



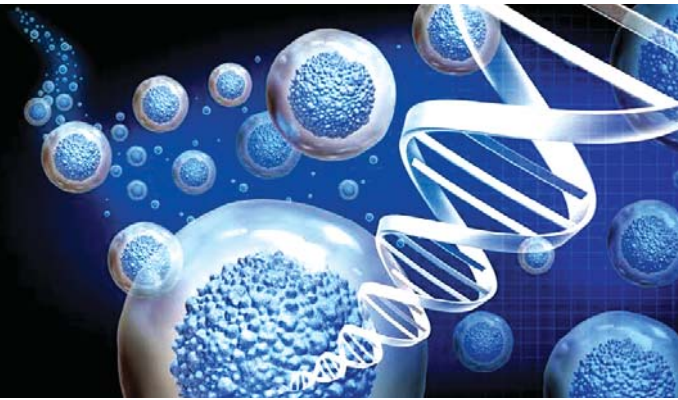
Removing the Unwanted

National Weed Your Garden Day is observed annually on June 13th. Its purpose is to encourage gardeners to take some time out of their busy schedules to remove unwanted weeds, promoting a healthier and more productive garden. This annual observance serves as a reminder for gardeners to dedicate a small amount of time to weed their gardens. By addressing weeds, gardeners can help their plants thrive, ensuring a more vibrant and successful harvest. Take time to weed your garden as you celebrate today. Pro-Tip for celebration: Use #NationalWeedYourGardenDay to post the activity on social media.

#RESEARCH

There Is A (WASp) To Help Repair

It is possible that gene therapy or stem cell therapy could restore WASp function!



New research reveals that the 'guardian of the genome' doesn't work alone on DNA repair. DNA replication and repair happens thousands of times a day in the human body, and most of the time, people don't notice when things go wrong, thanks to the work of Replication protein, A (RPA), the 'guardian of the genome.'



What the deficiency of WASp can do

The researchers discovered these findings after observing that patients with Wiskott-Aldrich syndrome (WAS), a genetic disorder that causes a deficiency of WASp, not only had suppressed immune system function, but in some cases, also developed cancer. Yatin Vyas, professor and chair of the pediatrics department at Penn State College of Medicine and pediatrician-in-chief at Penn State Health Children's Hospital, conducted prior research that revealed that WASp functions within an apparatus that is designed to prevent cancer formation. As a result, some cancer patients had tumor cells with a WASp gene mutation. These observations led him to hypothesize that WASp might play a direct role in DNA damage repair.

"WAS is very rare, less than 10 out of every 1 million boys have the condition," says Vyas. "Knowing that children with WAS were developing cancers and also observing WASp mutations in tumor cells of cancer patients, we decided to investigate whether WASp plays a role in DNA replication and repair."

The researchers conducted protein-protein binding experiments with purified human WASp and RPA and discovered that WASp forms a complex with RPA. Further tests revealed that WASp 'directs' RPA to the site where single DNA strands are broken and need to be repaired. According to Vyas, without the complex, DNA repair happens by secondary mechanisms, which can lead to cancer. This novel function of WASp is conserved through evolution, from

times a day in the human body, and most of the time, people don't notice when things go wrong, thanks to the work of Replication protein, A (RPA), the 'guardian of the genome.'

Scientists previously believed this protein 'hero' responsible for repairing damaged DNA in human cells worked alone, but the new study shows that RPA works with an ally called the WAS protein (WASp) to prevent potential cancers from developing.

Many doctors across the country are already shifting their guidance. I'll share five incredibly sweet, easy to find fruits that have helped older adults feel more energized, less inflamed, and better in control of their blood sugar. You'll find out why these fruits work, how to eat them wisely, and what small change could help you feel better this week because no one, especially in their golden years, should feel deprived of something as simple and joyful as fruit.

Diabetes And Fruit? Go On...



