

WINTER STARGAZING IN SO. IL. • FERMENTED FOODS • TO SLEEP, PERCHANCE TO DREAM

MORSEL

neighborhood.coop

Winter 2022



FREE

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Winter 2022

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Contributors

FRANCIS MURPHY

General Manager

francis@neighborhood.coop

MONICA TICHENOR

Freelance Writer

JAK TICHENOR

Board Member



{Co-op Throw Back}

A full thermometer on the wall at 104 E. Jackson signaled the successful completion of the \$350,000 owner loan program. This program was a critical piece of the financing to relocate the Co-op to the current store and was made possible by 100 couples or individuals making loans to the Co-op in amounts ranging from \$1,000 to \$50,000 with an average loan size of about \$3,500.

MORSEL

A QUARTERLY PUBLICATION OF

NEIGHBORHOOD CO-OP GROCERY**DIRECTOR OF DESIGN**

Amy Dion

amy@neighborhood.coop

ADVERTISING

info@neighborhood.coop

EDITORIAL POLICY

Morsel is a quarterly magazine produced by Neighborhood Co-op as a means to share news from the Co-op, promote local food, celebrate the seasons, and inspire our owners and patrons to enjoy a healthy lifestyle full of delicious and nutritious food. The views expressed in Morsel are the authors' and do not necessarily reflect those of the Co-op's directors, staff, or ownership. Health and nutrition articles are for informational purposes only and do not constitute medical advice.

SUBMISSION POLICY

Morsel accepts submissions on an ongoing basis. Letters, articles, artwork and ideas are all welcome! We reserve the right to edit content for brevity and clarity. Please send inquiries and submissions to amy@neighborhood.coop.

OUR STORE

1815 W Main Street, Carbondale, IL 62901

Neighborhood Co-op is a cooperative grocery store owned by members of our very own community. Most of our staff are even owners! We are a founding member of the National Cooperative Grocers, a network of more than 200 cooperative grocery stores all across America. We combine our buying power to bring you the best food at the best value while staying locally governed. We work hard to support our community and improve our local food system.

OUR MISSION

Neighborhood Co-op Grocery aims to serve the needs of its owners and patrons by providing wholesome foods, economically, in the cooperative tradition and in ways that best promote the health of the individual, the community and the earth.

BOARD OF DIRECTORS

Generally, meetings are held in the Co-op Community Room once a month at 6p.m.

Contact the Board at:

boardlink@neighborhood.coop

Margaret Anderson

Kristy Bender

Lauren Bonner

Quianya Enge

Ron Mahoney

Erika Peterson

Jak Tichenor

Richard Thomas

Barbara James

Secretary: Karen Schauwecker

QUESTIONS

Email: info@neighborhood.coop or call 618.529.3533 x201

ECO PRINTING

This magazine was printed by ModernLitho. They are certified to the Sustainable Forestry Initiative® (SFI®) and by the Forestry Stewardship Council® (FSC®) for their efforts in utilizing papers originating from a sustainable, ecological source and for maintaining rigorous processes, procedures and training to ensure their standards of excellence and environmental responsibility.

Sales & Events

at the Co-op

JAN.

05

Wellness Wednesday
10% off all wellness items!

FEB.

02

Wellness Wednesday
10% off all wellness items!

Groundhog Day

14

Valentines Day

MARCH

02

Wellness Wednesday
10% off all wellness items!

MARCH

01
31

**OWNER APPRECIATION
MONTH**

Owner Appreciation

Owners receive a 10% off coupon good toward any one transaction they choose during the month of March.

17

St. Patrick's Day

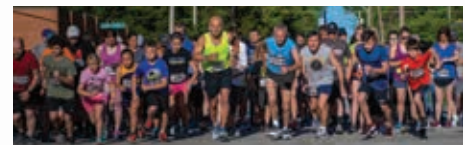
APRIL

07

Wellness Wednesday
10% off all wellness items!

08

Feed Your Neighbor 5K
Co-op annual 5K that raises money for Good Samaritan House.



30

Owner Fest

Co-op's annual meeting and party for owners! New board members are announced.



