

Child Vision Awareness Month

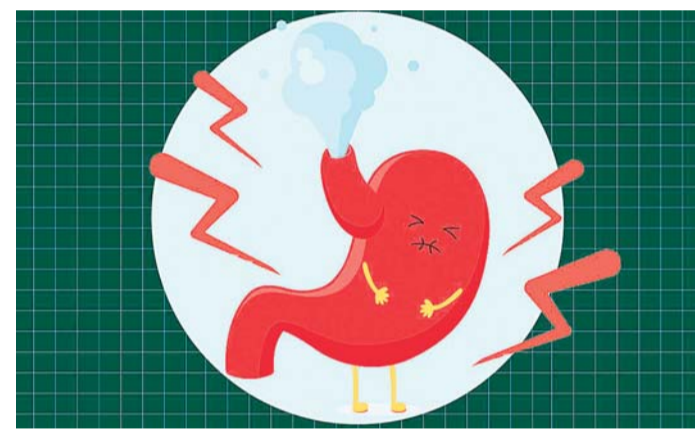


Every August, *Child Vision Awareness Month* reminds us of the importance of healthy eyes for our children. It highlights the importance of regular eye exams and early detection of vision problems. Our children's bright future depends on clear eyesight, and this month is dedicated to making sure that all kids can see their best. Children's vision issues often go unnoticed, making early screenings crucial. Catching problems early can prevent serious issues from impacting learning and development.

#RESEARCH

Sugar-free Treats Can Give You Gas

Do sugar-free candy and gum give you gas? Researchers think they know why.



Sorbitol, a sugar alcohol, is used in sugar-free gum, mints, candy, and other products. It is also found naturally in apricots, apples, pears, avocados, and other foods. At high levels, sorbitol can cause bloating, cramps, and diarrhea. For some people, even a small amount causes digestive upset, a condition known as *sorbitol intolerance*.

A new study with mice found that taking antibiotics, combined with a high-fat diet, reduced the number of *Clostridia* gut microbes, which can break down sorbitol. "Our research suggests that microbial sorbitol degradation normally protects the host against sorbitol intolerance. However, an impairment in the microbial ability to break down sorbitol causes sorbitol intolerance," says Jee-Youn Lee, first author of the study. Lee is an assistant Project Scientist in the University of California, Davis Medical Microbiology and Immunology department.

The researchers used metagenomic analysis to identify which gut bacteria have genes that make the enzyme which breaks down sorbitol. They also identified which of those gut bacteria were plentiful before, but not after antibiotic treatment.

This analysis allowed them to zero in on gut microbes belonging to the class *Clostridium*. *Clostridium* are anaerobic, meaning that they don't like environments with oxygen.

The researchers found that after the mice were given antibiotics and fed a diet high in saturated fat, the cells lining the gut used less oxygen. This created a higher level of oxygen in the gut, decreasing *Clostridia*. Without enough *Clostridia*, sorbitol was not broken down in the gut.

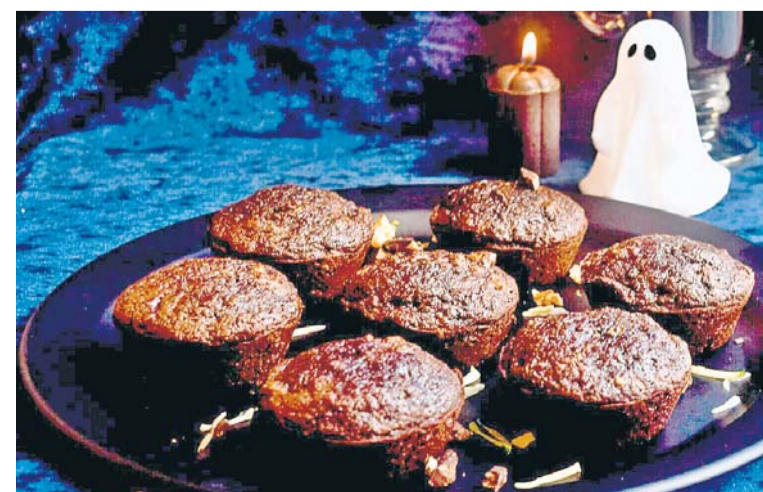
The researchers performed several experiments to try to restore the gut bacteria so that it could break down sorbitol again. In one, they fed the mice

Anaerostipes caccae, a gut bacterium that produces butyrate. Butyrate is a short-chain fatty acid produced as part of the normal fermentation process in the gut. It enhances oxygen usage by the cells that line the gut, the epithelial lining, which reduces oxygen levels in the large intestine.