Moitra Dey

Have you ever been told that if you have diabetes, you need to avoid sweet fruits altogether? Maybe, you've stood in the produce aisle looking at a ripe apple or a juicy bunch of grapes and thought, "I can't risk it." It's a message that's been repeated for decades. Sugar is the enemy and sweet fruits are too dangerous. But what if that message is incomplete? What if some of the most familiar, affordable, and naturally sweet fruits, the ones you pass by every week, are actually working for your health, not against it? Recent studies are

beginning to challenge long held beliefs about fruit and diabetes, showing that several sweet fruits can actually help lower blood sugar, improve digestion, and reduce inflammation when eaten the right way. Many doctors across the country are already shifting their guidance. I'll share five incredibly sweet, easy to find fruits that have helped older adults feel more energized, less inflamed, and better in control of their blood sugar. You'll find out why these fruits work, how to eat them wisely, and what small change could help you feel better this week because no one, especially in their golden years, should feel deprived of something as simple and joyful as fruit.

Strawberries

There's something about a strawberry that brings back warm memories. Summer afternoons, fresh bowls at family gatherings, or a small dish lovingly prepared by a spouse long gone. That familiar red fruit isn't just delicious, it holds quiet power, especially for seniors living with diabetes for years. Many of us were told to avoid sweet fruits like strawberries. We were told that the sugar would spike our glucose, that it was better to be safe than sorry. But today, science and experience are painting a much different picture. Strawberries may be sweet but they're also incredibly smart. Rich in anthocyanins, the natural pigments that give them their vibrant red colour, strawberries help slow the absorption of sugars into the bloodstream. That means you can enjoy their sweet

ness without suffering the roller coaster of blood sugar spikes and crashes. And they don't stop there. These little fruits are packed with antioxidants that fight inflammation, something so many of us struggle with as we age. Whether it's stiff knees in the morning, sore fingers after gardening, or that dull ache that seems to settle in your lower back, inflammation is often the culprit. Strawberries quietly go to work, supporting your joints, your heart, even your memory. Their fiber content is gentle yet effective. One cup offers just enough to help keep digestion regular without overwhelming the stomach. And just when you think a fruit couldn't possibly be sweeter or more surprising, wait until you hear about one of the most misunderstood fruits in the produce aisle, grapes.

Grapes

Grapes have long been a symbol of sweetness, abundance, and even celebration for many older adults. But when you're living with diabetes or trying to manage your blood sugar, you may have looked at grapes with hesitation, wondering if their sugary taste meant they were off limits. Surprisingly, these little fruits are far more powerful than they seem and their impact on your health might just change the way you see them. Though small in size, grapes are rich in resveratrol, a natural plant compound found mostly in their



skin. Resveratrol has been studied extensively for its effects on insulin sensitivity, helping your body respond more efficiently to sugar. For people over 60, when insulin resistance often begins to creep in, that's a big deal. Grapes are also packed with antioxidants that reduce inflammation and

#LIFE KINGSIZE

Mango

Yes, it's sweet, but it's also rich in fiber which helps slow the release of sugar into your bloodstream. That means when eaten in moderation, especially with the skin on or paired with protein, mango doesn't flood your system. It nourishes it slowly and steadily. It's a fruit that works with your body, not against it. But the real magic of mango goes beyond blood sugar. It's loaded with vitamin C which supports immune health, especially important as we age, and vitamin A, essential for maintaining healthy vision and skin. Mango also contains unique compounds that aid in fat metabolism and help fight oxidative stress, which plays a role in everything from chronic inflammation to memory decline for older adults facing fatigue, joint discomfort, or simply the slow grind of aging. There's one last classic that still has something powerful to offer. It's bright, refreshing, and often overlooked for its true potential. Let's turn to the trusted orange, an old friend with new lessons for better living.



Oranges

When you peel back the layers, both literally and figuratively, you discover that oranges are one of the most misunderstood fruits in the diabetic conversation. Whole oranges, not juice, offer a powerful combination of fiber, hydration, and slow release of natural sugars. The fiber, especially in the membrane between slices, helps slow glucose absorption, preventing sudden spikes in blood sugar levels. It's a steady, balanced kind of sweetness, something our bodies appreciate more and more as we age. But oranges give us much more than sweetness. They're packed with vita-

min C, a key nutrient for immune support which becomes increasingly vital as our systems grow more vulnerable with time. They also contain potassium which helps regulate blood pressure and reduce water retention, but it's closer to a soda in how it affects your blood sugar. Dried fruits can also be deceiving. A handful of raisins or dried mango may look small but it can contain the sugar of several fresh fruits without the water or fiber to slow things down. For older adults with slower digestion and a more fragile insulin response, that can be overwhelming. Even

Which Fruits Should You Stop Eating?