GENERAL MANAGER'S REPORT



FRANCIS MURPHY

Winding Down the Owner Loan Program

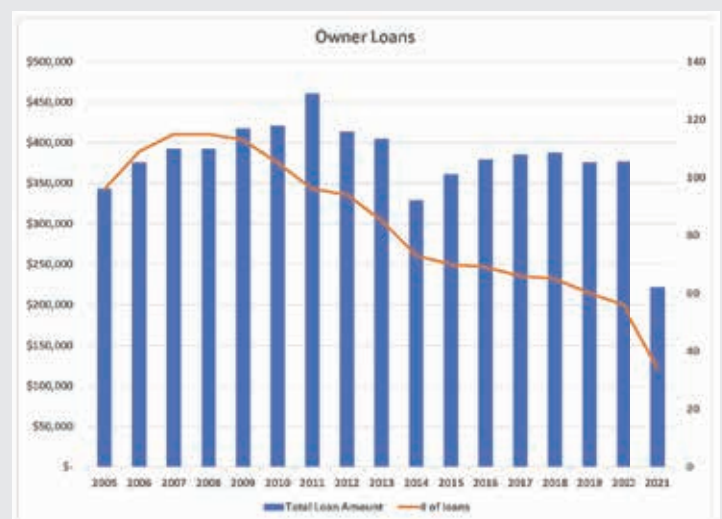
The owner loan program was a key component of the financing plan in the Co-op's relocation to the current store in 2005-2006. Approximately \$350,000 out of the \$1.5 million in sources for the project came from this program. Just as important, the success of the owner loan program signaled to the Co-op's board at that time and to First Southern Bank, the primary lender, that the Co-op's owners were supportive of the project. Originally, there were about 100 individuals or couples who made loans ranging in size from \$1,000 to \$50,000 with an average loan size of about \$3,500. The initial terms of the loans ranged from four to eight years.

The Co-op struggled to achieve profitability for the first two and a half years in the new store so when the first owner loans came due in 2009, owners were asked to renew them. Most all of the owners agreed to renew their loans that year and in every subsequent year until 2014. A key part of the owner loan renewal program was to ask owners who had the capacity to increase their loans in order to make up the funds for those who wanted to be repaid. Many owners were willing to increase their loans so that by 2011, owner loans totaled \$460,000. A \$50,000 loan was repaid in 2012 so the total started to decrease. By 2014, the Co-op had been profitable for several years and had enough cash to pay all of the loans due that year, which totaled \$76,000 and brought the loan total down to \$329,000.

Unfortunately, due to changes in the market, the Co-op's sales and profitability began to decline after 2014, so the owner loan renewal program was reinstated in 2015. The number of loans continued to decrease as some owners opted to get repaid while others were willing to increase their loan size (please see graph). At the beginning of 2021, we had 56 owner loans totaling \$377,000. The weighted average interest rate on these loans was 5.4% and the Co-op annually paid approximately \$20,000 in interest on these notes.

In 2020, the Co-op had its most profitable year ever and received a PPP loan for \$206,200 which was forgiven in early 2021. The extra cash meant that the Co-op was in a position to pay off the 2021 cohort of owner loans totaling \$155,000. Paying off these loans would still leave the Co-op with four times as much cash as we need to operate a business of this size and would reduce our interest payments by over \$8,000 per year. Furthermore, paying off a good number of loans in 2021 would position us to repay all of the owner loans by 2025, the 20th anniversary of the store.

Last June, the Co-op's board approved a plan to start repaying owner loans as they come due. I want to acknowledge that the owner loans have been an important part of the Co-op's capital structure for a number of years. I also recognize that many owners did not want to be repaid as making a loan to the Co-op represented a rare opportunity for people to invest in a local business that they care about. However, it is in the best interest of the Co-op to stop paying interest on money that we no longer need. I am deeply grateful to those owners who made loans to the Co-op and renewed their loans as they came due; this "patient capital" has been an important source of financial stability for the Co-op.





Climate and Equitable Jobs Act

Interview with Hannah Meisel by Jak Tichenor

Governor J.B. Pritzker signed into law the sweeping Climate and Equitable Jobs Act (CEJA) (SB2408) on September 18, 2021, which establishes a statewide clean energy goal of 100% by 2050 and opens up new job opportunities in the renewable energy marketplace.

Illinois Public Radio Statehouse Correspondent Hannah Meisel covered the negotiations that resulted in CEJA.

Hannah, first of all, this bill has been several years in coming and builds upon clean energy legislation passed in 2016, which, ambitious as it was at the time, many stakeholders, particularly environmentalists and organized labor, didn't think it went far enough. What were the perceived shortcomings?

"In late 2016, the General Assembly passed what was called the Future Energy Jobs Act which was meant to stop the closure of two of Exelon's nuclear power plants in Illinois by providing the support that was necessary to keep those plants open but at the same time, environmentalists wanted more forward-looking provisions that provided energy credits to kick-start a lot of solar and wind projects, especially solar projects. Those credits became extremely popular and were exhausted far more quickly than anyone expected, so it actually created a huge bottleneck for making these projects work."

Negotiations began in the late winter of 2019 to craft CEJA. Talk about the role of the Illinois Clean Jobs Coalition, which grew out of the partnerships that passed the first bill.

"As the coalition's name implies, these folks were interested in pushing for more energy credits and state support to ensure that Illinois' nascent renewable energy industry not only survives but actually thrives. As time went on, the messaging got more focused on what they wanted to see in terms of reduced carbon emissions, which – unfortunately – was probably helped by climate disasters we saw in 2021.