Regulating the oxygen level with *Anaerostipes caccae* restored the normal levels of *Clostridia*, which protected the mice from sorbitol-induced diarrhea, even after the butyrate-producing bacteria had been cleared from the mouse's digestive system. The researchers suggest that a drug used to treat ulcerative colitis, Crohn's disease, and other inflammatory bowel diseases, *mesalazine* (5-aminosalicylate), may be a treatment for sorbitol intolerance in humans. *Mesalazine*, also known as *mesalamine*, functions similarly to the butyrate-producing bacteria, restoring the low oxygen levels in the intestine preferred by *Clostridia*.

"This discovery is crucial, given the prevalent use of sorbitol and similar sugar alcohols in the production of keto-friendly diet foods that are high in fat content," Lee says. "It also highlights the importance of oxygen consumption by the epithelial lining in the intestines, in maintaining a healthy balance of gut bacteria, especially *Clostridia*, for proper digestion of certain sugars."

An important limitation of the study is that mice can tolerate much higher sorbitol levels than humans. Clinical studies will be needed to test the hypothesis that *mesalazine* could treat sorbitol intolerance in humans. "Our study provides a completely new starting point for approaches to diagnose, prevent, and treat sorbitol intolerance," says Andreas Baumler, senior author of the study. Baumler is a distinguished professor and vice chair of research in the UC Davis Medical Microbiology and Immunology department.



An Amazing Photo Finish

Eight men, the entire starting field, in the 100 meters finished in under 10 seconds, a historic first for a wind-legal race, according to World Athletics, the governing body for athletics, including track and field. The race was so tight that the gold medalist, Team USA's Noah Lyles, and the silver medalist, Jamaica's Kishane Thompson, both posted times of 9.79 seconds, with Lyles winning the battle of decimal places by 0.005 seconds. The last-place finisher, Jamaica's Oblique Seville, posted a time of 9.91 seconds, which would have been good enough for fourth place at the 2020 Tokyo Olympics, according to Olympic records. The race saw the fastest times ever for fourth, fifth, sixth, seventh, and eighth places.



Noah Lyles celebrates with the American flag, after winning the 100-meter gold at the Olympics on Aug. 4, 2024.



Prakash Bhandari
The writer is a senior journalist

Clostridia, a group of all it a sprint or a dash, it was the race of the century. A capacity crowd of 80,000 at the Stade de France in Paris watched with bated breath, as the race that lasted less than 10 seconds, saw the United States' Noah

Lyles emerge as the planet's fastest man, winning the 100-meter dash at the Paris Olympics. Noah Lyles clinched a *photo-finish* victory in the closest 100m final in modern Olympic history on Sunday, ending the United States' 20-year wait to recapture the world's most prestigious sprinting crown.

Lyles froze when it was revealed that he had won by one of the narrowest margins, just five-thousandths of a second. In a nerve-wracking final at the Stade de France, the charismatic 27-year-old from Florida took gold by a fraction of a second, narrowly beating Jamaica's Kishane Thompson. Lyles' winning time was 9.784 seconds, compared to



Kishane Thompson 'was robbed' as Olympics fans vent fury after Noah Lyles wins 100m gold.

Thompson's 9.789 seconds, though both men's times will be recorded as 9.79 seconds. It was the narrowest margin of victory since electronic timing began being used at the Olympics. Lyles' compatriot, Fred Kerley, took bronze with a time of 9.81 seconds.

"The race was so close that the electronic scoreboard in the arena simply displayed 'photo' next to seven of the eight finalists. After an agonizing wait of several seconds, Lyles' victory was confirmed, sparking wild celebrations from the reigning 100m and 200m world champion, who is regarded as one of the global superstars in athletics.

"It's the one I wanted," an elated Lyles said. "It's a hard battle, with amazing opponents. Everybody's healthy, everybody came prepared for the fight, and I wanted to prove that I'm the man among all of them. I'm the wolf among wolves." Lyles admitted that even he doubted whether he had clinched the gold. "I went up to Kishane and said, 'I'm gonna be honest, bro, I think you had that one,'" Lyles recalled. "And I was fully prepared to see his name pop up. But when I saw my name instead, I was like, goodness gracious. 'I'm incredible.'"

