reduced two proteins involved in contractions and weakened muscle contractions. It was not toxic at therapeutic doses and did not affect mouse fetal viability. This is early lab work, not a human trial.

UTERINE RESEARCH · 2026-10-01

Balance of estrogen receptor forms shapes ovarian cell growth in lab study

A laboratory study in the FASEB Journal looked at human granulosa cells, which support egg development in the ovary. Different forms of estrogen receptor beta either slowed or promoted cell growth. The overall response depended on the balance among forms. The work used engineered and isolated cells, so it does not show effects in people.

FASEB JOURNAL : OFFICIAL PUBLICATION OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY · 2026-10-01

Reports to FDA database hint at possible heart-related side effects of ambrisentan

A study in Medicine analysed 30,060 reports in the US FDA Adverse Event Reporting System that named ambrisentan, a drug for pulmonary arterial hypertension. It found possible signals for swelling, breathlessness, palpitations and cardiac failure. The authors call these signals hypothesis-generating, needing confirmation in prospective studies. Reports alone cannot show the drug caused them.

MEDICINE · 2026-10-01

Genetic study links higher FGF23 to modestly greater risk of aortic calcification

A Mendelian randomization study in the journal Medicine used genetic data to examine FGF23, a hormone involved in phosphate regulation. Genetically predicted higher FGF23 was modestly associated with more abdominal aortic calcification. Serum phosphate may partly explain the link, accounting for about 30 percent of the effect. The authors call the evidence suggestive.

MEDICINE · 2026-10-01

Higher flavonoid intake linked to lower odds of advanced heart-kidney-metabolic disease and death

An observational study in Medicine analysed 10,754 US adults from national survey data. Higher flavonoid intake was associated with lower odds of advanced cardiovascular-kidney-metabolic syndrome stages. It was also linked to lower cancer mortality in early stages and lower all-cause mortality in later stages. Diet was self-reported by recall, and associations do not prove cause.

MEDICINE · 2026-10-01

Meta-analysis: SGLT2 inhibitors lowered blood sugar and weight but not kidney markers

A systematic review and meta-analysis in the journal Medicine pooled 17 randomised trials with 29,192 people who had diabetic chronic kidney disease. SGLT2 inhibitors lowered glycated haemoglobin, body weight and systolic blood pressure. The pooled analysis found no statistically significant differences in the kidney markers eGFR or UACR. The safety results in the source text are cut off.

MEDICINE · 2026-10-01

MITOCHONDRIA & CELLULAR ENERGY

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Cow udder infections change non-coding RNA activity tied to immune and milk genes

A study of 31 Holstein cows, in the Journal of Animal Science and Biotechnology, compared long non-coding RNAs in udder infections from two pathogens. Many differentially expressed RNAs were not previously annotated. The infections affected immune and metabolic pathways differently, though shared hub genes suggested a common core response. This is animal research, not human.

JOURNAL OF ANIMAL SCIENCE AND BIOTECHNOLOGY · 2026-10-01

Semaglutide shielded lab-grown human brain tissue from cholesterol stress

A study in Alzheimer's & Dementia used human stem cell-derived forebrain organoids, which are small lab-grown tissues. Cholesterol overload stressed the cells and produced changes partly resembling Alzheimer's signatures. Semaglutide protected the cells from this injury and reduced lipid buildup and oxidative stress. This was a cell-based study, not a trial in patients.

ALZHEIMER'S & DEMENTIA : THE JOURNAL OF THE ALZHEIMER'S ASSOCIATION · 2026-10-01

Astragaloside IV slowed heart aging signs in aged mice and cells

A study in the FASEB Journal used naturally aged mice and senescent heart cells. Astragaloside IV reduced senescence markers and improved heart function and scarring. It also improved mitochondrial function, apparently through a protein called SIRT3. Blocking SIRT3 weakened the benefits. This is preclinical work, and human effects were not tested.

FASEB JOURNAL : OFFICIAL PUBLICATION OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY · 2026-10-01

Review examines how cell nuclei rupture and reseal

The nuclear envelope separates a cell's nucleus from the surrounding cytoplasm. A review in Biochemical Society Transactions says localized ruptures have been seen in both normal and disease settings, and cells can reseal them. The authors suggest rupture and resealing help maintain normal cell function and are altered in disease. They weigh hypotheses about causes and consequences and highlight key knowledge gaps.

BIOCHEMICAL SOCIETY TRANSACTIONS · 2026-10-01

Low oxygen and lung inflammation affect different rat muscles in different ways

A study in rats, published in the Journal of Cachexia, Sarcopenia and Muscle, tested chronic low oxygen and lung inflammation for four weeks. Responses differed between two muscle types. Low oxygen mainly affected mitochondrial function and mass in the plantaris muscle. Lung inflammation drove metabolic changes. The work is in animals, so human relevance is unproven.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Rapamycin shifted immune cells and reduced plaque inflammation in aged mice

A study in Aging Cell treated aged male mice that had established artery plaques with rapamycin for eight weeks. Plaques held fewer macrophages. Regulatory T cells became relatively more common, and markers of cell aging fell in aortic immune cells. This was work in mice, so effects in people are unknown.