Where were the state's major utilities in the new legislation?

"Because of the sea change in Illinois politics brought about by the massive federal criminal probe into Commonwealth Edison and parent company Exelon by extension, lawmakers really didn't want the utilities at the table writing the legislation as in the past. But, they were consulted and negotiated with, since ultimately they have to carry out a lot of the changes."

As the summer wore on, negotiations centered on how the state could reach the zero carbon emissions targets. A lot of Illinois' aging coal plants have plans to shut down within the next five or so years, but not all of them. Two of the newer coal-fired plants, at Springfield's city-owned utility and the Prairie State Energy plant near Marissa became a key focus. It was extremely complicated because Prairie State has contracts with dozens of municipalities in Illinois and other states to provide low market priced energy for decades. But in the end, these plants will have to shut down by 2040 if they don't drastically reduce their carbon emissions. They will have to shutter by 2045 if they have not reduced their emissions to zero. Natural gas plants are also part of this equation.

David Roberts at Volts describes CEJA as one of the most environmentally ambitious, worker friendly, justice-focused energy bills in the country. Quoting him further: "Illinois is now the first state in the Midwest to commit to net-zero carbon emissions, joining over a dozen other states across the country. It is also a model for how diverse stakeholders can reach consensus." Talk about the key components:

"Obviously, there is the commitment to save the three nuclear plants, but you also have the doubling of the energy credits to make sure that the renewable industry, particularly solar, is able to get off the ground and realize what was imagined in 2016 when they were originally introduced. You also have those net-zero carbon emission targets as well as getting Illinois up to speed for the whole electric car industry revolution. Beginning

COMMUNITY CONNECTIONS

Wooden Nickel Program

Our first quarter **Wooden Nickels** recipients for 2022 are **Boys & Girls Club of Southern IL** and **Gum Drops of Carterville**.



July 1, 2022, Illinois will offer \$4,000 tax credits for those who are buying brand new electric vehicles on top of an already existing federal tax credit. There will also be money to build new charging stations across the state of Illinois."

The law prioritizes poor communities and communities of color, it also lays a foundation for environmental justice.

It also takes into account helping workers who may be affected by phasing out fossil fuels. "There are plans to retrain those workers who may lose their jobs in the traditional energy industry, but there are also plans to prioritize people in Black and brown communities to ensure that they can get in on the ground floor of the renewable energy industry which promises to be growing for a very long, long time. There are also provisions to clean up pollution in minority communities where there are problems like asthma and other poor health outcomes so that they can see more benefits moving forward."

Jak Tichenor is host and executive producer of public media's Illinois Lawmakers series that covers state politics and government.

The Boys & Girls Club of Southern Illinois is a youth development agency that serves youth ages 5-18. They are an after school program that focuses on academic success, good character and citizenship and healthy lifestyles. Their values are collaboration, community, empowerment, integrity and relationships. Their mission is to inspire and enable all young people, especially those who need them most, to realize their full potential as caring, responsible and productive citizens. They do whatever it takes to help build better futures.

Gum Drops provides a weekend backpack of child-friendly food to help enhance the quality of life for at-risk children throughout Southern Illinois. HUNGER DOES NOT DISCRIMINATE. It can affect any child, even those you would least expect. These children suffer significantly with health issues, behavioral difficulties, as well as academic performance. Gum Drops plays a crucial role in the lives of these at-risk children by breaking down these barriers caused by hunger.

Visit neighborhood.coop if you know of an organization that could benefit from our program.





Winter Stargazing

IN SOUTHERN ILLINOIS

by **Monica Tichenor**

For millennia, human beings have been by turn awed and perplexed, captivated and frightened by the night sky. Count my late father, Ben Gaston, among the Earth-bound travelers mesmerized by the universe and its mysteries. His love for stargazing reflected an almost spiritual connection to the ink-dark canvas glittering with stars overhead.

As a kid, I would wander our backyard with my dad on moonless nights where he would point out nearby planets, like Venus and Mars, bright stars like Sirius and Vega, and constellations like the Big Dipper, Orion, and my astrological star sign of Gemini. Sometimes we were lucky enough to catch a glimpse of a shooting star. Such magical moments can ignite a lifelong fascination with the wonders of a night sky.



A Passion for Astronomy

Like many stargazers, Bob Baer, Director of the SIU Physics Department's public astronomy observation program, Co-chair of the Eclipse 2017-2024 Steering Committee, and Illinois Citizen CATE Coordinator, can trace his intense interest in astronomy to childhood.

"The first memory I have of being curious about the night sky was when I was about seven," says Bob. "My dad set up a spotting scope on our dining room table aimed out a window at the full Moon as it was rising. I remember asking why the Moon moved so fast and trying to adjust the scope to keep it on target so I could study the craters. It sparked an interest in astronomy and physics that has lasted a lifetime."