This win caps a roller coaster three years for Lyles, who left the pandemic-hit Tokyo Olympics in tears, after a disappointing campaign, citing his mental health

#OLYMPICS



struggles and battles with depression. Now, United States sprinter, Noah Lyles, has set the internet ablaze with his victory in the 100m final at the Paris 2024 Olympic Games on Sunday, August 4th. The Lyles-Thompson showdown was the latest chapter in the sprint rivalry between the US and Jamaica, that has gripped the sport for nearly two decades.

Lyles had waited a long time to see the end of Jamaican dominance in the 100m and 200m events. He grew up with the ambition to break that monopoly and the Paris Olympics saw his dreams fulfilled.

PHOTO FINISH
In sprints, as in swimming, a photo finish often determines the winner. The incredible photo finish, 0.005 seconds, puts Lyles ahead of Jamaica's Kishane Thompson. Lyles' celebration at the Stade de France, marking his 9.784-second dash, has fans, athletic champions, and celebrities alike, hyping up the newly minted Olympic champion across social media.

WHAT IS A PHOTO FINISH?
Slit-Video System: The primary

technology, used to determine the winner in a photo finish, is the slit-video system. This system scans an ultra-thin segment of the track precisely aligned with the finish line, capturing images 2,000 times per second. This provides an unbroken image of each athlete crossing the line, which is then synchronized with the athlete's time.

Backup Camera: In addition to the slit-video system, a backup camera is positioned on the other side of the field. This camera ensures that the finish is captured, even if a runner is obscured by another athlete.

Flash Timer: The flash timer, which records the final times of athletes, has a margin of error that, at worst, can be within 0.01 or 0.02 seconds of the official time. This margin is crucial in extremely close finishes like the one between Lyles and Thompson. The photo finish revealed that Lyles' chest was the first part of his body to breach the finish line. Although Thompson's foot seemed to cross the line before Lyles', the primary point of measurement for the 100-meter event is the torso, which includes the chest, abdomen, pelvis, and back. The slit-video system captures the finish line at an astounding 2,000 scans per second.

NBA legend Magic Johnson tuned in to watch Lyles from his yacht, posting on X, "We're all on the yacht, cheering for Noah Lyles after winning the Men's 100m race and remaining the fastest man in the world! It's the first time in 20 years that the US brings home the gold in the Men's 100! Wow, what an exciting race!"

American actress Gabrielle Union also backed Lyles' performance, reposting Lyles' win on X, with the Olympic champion celebrating his victory, shouting, "America, I told you, I got this!"

Union added, "My new ringtone." Eight men, the entire starting field, in the 100 meters finished in under 10 seconds, a historic first for a wind-legal race, according to World Athletics, the governing body for athletics, including track and field. The race was so tight that the gold medalist, Team USA's Noah Lyles, and the silver medalist, Jamaica's Kishane Thompson, both posted times of 9.79 seconds, with Lyles winning the battle of decimal places by 0.005 seconds. The last-place finisher, Jamaica's Oblique Seville, posted a time of 9.91 seconds, which would have been good enough for fourth place at the 2020 Tokyo Olympics, according to Olympic records. The race saw the fastest times ever for fourth, fifth, sixth, seventh, and eighth places.

Lyles ran the fastest. Six finalists in Tokyo finished in under 10 seconds, with one runner disqualified and one posting a "did not finish." His coach, Ralph Mann, a 1972 Olympic silver medalist in Munich in the 400m hurdles, told him before the meet that this was going to be close. "Kyles held his fingers less than an inch apart," he told me. "This is what the distance between first and second is going to be. I can't believe how right he was."

Hours after winning the race, Lyles was making another run, this time for his girlfriend.