AGING CELL · 2026-10-01

Muscle MRI fat measure studied as a severity marker in mitochondrial myopathies

A cross-sectional study in the Journal of Cachexia, Sarcopenia and Muscle looked at 49 adults with genetically confirmed primary mitochondrial myopathy. Researchers used lower-limb MRI to measure fat replacing muscle. They compared it with genotype, symptoms, motor function tests and blood markers. The provided text is cut off before the findings, so the results are not reported here.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Computer analysis links four manganese-related genes to Alzheimer's disease

A bioinformatics study in Genes, Brain and Behavior analysed existing gene data and identified four manganese-metabolism genes, TSPO, PTBP1, GLO1 and ACACB, that could distinguish Alzheimer's samples from others. It also found immune changes and two molecular subtypes. This is computational work, so it shows associations rather than causes.

GENES, BRAIN, AND BEHAVIOR · 2026-10-01

Mice with a migraine-linked mutation developed glucose intolerance with age

A study in mice, published in Acta Physiologica, examined a migraine-related Na,K-ATPase mutation. At 8 months, mutant mice showed glucose intolerance, reduced glucose uptake in the liver and weaker liver mitochondrial function. Younger mice had normal glucose tolerance. The findings are associations in animals and do not show an effect in humans.

ACTA PHYSIOLOGICA (OXFORD, ENGLAND) · 2026-10-01

Of three AMPK-activating compounds, MK-8722 worked best in human blood vessel cells

A lab study in Bioscience Reports compared three AMPK-activating compounds in human endothelial cells, which line blood vessels. MK-8722 was more potent than the other two and showed an effect against herpes simplex virus type 1. At the highest dose it also caused energy depletion and more reactive oxygen species. This was cell work only.

BIOSCIENCE REPORTS · 2026-10-01

Mice lacking kidney enzyme IRAP kept better kidney function in old age

According to a study in Clinical Science, mice lacking the enzyme IRAP were protected from age-related kidney decline, scarring and buildup of senescent cells. Older normal mice given an IRAP inhibitor for four weeks also kept kidney filtration. Cell experiments supported this. These are animal and cell results, not human findings.

CLINICAL SCIENCE (LONDON, ENGLAND : 1979) · 2026-10-01

In mice, muscle-released vesicles after lengthening exercise linked to better injury repair

A study in the Journal of Cachexia, Sarcopenia and Muscle used mice with induced muscle injury and cultured muscle cells. Eccentric exercise improved regeneration more than concentric exercise. The authors link this to tiny vesicles released by muscle that carry lipid metabolites. The work is in animals and cells, so human benefit is untested.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Review examines how myelin-making cells and immune cells interact in multiple sclerosis

A review in Glia summarises current knowledge on how oligodendrocyte lineage cells, which make myelin, interact with brain and immune cells in multiple sclerosis. These interactions shape myelin loss and repair. The authors say understanding them may point to therapeutic targets for promoting remyelination. It is a review, not new trial data.

GLIA · 2026-10-01

In newborn rats, ketamine plus dexmedetomidine spared memory that each drug alone impaired

A study in rats, reported in Developmental Neurobiology, gave newborn pups ketamine, dexmedetomidine or both. Each drug alone impaired recognition memory and attention later in life. The combination kept a key inflammation-related protein and growth markers near control levels and preserved memory. These are animal findings and do not show effects in human infants.

DEVELOPMENTAL NEUROBIOLOGY · 2026-10-01

Rare ZNRF3 gene variant found in people with obesity and altered fat storage

According to a study in Diabetes, researchers sequenced genes from 1,944 people with obesity and 2,161 lean people. A rare ZNRF3 variant appeared only in 8 people with obesity. Carriers had more fat under the skin and lower fasting glucose. Mice with the gene altered showed similar features and weaker fat heat production. Human numbers are small.

DIABETES · 2026-10-01

Fat-tissue enzyme loss worsened insulin resistance but kept insulin-producing cells working in mice

A study in Diabetes in mice removed the enzyme APT1 from fat tissue. The mice became more insulin resistant, yet their insulin-producing beta cells were preserved and glucose tolerance stayed normal on a high-fat diet. The authors suggest fat tissue palmitoylation can protect beta-cell function. These are mouse and cell findings, not human results.

DIABETES · 2026-10-01

Most people with HIV in rural Uganda survey already knew their status

A population survey in 25 villages of Kyamulibwa, southwest Uganda, published in PLOS Global Public Health, found 83.6% of men and 88.0% of women with HIV already knew their status. Nearly all of those reported taking antiretroviral therapy. These rates were below UNAIDS targets. Never having tested was linked to older age, male sex and lower education.