But it's not just what we observe that stimulates our curiosity, it's also what we can't see with the naked eye that captivates our senses in profound ways.

"Upon realizing what the stars are, I think many of us wonder the same thing," says Bob. "If we can see that many stars, can anyone out there see us? At some point, we all realize just how small we are in the universe, and that makes us all wonder what is out there."

Winter Stargazing Highlights

Stargazing can be done any time of year, but many people believe winter is the best season to explore the night sky, and with good reason, explains Bob.

"Winter brings cold, clear weather and long, dark nights. Cold temperatures mean lower humidity and less water vapor in the air to obstruct viewing."

Among the standout features of the winter night sky in the Northern Hemisphere is the opportunity to observe our Solar System's largest planets just after nightfall.

"Jupiter and Saturn are visible to the southwest for a few hours after dark through December, with Jupiter visible into January," says Bob. "With a pair of binoculars or a small telescope, the four Galilean moons of Jupiter can be seen. A partial Moon can also offer exceptional views in the winter, and you don't have to stay up all night to see it!"

Other exciting features include the Great Orion Nebula, located in the southeast just after sunset and best viewed with a small- to medium-sized telescope, and the Quadrantids Meteor Shower, which peaks in early January and is best viewed after midnight.

Embrace the Dark Side

For optimal viewing, you'll need to find a location with little to no light pollution. Dark sky communities and parks are popping up across the country, such as the Middle Fork River Forest Preserve in Champaign County, Illinois, designated an International Dark Sky Park in 2018. Closer to home, the largest public area in Illinois with dark skies is within the Shawnee National Forest in Pope and Hardin Counties in southeast Illinois, says Bob.

"The Garden of the Gods area provides breathtaking views of the night sky. Although there is one park in Western Illinois (Weinberg King) offering darker skies, what you'll see in Southern Illinois is similar and quite a bit warmer in the winter. Getting outside of cities in Southern Illinois, you can see the Milky Way on a clear evening, and in areas west of Murphysboro or north of McLeansboro, you'll find skies as dark as in the Shawnee."

Winter Stargazing Essentials

Stargazing is one of the easiest and most affordable activities in which you can engage, requiring little to no equipment. All you really need is a suitably dark location, a place to recline, a little patience, and your own two eyes.

Continue to next page



"The easiest stargazing is done sitting back in a lounge chair or laying on a blanket and just looking at the sky," explains Bob. "It can be pretty easy to see an occasional satellite this way, and it's the best way to view a meteor shower."

When it comes to winter stargazing, dress appropriately for the weather and keep things simple. "Think warm clothes, hand warmers, and hot chocolate," says Bob.

Smartphone apps, which make it easier to observe objects in the night sky, have exploded in popularity, but the sheer number of available apps can be overwhelming to a newcomer.

"My favorite free app is SkyView Lite, although there are several other good ones," says Bob. Other top-rated apps include Star Walk 2 Free, Star Tracker, Night Sky, and Sky Map.

As your interest in astronomy deepens, you'll want to consider adding some gear to your stargazing kit, such as binoculars and a Dobsonian-style telescope, which uses the telescope design first used by Sir Isaac Newton and is both economical and easy to operate.

"Binoculars are great for wide field views of the sky, while Dobs can offer excellent views of planets and some deep sky objects," explains Bob. "You can often find great used scopes for not much money. Or, check with your library or local astronomy club. The Astronomical Association of Southern Illinois (AASI) participates in the library telescope program to place small Dobsonian telescopes in public libraries, which can be loaned out just like books. We also host public viewings where you can try different types of telescopes."

Night sky photography can be tricky, but thanks to smartphones, you don't necessarily have to buy an expensive digital camera to get good results. Most smartphones now have exceptional cameras that allow you to take nighttime photos with long exposures of up to about five seconds, says Bob, and can be set for time lapse to show the movement of stars.

"You'll also want a simple tripod and remote shutter for best results. But, if you want to take photos of deep sky objects, like nebula and galaxies, you'll need to invest in a good camera and a tracking mount to stay on target. You'll also need a very good lens or a small telescope. Refractors are by far the easiest telescopes to start with."

Local Public Viewings

COVID-19 pandemic restrictions over the past year forced the cancellation of public viewing events at libraries and other local venues, but Bob reports that he plans to resume public observations at SIU in partnership with AASI in mid-2022 beginning with the total lunar eclipse on May 15. Public observations are typically held on the Neckers Observation Deck, located on the southwest (A-Wing) roof of the Neckers Building at 1245 Lincoln Drive in Carbondale; however, large observations such as the lunar eclipse may be held elsewhere to accommodate larger crowds.

Other planned events include the 2022 Southern Illinois Star Party, hosted by AASI in partnership with SIU and the Adler Planetarium of Chicago, at the SIU Farms Astronomy Observation Area on Autumn Point Road, just off Chautauqua, on August 6. Watch for more information on the SIU Physics and AASI websites at physics.siu.edu and astroaasi.org or the AASI Facebook page at facebook.com/groups/astroaasi.

The 2024 Solar Eclipse

On April 8, 2024, southern Illinois will be ground zero yet again for the next solar eclipse, but this time, we will experience over 4-minutes of totality, almost twice the length of totality we enjoyed during the 2017 solar eclipse.

"This is the last total solar eclipse we'll see across the continental U.S. for some time," says Bob. "The event's planning committee is planning an eclipse festival similar to the 3-day festival held in 2017. The Adler Planetarium has worked with us since the 2017 eclipse and is already part of the planning for



2024. We are considering additional open venues for eclipse viewing on campus that would have more of an open community feel."

Visit eclipse.siu.edu for updates as we draw closer to the big day.

When in Doubt, Look Up...and To the Side

Gazing up at the sky one night during the early 1970s, I struggled to see the Big Dipper's dimmest star, which seemed to disappear when I looked directly at it. My dad told me to look to the side of the star's location and let my peripheral vision do the work. Sure enough, when I turned my gaze slightly off center, the star's faint glimmer of light came into view.

He explained that what I had experienced is called "averted vision," a technique that enables us to view faint objects by looking a little to the side of the focal point. In doing so, we engage one of the eye's photoreceptor cells called rods, which are located around the edges of the retina and are highly sensitive to low-light emissions.

My father understood well this trick of the eye, but added a few words I'll never forget. "Sometimes we spend so much time looking for something that we can't see it, even if it's right in front of us. But when we turn our attention elsewhere, it becomes visible."

Even as a kid, I sensed that my dad's comment spoke to a larger life lesson. Perhaps what he meant was that sometimes we spend too much time looking and not enough time seeing. So the next time you're seeking clarity in the dark, look up... and slightly to the side. What you've been missing might have been there all along.

Photos by Bob Baer

1) November 19, 2021 total lunar eclipse taken from the SIU Farms Astronomy Observation Area. This was an "Almost Total" lunar eclipse which is why you see the bright white section of the moon in the image where the earth's shadow doesn't cover it completely.

2) 2016 total solar eclipse taken from Belitung, Indonesia. This was taken by myself and Sarah Kovac, who was a SIU Physics undergrad student at the time. We travelled there as part of a NASA funded citizen science research project.

3) A view of the Moon from the roof of Neckers a few years ago. This image is actually about 100 images taken in sequence over a few minutes and stacked to produce a sharper image of the Moon.

ASTRONOMY TERMINOLOGY 101

Magnitude – Refers to the brightness of a stellar object. Stars that are brighter have a negative magnitude, while dimmer stars have a positive magnitude. Magnitude 6 is the cutoff for how dim a star can be and be visible to the unaided eye.

Bortle – A light pollution scale ranging from 1 to 9. A higher number means more light pollution. Carbondale is Bortle 7, Garden of the Gods is Bortle 3.

Phases of the Moon – A new Moon offers the darkest skies while a quarter to half Moon offers the best viewing of the Moon's craters.

Conjunction – When two or more objects appear close together in the sky, such as a conjunction of Jupiter and Saturn.

Opposition – When objects are on opposite sides of a celestial body. For example, the opposition of Mars occurs about every two years with Mars, the Earth, and the Sun being aligned in that order. Oppositions are optimal times for viewing planets.

Light Year – The distance light travels in one year, approximately 5.8-trillion miles. It is used to measure the distance to celestial objects. The Great Orion Nebula is about 1300-light years from Earth while the Andromeda galaxy is 2.5-million light years away.

Messier catalog – A list of 110 deep sky objects that are telescope observable. All objects are numbered, such as M31 (Andromeda Galaxy), M42 (Great Orion Nebula).

Astronomy Resources

• Astronomical Association of Southern Illinois: astroaasi.org, facebook.com/groups/astroaasi

• SIU Physics Department: physics.siu.edu/events/astronomy.php

• Eclipse 2017/2024: eclipse.siu.edu

• Adler Planetarium's Sky Observer's Hangout: adlerplanetarium.org/event/sky-observers-hangout

• Cloudy Nights Forum: cloudynights.com

Heal Your Gut *with* Fermented Foods

by **Monica Tichenor**

Ever had a gut feeling about something, for better or worse, or been told to trust your gut when making a serious decision? Felt butterflies in your stomach when trying something new or your stomach “drop” when anxious? That’s because your gut and brain actually talk to each other – and that connection has a profound impact on your health.

The Gut-Brain Connection

Your digestive system is a complex environment comprised of multiple organs, nerves, neurotransmitters, hormones, and blood, all working together with trillions of bacteria to break down the food you eat in order to extract nutrients needed for energy and cell repair. In fact, the digestive system is

more complex than any other system in your body, with the exception of your brain, which is why the gut is often referred to as the “second brain.”

Your gut and brain communicate through what scientists call the enteric nervous system (ENS), a network of more than 100-million nerve cells within the walls of the gastrointestinal (GI) tract that function independently of the central nervous system and control every aspect of digestion, from salivary secretion and swallowing to nutrient absorption and waste elimination. The ENS not only communicates with the brain through the gut’s two-way nerve highway, it also produces neurotransmitters that interact with the vagus nerve to send messages back and forth between the gut and brain.

A Diverse Microbiome is Essential for Good Health

Seventy-percent of your immune system resides in the gut, which is why a strong digestive system is critical to overall health. Your internal microbiome, a massive network of microbes that outnumber your human cells, plays a key role in maintaining the strength and resilience of your immune system.



Over 100-trillion bacteria, both good and bad, live in your GI tract. Good bacteria work synergistically with your body's immune system to keep bad bacteria in check, eliminate pathogens before they can manifest as illness, and transmit messages to your brain through your ENS. They also help to regulate metabolism and produce 95-percent of your body's supply of serotonin, the "feel-good" hormone that impacts mood and GI health.

But maintaining a balanced measure of good versus bad bacteria isn't enough to promote long-term health. The types of microbes that take up residence in your GI tract also play a critical role, which is why doctors encourage dietary and lifestyle changes that can help you grow a more diverse gut microbiome, such as adding more fiber, fruits, and veggies to your diet, eating less sugar, getting better sleep, and reducing your reliance on antibiotics.

"A diverse microbiome appears to allow the gut to have a stronger defense against any assault on our whole system," says Murphysboro-based registered dietitian, Cynthia York-Camden, MS, RD, LDN. "There are as many as 400 different types of bacteria that live within the colon, and they do so much for us, from helping to digest and break down the foods that we eat to supporting the immune system and making vitamin K and biotin. A balanced mix of flora may also normalize transit time to prevent constipation, balance out bad bacteria to treat diarrhea and inflammation, and support the mucosa barrier in the gut to allow proper absorption of vitamins and nutrients to prevent illness."

Other factors that impact gut health include age, medications, exposure to pathogens, alcohol and tobacco consumption, stress, and physical inactivity, which can individually or collectively lead to dysbiosis, or a gut bacteria imbalance. This imbalance can cause headaches, mood swings, heartburn, stomach upset, bloating, irritable bowel syndrome, constipation, and diarrhea. You might also find it more difficult to fight off infections.

Prebiotics and Probiotics: What's the Difference?

While the terms "prebiotics" and "probiotics" are similar, they each play a different role in creating and maintaining gut microbial balance, says Cynthia.

"Probiotics are good bacteria that can balance out an overgrowth of bad bacteria in the gut when consumed in the right amounts, while prebiotics are the fuel (typically fiber) that feed the growth of good microbiota. Both are necessary for a healthier gut."

Continue to next page





Taking prebiotics, probiotics, or a combination of both can be especially helpful in resetting your internal microbiome, adds Cynthia, citing a research study published in the *Journal of Alimentary Pharmacology and Therapeutics* in 2015 that concluded the probiotic *Saccharomyces boulardii* was effective in treating antibiotic-induced diarrhea. [Source: <https://doi.org/10.1111/apt.13344>]

“Similar research also exists for irritable and inflammatory bowel syndromes, skin health, urogenital health, and upper respiratory infections,” says Cynthia. “In my practice as a dietitian, I have seen firsthand the benefits that probiotics can have in addressing gastrointestinal issues.”

Fermented Foods and Your Health

Fermentation is an age-old process, formulated thousands of years ago as a way to preserve food, produce bread and cheese, and even enhance flavor, explains Cynthia.

“Fermentation allows microorganisms, such as bacteria, yeast, or fungi to convert sugars and starches into alcohol or acids. It promotes the growth of beneficial bacteria and produces a distinctive strong and slightly sour flavor.”

Naturally fermented foods not only give your GI tract a healthy dose of probiotics to boost digestion, they also help with nutrient and vitamin absorption and possibly lower your intestinal pH, making it difficult for bad bacteria to survive, says Cynthia, who recommends the addition of some fermented foods as part of a healthy Mediterranean-style diet.

Fermented foods are generally safe to eat, especially if the products consumed are refrigerated, but people with specific health conditions should avoid or minimize their use.

“If you are undergoing cancer treatment or have a compromised immune system, you should avoid fermented foods,” warns Cynthia. “Pregnant women should stick to commercially-prepared foods, such as yogurt and kefir, and if you have a histamine allergy, you should avoid fermented foods or avoid the ones that bother you. Talk to your doctor if you have any concerns.”

Look for Active Cultures

If your goal is to heal your gut and boost your immune system, try fermented foods with living microorganisms, such as sauerkraut, fermented vegetables, kimchi, pickles, yogurt, kombucha, natto, tempeh, miso, kefir, most cheeses, and some beers. Fermented foods in which microorganisms were killed or filtered after fermentation don’t have the same probiotic effect and include foods such as bread, heat-treated pickles, cooked vegetables, sausage, soy sauce, vinegar, wine and most beers, coffee, and cocoa beans.

“Look for some report of active microbes in the products you purchase,” says Cynthia. “In yogurt, kefir, or kombucha, look for active cultures with as little added sugar as possible. Refrigerated versions tend to have more active cultures.”



Make Fermented Foods a Part of Your Daily Diet

Adding fermented foods to the menu doesn't require a lot of preparation and is relatively easy to do, if you start small and don't try to add too many fermented foods at once, which can overwhelm your gut with bacteria and cause stomach upset.

"Try yogurt or kefir at breakfast, add kimchi or sauerkraut to sandwiches or salads, or add garlic, onions, asparagus, or leaks to your favorite soup or stew recipes," says Cynthia. "My favorite fermented food is kefir, which I enjoy drinking in the morning and putting on my oatmeal. I also like tempeh with vegetables. My husband loves to make Reuben sandwiches with the cold type of sauerkraut, which we like for its flavor and crunch. One of my favorite fermented food recipes is for a Berry Breakfast Smoothie, created by Laura M. Ali, MS, RDN, and LDN. It has a nice balance of nutrition and flavor and is easy to put together. I encourage everyone to give it a try."



Berry Breakfast Smoothie

By Laura M. Ali, MS, RDN, LDN

lauramali.com/foods-that-can-reduce-stress

Ingredients:

- 1-cup kefir – low fat, vanilla, or plain
- 1-cup frozen berries (mix of blueberries, strawberries, raspberries work well)
- 1 tsp. honey or agave syrup
- 1 tbsp. chia seeds
- 1 tbsp. pomegranate seeds for a garnish

Instructions:

1. Place kefir and berries in the bowl of a blender or food processor. If the berries are frozen solid, allow them to sit for 5 minutes before starting.
2. Pulse the blender to break up and soften the berries.
3. Turn the blender on high and blend until the mixture begins to turn pink in color.
4. Add the agave syrup or honey and chia seeds and blend quickly.
5. Let it sit for at least 10-minutes to allow the chia seeds to hydrate.
6. If you aren't enjoying it right away, cover it tightly and store it in the refrigerator. Top with pomegranate seeds before serving.

TO SLEEP, PERCHANCE TO DREAM: WHY SLEEP IS ESSENTIAL TO GOOD HEALTH



by *Monica Tichenor*

Ah, the bliss of a good night's sleep. How wonderful to drift off to dreamland after a productive day, sleep soundly through the night without interruption, and arise in the morning refreshed and ready for the day ahead. Does this sound familiar to you? No? Me, neither – at least not as often as I'd like.

Nearly all animals need periods of rest, with humans requiring about 7-9 hours of sleep per night on average. In fact, we crave sleep, much as we crave food when hungry, and spend a third of our lives in this suspended state of consciousness. But, why? While scientists can't fully answer that question, research from the past two decades paints a clearer picture of what happens internally when we sleep and how sleep (or lack of it) affects our health.

Our Bodies at Rest: The Stages of Sleep

According to the Sleep Foundation [sleepfoundation.org/sleep-faqs], we move through four stages of sleep up to 4-5 times per night, each time spending less time in the deeper stages. These four stages are:

- **Stage 1:** A non-REM (rapid-eye movement) state lasting several minutes as your bodily processes slow in preparation for deeper sleep;
- **Stage 2:** A non-REM state of light sleep during which your body temperature drops as your muscles relax further and your heart rate and breathing slow even more;
- **Stage 3:** A non-REM sleep state called "deep sleep" during which all of your bodily processes reach their slowest rate; and

- **Stage 4:** REM sleep, which lasts about 90-minutes and during which most dreams occur. Your breathing and heart rate speed up, your eyes move rapidly, and your brain paralyzes your muscles so you don't harm yourself trying to act out your dreams.

While we sleep, our bodies are busy repairing cells, clearing unnecessary information from our brains, strengthening our immune system, and regulating hormone production, among other processes, says Todd Pierson, N.D., Ph.D and Clinical Associate Professor of Family and Community Medicine for SIU Carbondale's Physician Assistant Program.

"Sleep helps to keep our bodies in homeostasis by balancing several important functions, including our immune system, sleep-wake cycle, digestion, metabolic functions, and mental functioning. During the day, we react to different situations that trigger a sympathetic response (fight or flight), but when we sleep, we move to a parasympathetic response (rest and digest), which is key for healing and reestablishing a balance in bodily functions."