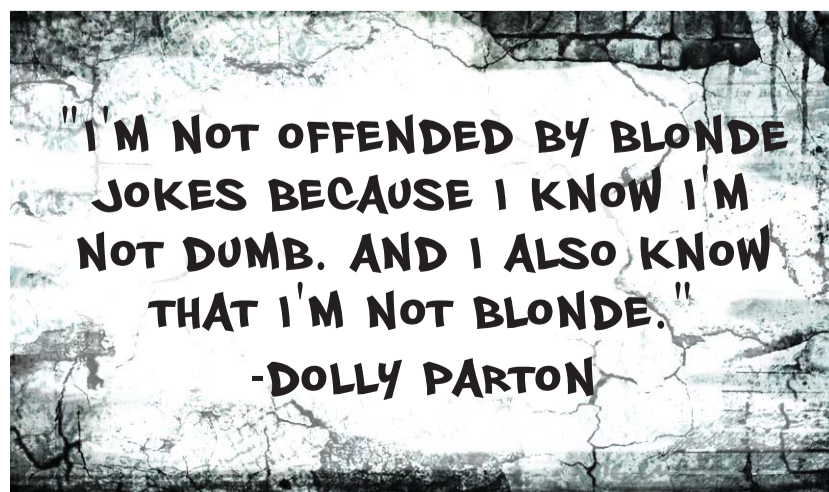
Jamaican sprinter, Junelle Bromfield, had left her spikes at the massage therapist, which is next to the Olympic village. Bromfield asked him to pick up her bag. His reward for the greatest moment of his professional life was carrying her bag and some toiletries back to the Olympic village, walking gingerly at 2 A.M. "Here I am," Lyles said with a smile, feigning exasperation, "Olympic champion in the 100m, waddling to my girlfriend's room with all this stuff. I'm a good boyfriend," said Lyles. A self-described showman who thrives on a large audience, Lyles, ran from behind for much of the first 90 meters while champing down Jamaica's Kishane Thompson to a photo finish. The sprinters waited nervously at the finish line, watching the scoreboard for results. While Lyles' times may not be quite on a Usain Bolt level, his accomplishments, in terms of victories, are on par with Bolt's at his best. Carl Lewis in 1984 and Jesse Owens in 1936, both of whom added the long jump to their gold medal collections, are the only two sprinters who earned more medals in a major international championship. So, Lyles is a pretty big deal. It would be fair to call him an "international athletic superstar." He has reached a level of dominance that the sport has rarely seen.

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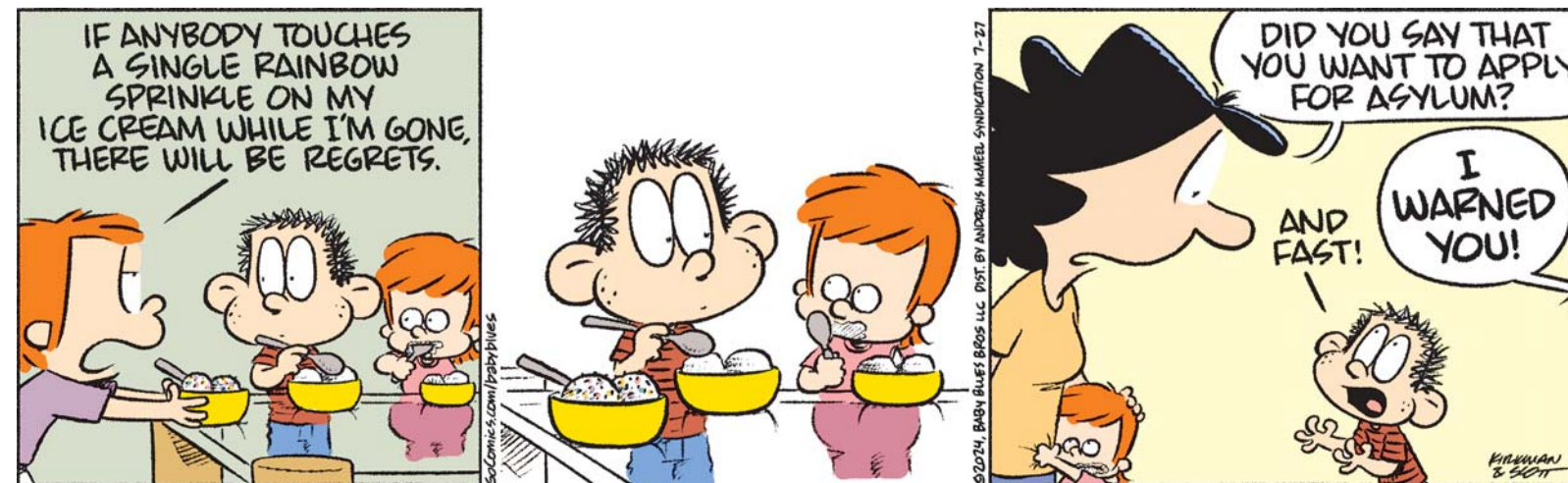


Fred Kerley.

THE WALL



BABY BLUES



ZITS



#FESTIVE FEAST

REIMAGINING GHEWAR

Innovative chefs are reimagining '*Ghewar*,' the traditional Indian sweet, commonly eaten during *Teej* and *Raksha Bandhan* celebrations, with modern flavours and formats. From bite-sized delights to fusion creations, these contemporary adaptations celebrate the rich heritage of *ghewar* while embracing health-conscious trends, making this beloved *mithai* more enjoyable.



Tusharika Singh
Freelance Writer and City Blogger

The festival of *Teej* is synonymous with donning the vibrant *Leheriya* and savouring *Ghewar*, a disc-shaped *Rajasthani* sweet with a honeycomb-like texture, conventionally made from *ghee*, *maida*, and sugar syrup. Traditionally the options for *Ghewar* were limited to the classic plain version or the creamy *malai* one, if one was in the mood for something indulgent. However, contemporary culinary creativity has transformed this traditional sweet into a diverse array of offerings. Today, one can find innovative bite-sized *Ghevars* in unique flavours that cater to the calorie-conscious foodies, alongside healthier alternatives made from millet and wheat, for those mindful of their diet. This trend reflects not only a fusion of tradition and modernity but also a growing awareness of health and wellness among people.



Millet and Wheat Ghevar from Gud Mishri.



Ghevar petit gateaux from Dzurt.



Ghevar offerings from Gud Mishri.

Wheat and Millet Ghevars

Gud Mishri, a culinary venture based in Jaipur, specializes in crafting nutritious and delicious sweets using traditional ingredients like jaggery, *mishri*, wheat and millets. They have introduced millet *Ghevar*, which is a healthier alternative to the traditional recipe of *ghevar*, which makes use of flour. "We have replaced *maida* with whole wheat flour and millet, enhancing our offerings with more fiber and

protein that is beneficial for your gut. We avoid palm oil and cottonseed oil and use *ghee* in preparing our food, and instead of refined sugar, we use rock sugar and jaggery, both chemical-free. No artificial colours are used in our sweets. We made these changes because we wanted people to enjoy their favourite foods in a healthy guilt-free way," shares Surbhi Singh Rathore, Founder Director of Gud Mishri.

Traditional Indian Flavours with Modern Pastry Techniques

Chef Tejasvi Chandela, the visionary behind *Dzurt Patisserie*, is well known in the culinary world, with her unparalleled expertise in fusing traditional Indian flavours with modern pastry techniques. She seeks inspiration from local and indigenous ingredients, traditional Indian *mithai* varieties and their unique methods, and fuses it all with modern pastry techniques to create

innovative pastries. Her limited-edition signature box from *Dzurt* for *Teej* has two exquisite variations of *ghevar petit gateaux*. The first flavour is a combination of original *rabri mawa*, enhanced with a tantalizing orange insert and a delicate clementine orange veil. The second offering is a decadent dark chocolate mousse, complemented by a hazelnut praline insert and a sophisticated coffee veil.



Petit Ghevar Box from Ras by House of Gyanjee.

Bite-Sized Ghevars

Ras by *House of Gyanjee* has expanded its offerings with the introduction of the *Petit Ghevar* box, featuring bite-sized *ghevars* in a variety of flavours. In addition to the classic *Malai Kesar*, they have created unique interpretations such as *Nutella*, *Coffee*, *Lotus*, *Biscoff*, and *Salted Caramel*. "Our *ghevars* are renowned for their perfect blend of traditional craftsmanship and modern flair, earning them the nickname 'Indian waffles,'" shares Divolka Jain of *House of Gyanjee*. As chefs continue to innovate and experiment, *ghevar* not only retains its cultural significance but also evolves to delight new generations of dessert lovers, proving that tradition and modernity can coexist deliciously.

By Rick Kirkman & Jerry Scott

By Jerry Scott & Jim Borgman