Six, so which fruits should you stop eating? It's a question many of us are too afraid to ask out loud, especially after hearing that fruit is natural, healthy, and always good for you. But the truth, especially for those of us navigating diabetes in our later years, is more nuanced. Not every fruit supports your body the way it should and some, no matter how innocent they seem, can quietly work against the progress you've made. It doesn't mean we need to live in fear of food, but we do need to be informed, aware, and willing to listen to our bodies. The fruits that tend to cause the most trouble aren't necessarily the sweetest, they're the most processed or stripped of their natural balance. Fruit juices, even those labeled 100% natural, remove the fiber that slows sugar absorption. What's left is a concentrated dose of fructose that floods your bloodstream. That morning glass of orange juice may feel refreshing, but it's closer to a soda in how it affects your blood sugar. Dried fruits can also be deceiving. A handful of raisins or dried mango may look small but it can contain the sugar of several fresh fruits without the water or fiber to slow things down. For older adults with slower digestion and a more fragile insulin response, that can be overwhelming. Even



something as familiar as a dried date or fig, while rich in nutrients, can become a hidden trigger for blood sugar spikes when eaten in excess. And then, there are the overly ripe fruits. Bananas with brown spots, for example. As fruit ripens, its starches convert into simpler sugars. That means a greenish banana is gentler on your system than a soft sweet one. Some tropical fruits, too, such as pineapple and watermelon, can be tricky. Eating fresh and in small portions, they can fit into a balanced plan, but large servings on an empty stomach, that's when the trouble begins. Context matters. Your body needs more than sweetness, it needs balance.

Your Body Deserves Better, Starting Today

Starting today, as we grow older, we begin to see that health is no longer just about rules, restrictions, or perfect numbers on a chart. It's about how we feel when we wake up in the morning. It's about the ease in our joints, the clarity in our thoughts, the steadiness of our steps, and the quiet confidence that we're doing the best we can with what we have. Throughout this journey, fruit has too often been cast as a villain, especially for people managing diabetes. But what we've learned together is that not all sweetness is harmful. In fact, nature's sweetness, when left intact, balanced with fiber, water, and nutrients, can be a source of deep nourishment and quiet healing. The fruits we've explored, strawberries, grapes, apples, mangoes, oranges, are more than

snacks, they're reminders. Reminders that food is not just fuel; it's comfort, memory, culture, connection. When eaten with mindfulness and paired with the wisdom of our own bodies, these fruits offer us something powerful: the ability to enjoy life's small pleasures without fear. And that matters, especially in our later years, when joy should be more present, not less. You are not too old, too late, or too far gone to make a change. Your next chapter is still being written and you get to choose how it feels, what it tastes like, and how it supports the life you still want to live. Let food be your partner, not your prison. Let fruit be your friend again. These lessons are meant to inspire you to live fully and authentically.

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#SPACE

Closer Than Ever Before

"Parker Solar Probe" 'touching the Sun' is a monumental moment for solar science.

In an incredible historic first, a human-made spacecraft has swooped in and made contact with the Sun. The US space agency NASA is ending 2021 for space science on a historical high! For the first time in human history, a spacecraft has just touched the super hostile environment of our star: the magnificent Sun. This historic feat belongs to Parker Solar Probe! The Parker Solar Probe flew through the solar atmosphere known as corona in April during the spacecraft's eighth close approach to the sun. After three years of spiralling closer to the Sun, the probe successfully flew to Sun's upper atmosphere, the corona. The spacecraft bears the heat with the help of over 4 inch thick carbon-composite shields. It's a dream come true for scientists as it took over six decades to achieve this feat. "Parker Solar Probe 'touching the Sun' is a monumental moment for solar science and a truly remarkable feat. Not only does this



milestone provide us with deeper insights into our Sun's evolution and its impacts on our solar system, but everything we learn about our own star also teaches us more about stars in the rest of the universe," Thomas Zarbuch, associate administrator for the Science Mission Directorate at NASA Headquarters in Washington, said.