Your Health on Sleep

A good night's sleep improves your mood and cognitive function, boosts memory, lowers levels of the stress hormone, cortisol, and even helps you maintain a healthy weight by balancing hormones associated with satiety and hunger. It also raises your levels of the sleep-inducing hormone, melatonin, which combats stress and lowers your cancer risk. But one of the most important benefits of sleep is its impact on your immune system.

"When we sleep, our immune system goes to work repairing damage, reducing stress, and getting our body ready for the next harmful assault from a bacterial or viral infection," says Todd. "Sleep boosts the number of white blood cells in your body, the number of infection-fighting antibodies in your system, and the production of cytokines, which are chemical messengers essential for suppressing infection and inflammation. Getting too little (or too much) sleep can increase C-reactive protein (CRP), an indicator of inflammation in the body, and inflammation can lead to heart disease and other types of illness."

Insomnia and Sleep Deprivation

Our bodies are guided by a 24-hour Circadian rhythm. We respond to morning light, which signals to our bodies that it's time to wake up, while the darkness of night triggers the production of melatonin needed to induce sleep. Unfortunately, many factors can interfere with this natural process.

"Age, stress, allergies, medication, a disruptive living environment, pain, sleep phobia, discomfort, drugs and alcohol, and overuse of electronic devices, especially close to bedtime, can all contribute to insomnia," says Todd. "According to the American Sleep Association, insomnia can be classified as episodic (lasting 1-3 months), persistent (lasting 3 or more months), and recurrent (two or more episodes within the space of one year). There can also be subtypes of these three main categories."

Sleep deprivation affects up to a third of American adults and can directly impact your ability to function throughout the day. Among the most common symptoms are daytime drowsiness, difficulty concentrating, irritability, and mood swings.

"If you are experiencing any of these symptoms, along with memory loss, depression, hallucinations, decreased ability to fight infections, digestive problems, and decreased physical strength, you should see your doctor for care," recommends Todd.

Kelsey Tuthill, Program Coordinator for Wellness and Health Promotion at SIU Carbondale, agrees. "If you're falling asleep during waking hours, feel depressed, and are no longer interested in activities that you normally enjoy – and these symptoms have persisted for four or more weeks – seek medical care as soon as possible."

Build a Healthy Sleep Routine

While there are times you may need medical assistance to help you sleep, especially after painful life events such as the death of a loved one, divorce, or serious illness, don't underestimate your ability to create an environment conducive to restorative rest. You have more control over your sleep habits than you think!

You can greatly improve your chances of sleeping well by getting regular exercise (finish up at least 3-4 hours before bed) and by simply avoiding caffeine, alcohol, nicotine, chocolate, soda, and some pain relievers in the hours before you turn in for the night.

"You should also try to avoid prescription sleep aids, which can cause a rebound effect and lead to worsened sleep," says Todd. "Establish a regular sleep schedule and stick to it. Stop using all electronic devices at least a couple of hours before bed. And avoid being a clock-watcher. Read or do some other activity that makes you sleepy or drowsy."

Other tips Todd recommends include drinking plenty of water during the day to keep from waking up thirsty, lightening your evening meals while eliminating foods that can disrupt sleep (cheese, acidic foods, sweets), and taking short power naps early in the day.

Your sleep environment deserves your attention, so make your bedroom a sleep sanctuary, says Kelsey. "Make sure your bedroom is quiet, dark, and cool. And try to develop a relaxing ritual before bed, such as deep breathing or meditation."

Improve Your Sleep, Naturally

Adding foods high in tryptophan like egg, dairy, tofu and soy, pumpkin seeds, sesame seeds, and turkey can be helpful in inducing sleep, as well as boosting your intake of vitamin C and adding a melatonin supplement (though not long-term), says Todd.

"There are also several good sedative teas on the market, which can be helpful if you drink them a few hours before bed," he adds. "Try adding essential oils like lavender, chamomile, or passionflower to a hot bath or apply them to a sleep mask or the bridge of the nose."

SIU's Wellness and Health program also offers help to improve your sleep experience.

"We maintain a sleep education program that includes tips for a good night's rest and Saluki Sleep Kits," says Kelsey. "We also host stress management workshops and offer a dedicated stress management space called The Dawg Lounge, located on the first floor of the Student Health Center, which includes massage chairs, light box therapy, and visits with furry friends on Tuesdays and Thursdays." Visit wellness.siu.edu/topics/sleep.php to learn more about available services.

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SAVE THE DATE!

The Co-op is hopeful that we will be able to host our annual race in 2022. However, we will only hold an in-person event if we feel it is safe and based on COVID restrictions at that time. Please stay tuned for more details as we get closer to our race date.

**For up-to-date information visit www.neighborhood.coop
or look for our event on Facebook!**

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