PLOS GLOBAL PUBLIC HEALTH · 2026-10-01

Higher body cell mass share linked to lower insulin resistance and diabetes odds

An observational study in the Asia Pacific Journal of Clinical Nutrition analysed 2,923 U.S. adults from a national survey. A higher percentage of body cell mass was associated with lower odds of insulin resistance and type 2 diabetes. Body mass index appeared to mediate part of the link. The design shows association, not cause.

ASIA PACIFIC JOURNAL OF CLINICAL NUTRITION · 2026-10-01

Higher blood 3-chlorotyrosine linked to weaker pinch strength in kidney disease

A cross-sectional study of 292 people with chronic kidney disease, published in the Asia Pacific Journal of Clinical Nutrition, found higher plasma 3-chlorotyrosine went with weaker pinch strength. The marker reflects inflammation and oxidative stress. Levels of a related enzyme rose as kidney function declined. The design shows association only and cannot establish cause.

ASIA PACIFIC JOURNAL OF CLINICAL NUTRITION · 2026-10-01

Living in persistently poor areas linked to higher cancer death risk in Alabama

A retrospective cohort study in Cancer Medicine used Alabama cancer registry data. After adjustment, living in a persistent-poverty census tract was associated with higher risk of death in breast, prostate and lung cancer. Race and rurality were also independently linked to higher risk. Black residents of rural poverty tracts had the highest risk. This shows association, not cause.

CANCER MEDICINE · 2026-10-01

Traditional Dai herbal formula eased alcohol-related liver injury in mice

A study in the Journal of Cellular and Molecular Medicine tested a traditional Dai formula called Ya-Jie-Sha-Ba in mice with alcohol-associated liver disease. It reduced liver injury, fat buildup, oxidative stress and inflammation. Methyl palmitate, a component, protected liver cells in a lab model. The work was done in mice and cells, not people.

JOURNAL OF CELLULAR AND MOLECULAR MEDICINE · 2026-10-01

Review finds sesame oral immunotherapy looks promising but evidence is limited

A systematic review in Clinical and Translational Allergy covered nine studies, mostly small cohorts and case series. Oral immunotherapy for sesame allergy achieved desensitization in roughly 85% to 97% of participants. Most side effects were mild to moderate, and no deaths were reported. The authors note small samples and short follow-up. They say randomised trials are needed.

CLINICAL AND TRANSLATIONAL ALLERGY · 2026-10-01

Growing brain white matter changes tied to faster cortical thinning

A nine-year MRI study in Human Brain Mapping followed 104 older adults from the general population. White matter signal aberrations grew by about 7.2% a year on average. Their increase was associated with faster thinning of the brain's cortex. The link was stronger in men than in women. This is observational, so it cannot show cause.

HUMAN BRAIN MAPPING · 2026-10-01

Licorice compound eased exercise-induced fatigue in mice

A study in mice, published in Brain and Behavior, tested glycyrrhizic acid against acute and chronic fatigue. Treated mice showed better fatigue measures, more movement, and less anxiety and depression-like behaviour. Gene analyses pointed to an inflammation pathway called NF-κB/NLRP3. The work was in mice and cells, so human effects are unknown.

BRAIN AND BEHAVIOR · 2026-10-01

Poorer kidney function linked to higher risk of cognitive impairment in older Chinese adults

An observational study in Geriatrics & Gerontology International used data from a national survey of Chinese adults aged 65 and over. Lower kidney filtering and more albumin in urine were linked to cognitive impairment. Over three years, 143 of 1,195 people with normal cognition developed it. The study shows an association, not a cause.

GERIATRICS & GERONTOLOGY INTERNATIONAL · 2026-10-01

Paper argues frailty and vulnerability differ in older adults after a fall

A philosophical analysis in Nursing Philosophy argues that frailty, a clinical condition, differs from vulnerability, which also reflects relationships, resources and institutions. A fall may increase vulnerability by changing independence and decision-making. The author proposes "responsive protection", where nursing safeguards are negotiated with older adults. This is a conceptual argument, not a clinical study.

NURSING PHILOSOPHY : AN INTERNATIONAL JOURNAL FOR HEALTHCARE PROFESSIONALS · 2026-10-01

Self-control strategies raised meat-free meals but did not cut total meat intake

A randomised study in Applied Psychology: Health and Well-Being involved 156 German students who wanted to eat less meat. Those given self-control strategies, especially both types, had higher odds of meat-free meals. Total meat intake did not differ between groups. All groups, including the one without strategies, reduced their meat consumption, even at one-month follow-up.

APPLIED PSYCHOLOGY. HEALTH AND WELL-BEING · 2026-10-01

Frailty is common among older people with COPD, and linked to breathlessness

A study in the Journal of Cachexia, Sarcopenia and Muscle enrolled 466 older people with COPD. About 55 percent were pre-frail and 28 percent frail. Older age and breathlessness were associated with frailty, as were lower education, lung function and body mass index. Patients were followed for one year for flare-ups and deaths.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Risk scorecard predicts pneumonia hospitalisation in Japanese adults aged 75 and older

A retrospective cohort study in Geriatrics & Gerontology International used data on 1,098,404 Japanese adults aged 75 or older. Researchers built a machine-learning-based scorecard to predict pneumonia hospitalisation within a year. It sorted people into groups with a 15.9-fold risk gradient. It was validated only internally and needs external testing.

GERIATRICS & GERONTOLOGY INTERNATIONAL · 2026-10-01

Tunisian study finds over a third of newborns with lung malformations died in hospital

A retrospective study in Pediatric Pulmonology reviewed 23 newborns with congenital lung malformations at one Tunis centre over nine years. In-hospital mortality was 34.8%. Death was associated with respiratory distress, resuscitation at delivery, other health conditions and associated malformations. Most babies were managed without surgery. The sample is small and from a single hospital.

PEDIATRIC PULMONOLOGY · 2026-10-01

Lower muscle density on CT linked to longer stays after colorectal cancer surgery

A retrospective cohort study in the Journal of Cachexia, Sarcopenia and Muscle examined 415 patients who had colorectal cancer surgery at a regional hospital in Baton Rouge, Louisiana, between 2018 and 2024. In multivariable analyses, each 5-unit decrease in CT-measured skeletal muscle density was associated with longer hospital stays (incidence rate ratio 1.06). The study shows an association, not a cause.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

PROTEINS & AMINO ACIDS

Review: mechanical forces may regulate lamin A, a nuclear protein tied to aging

A review in Biology of the Cell looks at how mechanical cues control lamin A, a protein that shapes the cell nucleus. The authors say the evidence points to control of its abundance, stability and turnover. They suggest early processing of lamin A may respond to mechanical forces. They call the area underexplored and note links to aging.

BIOLOGY OF THE CELL · 2026-10-01

Review: muscle aging reflects breakdown of cell-to-cell coordination

A review in Aging Cell summarises evidence that aging muscle shifts from a regenerative state to a degenerative one. Stem cells, immune cells, vascular cells and others become stuck in harmful signalling loops. These loops promote inflammation, fibrosis and senescence. The authors note many inferred interactions are not yet validated in living organisms.

AGING CELL · 2026-10-01

Simple bedside muscle checks improved kidney function estimates in older inpatients

A multicentre cross-sectional study in Geriatrics & Gerontology International involved 98 hospitalised Japanese adults aged 60 and over. Adding calf circumference or a finger-ring test to a creatinine-based estimate improved identification of reduced kidney function. Differences in discrimination were not statistically significant. The authors say external validation is needed before clinical use.

GERIATRICS & GERONTOLOGY INTERNATIONAL · 2026-10-01

Overactive motor cortex neurons track with weakness in aged mice

A study in aged mice, published in Aging Cell, found impaired strength and coordination alongside hyperexcitable motor cortex neurons. Across 250 comparisons, higher cortical excitability generally matched worse neuromuscular and behavioural results. Firing rate statistically accounted for 75% of the age effect on neuromuscular function. The authors say the motor cortex may contribute to age-related weakness. Human relevance is not tested.

AGING CELL · 2026-10-01

Vesicles from senescent tumour cells spread senescence to neighbouring cells in the lab

A cell study in Aging Cell found that extracellular vesicles released by senescent tumour cells induced senescence in recipient tumour cells. Blocking vesicle production or release markedly reduced this spread without changing secretion of soluble factors. Purified vesicles alone fully reproduced the effect. The authors suggest vesicle pathways could be therapeutic targets in cancer. This is early laboratory work in cells.

AGING CELL · 2026-10-01

Weak leg-press strength and poor nutrition each linked to higher death risk in older Japanese adults

A study in the Journal of Cachexia, Sarcopenia and Muscle followed 1065 Japanese adults aged 70 and over for 16 years. There were 415 deaths. Low leg-press strength and poor nutritional status were each independently associated with higher mortality. This is observational, so it shows links, not causes.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Two brain heat shock proteins slow tau clumping in lab tests by different routes

According to a study in Protein Science, the small heat shock proteins HSPB1 and HSPB5 delayed aggregation of tau in vitro. Tau clumping is a hallmark of several neurodegenerative diseases. HSPB1 worked under normal conditions. HSPB5 acted under stress such as acidic conditions. Both depend on flexible end regions. This is test-tube work, not research in people.

PROTEIN SCIENCE : A PUBLICATION OF THE PROTEIN SOCIETY · 2026-10-01

Squirrel monkey seminal osmolarity varies with age and fattening condition

A study in the Journal of Medical Primatology measured semen in nine male squirrel monkeys (S. collinsi). Seminal osmolarity ranged from 300 to 500 mOsm/L and varied with age and fattening condition. Older age was associated with poorer sperm membrane integrity and morphology. Sperm concentration and motility were not significantly affected. The work is in monkeys and sets a first baseline for the species.

JOURNAL OF MEDICAL PRIMATOLOGY · 2026-10-01

Histamine H2 receptor activation altered steroid response in leukemia cells

A laboratory study in Pharmacology Research & Perspectives examined leukemia cells. Activating the histamine H2 receptor boosted the activity of the glucocorticoid receptor. In cells, combining a steroid with an H2 activator restored sensitivity to the chemotherapy drug cytarabine. The authors suggest clinical relevance, but this was cell research, not a human trial.

PHARMACOLOGY RESEARCH & PERSPECTIVES · 2026-10-01

AI model using CT scans identifies sarcopenia in people with gastric cancer

Researchers writing in the Journal of Cachexia, Sarcopenia and Muscle built a model combining clinical data, CT image features and deep learning. They used data from 1,067 gastric cancer patients at two centres. Patients with sarcopenia, meaning muscle loss, had significantly worse overall survival. The authors report the model identified sarcopenia accurately.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

In a small ALS study, survivors had more muscle mass

A prospective observational study in the Journal of Cachexia, Sarcopenia and Muscle followed 42 people with ALS. During follow-up, 45% died. Survivors had higher muscle mass index and handgrip strength than those who died, while BMI did not differ. The study is small and shows links with survival, not causes.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Injuries rose during Ramadan fasting in elite adolescent male footballers, observational study finds

A prospective observational study in the European Journal of Sport Science followed 101 elite male youth footballers for 13 weeks. Injury incidence rose during Ramadan, from 3.76 to 6.83 per 1,000 hours, though the confidence interval was wide. Perceived training load rose and protein intake fell. The design shows association, not that fasting caused the injuries.

EUROPEAN JOURNAL OF SPORT SCIENCE · 2026-10-01

One genetic variant tied to heart disease in Dobermann dogs across continents

A genetic study in Animal Genetics analysed Dobermann dogs from Europe and North America. A signal near the RNF207 gene was linked to dilated cardiomyopathy in both populations. Earlier reported links for PDK4 and TTN were not replicated. The authors say variants need population-specific validation before use in genetic tests.

ANIMAL GENETICS · 2026-10-01

Denser belly fat on CT scans linked to poorer survival in liver cirrhosis

A prospective observational study in Liver International followed 121 people with cirrhosis awaiting liver transplant. Higher density of subcutaneous fat on CT scans was associated with higher pre-transplant mortality and shorter survival. Fat density decreased within six months after transplant. The study shows a link, not that fat density causes outcomes.

LIVER INTERNATIONAL : OFFICIAL JOURNAL OF THE INTERNATIONAL ASSOCIATION FOR THE STUDY OF THE LIVER · 2026-10-01

Muscle quality measure may reflect different things in older men and women

A cross-sectional study in Physiotherapy Research International analysed 231 community-dwelling older adults. It compared phase angle, a muscle quality indicator from bioelectrical impedance, with ultrasound-based and strength-based muscle quality, separately by sex. Based on lower extremity muscle mass, phase angle was more strongly associated with functional muscle quality. The authors say possible sex differences should be considered when interpreting phase angle. The study shows associations only.

PHYSIOTHERAPY RESEARCH INTERNATIONAL : THE JOURNAL FOR RESEARCHERS AND CLINICIANS IN PHYSICAL THERAPY · 2026-10-01

STRESS RESILIENCE & NERVOUS SYSTEM

5

Xbox Kinect training linked to memory and anxiety changes in Parkinson's disease

A non-randomized controlled trial in Physiotherapy Research International studied people with Parkinson's disease. One group did 10 Xbox Kinect sessions. A control group did nothing. The Xbox group improved on short-term and working memory, but the groups did not differ significantly. Anxiety fell only in the Xbox group, with a between-group difference at 30-day follow-up.

PHYSIOTHERAPY RESEARCH INTERNATIONAL : THE JOURNAL FOR RESEARCHERS AND CLINICIANS IN PHYSICAL THERAPY · 2026-10-01

Review maps smart-home health technology, with uneven adoption worldwide

A scoping review in JMIR Medical Informatics screened 6,276 records and included 169 studies published between 2005 and February 2025. It examined sensors, machine learning and health monitoring in smart homes, including for older adults. Adoption was concentrated in Europe, East and Southeast Asia, and higher-income countries.

JMIR MEDICAL INFORMATICS · 2026-09-30

Countries with more cats report higher national happiness, in a correlational study

A study in PLoS ONE compared 93 countries. It found national happiness was linked to more cats per person and to some wealth measures. It was linked to lower levels of recent Toxoplasma gondii infection. This is a correlational, exploratory analysis. It cannot show that cats or infection cause differences in happiness.

PLOS ONE · 2026-09-30

Pulsed electromagnetic fields reduced stress-linked bone loss in mice via nerve signalling

A mouse study in Nature Communications examined chronic stress-induced bone loss. Neuropeptide Y from sympathetic nerves drove senescence in bone marrow fat cells and impaired bone formation. Pulsed electromagnetic fields rescued bone loss by activating sensory nerves, which suppressed neuropeptide Y. The work was in male mice, so human benefit is untested.

NATURE COMMUNICATIONS · 2026-09-29

Hospital staff in Spain describe barriers to using exercise in chronic disease care

A qualitative study in the International Journal of Qualitative Studies on Health and Well-being held focus groups with eight professionals at a public hospital in Spain. They described low patient activity and barriers such as limited resources and weak institutional support. They saw exercise professionals and hospital programmes as important. This reflects opinions, not trial results.

INTERNATIONAL JOURNAL OF QUALITATIVE STUDIES ON HEALTH AND WELL-BEING · 2026-09-29

LONGEVITY RESEARCH

14

Coated surgical mesh linked to less tissue sticking in two-pig pilot

An exploratory study in the Journal of Biomedical Materials Research Part B tested three coated polypropylene meshes against uncoated mesh in two miniature pigs over four months. Uncoated mesh stuck densely to internal tissue at all three sites. Coated versions had much lower mean adhesion scores. One coated formulation bonded least strongly to the abdominal wall. The authors call the findings a descriptive association.

JOURNAL OF BIOMEDICAL MATERIALS RESEARCH. PART B, APPLIED BIOMATERIALS · 2026-10-01

Lymph node cells show ageing features before rheumatoid arthritis begins

A laboratory study in RMD Open examined lymph node fibroblasts from healthy people, people at risk of rheumatoid arthritis and patients. Cells from at-risk people and patients were less able to turn into fat cells. Gene activity linked to cell cycle and DNA repair was lower. The authors say this is consistent with cellular ageing.

RMD OPEN · 2026-10-01

Review links iron-dependent cell death to inflammation and age-related diseases

A review in Ageing Research Reviews examines ferroptosis, an iron-dependent form of cell death. It discusses links to chronic low-grade inflammation and age-related disorders. It also covers natural products as possible modulators, based on experimental models. The authors note that clinical validation is lacking, so benefits in people remain unproven.

AGEING RESEARCH REVIEWS · 2026-10-01

Better Life's Essential 10 heart health scores linked to longer disease-free life

A prospective study in European Heart Journal: Quality of Care & Clinical Outcomes used two cohorts, UK Biobank and NHANES, with over 130,000 participants combined. Higher scores on Life's Essential 10, a cardiovascular health measure, were associated with lower mortality, less heart disease and cancer, and longer life free of both. This is an association, not proof of cause.

EUROPEAN HEART JOURNAL. QUALITY OF CARE & CLINICAL OUTCOMES · 2026-10-01

New EGLN2-targeting compound slows breast cancer cells and tumours in lab models

Researchers report in PNAS a small molecule called A10P3C that selectively blocks the enzyme EGLN2. In breast cancer cells it reduced growth and spread and triggered senescence. It also showed antitumour effects in patient-derived organoids and xenograft models, with minimal systemic toxicity. This is early lab and animal work. No human testing is described.

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA · 2026-10-01

Topical skin peptide linked to changes in ageing-related skin cell features

This secondary analysis, published in Dermatology and Therapy, used images from a previously published randomised split-face trial. It examined 49 women aged 40 to 60 for age links and 25 women for treatment effects. AI-assisted imaging found the 2.5% XEP-716 cream was associated with some nominally significant skin cell changes versus vehicle. The findings are exploratory.

DERMATOLOGY AND THERAPY · 2026-10-01

Lab and computer study points to two kidney targets of berberine

A study in Functional & Integrative Genomics combined database analysis, computer modelling and human kidney cell experiments. It identified CHEK2 and HPGD as possible targets of berberine in diabetic kidney disease. The work is preclinical, using existing datasets and cells in a dish. It does not show benefit in people.

FUNCTIONAL & INTEGRATIVE GENOMICS · 2026-10-01

p53 radiation response persists at low doses in breast cancer cells

A laboratory study in Molecular Biology Reports exposed MCF-7 breast cancer cells to gamma radiation from 0.1 to 8 Gy. Oscillations in the tumour-suppressor p53 and its target genes were prominent at high doses, but transient peak expression persisted even at 0.1 Gy, with delayed onset and smaller amplitude. The authors say this challenges earlier models predicting no oscillations at low doses.

MOLECULAR BIOLOGY REPORTS · 2026-10-01

Breast cancer drug candidate ormeloxifene triggers cell senescence in lab-grown cells

A laboratory study in Molecular Biology Reports tested ormeloxifene on two breast cancer cell lines. The drug reduced cell viability and colony growth, and pushed cells into irreversible senescence, a state where they stop dividing. It also made MCF7 cells more sensitive to tamoxifen. The work was done in cells, not in people.

MOLECULAR BIOLOGY REPORTS · 2026-10-01

Review says lobular breast cancer needs its own targeted treatment research

A review in The Journal of Clinical Investigation says invasive lobular breast cancer is understudied. Most trials enroll mainly other breast cancer types and rarely separate results by subtype. The authors outline molecular features and early preclinical targets. They suggest future trials include dedicated lobular cohorts. The review reports no new treatment results.

THE JOURNAL OF CLINICAL INVESTIGATION · 2026-10-01

Senescent neutrophils may help colorectal cancer liver metastases evade immune attack

A commentary in Cancer Discovery describes work using single-cell sequencing of tumor samples from colorectal cancer that spread to the liver. Low glucose in the tumor environment was linked to a gene called BHLHE40 and a senescent neutrophil group. These cells promote blood vessel growth and keep CD8+ T cells out of the tumor.

CANCER DISCOVERY · 2026-10-01

Review proposes hair greying reflects breakdown in stem cell and niche coordination

A review in Experimental Dermatology proposes that age-related hair greying may stem from poorer timing and signalling between hair follicle stem cells, pigment stem cells and their surrounding niche. Stress and inflammation may add noise. This is a proposed model, not tested findings. The authors suggest greying could be a visible marker of stem-cell ageing.

EXPERIMENTAL DERMATOLOGY · 2026-10-01

Lab-made hybrid vesicles reduced UVB skin-ageing damage in mouse cells

A laboratory study in ACS Applied Materials & Interfaces made hybrid vesicles from immune cells and skin cells. In UVB-damaged mouse skin cells, they reduced DNA damage, oxidative stress, inflammation and signs of cellular senescence. They also shifted macrophage states toward a repair-oriented type. This is early cell work, not human evidence.

ACS APPLIED MATERIALS & INTERFACES · 2026-10-01

Plant compound syringin eased lung scarring in mice and cell experiments

Idiopathic pulmonary fibrosis is a fatal lung disease linked to aging. According to a study in the Chinese Journal of Natural Medicines, the plant-derived compound syringin reduced scarring, fibroblast activation and senescence markers in mouse lungs and in cells. The work was in animals and cells, not people. The authors link the effect to a signaling pathway involving CHK1.

CHINESE JOURNAL OF NATURAL MEDICINES · 2026-10-01

CLINICAL TRIALS 13

Planned trial will test mandala coloring for pregnant women's emotional wellbeing

A trial listed on ClinicalTrials.gov, sponsored by Sakarya University, has not yet started recruiting and has no results. It plans to randomly assign pregnant women to eight mandala coloring sessions over four weeks or to no intervention. Researchers will compare questionnaire scores on traumatic childbirth perceptions, emotion regulation and resilience.

CLINICALTRIALS.GOV (NCT07855289) · 2026-10-14

Phase 1 lupus cell therapy trial registered, but it was terminated

A ClinicalTrials.gov entry describes a phase 1 trial of YTS109 cells in adults with refractory lupus nephritis or lupus-related low platelet counts. About 36 patients were planned to receive a single infusion in an open-label design. The registry lists the trial as terminated and gives no results.

CLINICALTRIALS.GOV (NCT06943937) · 2026-10-14

Finnish trial will test early automated insulin delivery in children with type 1 diabetes

This is a registered trial with no results yet, listed on ClinicalTrials.gov. It is recruiting children aged 7 to 16 in Finland. Researchers will compare automated insulin delivery with multiple daily injections plus glucose monitoring. They will look at blood sugar control, diabetes distress, long-term complications and cost-effectiveness.

CLINICALTRIALS.GOV (NCT07423637) · 2026-10-14

Trial registered to study childhood tooth enamel defects and a resin treatment

A trial registry entry on ClinicalTrials.gov describes a recruiting study at Hanoi Medical University. It combines a survey of molar-incisor hypomineralization, a tooth enamel defect, in children aged 7 to 11 in Northern Vietnam with a controlled trial of resin infiltration. No results are available yet.

CLINICALTRIALS.GOV (NCT07873268) · 2026-10-14

Experimental flu vaccine trial recruiting healthy adults, with no results yet

This is a trial registry entry, so there are no results. The US National Institute of Allergy and Infectious Diseases is running a phase 2 trial of an experimental flu vaccine. Healthy adults aged 18 to 55 will get it as a nasal spray or arm shot, or a placebo. Some will then be deliberately infected with flu virus.

CLINICALTRIALS.GOV (NCT07215858) · 2026-10-14

Planned Ugandan trial will probe why roundworm infections returned after deworming

A trial registered on ClinicalTrials.gov, not yet recruiting and with no results, plans to enrol 450 schoolchildren in Kisoro District, Uganda. Children will be randomised to ivermectin plus albendazole or albendazole alone. Researchers want to learn whether reduced drug efficacy, coverage gaps or reinfection explain high roundworm rates seen after earlier mass treatment.

CLINICALTRIALS.GOV (NCT07873398) · 2026-10-14

Planned trial will test caffeine's short-term effect on immune cell mitochondria

This is a registered trial with no results yet, listed on ClinicalTrials.gov and not yet recruiting. About 10 healthy adults aged 18 to 35 will receive caffeine in one visit and placebo in another. Researchers will measure energy metabolism and mitochondrial function in blood immune cells. The study aims to see whether a single dose changes these measures.

CLINICALTRIALS.GOV (NCT07873047) · 2026-10-14

Early-stage trial tests zongertinib doses in spreading HER2-positive cancers

A phase 1/2 trial sponsored by Boehringer Ingelheim is recruiting adults with HER2-positive cancer that has spread and cannot be removed by surgery, after earlier treatment failed. It aims to find the best-tolerated dose of zongertinib combined with other treatments, such as trastuzumab deruxtecan, and to check whether zongertinib alone or in combination shrinks tumours. This is a registration; no results are reported.

CLINICALTRIALS.GOV (NCT06324357) · 2026-10-14

Phase 3 trial will test daily rimegepant for chronic migraine prevention

A trial registered on ClinicalTrials.gov and sponsored by Pfizer is recruiting about 400 adults with chronic migraine. Participants will be randomly assigned to daily rimegepant or placebo for 12 weeks, then all receive the drug openly for 12 weeks. The main aim is fewer monthly migraine days. There are no results yet.

CLINICALTRIALS.GOV (NCT07729462) · 2026-10-14

NIH registers study of sharper heart CT images, with no results yet

A trial registry entry on ClinicalTrials.gov describes a planned NIH study, not yet recruiting. Adults who need a heart CT scan will have a normal scan. Researchers will then use a supercomputer to make higher-resolution images from the same data and compare the two. The entry reports no results.

CLINICALTRIALS.GOV (NCT05372627) · 2026-10-14

Planned trial will test tools to widen access to HIV prevention

A registry entry on ClinicalTrials.gov describes a study from the University of Alabama at Birmingham, not yet recruiting. It plans to follow current PrEP users and build a decision-support toolkit for patients and providers. The toolkit will be tested in Botswana and Alabama. The trial is only registered and has no results yet.

CLINICALTRIALS.GOV (NCT07597824) · 2026-10-14

Registered study will explore sleep and stress among Bhutanese refugees in Ohio

A registry entry on ClinicalTrials.gov describes a planned study, sponsored by the National Institute of Environmental Health Sciences, that has not yet started recruiting. It will use focus groups and interviews to learn how social and environmental conditions affect sleep in Bhutanese refugees in central Ohio. There are no results yet.

CLINICALTRIALS.GOV (NCT07566481) · 2026-10-14

Registered study will track immune cells in people with inflammatory bowel disease

A trial registry entry from ClinicalTrials.gov describes a recruiting natural history study sponsored by the National Institute of Diabetes and Digestive and Kidney Diseases. It will follow adults with inflammatory bowel disease over three years, using scans, scopes and samples. It aims to learn about genetics and immune cells. No results exist yet.

CLINICALTRIALS.GOV (NCT07619547) · 2026-10-14

IN THE NEWS

Alzheimer's brain case: areas cleared of amyloid had far less tau buildup

According to a ScienceDaily report, researchers examined the brain of one Alzheimer's patient. Regions cleared of amyloid plaques had remarkably little tau buildup. Neighbouring areas showed extensive damage. The report suggests amyloid removal may protect lastingly, especially early in treatment. This is a single case, so the finding is preliminary.

SCIENCEDAILY HEALTHY AGING · 2026-10-15

Long-term study reports fitness and strength begin declining around age 35

According to a ScienceDaily summary of a 47-year study, fitness and strength start declining around age 35, even in people who exercise regularly. The decline reportedly speeds up with age. The summary also says starting exercise in adulthood can still improve physical performance. The text gives no further detail on how the study was done.

SCIENCEDAILY HEALTHY AGING · 2026-10-14

Researchers highlight overlooked peptide P3 as possible Alzheimer's contributor

A ScienceDaily news summary reports that UC Santa Cruz researchers are drawing attention to a peptide called P3. It was previously thought harmless. The summary says P3 can form harmful-looking protein clumps faster than amyloid beta and may damage brain cells. The text gives no study details, so the strength of the evidence is unclear.

SCIENCEDAILY HEALTHY AGING · 2026-10-14

Low-fat vegan diet improved blood sugar control in human trial, report says

According to a Lifespan.io news summary, a human trial found that a low-fat, plant-based diet improved blood sugar control, reduced liver fat and lowered the quantity of advanced glycation end products in the skin, even without calorie restriction. The summary describes an all-you-can-eat vegan approach. It gives few other details, such as who took part or how large the trial was.

LIFESPAN.IO · 2026-10-13