The audacious mission worth \$1.5-billion was launched in 2018 with an objective to closely study the Sun and understand its influence on the solar system. NASA announced the breakthrough news at a press conference during the 2021 American Geophysical Union Fall Meeting held in New Orleans on Tuesday, December 14.

How do we know if the spacecraft has touched the Sun?

In April 2021, the Parker probe achieved this historic milestone during its eighth close flyby of the Sun. Scientists meticulously analysed the data for the next eight months, concluding that the probe had indeed crossed the boundary, known as the Alfvén critical surface. This point marks the end of the solar atmosphere and the beginning of the solar wind, explains NASA. This is an interface where the solar material becomes solar wind, which streams out across space. Swedish physicist Hannes Alfvén first

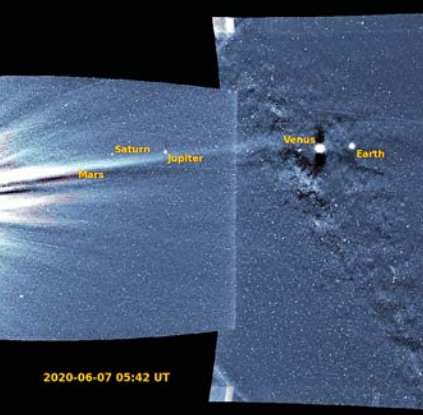
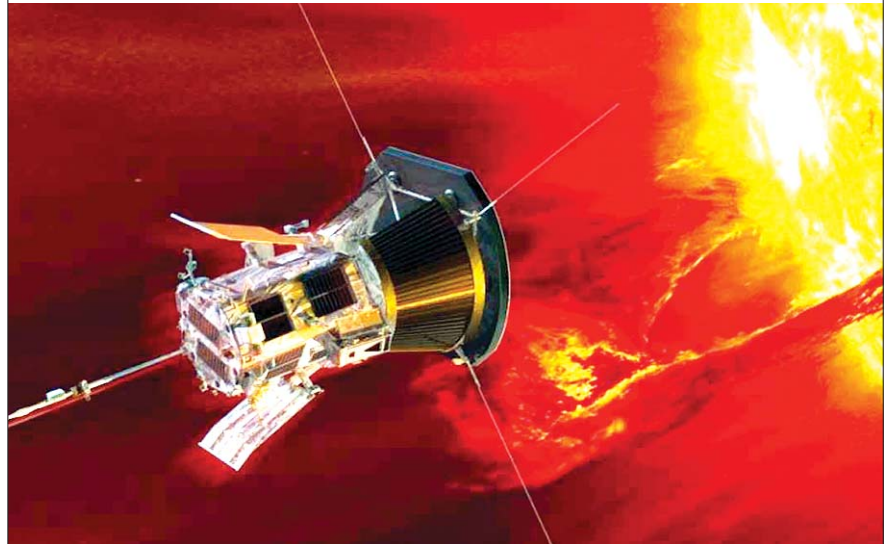
hypothesised this boundary in 1942. And finally, Parker's major accomplishment proved its existence with empirical evidence! During the April flyby, which lasted for five hours, the spacecraft obtained an interesting insight on the Alfvén critical surface. It ventured in and out of the corona multiple times and found that the boundary wasn't a smooth wall. Instead, it has spikes and valleys that wrinkle the surface. In the coming years, the team is confident of decoding the main reasons behind it.

Exciting findings from the closest flyby

Flying so close helped Parker solve some of the most vexing issues around the Sun. This mission aims to understand the solar wind and the corona layer, which burns at unimaginably hot temperatures of millions of degrees. After passing through Alfvén critical surface, the spacecraft encountered another peculiar feature of the Sun at 15 solar radii (around 6.5 million miles) from the surface. This feature is known as pseudostreamer, composed of electrically charged material. The environment resembles that of the eye of the storm. NASA statement explains these are massive

structures, which rise above the Sun's surface and are usually spotted from Earth only during solar eclipses. Ever since its launch, the probe has been relentlessly working! The first biggest revelation from Parker came in 2019. Thorough data analysis revealed the presence of magnetic zig-zag structures in the solar wind, called switchbacks; but, how these structures form remained a mystery to date.

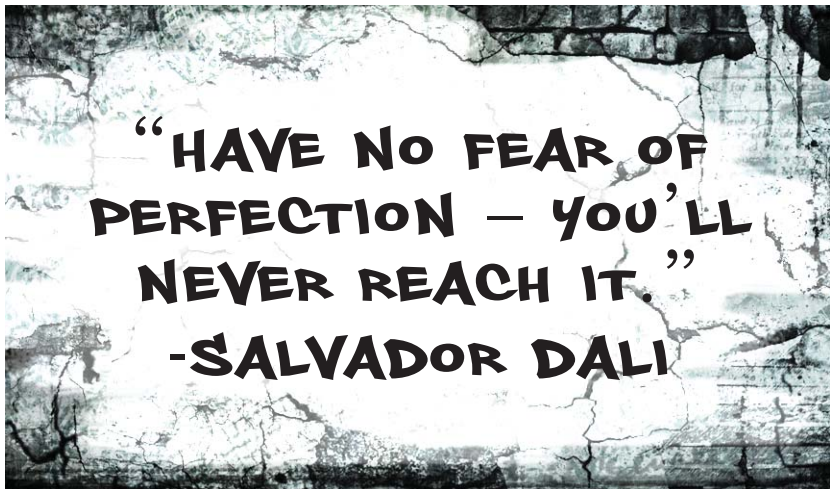
Now, with the help of this close approach, scientists suspect that switchbacks originate from the solar surface.



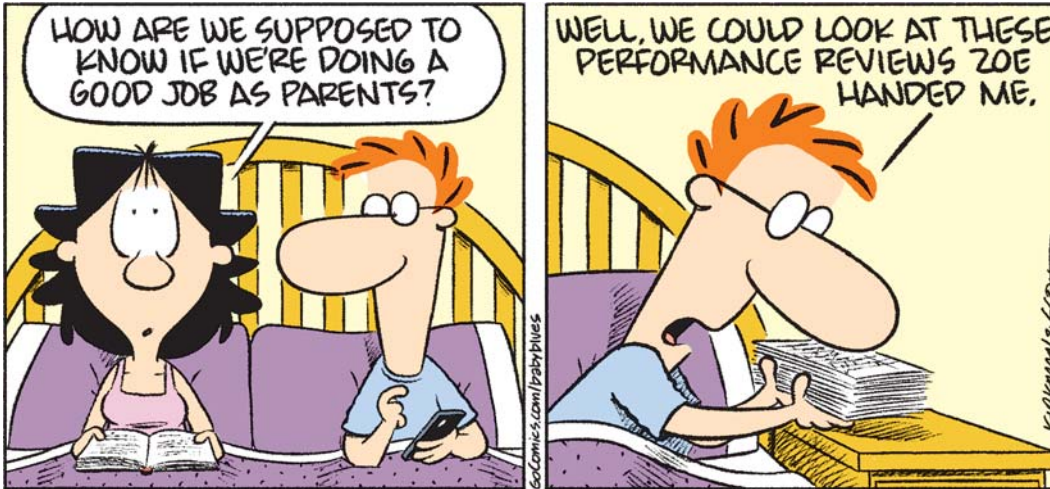
Why does studying these features matter?

Just as the landing on the Moon advanced our understanding of the formation of the Earth's natural satellite, so could be our approach to the Sun. The Sun is the only known star that supports life in the universe! NASA highlights that touching the Sun would help get better insights into the workings of this giant ball that continued to emit charged particles. In addition, experts can learn about how events on the Sun affect the atmosphere, solar wind, and space weather. Reportedly, the probe is slated to orbit within 3.9 million miles of the Sun's surface in 2024, which is actually closer than planet Mercury. Parker will continue to make repeated flybys to sample the particles and magnetic fields around the upper atmosphere of the Sun.

THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman

