



OLLI AT FSU'S MONTHLY NEWSMAGAZINE

[www.oli.fsu.edu](http://www.oli.fsu.edu)

JANUARY 2021

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## **OLLI ANNUAL SURVEY FOR THE FALL COMPLETED; EXECUTIVE SUMMARY BELOW SETS OUT RESULTS**

In November of 2020, an OLLI at FSU Annual Survey was conducted through Constant Contact by sending an online questionnaire to each of the unduplicated dues-paying OLLI members for 2020. Members took the survey anonymously through an email link sent by Debra Herman, the OLLI Director. Several email reminders were sent during the survey period through the Director's weekly e-newsletter.

Below is the summary prepared by OLLI President Harriet Waas, who is also Chair of the Member Satisfaction Committee.

Given that 2020 brought us the COVID-19 international pandemic that caused classes to be provided through online technology after March 13, 2020, both the number of OLLI members and the number of respondents were impacted.

Total Unduplicated Dues-Paying OLLI Members for 2020: 1223

Total number of members enrolled who received the Annual Survey via U. S. Mail: 0 (all current members have email)

Total number of members who responded via the email link: 173

Total number of members who responded via U. S. Mail: N/A

**Total OLLI at FSU Annual Survey Responses: 173**

Summary of Responses:

1. Respondents rated "How satisfied are you with each of the following aspects of OLLI at FSU" with at least a 70% or higher Excellent/Very Good/Neutral rating.



Negative ratings for each aspect are as follows:

	Dissatisfied	Very Poor
Academic experience with OLLI at FSU	0 = 0%	0 = 0%
Social experience on Zoom at OLLI at FSU	5 = 3%	2 = 1%
Courses Offered	3 = 2%	0 = 0%
Registration Process	1 = 1%	0 = 0%
Activities and OLLI Clubs via Zoom	0 = 0%	0 = 0%
Ease of using technology (Zoom) for class instruction	4 = 2%	0 = 0%
The OLLI Times	1 = 1%	1 = 1%
Special Events/Lectures via Zoom	2 = 1%	0 = 0%

2. Members were asked to check the subjects that interested them. Subjects of highest interest (50% or higher) were History, Art/Music, Social Sciences, Literature, and Science. History received the highest response ratio with 85.5%.

3. 124 members or 71.6% indicated that OLLI at FSU offered "just the right amount" of classes.

4. When asked to think about the length of classes, the highest percentage of each choice showed that 93 of 143 respondents (65%) prefer 6-week classes, 55 of 110 respondents (50%) prefer 3-week classes, and 47 of 100 respondents (47%) prefer 1-day classes. Comments indicated that all class lengths were desirable and that the class length should be determined by the content and instructor's knowledge.

5. Members were asked to indicate which informational events and lectures (Zoom or face-to-face) they would be likely to attend. 68% would be unlikely to attend a New Member Welcome as opposed to 32% who would be very likely/likely to attend. 95% would be very likely/likely to attend one-time lectures. 71% would be very likely/likely to attend an activity series.

6. Members were asked if they used the OLLI website ([olli.fsu.edu](http://olli.fsu.edu)). Respondents indicated the following (Yes/Sometimes): 84% stated they read the OLLI Times. 52% use the OLLI at FSU calendar. 27% look up information about the OLLI Advisory Council/Member Representatives. 59% use the OLLI website to donate to OLLI at FSU.

7. 58 respondents (33.5%) indicated they frequently or occasionally volunteer with OLLI. 103 (54.4%) rarely or never volunteer. 12 (6.9%) did not respond.

8. Respondents were asked what face-



to-face activities they would be very likely, likely, or unlikely to attend. The vast majority indicated they would be unlikely to attend any of the listed face-to-face activities. Comments indicated that this was a direct result of the pandemic and would change once a vaccine was found or COVID-19 was better controlled.

9. Once we return to face-to-face events, the highest number of respondents indicated they would participate in culture/arts activities and/or field trips because they enjoy having a peer group to join, they enjoy attending activities related to what they learn in class, and they like having options for activities.

10. Greater than 50% of respondents indicated they would be very likely or likely to attend 6 of 7 virtual activities listed. 32% would be very likely or likely to attend Virtual Get Happy with OLLI.

11. Respondents were asked to indicate ONE statement that best describes the period when OLLI should offer activities. 54.9% would like activities during the semester plus the shoulder periods (right before and just after the semester). 24.2% would like activities throughout the new summer term and 12.7% would only like activities during the semester when classes are in session.

12. Respondents were asked which VIRTUAL clubs they would participate in if offered. The results indicate that those who are already interested are also already involved. One respondent indicated an interest in a Technology Club.

13. When asked about class preference, 118 members (68.2 %) indicated a preference for Zoom and face-to-face classes.

14. 102 respondents listed what they like best about OLLI. The vast majority indicated positive aspects including such comments as "keeps life busy," "expands my knowledge...", and "camaraderie." Two members indicated that instructors seemed to lack experience with Zoom. Quite a few comments indicated that members like the Zoom presentations and want them to continue even after we return to face-to-face classes.

15. Thirty-three new members responded to the survey. 139 members are continuing and 1 did not respond.

16. When asked how they found out about OLI, 102 of 166 respondents are already/returning members. The next highest responses were "email announcements" (37); "referred by a friend or colleague" (35); and "newspaper" (23). The lowest numbers were "billboard" (0), "TV commercial" (3), or "went to an event."





# ...FROM THE PEPPER INSTITUTE

## PEPPER INSTITUTE HELPS KEEP FLORIDIANS SAFE AND MOBILE—AND YOU CAN HELP, TOO!



by Anne Barrett, Director of Pepper Institute on Aging and Public Policy; Fulbright Scholar to Italy 2018-2019; Professor of Sociology

FSU's Pepper Institute on Aging and Public Policy has been working to help keep Floridians active and mobile across the second half of life. This emphasis began in 2009 with its partnership with Florida Department of Transportation's Safe Mobility for Life Coalition – a group of more than two dozen organizations focused on increasing the safety, access, and mobility of aging road users. The coalition (described [HERE](#)) strives to accomplish this goal by providing information and resources to older adults, families and caregivers, and various community partners like physicians and law enforcement

agencies. These outreach efforts are based at the Safe Mobility for Life Resource Center, located at the Pepper Institute. Resource Center staff members design, produce, and distribute a wide array of educational materials and conduct numerous transportation-focused workshops across the state.

The institute's interest in transportation also is reflected in the scholarship of some of the faculty associates. Pepper director, Anne Barrett, has conducted research on a variety of aspects of older adults' transportation mobility. For example,



her research has examined gender differences in the transition away from driving. Using nationally representative survey data, she found that women are more likely than men to limit their driving as they get older - but they also are more likely to use driving alternatives, like getting rides from friends and family. Another topic she has examined centers on hurricane-related transportation decisions. Using data collected by the U.S. Census Bureau, she examined older Floridians' need for and proximity to pet-friendly evacuation shelters. Her findings pointed to a lack of availability that heightens older Floridians' vulnerability during hurricane season.

OLLI members can help with these research and educational activities! Dr. Barrett is conducting an online survey, funded by FDOT, that will help inform the Safe Mobility for Life Coalition's work. The survey will allow you to share your thoughts with us – and we look forward to hearing them!

**Participants needed for Florida's Safe Mobility for Life Survey -- Deadline is January 15, 2021**

Are you a Florida resident aged 50 or older? If so, we'd like to learn more

about how you get from place to place in your daily life. The Safe Mobility for Life Survey is being conducted by Florida Department of Transportation's Safe Mobility for Life Program/Coalition and Florida State University's Pepper Institute on Aging and Public Policy.

The survey, which takes about 15 minutes, asks about your driving habits and use of other types of transportation, as well as various factors that may affect them. We will not record your name or any other information that shows your identity. Your participation in this study will help us better understand the transportation needs of Floridians.

To take the survey, click here: [fdot.tips/survey2020](https://fdot.tips/survey2020)

If you have any questions about this study, please contact Dr. Anne Barrett at FSU Pepper Institute on Aging and Public Policy ([abarrett@fsu.edu](mailto:abarrett@fsu.edu)).

On behalf of the Safe Mobility for Life Coalition, thank you for helping keep Floridians safe and mobile! (Ed. OLLI President Harriet Waas and OLLI Times Editor George Waas have taken this survey, and encourage all OLLI members to do likewise.)





## THE CLAUDE PEPPER CENTER

Visit [www.claudepeppercenter.com](http://www.claudepeppercenter.com) for access to many additional resources  
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# Nursing Homes During the COVID-19 Pandemic: Resident and Staff Cases and Deaths

*Dr. Lori Gonzalez*

*The following is an abridged summary of an issue brief which analyzes data compiled by the CDC to examine variation across nursing homes in COVID infection rates and deaths among residents and staff. It also examines differences in these outcomes between traditional nursing homes and Green House homes. This issue brief was featured in the most recent [Green House Newsletter](#). For the full brief and data, [please visit our website](#).*

COVID-19 is responsible for a disproportionate share of deaths among residents and staff living and working in long-term care (LTC) settings. While 8 percent of all COVID-19 infections have occurred in LTC, over 40 percent of all COVID-19 deaths are among those in LTC settings (KFF, 2020). The close quartered living combined with residents who are living with multiple health conditions and staff who are serving multiple residents and households makes LTC settings vulnerable to infection outbreaks. The

risks were known before the pandemic and infection control programs were required by federal law and in most cases, by state law. Data prior to the pandemic, however, showed that LTC facilities were woefully unprepared with 40 percent of nursing homes having at least 1 infection control deficiency in a given year and over 60 percent having infection deficiencies when measured over several years (GAO, 2020; Gonzalez, 2020).

As infections spread, it was unclear how quickly COVID-19 was spreading in LTC facilities largely because data reporting at the federal level wasn't required for nursing homes or assisted living facilities (ALFs; only 19 states are reporting ALF data as of late September; KFF.org, 2020). Initially, nursing homes were only required to report cases and deaths to local health authorities and to the state.

The analysis of the data indicates that there are several factors that policymakers and nursing homes could employ in the future to reduce threats from infections like COVID-19. In the



analyses, the number of people with COVID-19 admitted to nursing homes were a consistent predictor of resident infection rates and deaths and the number of infections and deaths among staff. Several states, including New York and New Jersey, ordered nursing homes to accept recovering COVID-19 patients who had been discharged from the hospital, thus placing an already vulnerable population at risk (NPR.org, 2020). Earlier this year, the CDC published its recommendations to nursing homes accepting COVID-19 positive patients including maintaining a proper supply of personal protective equipment, separating COVID-19 admissions from residents, and creating a dedicated staff for the ward. CMS also issued a few recommendations. It's unclear how well facilities followed the CDC's and CMS' guidance. Another potential issue is that nursing homes were incentivized by the potential of a short-term stay and thus, a higher reimbursement rate via Medicare. Future decision making should consider the data presented in this brief to assess the risk of placing possibly contagious individuals in LTC facilities.

Improving the quality of care in nursing homes could reduce negative resident and staff outcomes. The overall CMS quality star rating of the facility was associated with a decrease in resident infection rates, while higher health inspection survey ratings were

associated with reduced staff infections and staff deaths. For-profit ownership should also be taken into consideration when planning for future pandemics. For-profit ownership was associated with a large increase in resident infection rates and with a small increase in the number of staff deaths. For-profit facilities tend to be larger and are incentivized to cut staffing and other costs (including training) to generate a profit, potentially leading to weakened infection control practices.

Green House homes are perhaps the ideal setting in which Elders live meaningful lives, where staff are empowered to provide high quality care, and given their physical design and focus on quality and data, the ideal setting to reduce the transmission of infectious diseases. Preliminary analyses here indicate that residents fared better in Green House homes, compared to traditional nursing homes (but not staff). Legislation at the federal and state levels could be introduced to incentivize the development of additional Green House homes—even encouraging their construction as the industry standard—including higher Medicare and Medicaid reimbursements and lifting the moratorium on new nursing home construction (in states like Florida, for example) exclusively for Green House home construction.

*For the full brief and data, [please visit our website](#)*



# HOW CAN 2021 BE A BETTER YEAR?

## PLAN FOR A BETTER YEAR

From Citizen Times 2020

The only certainty in plans for 2020 was that there was no way to make certain plans in 2020. But we're all hoping for better things in the new year.

Katie Henry, Chief Marketing Officer at The Happy Planner, said the second half of 2020 has seen many of her customers planning outside the normal scope of what they do. Many have taken time for what Henry calls "memory planning" – journaling and recording what they were doing in their homes or virtually in this very odd year.

"They wanted to lean into how they were feeling," Henry said. "We've never experienced anything like this, so I think documenting it – good or bad – was helping people relieve anxiety or stress."

Planning is more than just recording work, family and volunteer appointments on a calendar. Henry said creative journaling is used by many as a way to slow down and even as a form of self-care.

For the new year, we all have to find that balance of maintaining flexibility and being ready to bolt for vacations

and the other parts of life we have missed and will no longer take for granted.

"It's important to respect the time we're in but find something to look forward to," Henry said.

For short-term planning, consider keeping an old-fashioned check-off list. Write down the day's tasks and take a moment to reflect on them at the end of the day.

"Write down accomplishments, even small things," Henry said. "It's always nice to cross something off the list."

For families who are juggling work, home and virtual schooling or homeschooling, getting the calendar – even it's a schedule of Zoom meetings – in hand is critical.

"Start small," Henry said. "You don't have to get it right the first day."

If it all seems overwhelming, remember to think big for long-range goals, post-pandemic dream trips and more, but zoom in on your calendar until it feels manageable.

"Do things in snackable bites," Henry said. "If you can't plan the month, plan the week. Take everything in your



brain that's keeping you up – all the lists – and do a brain dump. Write it all down.”

Then, break those lists down into priorities. What must get done first?

“Once you look at it that way, it's less stressful,” Henry said. “It doesn't have

to be overwhelming if you take it one step at a time.”

“Plan a Happy Life” a book and podcast by Stephanie Fleming, creator of The Happy Planner, includes strategies for prioritizing what is important to you and nurturing your creativity. Visit [planahappy.com](http://planahappy.com).

## **TOP 10 NEW YEAR'S RESOLUTIONS FOR 2021 YOU SHOULD FOLLOW**

From Thrive Global 2020

You should have exceptional plans for this coming New Year for friends and family. Whether it is about all night partying with your family and friends or saying goodbye to the current years by watching your best favorite New Year's Movie. There is a kind of trend you must follow, making a New Year's resolution.

This is one of the best opportunities to reprioritize to your commitments that delayed for the next month, week, or probably when winter begins. I want you to prepare the list of the best goals you wish to accomplish, lifestyle changes you wish to make, and the things you wish for society. You can simply select a few of them that you can achieve as only a few people can fulfill their resolution.

Here are the top 10 different New Year's resolutions 2021 – These ideas won't only help you to make your life joyful but also a little contribution

towards society. If you follow at least 25% of them you can make your society and your life.

### **1. Quit Smoking**

As we all know smoking is injurious to health, many of us are very addicted to it. You know smoking causes cancer, so it is high time to quit it from day one. On the other hand, make your first priority on this new year's resolution.

### **2. Yoga and Meditate**

There are a majority of people living a very hectic life due to work pressure and an unhealthy lifestyle. If you do meditation and Yoga, it helps you keep stress-free, and relax your soul and mind. Make a habit of doing it 15-20 minutes a day.

### **3. Leave Your Phone**

If you have phone addiction, this is the best time to leave your phone addiction, at least try to spend an hour



every day without your phone. This will help bring more awareness of what's going on around you.

#### **4. Prioritize Family**

In the hustle-bustle of life, we don't get enough time, we usually don't get enough time. This keeps us far from our loved ones and family.

So, in this new year, keep some time reserved for the family whether you are going out on a healthy conversation or dinner in a week.

#### **5. Do Charity**

Take some time out to do charity by giving some food, education, or clothes to the underprivileged people.

#### **6. Find Some Time For Yourself**

Time is a crucial thing in life that's why you must keep some time for yourself. Just go to any park or terrace and relax your body and soul for about 20-30 minutes.

#### **7. Be Social**

Making quality and good social friends are the best thing to interact with them. Because this resolution will help you get more attention and the surrounding of quality people.

#### **8. Raise Your Voice**

If you get to see any wrong around your society, don't back out – raise your voice against it. Perhaps, you can save a life for others.

#### **9. A Day Without Car**

As we already know we are accountable for global warming and increasing pollution. So, this is a great time to take responsibility and give a little contribution required to save our earth. For that reason, you can use public convenience, leave your car at least once a week.

#### **10. Live Your Dreams**

Last but not least – Do what you want to desire for as we get life only once and it is our first right to live it as per our needs.

## **HELP FOSTER CHILDREN BY DONATING OLD OR UNUSED LUGGAGE**

Here is an opportunity to help foster children in this area by donating old or unused luggage.

If you have suitcases you no longer need or want, you can help a foster child.



Foster children can be moved frequently, often having just plastic garbage bags for their belongings. Northwest Florida Health Network works with foster families and children. Donating unwanted and unneeded luggage will allow foster children who must be moved, to move without resorting to using plastic garbage bags.

On a group Facebook page, the Network posts specific needs in Leon County. For example, a Tallahassee foster child might need a winter coat. If you have suitcases to donate, contact Cathy Marcus at 850-819-7902. The Facebook page is [https://www.facebook.com/groups/](https://www.facebook.com/groups/2844084365912891)

[2844084365912891](https://www.facebook.com/groups/2844084365912891), where you can request to join the group.

This idea was first suggested by OLLI member Sue Canning, and immediately accepted by Executive Director Debra Herman and OLLI President Harriet Waas who, as Travel Club Co-Chair, notified the members of the travel club. "Since travel club members are those who use suitcases most frequently (when we are allowed to travel), it is logical to approach them with this opportunity," Waas said. "But, of course, anyone with old or unused luggage can and should donate," she added. "This is a wonderful opportunity to donate for a most worthy cause," Herman said.

## **WEDNESDAY BOOK CLUB SETS TWO MEETINGS IN JANUARY; LOCAL AUTHOR TO DISCUSS LATEST BOOK**

Give yourself a New Year's gift and join us via Zoom on Wednesday, January 6, at 2:00 p.m. with Susan Cerulean, who will be reviewing her latest book, **I Have Been Assigned the Single Bird: A Daughter's Memoir**. Susan has lived in Tallahassee for a long while and most of us know her because of her work as a naturalist. The book is most touching as she integrates an activist's lifelong search to be of service to the embattled natural world with the care of her father during his last years suffering from dementia.

Our regular book club meeting will be January 11, 11 a.m. until 12:30 p.m.,

also on Zoom. The Club's book for January is **The Dry** by Jane Harper. We meet regularly on the second Monday of each month, September through June. The only requirement for membership is that you be an OLLI member. It is necessary for you to notify us so that we can add you to our list for Zoom invites.

Email Ramona Bowman at [rbowman0721@gmail.com](mailto:rbowman0721@gmail.com) expressing your interest in joining us for our special event on January 6 and/or your interest in joining us for membership in our Monday Book Club.



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# THE PRESIDENT'S PAGE

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Harriet Waas  
President, OLLI Advisory Council



A Truly New Year!

On January 1, 2021, we begin a truly New Year filled with hope for good health and a return to normal living. We have lived through many months of the COVID-19 pandemic and, with an optimistic outlet, we look forward to a better 2021!

We also look forward to a Spring semester with many interesting classes and innovative activities. While we will still miss the face-to-face camaraderie for one more semester, we "see" each other virtually and are able to connect online. It is with hope that we will be able to return to on-campus classes in Fall. In the meantime,

instructors will again present classes via Zoom. On a personal note, in Fall I selected several classes that I would not have selected if we were in the classroom thinking I might not "attend" if I did not like the topic or presentation.

I was pleasantly surprised that I stepped out of my comfort zone and learned something new! I encourage you to check the Spring 2021 catalog and try something new!

I wish you the happiest and healthiest year as you look for the good in life, continue to learn, stay involved, and most importantly, stay well!



# A TIME IN MY LIFE



## LEMON MERINGUE PIE

By Paula Walborsky

Write about your memories they say. Put it down on paper for your children and grandchildren. Tell your story. And for years I have done that. Telling half truths about my life. Embellishing a bit here and there, changing endings so it all turned out all right. But what I never have written about are the bad memories. Like the day I realized my father hated me. Who wants those preserved.

But without them my life is a lie. And there is no explanation for what wakens me at night or creeps into some small incident in the day. Can anyone's life be so perfect that they do not have bad memories? There is nothing dramatic about this particular memory there are no sinking ships, no being locked in a cellar. It was in fact the end of a perfectly normal day. The weather was forgettable and my family was

gathered around the long, rectangular dinner table. It was how our family always ate dinner. Dad was at the head of the table, Larry the older of my brothers sat to his right, and Marty, in his highchair sat next to him. He was nearer my mother that way. She sat at the foot of the table. I sat across from my brothers.

My parents insisted on good manners and the table would have been set with a homey tablecloth. There would have been a full place setting of knives, forks and spoons at each setting except Marty who only got a spoon. A folded napkin and a matching plate for each of us. The water glass was to go at the tip of the knife and the salad bowl at the tines of the fork. Food was served in serving dishes, and Mom prided herself on her cooking and on its



presentation. There was a lot to be learned at her table.

I do not remember what we had for dinner that night. I don't remember what I was wearing or any other particular clue that might have served as a portent. That is how real life is, isn't it? No ominous music to warn you. No strange camera angle to make you see something from a different perspective. No, it was completely ordinary.

I was about eleven, a tall lanky kid who had to repeatedly convince the sailors and soldiers from the base that I was truly only eleven. What I do remember, vividly, is that Mom had made one of her heralded and beloved lemon meringue pies for our dessert. Let us think about pie. There are usually six servings from a single pie.

There were five people in my family. Perfect! Everyone got a piece of pie. It was so delicious, just the right balance of tart and sweet. Mom's meringue was bragsworthy. The main course

dishes would have been cleared away and this prize of a pie served on smaller dessert plates with dessert forks. There was one piece left and Mom asked if anyone wanted it. Both Larry and I competed for it. Me, me. Me!

Mom gave me the last piece of pie. Did I taunt Larry about it? Did I smirk? Was I unkind? I have no memory of it at all. But I was eleven so it is quite possible. I ate about two bites and announced that I was full. My father said I had asked for that pie and I was to eat it. I said I was full. He picked up my plate and smashed the pie into my face.

This kind of thing was considered enormously funny at one time. Comics hit people in the face with whipped cream pies and people laughed and wiped their faces. Ha, ha, ha. Pie in the face. In this generation we would call it a meme. I do not eat lemon meringue pie any more. Don't care for it at all. As I have said. There was a lot to be learned at my mother's table.

## **WEDNESDAY BOOK CLUB TO DISCUSS "THE NICKEL BOYS"**

By Susan Barnes, Chair

At its February 10 meeting, the Wednesday Book club will be considering The Nickel Boys. In this Pulitzer Prize-winning bestselling follow-up to "The Underground

Railroad," Colson Whitehead brilliantly dramatizes another strand of American history through the story of two boys unjustly sentenced to a



hellish reform school in Jim Crow-era north Florida.

When Elwood Curtis, a black boy growing up in 1960s Tallahassee, is unfairly sentenced to a juvenile reformatory called the Nickel Academy, he finds himself trapped in a grotesque chamber of horrors. Elwood's only salvation is his friendship with fellow "delinquent" Turner, which deepens despite Turner's conviction that Elwood is hopelessly naive, that the world is crooked, and that the only way to survive is to scheme and avoid trouble. As life at the Academy becomes ever more perilous, the tension between

Elwood's ideals and Turner's skepticism leads to a decision whose repercussions will echo down the decades.

Based on the real story of the Dozier School for Boys reform school in Mariana that operated for 111 years and warped the lives of thousands of children, *The Nickel Boys* is a devastating, driven narrative that showcases a great American novelist writing at the height of his powers and "should further cement Whitehead as one of his generation's best" (Entertainment Weekly).

Sara Pankaskie will be leading our discussion. Don't miss it!

## ***SPECIAL TO THE TIMES***

### **9 SCIENCE-BASED WELLNESS TRENDS FROM THE LAST DECADE THAT ARE BEING TAKEN INTO THE 2020s**

By Sarah DiGiulio, NBC News 2020

How we take care of our bodies, minds and health evolves over time for a number of reasons. While some of those changes get forgotten (like low-fat everything and shake weights, thank goodness), some health trends gain attention because there's science behind them and we're better off for adopting them.

Here are a few such wellness trends that came into vogue in the 2010s that

experts say we should keep up in the 2020s.

#### **1. Prioritizing self-care**

Americans (and those from other countries that struggle with overwork) have tried for several decades to define

success as tireless busyness and personal accomplishment, explains Emiliana Simon-Thomas, Ph.D., Science Director at the Greater



Good Science Center at University of California, Berkeley.

It requires individuals to devote a huge amount of their time and energy to work and other activities that might impress someone else, she says. “People are realizing the weakness of this approach.”

That’s why self-care — particularly the well-informed type that prioritizes activities and experiences that reliably contribute to overall happiness in life — is a very important cultural trend, she says. It’s not about pampering ourselves, it’s devoting time to things like eating healthy, exercising, sleeping and taking emotional respites when we need them, she explains. “It means investing a portion of our day-to-day efforts into [building the] skills of social and emotional intelligence that enable us to form and maintain supportive, meaningful relationships with others. It means carving out time to invest in our communities and collective resources.”

And it’s recognizing that those things are just as important as our academic and professional success, she adds.

## **2. The rebranding of sleep**

Let the 2010s be remembered as the decade we (as a society) grew out of the “I’ll sleep when I’m dead” mentality. You can point to increased attention from health and wellness media or the influx of sleep trackers

and other tech as reasons for the shift. But sleep medicine doctors point to an influx of science highlighting the many important ways consistently sleeping long enough and well enough is linked to better health.

“There is overwhelming scientific evidence that sleep quality and proper timing of sleep are essential for brain, immune, cardiovascular and metabolic health,” says Phyllis Zee, MD, Ph.D., a sleep medicine specialist at Northwestern Medicine. “Sleep deficiency and irregular sleep and wake timing have been shown to increase the risk for diabetes, heart disease, impaired ability to fight infections, and even Alzheimer’s disease. ... And it can improve our overall quality of life and public safety.”

We now know that deep sleep (the phase of sleep you’re only reaching if you’re getting good, high-quality sleep) is essential for learning and memory because this is when the brain clears out brain “waste” that builds up when we’re awake.

We better understand that sleep apnea, a common sleep disorder, can increase risk for dementia, Zee says. And we’ve also learned that the genetic mechanisms for circadian rhythms exist in nearly all cells, which explains why sleep and sleep timing have such broad effects on our health, Zee explains. (The 2017 Nobel Prize in Medicine or Physiology was awarded



for the discovery of circadian clock genes.)

### **3.Strength training goes mainstream**

Gone are the days when weight rooms were the territory of bodybuilders alone. Thank the birth of CrossFit or the rise of fitness influencers like Kayla Itsines, Michelle Lewin and Joe Wicks. Thin is out; sculpted and strong is in.

It's a trend to definitely take into the next decade because there is so much research demonstrating the benefits (from reduced risk of disease to reduced risk of injury to improved functioning later in life) linked to strength training, explains Todd Schroeder, Ph.D., Associate Professor of Clinical Physical Therapy at the University of Southern California. "Strength training improves bone mass, which helps attenuate the development of osteoporosis as we age.

Additionally, we all lose muscle mass as we get older (sarcopenia), so building muscle through a strength training program is important to help maintain activities of daily living, which often decline with age."

Schroeder's team is currently researching how strength training might even be linked to improved cognitive function, he says. "The results look impressive."

### **4. Muscle recovery tools show up everywhere**

Another fitness trend that's taken root in the past few years (and should continue) is the increased attention to post-workout muscle recovery. Foam rolling is increasingly popular. Research shows its benefits include increased joint range of motion and muscle length. It may also help break up scar tissue and reduce post-exercise muscle soreness because it increases blood flow to the affected area, Schroeder says. It's not a cure-all, he adds, but for tight muscles, a lot of people find it feels really good.

Along with foam rolling comes the advent of percussive and massage therapy devices (like the Hypervolt and Theragun). "These devices feel good, so athletes and non-athletes use them as personal masseuses," Schroeder says. There's limited evidence to prove the extent of their potential benefits, he adds. But they're thought to work for the same reasons foam rolling works; they're meant to increase blood flow to the tissue to help reduce inflammation, improve healing and boost post-workout recovery. There's little risk to using these devices, so if they make you feel better or help your workouts, use them, Schroeder recommends.

### **5. Paying more attention to mental health**

The 2010s have been a decade of great progress in recognizing the role of



our mental and emotional health in overall wellbeing, Simon-Thomas says. “Society-wide challenges like incredibly high stress amongst adolescents and the opioid crisis have presented the opportunity to question the status quo,” she says. “Simply letting mental health emerge in a passive and often stigmatized manner is not working.”

Decades ago meditation and mindfulness were too spiritual to be talked about in schools, says Robin Stern, Ph.D., Associate Director of the Yale Center for Emotional Intelligence.

But in the last decade we’re seeing a proliferation of programs on mindfulness for students of all ages (from kindergarten upward). “And now we have research supporting that our physical health and physical health behaviors are linked to mental health,” Stern adds.

The stigma about needing help is decreasing, and more and more people are willing to say they are struggling and seek help.

There’s been a rise in mindfulness and meditation apps. There are more instances of social media users being transparent about their struggles with mental health (and garnering support as a result). Celebrities (from the British royal family to Olympian Michael Phelps) have championed the cause. “The stigma about needing help

is decreasing, and more and more people are willing to say they are struggling and seek help,” Stern says.

## **6. Remembering that a quiet night in is actually great**

A number of foreign wellness trends have gone mainstream in the past handful of years. The Danish tradition of “hygge” is one with a valuable message, Simon-Thomas notes. “It’s the idea that happiness is not related to being entertained or consuming material goods,” she says. It’s the people you’re with and the quality of time shared that supports sustained happiness, she explains.

Biologically, we’re wired so that for whatever objects bring us pleasure, the reward diminishes the more we’re exposed to it. Social pleasure, however, works differently, Simon-Thomas explains. The effect of being around others and enjoying one another’s company grows the more it happens. The bottom line: This focus on creating warm, cozy shared experiences based on playful interactions and contentment are really good for us and our wellbeing.

## **7. Plant-based eating becoming cool**

Plant-based ways of eating have been around for decades, explains Raquel Garzon, Ph.D., RDN, President of the Revitalize Project, a health and wellness coaching and training



organization for individuals, communities and companies. But there are both environmental factors and health factors that have pointed to its utility (and helped lead to its growing popularity) over the past decade, she says.

“Eating a plant-based diet has a much smaller carbon footprint than eating animal-derived foods,” she says. And there’s evidence that these ways of eating may have benefits when it comes to decreasing inflammation, preventing autoimmune disease, cancers and other chronic disease.

“I believe the plant-based trend will continue over the next decade, especially as climate change concerns and environmental protection movements continue,” she says.

## **8. Better understanding what’s going on in our guts**

“Research on the gut microbiome has exploded over the last five years,” Garzon adds. There are 10 times more microbial cells than human cells in our body -- with the genes in our gut microbiomes outnumbering the human genes in our bodies about 150 to one. So far there’s evidence that shows our gut bacteria play important roles in maintenance of the immune system, serotonin production, anti-inflammatory activity and synthesis of essential vitamins, among others. And an imbalance of gut bacteria has been

linked to several diseases, like type 2 diabetes, obesity, high cholesterol, thyroid issues, autism, mood disorders, digestive conditions, asthma and nearly all autoimmune disorders.

“Although many lifestyle and environmental factors impact the type of bacteria we have in our gut, we know that the diet is another important factor,” Garzon says. Currently we know having many different types of bacteria in the gut is important, and having a diet rich in fiber, fruits, vegetables and nuts promotes that diversity.

Going ahead, research will point to more precise dietary recommendations for individuals to specifically improve their own gut microbiomes to optimize outcomes for their specific genes and their current gut bacteria profiles, she says.

## **9. Getting better at disagreeing**

Tough to say that we’ve really gotten good at this one in the 2010s, but we’ve at least started to recognize that it’s something (in pretty much all aspects of our lives) that we need to get better at in the decade ahead.

“Conflict is a crucial step in the course of making the kinds of change that amount to human progress, and being able to manage, and constructively negotiate conflict is the only way that that progress can occur,” Simon-Thomas says. “I think people are very



frustrated and disheartened by the stagnant nature of disagreement we are currently ensconced in both in the U.S. and internationally.”

How do we grow these skills? We need to work on rediscovering how to discuss and constructively resolve topics of disagreement, apologize, forgive and compromise, she adds.

## IS YOUR EMAIL ADDRESS SPREADING SPAM? CHECK THIS OUT

From USA TODAY

Email phishing started back in the '90s, and it's been downhill from there. Open up the junk folder in your inbox to see what I mean. Just don't click anything.

You need to make sure your system is protected. This way, your network is locked down, and you can browse with the confidence your data isn't at risk.

What if you're sending out junk email? You might be. It's the way some of the cleverest forms of malware spread by hijacking your email address to do their dirty work.

Luckily, there's an easy way to check whether your email address or domain has been used behind your back.

### **Is your email address spamming people?**

The Emotet botnet is one of the most effective email malware campaigns around. It started as a banking Trojan and now spreads primarily through

phishing emails that lead the recipient to a malicious URL.

If there's a spam operation using your email address, there's a good chance it's this one. The Russian cybercrime operation uses sophisticated tactics like replying to an old email thread to look more believable. To know if Emotet is working behind the scenes using your account, I found a free tool you can use: [haveIbeenEMOTET](#).

A quick note in case you're thinking, "Hey, that sounds familiar." The site name may sound similar to site [HaveIBeenPwned](#), but there's no affiliation. HaveIBeenPwned is another excellent free tool that tells you whether your data has been exposed in a data breach or sold on the Dark Web.

### **Here's how to check**

Once you visit [haveIbeenEMOTET](#), give your email address or domain name site and hit enter.



You'll get one of a few results: Confirmation that your email address has not been used in an Emotet spam campaign or verification that it has.

If your email address or domain has been used, it will be marked as either "Sender Fake," "Sender Real" or "Recipient."

### **What to do if your email has been hijacked**

The haveIbeenEMOTET site doesn't retain any information about your email address or domain that you input. It simply checks your info against the data it has in its database. It doesn't use cookies to track you, either. If your email address is in the haveIbeenEMOTET database, you need to take four steps right away.

\*Scan your computer for malware. Be aware, though, that malware can interfere with your antivirus software, so you may have to boot up in Safe Mode and rerun the antivirus software if that happens. Need help finding a good antivirus program?

\*Change your email password. Make sure you're using unique, hard to crack passwords for all of your online accounts.

\*Check your email account to make

sure your privacy and security settings are locked down.

\*Back up your devices. You may have to wipe your devices, and you need a solid backup in place before you do.

### **How can you avoid Emotet in the first place?**

These scam emails can outsmart you if you're not taking a good hard look at what comes through your inbox. Here are a few things to keep in mind.

- Avoid opening emails from unknown senders. Always check the URLs and sender fields closely – especially if the message appears to come from somebody you know.
- Look for a shift in tone or writing style if you get an email from someone you know. He or she might not be the one who wrote it.
- Be wary of attachments you didn't ask for or weren't expecting. If you get a spreadsheet or Word doc from a colleague or business associate, reach out through another medium (like a text or phone call) to double-check everything is on the up and up.
- Think twice before you click links in emails. Hover your mouse over the link to see where it will lead you.
- Enable two-factor authentication for any account that supports it.



# EXERCISE-INDUCED PROTEIN MAY REVERSE AGE-RELATED COGNITIVE DECLINE

From the National Institutes of Health 2020

Exercise and physical activity are important as you age. They help keep your body and brain healthy. Staying active can help you remain independent by preventing loss of physical mobility. It may also slow age-related cognitive decline.

Researchers don't know how exercise might slow age-related cognitive decline. A better understanding of this process could point toward ways to help those who have difficulty exercising due to fragility or health conditions.

In animals, exercise has been shown to reverse age-related decline in a brain area called the hippocampus. This region is important for learning, memory, and other cognitive functions. To determine what may underlie these potential rejuvenating effects of exercise on the brain, a research team led by Dr. Saul A. Villeda at the University of California, San Francisco compared proteins that circulate in the blood of mice who get a lot of physical activity with those in sedentary mice. The work was funded by NIH's National Institute on Aging (NIA). Results were published on June 10, 2020 in *Science*.

Researchers compared the brains of young (3 months) and aged (18 months) mice that either had access to a running wheel in their cage for six weeks or were sedentary. They looked at age-related molecular and cellular changes in the hippocampus. Older mice that were active showed increased generation of new brain cells called neurons and higher levels of nerve cell growth factors than sedentary mice. They also made less errors in hippocampal-dependent learning and memory tasks.

The team then collected blood and plasma from both young (6 to 7 months) and aged mice (18 months) who were either active or sedentary. They injected their plasma into separate groups of older mice eight times over three weeks. The aged mice that received blood from the active groups showed increases in new neurons and on learning and memory tasks similar to those of the active mice themselves.

Many proteins were found at higher levels in the blood of the active mice. The researchers honed in on one made in the liver, called GPLD1. Researchers injected the gene for the



protein into aged mice, causing their livers to produce GPLD1. After three weeks, the animals showed brain cell growth and improvements in learning and memory similar to that seen in active mice.

GPLD1 did not appear to enter the brain, suggesting that the protein acts through one or more molecules that interact with the brain directly. Further study will be needed to understand its mechanism of action.

The researchers also collected blood samples from healthy older people (ages 66 to 78) to explore whether the protein could play a similar role in humans. Levels of GPLD1 were higher in those who were physically active

(>7100 steps per day) than in those who were sedentary (<7100 steps per day).

“Through this protein, the liver is responding to physical activity and telling the old brain to get young,” Villeda says. “This is a remarkable example of liver-to-brain communication that, to the best of our knowledge, no one knew existed.” More research is needed to determine how much, how long, and what types of exercise people would need to see cognitive benefits. Further, identifying the factors underlying this protein’s effects on the brain could help researchers develop therapeutics to combat age-related cognitive decline.

# THE SCIENCE OF STRESS

**Understand how stress operates in your body — and how to reduce stress and build resilience.**

From Experience Life  
By Jon Spayde 2019

Consider the car alarm.

You’re trying to concentrate on a project that’s due in less than two hours, and that horn has been beeping outside your window for the last five minutes. Its effects are impossible to ignore. Your heart rate is up. Your jaw is tight. Your stomach roils as the clock ticks toward the deadline. Though you are normally someone

who walks miles to avoid an argument, you briefly contemplate throwing a brick through the windshield of that car in self-defense.

This is what stress feels like. And while moments like these are familiar to everyone, studies suggest that today these feelings have become the



rule of our collective experience, rather than the exception.

When the American Psychological Association conducted its annual survey on stress in 2011, nearly a quarter of respondents reported their levels of stress as “extreme.” Thirty-nine percent said their stress had gone up in the past year, and 44 percent said it had increased in the past five years.

Respondents more or less agreed that chronic stress had a negative impact on their quality of life, and yet — despite the fact that most of us can easily identify what stress *feels* like — nearly a third of respondents said they believe stress is strictly psychological and has no impact on physical health.

### **Understanding the Stress Response**

Experts across medical disciplines agree that this is a dangerous misperception.

“The stress response is a normal adaptive coping response that evolved over hundreds of millions of years to help our ancestors avoid sticks and get carrots,” says Rick Hanson, PhD, a neuropsychologist and author of *Buddha’s Brain: The Practical Neuroscience of Happiness, Love, and Wisdom*. “It’s natural. What’s also natural, though — and you see it in the wild — is that most stressful episodes are resolved quickly, one way or another. The natural biological,

evolutionary blueprint is to have long periods of mellow recovery after bursts of stress.”

The problem, according to Hanson, is that “modern life exposes us to mild-to-moderate, but chronic, stress constantly — multitasking, juggling too many things, moving too quickly, being bombarded with stimulation.” In other words, we’re simply not designed to flee from predators for 10 hours a day with no breaks. But that is essentially what we do.

Roberta Lee, MD, vice chair of the Department of Integrative Medicine at Beth Israel Medical Center in New York City, calls the now-common condition of constant pressure “superstress.” In her book *The Superstress Solution*, she lists the variety of stressors many now take for granted: job dissatisfaction, overwork, inadequate salaries, not enough time with partners and family, noise pollution, lack of outdoor time, and “spiritual angst” prompted by a loss of meaning and purpose, as well as a loss of connection with others.

As Henry Emmons, MD, of the Penny George Institute for Health and Healing in Minneapolis, points out, “your body can’t differentiate between a saber-toothed tiger attack and a bad job review.” The nerve-and-hormone response is the same. And over time, the intensity of the stress response wears a body down.



Lee compares the effects of a near-constant cascade of stress hormones to revving an auto engine all day. “You’ve got your foot on the accelerator all the time, even when you’re resting,” she says, “and you’re overutilizing every element of your body, like you do with a car when you’re revving up an engine. You overuse the oil. You increase heat.”

The resulting physical symptoms range from annoying to debilitating. “What I mostly experience with patients in my practice is anxiety,” says Los Angeles–based naturopathic physician Holly Lucille, ND, RN, author of *Creating and Maintaining Balance: A Woman’s Guide to Safe, Natural Hormone Health*. “When you’re overly stressed, you have a decrease in stress resistance — I call it ‘short-fuse syndrome.’”

This is when we start contemplating putting bricks through windshields. The following pages will explain the effects of such high-stress moments on different organs. It will also help you understand what you can do to cool those fires — and build a more stress-resilient body for the long haul.

## **Your Body Under Pressure**

**Here’s what happens to our organs and biochemistry when we’re stressed out**

### **The Brain**

The stress response begins above your shoulders. The amygdala (a cluster of cell nuclei inside the temporal lobe that processes emotional data) sends a threat message to the hypothalamus, which in turn tells the sympathetic nervous system to protect you from attack. The nervous system increases heart rate, constricts some blood vessels and dilates others, slows down the intestines, inhibits digestive secretions, and prompts glands to flood the system with cortisol.

If this alarm is set off too often, it can do serious physical damage. “When too much cortisol is hitting the brain for an elevated amount of time,” Lucille says, “you start to create something called hippocampal brain damage, and the results of this are disturbed circadian rhythms: Your sleep-wake cycle is disturbed. You get moody, and you get memory loss, brain fog.”

### **The Pituitary Gland**

Sometimes called the “master gland,” the pituitary controls most of the other glands in the body, regulating a host of functions including body temperature, thyroid activity and urine production (hence those sweaty palms and frequent bathroom trips when you’re nervous). During the stress response, the pituitary produces adrenocorticotrophic hormone (ACTH), which prompts the adrenal glands to produce cortisol. Cortisol increases



arterial blood pressure, pulling glucose and fat from body tissues into the bloodstream for energy, one reason appetite diminishes during acute stress.

The pituitary gland also releases thyroid-stimulating hormone, which stimulates the thyroid gland to produce thyroxine. Thyroxine increases the metabolic rate, raises blood-sugar levels, and increases respiration, heart rate and blood pressure — all essential to a quick burst of activity. But the metabolic boost from thyroxine uses up nutrients too quickly, so the body overuses B vitamins and excretes calming magnesium.

### **The Heart**

Blood vessels constrict during the stress response, which makes it harder for the heart to pump blood. High blood pressure from constricted vessels and increased cortisol and thyroxine only exacerbates inflammation and arterial plaque buildup.

Additionally, fatty acids released into the bloodstream by cortisol can lead to overproduction of low-density cholesterol (LDL).

High-density cholesterol, or HDL, actually helps keep the circulatory system functioning and has powerful healing value. But, notes Lee, the so-called bad version, LDL, contributes

to dangerous plaque buildup on arterial walls that have been inflamed by toxins and high blood sugar — common byproducts of stress eating.

And all this sets the stage for cardiac arrest, says Lee.

### **Adrenal Glands**

Upon detecting a threat, the hypothalamus signals the adrenal medulla (an autonomic-nervous-system node next to the adrenal glands) to secrete two hormones — adrenaline and noradrenaline — into the bloodstream. These increase heart rate and blood pressure. Blood is pumped to extremities and their muscles to help you run or go into battle, while gastrointestinal activity is reduced, producing the feeling of butterflies in the stomach. When this complex process is repeated routinely with no time for recuperation, you start to feel both lethargic and wound up — tired but wired.

Chronic stress also wears out the adrenal glands by overusing their store of energizing adrenaline. According to Lee, this can lead to a condition that integrative and naturopathic doctors identify as “adrenal fatigue,” which can manifest as exhaustion, physical weakness, immune suppression, hormone imbalances, skin problems and depression. (To learn more about this condition, see “Fending Off Adrenal Fatigue”.)



## **Stomach and Intestines**

The slowdown of the digestive process triggered by the sympathetic nervous system and the thyroid can prompt either overproduction or underproduction of digestive acids. Overproduction can lead to painful acid reflux (heartburn), while underproduction means your stomach has limited digestive power. Too little stomach acid can leave food in the system so long that it ferments rather than digests. This can produce bloating, create inflammation of the intestinal tissue and reduce the overall absorption of nutrients.

“If your bowel’s inflamed,” says Emmons, “you’re not getting nutrients out of the food you eat. You can eat really great food but still not benefit from it.”

## **Body Fat**

While some people do lose weight under stress, research reveals that high levels of cortisol can also encourage weight gain in two ways:

(1) Cortisol amps up the appetite for quick energy (namely, carbohydrates and sugar), triggering cravings and overeating. (2) Cortisol also puts excess glucose in the bloodstream. When it’s not burned off through exercise (the equivalent of sprinting away from or fighting off the perceived attacker), it gets stored as fat in your body’s tissues.

That makes chronic stress a real enemy of overall fitness, Emmons points out. “You tend to gain weight because cortisol is making you want to eat more. But it’s also making you more likely to hold on to that food as fat, especially as abdominal fat.”

## **Reproductive System**

Progesterone is a crucial hormone for fertility in women; it nourishes the lining of the uterus to support the implantation of an embryo and sustain a pregnancy. It’s also a key ingredient in the creation of cortisol in the adrenal glands. When the body demands large amounts of cortisol, its total amount of progesterone can diminish, leading to low libido and possible infertility. (For more details about how stress affects your romantic and reproductive life, see “Boost Your Libido”.)

## **The Aging Process**

In 2004 a University of California, San Francisco research team reported that chronic stress may play a role in shortening telomeres, the tiny protein complexes at the ends of chromosomes that help protect genetic information as cells divide. As telomeres shorten, cells lose the ability to divide; they can also get confused about their mission and start to manifest serious ailments, from Parkinson’s to heart disease. (Other studies have linked shortened telomeres with the onset of dementia.) While cell loss is an integral part of the aging process, chronic stress accelerates it by munching away at



these protective proteins so they diminish faster than they would naturally.

## **How to Reduce Stress**

Short of winning the lottery and moving to a nice island with your favorite people (which would soon introduce anxieties associated with boredom), how does one actually reduce stress?

The first thing to remember, says Hanson, is that our emotional reaction to events initiates the stress response. “We need to make a distinction between events and our experience of them,” he says. “An event that’s highly stressful for some people is no big deal for others.”

The key to lowering stress, according to Hanson, is to build resilience. Since we have only modest control over what happens to us, our best hope is to train ourselves to respond to stressful circumstances without triggering the alarm system every time. What follows are some of the building blocks for a more stress-resilient body. (For more on building resiliency, go to “The Five Best Ways to Build Resiliency”.)

### **Rest**

The best way to quiet the body-mind’s stress response, and to support the recovery process, says Lee, is “to relax and rest as deeply as you can — to rest

as if you were on your best vacation ever.”

What does that sort of profound rest accomplish? It charges up the parasympathetic “rest-and-digest” system (the antithesis of the sympathetic “fight-or-flight” system), which powers the body’s reparative and digestive activities.

When deep rest is in short supply, you can still support parasympathetic activity by taking frequent short breaks — ideally every 90 to 120 minutes (see “Take a Break”).

Finding ways to improve sleep quality is also vital, says Emmons. “This can include meditative practices, deep breathing, exercising early in the day, and getting seven or eight hours a night of sleep whenever possible. Naps can be helpful, too, if they’re short, 30 to 45 minutes. Any longer and your sleep cycles may be disrupted.”

### **Nutrition**

A well-fed body is a resilient body — far better equipped to handle stress and to recover from hormonal floods.

Keeping sugar and flour to a minimum while eating plenty of healthy fats and good protein (grass-fed meats, fish, legumes, nuts) will help keep blood sugar on an even keel. This supports good energy, mental clarity and stable mood — all of which lead to more grace under pressure.



Lee advocates the Mediterranean diet, which includes plenty of legumes, greens and fish. She also likes that it promotes a proper balance of omega-3 and omega-6 fatty acids and soothes intestinal inflammation.

As for stress-busting supplements, many integrative doctors recommend taking a good-quality fish oil as well as a B-vitamin complex, since stress tends to deplete B-vitamin levels. Both have shown measurable effects in treating depression, another common byproduct of chronic stress.

### **Meditation**

Studies show that mindfulness-based stress reduction like meditation — becoming a calm observer of your own thoughts and emotions — stimulates the parasympathetic nervous system. “Meditation,” says Emmons, “is one way of sending signals [to your body’s stress-response system] that it’s OK to stand down.”

Hanson adds that meditation can also reduce frantic neurological activity in the amygdala, the alarm bell of the brain. Self-reflection (a fairly advanced activity, as far as brains are concerned) shifts activity to the neocortex, or “executive center.”

When the brain starts to rely more on the neocortex and less on the amygdala, it begins to strengthen new neural pathways that incline the brain

away from reactivity and toward calmer, more constructive responses.

### **Exercise**

We all need some kind of physical movement to stay stress-resilient, whether it’s walking, biking, doing yoga or shooting hoops. Emmons notes that the stress response is inextricably connected to exercise — after all, it’s preparing us to run fast or fight hard — so “vigorous exercise helps to bring down adrenaline levels, while gentler exertion is good for lowering cortisol.” Lee points out that exercise also produces positive mood elevators (endorphins and serotonin) and breaks down cortisol in the bloodstream.

### **Positivity**

In her book *Positivity*, positive psychology researcher Barbara Fredrickson, PhD, notes that for individuals to flourish, they need a “positivity ratio” of three positive experiences to each negative one. In her second book, *Love 2.0*, she explores how “micro-moments” of positive connection with others, even strangers, improve health and longevity. Her current study at the University of North Carolina is testing whether meditation with a deliberately positive element — like focused, caring attention on another person — reduces stress even more than mindfulness meditation.



Hanson describes similar studies showing that amygdala-based cell receptors for oxytocin (an amygdala-calming hormone) increase in number when we foster feelings of compassion.

This all illustrates what one might call the neurophysiology of positive connection. In a chronically stressed world, acts of love, compassion and connection can help mute or shut off the brain's alarm system when we don't need it. In the absence of these overstimulating hormones, we become calmer and healthier.

It seems that what we are really built to do is to treat ourselves and others well — not flee from tigers all day long.

### **On-the-Spot Stress Reduction**

Here are some of our experts' favorite methods of de-stressing on the fly:

#### **WalkItOff**

"Walking is wonderful," says Roberta Lee. "It improves your circulation, keeps your joints lubricated and builds

stamina. Oh, and it's a lightning-fast way to reduce stress."

#### **ExhaleLonger**

"Exhaling activates the parasympathetic wing of the nervous system, which is the natural antidote to the sympathetic fight-or-flight reaction wing," says Rick Hanson. "The heart slows down a little when we exhale. Try three or more breaths in which the exhalation is twice as long as the inhalation."

#### **Pause**

Holly Lucille says, "One of the things that I recommend to people in my practice is something called a 'power pause.' Before you turn on that stress-generating mobile device, or make that call, or pull whatever your stress trigger is, take a deep breath and make a really intentional pause."

#### **TuneIntoYourBody**

Engage your senses. "Particularly touch and smell," Henry Emmons says. "A little gentle massage or some aromatherapy work very quickly for many people."



## COMBINATION OF HEALTHY LIFESTYLE TRAITS MAY SUBSTANTIALLY REDUCE ALZHEIMER'S DISEASE

**Combining four or five healthy lifestyle behaviors -- such as swimming -- may lower risk of Alzheimer's disease.**

From the National Institutes of Health 2020

Combining more healthy lifestyle behaviors was associated with substantially lower risk for Alzheimer's disease in a study that included data from nearly 3,000 research participants. Those who adhered to four or all of the five specified healthy behaviors were found to have a 60% lower risk of Alzheimer's. The behaviors were physical activity, not smoking, light-to-moderate alcohol consumption, a high-quality diet, and cognitive activities. Funded by the National Institute on Aging (NIA), part of the National Institutes of Health, this research was published in the June 17, 2020, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

"This observational study provides more evidence on how a combination of modifiable behaviors may mitigate Alzheimer's disease risk," said NIA Director Richard J. Hodes, M.D. "The findings strengthen the association between healthy behaviors and lower risk, and add to the basis for controlled clinical trials to directly test the ability

of interventions to slow or prevent development of Alzheimer's disease."

The research team reviewed data from two NIA-funded longitudinal study populations: The Chicago Health and Aging Project (CHAP)([link is external](#)) and the Memory and Aging Project (MAP)([link is external](#)). They selected participants from those studies who had data available on their diet, lifestyle factors, genetics, and clinical assessments for Alzheimer's disease. The resulting data pool included 1,845 participants from CHAP and 920 from MAP.

The researchers scored each participant based on five healthy lifestyle factors, all of which have important health benefits:

- At least 150 minutes per week of moderate- to vigorous-intensity physical activity – Physical activity is an important part of healthy aging.
- Not smoking – Established research has confirmed that even in people 60 or older who have been smoking for



decades, quitting will improve health.

- Light-to-moderate alcohol consumption – Limiting use of alcohol may help cognitive health.
- A high-quality, Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet, which combines the Mediterranean diet and Dietary Approaches to Stop Hypertension (DASH) diet – The MIND diet focuses on plant-based foods linked to dementia prevention.
- Engagement in late-life cognitive activities – Being intellectually engaged by keeping the mind active may benefit the brain.

The research team then compared the scores with outcomes of clinical diagnosis of Alzheimer's in the CHAP and MAP participants. Lead author of the paper, Klodian Dhana, M.D., Ph.D., assistant professor at Rush

“encouraging although inconclusive” for preventing Alzheimer's. Since then, more research has emerged, such as the SPRINT MIND trial, which suggests intensive blood pressure control may slow age-related brain damage, and new trials have launched. For example:

University Medical Center, emphasized that the combination of healthy lifestyle factors is key.

He wrote that compared to participants with no or one healthy lifestyle factors, the risk of Alzheimer's was 37% lower in those with two to three, and 60% lower in those with four to five healthy lifestyle factors.

“This population-based study helps paint the picture of how multiple factors are likely playing parts in Alzheimer's disease risk,” said Dallas Anderson, Ph.D., program director in the Division of Neuroscience at NIA. “It's not a clear cause and effect result, but a strong finding because of the dual data sets and combination of modifiable lifestyle factors that appear to lead to risk reduction.”

A 2017 research review and report commissioned by NIA concluded that evidence on lifestyle factors such as increasing physical activity, along with blood pressure management and cognitive training, is

The NIA-funded MIND Diet Intervention to Prevent Alzheimer's Disease is an interventional clinical trial comparing parallel groups with two different diets. An NIA-funded collaboration between Rush University and Harvard T.H. Chan School of Public Health and Brigham & Women's Hospital (grant number



R01AG052583). MIND has enrolled more than 600 participants and is ongoing with an anticipated completion date of 2021.

The U.S. Study to Protect Brain Health Through Lifestyle Intervention to Reduce Risk (U.S. POINTER) is a multisite randomized clinical trial designed to evaluate whether lifestyle interventions — including the MIND diet — may protect cognitive function in older adults who are at increased

risk for cognitive decline. NIA is funding the imaging, neurovascular, and sleep ancillary studies of POINTER

NIA is currently funding more than 230 active clinical trials on Alzheimer's and related dementias. Of those, more than 100 are nondrug interventions, such as exercise, diet, cognitive training, sleep, or combination therapies. People interested in participating in clinical trials can find more information on the NIA website.

## DRUG EXPIRATION DATES—DO THEY MEAN ANYTHING?

### **FDA study gets to the heart of expired medicine and safety**

From Harvard Medical School 2019

The big question is, do pills expire? With a splitting headache, you reach into your medicine cabinet for some aspirin only to find the stamped expiration date on the medicine bottle is more than a year out of date. So, does medicine expire? Do you take it or don't you? If you decide to take the aspirin, will it be a fatal mistake or will you simply continue to suffer from the headache?

This is a dilemma many people face in some way or another. A column published in *Psychopharmacology Today* offers some advice.

It turns out that the expiration date on a drug does stand for something, but probably not what you think it does. Since a law was passed in 1979, drug manufacturers are required to stamp an expiration date on their products. This is the date at which the manufacturer



can still guarantee the full potency and safety of the drug.

Most of what is known about drug expiration dates comes from a study conducted by the Food and Drug Administration at the request of the military. With a large and expensive stockpile of drugs, the military faced tossing out and replacing its drugs every few years.

What they found from the study is 90% of more than 100 drugs, both prescription and over-the-counter, were perfectly good to use even 15 years after the expiration date.

So, the expiration date doesn't really indicate a point at which the medication is no longer effective or has become unsafe to use. Medical authorities state if expired medicine is safe to take, even those that expired years ago. A rare exception to this may be tetracycline, but the report on this is controversial among researchers.

It's true the effectiveness of a drug may decrease over time, but much of the original potency still remains even a decade after the expiration date. Excluding nitroglycerin, insulin, and liquid antibiotics, most medications are as long-lasting as the ones tested by the military. Placing a medication in a cool place, such as a refrigerator, will help a drug remain potent for many years.

Is the expiration date a marketing ploy by drug manufacturers, to keep you restocking your medicine cabinet and their pockets regularly? You can look at it that way. Or you can also look at it this way: The expiration dates are very conservative to ensure you get everything you paid for. And, really, if a drug manufacturer had to do expiration-date testing for longer periods it would slow their ability to bring you new and improved formulations.

The next time you face the drug expiration date dilemma, consider what you've learned here. If the expiration date passed a few years ago and it's important that your drug is absolutely 100% effective, you might want to consider buying a new bottle. And if you have any questions about the safety or effectiveness of any drug, ask your pharmacist. He or she is a great resource when it comes to getting more information about your medications.

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# EXERCISE-INDUCED PROTEIN MAY REVERSE AGE-RELATED COGNITIVE DECLINE

From the National Institutes of Health 2020

Exercise and physical activity are important as you age. They help keep your body and brain healthy. Staying active can help you remain independent by preventing loss of physical mobility. It may also slow age-related cognitive decline.

Researchers don't know how exercise might slow age-related cognitive decline. A better understanding of this process could point toward ways to help those who have difficulty exercising due to fragility or health conditions.

In animals, exercise has been shown to reverse age-related decline in a brain area called the hippocampus. This region is important for learning, memory, and other cognitive functions.

To determine what may underlie these potential rejuvenating effects of exercise on the brain, a research team led by Dr. Saul A. Villeda at the University of California, San Francisco compared proteins that circulate in the blood of mice who get a lot of physical activity with those in sedentary mice. The work was funded by NIH's National Institute on Aging (NIA). Results were published on June 10, 2020 in *Science*.

Researchers compared the brains of young (3 months) and aged (18 months) mice that either had access to a running wheel in their cage for six weeks or were sedentary. They looked at age-related molecular and cellular changes in the hippocampus. Older mice that were active showed increased generation of new brain cells called neurons and higher levels of nerve cell growth factors than sedentary mice. They also made less errors in hippocampal-dependent learning and memory tasks.

The team then collected blood and plasma from both young (6 to 7 months) and aged mice (18 months) who were either active or sedentary. They injected their plasma into separate groups of older mice eight times over three weeks. The aged mice that received blood from the active groups showed increases in new neurons and on learning and memory tasks similar to those of the active mice themselves.

Many proteins were found at higher levels in the blood of the active mice. The researchers honed in on one made in the liver, called GPLD1. Researchers injected the gene for the protein into aged mice, causing their livers to produce GPLD1. After three



weeks, the animals showed brain cell growth and improvements in learning and memory similar to that seen in active mice.

GPLD1 did not appear to enter the brain, suggesting that the protein acts through one or more molecules that interact with the brain directly. Further study will be needed to understand its

mechanism of action. The researchers also collected blood samples from healthy older people (ages 66 to 78) to explore whether the protein could play a similar role in humans. Levels of GPLD1 were higher in those who were physically active (>7100 steps per day)

than in those who were sedentary (<7100 steps per day).

“Through this protein, the liver is responding to physical activity and telling the old brain to get young,” Villeda says. “This is a remarkable example of liver-to-brain communication that, to the best of our knowledge, no one knew existed.”

More research is needed to determine how much, how long, and what types of exercise people would need to see cognitive benefits. Further, identifying the factors underlying this protein’s effects on the brain could help researchers develop therapeutics to combat age-related cognitive decline.

## **LARGE STUDY LINKS GUM DISEASE WITH DEMENTIA**

National Institute on Aging 2020

The mouth is home to about 700 species of bacteria, including those that can cause periodontal (gum) disease. A recent analysis led by NIA scientists suggests that bacteria that cause gum disease are also associated with the development of Alzheimer’s disease and related dementias, especially vascular dementia. The results were reported in the Journal of Alzheimer’s Disease.

Gum disease results from infection of the oral tissues holding teeth in place. Bleeding gums, loose teeth, and even tooth loss are the main effects of this

disease. Bacteria and the inflammatory molecules they make can travel from infections in the mouth through the bloodstream to the brain. Previous lab studies have suggested that this is one mechanism influencing the cascade of events that leads to dementia, but large studies with people have not been conducted to confirm this relationship.

The NIA Intramural Research Program team used nationally representative, publicly available data from the National Health and Nutrition Examination Survey (NHANES), a large population study performed by



the CDC's National Center for Health Statistics. The team examined whether gum disease and infections with oral bacteria were linked to dementia diagnoses and deaths using restricted data linkages with Medicare records and the National Death Index. The team compared different age groups at baseline, with up to 26 years of follow-up, for more than 6,000 participants.

The NHANES participants had received a dental exam for signs of gum disease. In addition, the participants received blood tests for antibodies against causative bacteria. The team analyzed antibodies against 19 oral bacteria for an association with the diagnosis of Alzheimer's, diagnosis of any kind of dementia, and death from Alzheimer's. Of these 19, *Porphyromonas gingivalis* is the most common culprit of gum disease. In fact, a recent study suggests that plaques of beta-amyloid protein, a major hallmark of Alzheimer's disease, may be produced as a response to this infection.

The analysis revealed that older adults with signs of gum disease and mouth

infections at baseline were more likely to develop Alzheimer's during the study period.

Among those 65 years or older, both Alzheimer's diagnoses and deaths were associated with antibodies against the oral bacterium *P. gingivalis*, which can cluster with other bacteria such as *Campylobacter rectus* and *Prevotellamelaninogenica* to further increase those risks.

A long-term follow-up for this study is needed because the findings suggest that oral infection preceded the diagnosis of dementia. After all, having dementia makes it more likely that an individual will not be able to brush and floss effectively, which increases the likelihood of such infections and gum disease.

In any case, it is important to keep in mind that population studies can show association but not causality. The authors emphasize that clinical trials are needed to test whether treating infections with *P. gingivalis* can reduce the development or symptoms of dementia.



# LESSONS IN FINDING HAPPINESS DURING HARD TIMES

Researchers say we're wired for joy and what it means for resilience

by Sari Harrar, AARP, 2020

In the short list of songs that have brought the world joy, you'd be hard-pressed to top the Beatles' "Here Comes the Sun," with its lilting melody and deeply hopeful lyrics ("the smiles returning to the faces"; "I feel that ice is slowly melting").

No wonder that hospitals played it repeatedly over their public-address systems this spring as an auditory balm in some of the most stress-filled, soul-scorching places on the planet: the intensive care units overflowing with COVID-19 patients struggling to stay alive.

At Lenox Hill Hospital in New York City, the song started up every time a coronavirus patient was discharged or recovered enough to breathe without the help of a ventilator. "Everyone in the hospital is under tremendous pressure," says pulmonologist Steven Feinsilver, M.D., who has been caring for non-COVID-19 lung cases to free his colleagues to treat those with coronavirus. "Especially for those I see on the front lines of critical care, it's like a war zone here. The work is relentless. To hear this song on the loudspeaker is brilliant. It's just what people need, a reminder that patients

are recovering. You feel good for a moment."

Feeling good may be the last thing on your mind as the coronavirus pandemic grinds into its sixth month in America. As we struggle to revive after arguably one of the world's worst health and economic calamities, is even talking about happiness self-absorbed and inappropriate?

Quite the contrary, countless researchers say. Pursuing happiness and, more importantly, finding it, matters more during dark times, says Laurie Santos, a professor of psychology at Yale University. "Happiness gives us the resilience to get through. This is a challenging time because it's both a physical and mental health crisis. We need to focus on happiness more now, not less."

The emotional lift provided by that Beatles song shouldn't be underestimated, notes Lenox Hill nurse manager Amanda Griffiths. The song played some 20 times on a single day, Griffiths recalls, and each repetition made her feel better. "It was an overwhelming sense of, wow, we're making a difference. I got very teary-eyed."



Clearly, the kind of happiness that matters in tough times has nothing to do with birthday hats or smiley faces. “This isn't delusional Hollywood glee and delight,” says psychologist Maria Sirois, author of *A Short Course in Happiness After Loss*. “The happiness that helps in great difficulty is realistic. It recognizes fears and anxieties. It looks for meaning. It nourishes and sustains us.”

To better understand happiness and its role in hard times, AARP asked me to speak with the full spectrum of researchers and doctors focused on the topic to find out the deeper truths of joy. Here is what they want you to know.

### **Lesson 1: Happiness is possible in dark hours**

In the wake of a life-shattering crisis or global disaster, something surprisingly positive often happens. Two months after the World Trade Center terrorist attacks in 2001, a University of Pennsylvania survey of over 4,000 Americans found that they felt more gratitude, hope, kindness and love than they did before 9/11. And the effect wasn't transitory. In a three-year State University of New York at Buffalo study of 1,382 American adults, 58 percent said they continued to see positive consequences emerge from the attacks.

They weren't hiding their heads in the sand or pretending the disaster hadn't happened. A study by psychology

professor Barbara Fredrickson, now at the University of North Carolina at Chapel Hill, found that students acknowledged the great despair, anger and fear they felt after 9/11, but some also were buoyed by what Fredrickson calls the “ordinary magic” of fleeting positive emotions, such as those sparked recently in hospital patients hearing “Here Comes the Sun.”

“Finding positive meaning may be the most powerful leverage point for cultivating positive emotions during times of crisis,” Fredrickson noted in the study.

It's intuitive that happiness helps create and sustain emotional resilience. But the converse is true, too. Emotional resilience — knowing how you can get through a crisis with a little less despair and a little more sanity and perspective — can also lead to happiness.

Medical studies confirm it. They found that people dealing with a serious health crisis (like cancer, spinal cord injury or debilitating chronic pain) who found a higher sense of meaning in their plight also experienced better emotional well-being. How? By switching from nursing their personal sense of tragedy to encouraging empathy with others who might have it worse. That's why so many volunteers feel deep joy in what they're doing.

Suffering is never good, of course. And right now, more than one-third of Americans say this pandemic is having a serious impact on their mental health,



according to a national poll by the American Psychiatric Association. This may not be the time to focus on fun and laughs. But something deeper can help. Psychologist Maria Sirois, who has written about the emotional resilience of children with cancer and their families, calls it “positivity,” a mix of realism, hope and compassion. Holocaust survivor and psychiatrist Viktor Frankl famously called it “tragic optimism.”

The good news is, we can all reach for it. After a crisis, it's estimated that up to two-thirds of adults actually experience an increase in well-being that the American Psychological Association calls post-traumatic growth.

Getting to these constructive emotional states begins with acknowledging the bad, Sirois says. “I could binge-watch Netflix for seven hours a day, but that won't sustain me spiritually or emotionally or in my relationships,” she says. “Let yourself feel what you're really feeling.”

Then think about what's important to you right now.

“What's in line with your values? That could be more kindness, spirituality, appreciating life in all its big and small moments, using your own strengths more in the world,” Sirois says. Finally, act on these goals. Go slowly. Take small steps. “When you pay attention to how you shape your life right now, you won't feel victimized by

what's going on,” she says. “Resilient people know they have this choice. Happiness doesn't come from the outside.”

## **Lesson 2: Give up wrong ideas about happiness**

Laurie Santos knows a lot about unhappy people. Witnessing the stress and joylessness of her students at Yale, the psychology professor developed a course in 2018 titled Psychology and the Good Life that revealed the physical and emotional underpinnings of happiness, and what could be done to increase them. The course became an instant campus phenomenon — and then a worldwide sensation. Nearly a million people of all ages signed up for a free online version in the first three months of this year.

The 10-session online class romps through all of the science-backed strategies for happiness you've probably heard about, like eating well, sleeping well, exercising and managing stress. But Santos also makes a big point of dispelling misconceptions that block true well-being.

Turns out, we're terrible at predicting what will actually make us happy, so we go after the wrong things (money, status) and overlook the unique, everyday stuff that truly jazzes us. To start, we compare ourselves to others, rather than pursuing our own bliss. “Comparing yourself to other people is



a great way to feel less happy,” Santos says. Case in point: In studies of Olympic medalists, bronze medalists looked genuinely happier with their third-place win than silver medalists. “It’s easy to beat yourself up because you didn’t get the gold medal,” Santos says, “and forget about the amazing experience you’re having.”

We also get so used to the good stuff in our lives that we forget to immerse ourselves in it. And we undervalue the simple stuff because it just seems so ... simple. Bottom line: “Our minds suck at happiness,” Santos says. “They’re naturally wired for survival. We pay more attention to trouble. You have to work at happiness.”

Three strategies from her course, and from other experts, have been proved to increase happiness.

### **Connect**

Human connection is the classic recipe, the chicken soup for happiness, underscored by some of the most credible experts in the field. Among them is Robert Waldinger, M.D., director of the 83-year-old Harvard Study of Adult Development, considered the world’s longest-running study of well-being.

”The clearest message we get from our study is this: Good relationships keep us happier and healthier, period,” he says. A sense of joy seems to reach into our cells, reducing corrosive forces like inflammation and stress that

“break down multiple body systems over time like your joints, your cardiovascular system, your brain,” Waldinger notes.

Another key finding: “It’s not the number of friends you have or whether you’re in a committed relationship. It’s the quality of your relationships that matters,” Waldinger says. “That’s something we can work on at any age.”

### **Move ... and breathe**

Physical activity can boost your happiness by reducing stress and releasing feel-good brain chemicals. Yoga is a good choice.

“The combination of simple postures with deep breathing can make you feel happier,” says Amy Weintraub, an instructor and author of *Yoga for Depression*. “It brings more oxygen to your brain, stimulates your vagus nerve, which calms the anxious mind and, over time, can create beneficial brain changes, too.”

### **Take a moment to savor**

Pausing to soak in a wonderful moment — a sunrise, the morning’s birdsong, the joy of our pets — is a great way to learn how to savor. Or you can recall a cherished memory, play music linked to a special moment or linger over some old photos. “A regular savoring habit can increase happiness for longer periods of time,” says Jennifer Smith, director of research at Mather Institute in Evanston, Illinois.



### **Lesson 3: Work with your happiness biology**

Here's some optimistic news: As we move through our later years, the typical person grows steadily happier. "There really is a U-curve of happiness," says Dartmouth College economist David Blanchflower, who published two headline-grabbing papers on the subject in January. Put simply, people in general hit high levels of happiness in their early 20s, low levels in middle age (around age 47, Blanchflower says) and then start seeing a steady increase in joy from that point on.

We're not talking about a cultural quirk of Americans; the study involved people from 132 countries. "The U-curve occurred in places where wages are high and where they're low, in countries at the top and the bottom of life expectancy," he says.

What explains this curve? "Maybe it's genes," Blanchflower says. "Maybe it's coming to terms with our limitations. Whatever the reason, it's ingrained in us."

Frank Infurna, an Arizona State University psychologist, has his own theory. He has just finished studying 360 midlife women and men and was struck by how much more stress they were under than he ever realized.

"We found that midlife has become a time of crisis," Infurna says. "But it's

not the kind of crisis that exists in popular imagination" — the foolhardy quest to regain the glory days of youth. "The midlife crisis experienced by most people is subtler, more nuanced." It's a "big squeeze" in which adults face tough choices about how to split their resources — time, emotions, money, skills — between themselves, work, kids and aging parents.

But there's an upside to these challenges. Decades of life experience combine with brain rewiring to create a new kind of happiness for people in their 50s and beyond, says Dilip Jeste, M.D., a neuroscientist at the University of California, San Diego. These later-life brain changes are as significant as the circuitry upgrades that turn teenagers into adults or that promote good parenting after a first baby.

"In older people who keep themselves physically, mentally and socially active, we see the growth of what we call the neurobiology of wisdom," Jeste says. "You don't get as upset when things go wrong. You focus on the positive and on people and connections. You feel great when you have a sense of purpose."

In her Emotion & Cognition Lab at the University of Southern California, neuroscientist Mara Mather finds signs of these changes deep in the human brain. She's tracing how the brain reacts to information at different ages. Among her findings: Older people



remember and pay attention to positive images (cute babies, happy couples, joyous families) better than negative images. They also remember more positive experiences from their past.

Meanwhile, happiness is turning up in our DNA, too. Meike Bartels is a leading expert on the genetics of joy. Since 2016 the research professor and her team at Vrije University in Amsterdam have discovered 304 “happy” genes.

She suspects that more than a thousand genes may be related to emotional well-being. “We’ve found that 35 to 40 percent of the difference between people’s happiness levels is genetic,” she says.

Bartels believes we have to respect the unique things that make each of us happy. They’re wired in us. “Some people get a real mood lift from exercise. But others don’t. Spending time in nature may increase your happiness but not someone else’s,” she

says. “People’s likes, dislikes and preferences are a deep part of who we are — part of our own unique DNA.”

Few people know how “Here Comes the Sun” came about, but the story captures what Bartels and others have been saying. The song was composed when all seemed to be going wrong within the Beatles. George Harrison just couldn’t face yet another stress-filled business meeting with bandmates and accountants, so he played hooky instead and went to the house of his friend Eric Clapton. There he borrowed a guitar and came up with the melody walking around a garden.

At recording time, John Lennon was recovering from a car crash, so he never contributed to the song. The day of the song’s mixing was the last time the four Beatles were ever together in a recording studio. From such tension was born one of the happiest songs of our lives.

## THE IMPORTANCE OF BUILDING AND MAINTAINING MUSCLE MASS AS WE AGE

From EveryDayHealth 2019

Building muscle comes with its fair share of jokes — think *Saturday Night Live*’s Hans and Franz who want to “Pump! You! Up!” — but strength training is actually one of the best ways to improve your longevity. It can also reduce symptoms of many chronic

diseases, such as arthritis, diabetes, osteoporosis, obesity, back pain, and depression, according to the Centers for Disease Control and Prevention (CDC). Unfortunately, the majority of American adults age 45 and older



aren't meeting the Department of Health and Human Services' (HHS) muscle-building recommendations, according to a study published in September 2014 by the CDC. Both the HHS and CDC recommend that Americans 65 and older do strengthening activities at least twice a week that work all major muscle groups: the legs, hips, back, abdomen, chest, shoulders and arms. And if you're concerned that strength training means lifting gigantic weights or learning how to bench press, don't be. You can do toning exercises that are low impact but will still build muscle.

Experts now realize just how important toning exercises are to your overall health and longevity. "Every health professional will agree that strength training is essential for health, injury prevention, and prolonging quality of life," says certified strength and conditioning specialist Cody Foss, director at the NYA Sports & Fitness Center in Newtown, Connecticut.

In fact, the more muscle mass you have, the longer you'll live, according to a study published in June 2014 in the *American Journal of Medicine*, in which researchers found that study subjects with the highest muscle mass were significantly less likely to have died than subjects with the lowest levels of muscle mass.

What's more, in a study published in August 2012 in the British journal *BMJ*, 317 participants ages 70 and older were taught how to incorporate strength training and balance activities into their everyday routine, while another group took part in a structured exercise program. A third group did only gentle exercises. Researchers found that the group that did strength and balancing activities lowered their rate of falls by 31 percent over 12 months compared with those who did gentle exercises. The first two groups also achieved much better balance than the gentle exercisers.

"The major advantage of strength training is to keep older adults active and moving," says Glenda Westmoreland, MD, associate professor of clinical medicine at Indiana University School of Medicine and a geriatrician at Eskenazi Health Center in Indianapolis. "Strength and resistance training help to reduce functional decline and loss of endurance."

### **Tips on Toning Exercises**

If you're learning how to build muscle for the first time, it's important to start slowly to avoid overexerting yourself, says Dr. Westmoreland. "The major consideration before embarking on strength training as an older adult is to make sure that, from a cardiovascular standpoint, you are fit to start," she says.



Always get the okay from your primary care physician before you begin a new exercise routine. If you have osteoporosis, and particularly if you've had compression fractures of the vertebrae in your back, you should get your doctor's permission before doing floor exercises.

Once you receive clearance from your doctor, walking is a good way to start. Then, as your fitness improves, you can incorporate some light strength-training exercises into your routine.

### **Simple Strength-Training Exercises**

Val Walkowiak, the medical integration coordinator at Loyola Center for Fitness in Chicago, recommends doing the following exercises every other day to strengthen your core:

1. **Abdominal Twist** Sit in an armless chair with your feet flat on the floor and shoulder-width apart. Your hands should be in the center of your torso and your elbows along your sides. Slowly twist to the right, then to the left. Your shoulders should face to the right and then to the left during the movement, but you should not be swinging your arms from side to side. Do two to three sets of 15 to 20 repetitions.
2. **Lying Abdominal Crunch** Lie on your back with your legs bent

and your feet flat on the floor. Place your hands by your ears. Keep your elbow and shoulder joints aligned during the movement. Slowly curl your upper body upward until your rib cage comes up off the floor. The goal is to create a "C" with your torso by bringing your chest toward your legs. Don't let

3. your lower back come up off the floor, just your rib cage. Perform two to three sets of 15 to 20 repetitions.

**4. Pelvic Tilts** Lie on your back with your legs bent and feet flat on the floor. Pull your belly button in toward your spine until your abdominal muscles feel tight. Slowly shift your pelvis up toward the ceiling until you feel your lower back press against the floor. Your buttocks should not come off the floor. Return to starting position. This exercise works the lower portion of the abdominal muscle.

**5. Bridges** Lie on your back with your legs bent and feet flat on the floor. Pull your belly button in toward your spine. Slowly lift your torso off the floor until you've formed a bridge with your body. Your upper back, shoulders, and head should remain on the floor. Return your body to the floor and



repeat. Perform two to three sets of 15 to 20 repetitions.

Adding a strength training component to your fitness routine doesn't have to be complicated, and the benefits to

your overall health — including reducing your chances of falling and increasing your mobility — are more than worth the time it requires.

## THE PROS AND CONS OF ANNUITIES

From SmartAsset 2020

Putting away money for retirement isn't always easy. Once you figure out how much you need to save to retire, the real planning then begins. There are a number of retirement savings options available, though, such as a 401(k) through your employer, an individual retirement account (IRA) or an annuity. Annuities can help you supplement your retirement income, but they aren't necessarily right for everyone. Talk to a financial advisor in your area to determine if an annuity is right for you.

### What Is an Annuity?

An annuity is a contract between you and an insurance company. You pay for the annuity through a lump sum or payments over time. The insurance company will then invest your money. The most common way to invest is through mutual funds.

From these earnings, the insurance company will make regular payments to you, again in the form of a lump sum

or payments over time. There are multiple types of annuities and the exact payment structure of each will vary based on the terms that you agree to with the insurance company.

### Types of Annuities

There are three main types of annuities — fixed, variable and indexed. A fixed annuity guarantees a minimum rate of interest on your money, as well as a fixed number of payments from the insurance company. On the other hand, a variable annuity allows you to invest your money in different securities, such as mutual funds. The payments you receive will depend on how well your investments perform.

While an indexed annuity is technically a version of a fixed annuity, it more combines the benefits of both fixed and variable products. The returns you earn from an indexed annuity aren't based on investment decisions you make.



Instead, your money will follow the performance of a stock market index like the S&P 500.

For each of these annuity types, you can choose an immediate annuity or a deferred annuity. With the former, you supply the insurance company with a lump sum, then you immediately begin receiving payouts, hence the name. With a deferred annuity, you have the option to pay a lump sum or a series of payments, but you won't begin receiving payouts until years, or even decades, later. This gives your money the opportunity to earn interest or appreciate, in the case of a variable annuity.

### **Pro #1: You Can Receive Regular Payments**

The most basic feature (and biggest pro) of an annuity is that you receive regular payments from an insurance company. These payments provide supplemental income during your retirement, and can help if you're afraid that you haven't saved enough to cover your regular expenses. Keep in mind that the value and number of your annuity payments will vary depending on the type of annuity you have and the terms of your contract.

### **Pro #2: Your Contributions Grow Tax-Deferred**

The money that you contribute to an annuity is tax-deferred. That means

you can contribute money before you pay taxes. In fact, you won't owe taxes on the money until you start receiving payments. During the time between when you contribute funds and when you withdraw them, it's possible that your money could grow significantly. This type of growth is similar to how 401(k) contributions grow.

### **Pro #3: Fixed Annuities Offer Guaranteed Returns**

The insurance company will invest any money that you put into an annuity. There's always a certain level of risk involved when you invest money. However, any contract you sign for a fixed annuity should include certain guarantees to prevent you from losing money.

Fixed annuities guarantee that you make a certain percentage of your principal investment. That percentage is usually quite low, but it does mean that you'll earn more than the amount of your original investment.

### **Pro #4: Variable Annuities Offer a Death Benefit**

Variable annuities carry risk because they have the potential for you to actually lose money. But they also provide an extra perk: a death benefit. A death benefit is a payment that the insurance company will make to a beneficiary if you die.



For a basic variable annuity, the death benefit is usually equal to the amount that you contributed to the annuity. If you get an annuity contract worth \$100,000, then the death benefit payout will likely be \$100,000. It does not matter how your annuity's investments perform.

Alternatively, you can find variable annuities with enhanced death benefits. With an enhanced benefit, the insurance company will record the value of your annuity's investments on each anniversary of your annuity's start date. If you die, the insurance company will pay a death benefit equal to the highest recorded value of your annuity.

For example, let's say you have an annuity contract worth \$100,000. You aggressively invest your money and on the anniversary of your annuity's start date, your investments are worth \$125,000. Your death benefit would then be \$125,000, even if your investments decline in value for the rest of your life.

Note that an annuity probably isn't your best choice if you're just looking for a death benefit. In that case, you can help your beneficiaries defer funeral and burial costs with a life insurance policy.

### **Con #1: High Fees**

Annuities can get very expensive. Any time you consider an annuity contract,

you need to understand all the fees that come with it to be sure that you pick the best annuity for your personal goals and situation.

Variable annuities have administrative fees, as well as mortality and expense fees. Insurance companies charge these, which often run about 1.25% of your account's value, to cover the costs and risks of insuring your money.

Surrender charges are common for both variable and fixed annuities. A surrender charge applies when you make more withdrawals than you're allotted. Your insurance company could limit withdrawals particularly during the early years of your contract. Surrender fees are often high and can also apply for an extended period of time.

Investment management fees will vary depending on how you invest with a variable annuity. These fees are similar to what you would pay if you invested independently in any mutual fund.

Some annuities will also have additional riders that come at a fee. A rider is an optional guarantee. A good example of this is the enhanced death benefit option that we mentioned above. Adding better death benefits to your contract will require a death benefit rider. Rider fees will vary by the individual benefit, but they can cost up to 50% of the value of your account.



## **Con #2: Annuity Growth Might Not Match Stock Market Growth**

The stock market will make gains in a good year. That could mean more money for your investments. At the same time, your investments will not grow by the same amount that the stock market grew. One reason for that difference in growth is annuity fees.

Let's say you invest in an indexed annuity. With an indexed annuity, the insurance company will invest your money to mirror a specific index fund. But your insurer will likely cap your gains through something called a "participation rate." If you have a participation rate of 80%, then your investments will only grow by 80% of the amount that the index fund grew. You could still make great gains if the index fund performs well, but you could also be missing out on returns.

If your goal is to invest in the stock market, then you should consider investing in an index fund on your own. That might seem daunting if you don't have investing experience, so consider using a robo-advisor. A robo-advisor will manage your investments with much lower fees than an annuity.

Another thing to keep in mind is that you will likely pay lower taxes if you invest on your own. Contributions to a variable annuity are tax-deferred, but any withdrawals you make will be taxed at your regular income tax rate,

not the long-term capital gains tax rate. The capital gains tax rates are lower than the income tax rates in many places. So you're more likely to save on taxes if you invest your after-tax dollars instead of investing in an annuity.

## **Con #3: Getting Out of an Annuity May Be Impossible**

This is a major concern relating to immediate annuities. Once you contribute the money to fund an immediate annuity, you cannot get it back or even pass it on to a beneficiary. It may be possible for you to move your money into another annuity plan, but doing so could also leave you subject to fees.

On top of the fact that you can't get your money back, your benefits will disappear when you die. You cannot pass that money to a beneficiary, even if you have a lot of funds left when you die.

## **Bottom Line**

An annuity is a way to supplement your income in retirement. For some people, an annuity is a good option because it can provide regular payments, tax benefits and a potential death benefit.

However, there are potential cons for you to keep in mind. The biggest of these is simply the cost of an annuity.



Annuities can come with many different fees, some of which will cost as much as half of the value of your contract. So the bottom line is that you shouldn't get an annuity until you know it is the right move for you. Don't be afraid to reach out to a financial advisor if you have any specific questions.

### **Retirement Planning Tips**

- If you're unsure of whether to get an annuity or not, consider talking with a local financial advisor. People who work with financial advisors report greater financial security, and research suggests that working with an advisor can result in additional annual investment returns ranging from 1.5% to 4%. SmartAsset's free tool matches you with

financial advisors in your area in 5 minutes. If you're ready to be matched with local advisors, get started now.

- An annuity is best for people who think that they haven't saved enough to cover their expenses in retirement. Even if that sounds like you, an annuity might not necessarily be the best option. Before signing any contracts, consider some of these retirement planning moves for late starters. And if you're still young and you want to make sure that you have enough for retirement, check out these essential retirement planning moves for 20-somethings.

## **THESE “INFLAMMATORY FOODS” CAN INCREASE HEART DISEASE, STROKE RISK: HERE’S HOW TO AVOID THEM**

From Healthline2020

Experts say a Mediterranean type of diet with vegetables, fruit, and whole grains can lower your risk for heart disease.

- New research shows that sugary, processed, refined foods are more likely to cause inflammation, which can lead to heart disease and stroke.

- Likewise, whole foods and healthier proteins decrease inflammation, leading to better health outcomes.
- It's best to follow something similar to the Mediterranean diet while avoiding red meat, sugary drinks, and processed foods.



- **A healthy diet, combined with exercise, will decrease one's chances of developing chronic disease.**

You may have heard your doctor tell you at some point that it's best to adopt a largely plant-based diet and avoid processed, refined, sugary foods. Now, a new study underlines the importance of this medical wisdom.

The research published in the Journal of the American College of Cardiology (JACC) shows that a diet of foods that causes increased inflammation in the body is associated with an increased risk of cardiovascular disease and stroke.

The data for the study came from the Nurses' Health Studies I and II, analyzing more than 210,000 people starting in 1986. It included up to 32 years of follow-up.

Previous studies have shown that following a more plant-based diet, such as the Mediterranean diet, will lead to lower inflammatory risk over time.

Dr. Jun Li, a research scientist in the department of nutrition at Harvard T.H. Chan School of Public Health in Boston, Massachusetts, and the study's lead author, told Healthline that the findings were consistent across different cohorts and between men and women.

"Inflammatory potential was significantly associated with higher incidence of cardiovascular disease, compared with the 20 percent of study

population consuming the most anti-inflammatory diet," she noted.

"The 20 percent of study population consuming the most pro-inflammatory diet were 46 percent more likely to develop heart disease and 28 percent more likely to develop stroke," she said.

Li points out that while the findings were clear-cut, further research can help validate the relationship between certain foods and inflammation.

"Our study includes only nurses and health professionals, and our study population was mostly white, so it is important to extend and replicate our findings in other populations," she said. "We are doing similar analysis in other cohorts with higher proportions of African American and Hispanic participants."

### **What's inflammatory? What isn't?**

Many foods in the typical North American diet will cause the inflammation that can lead to cardiovascular issues down the road — namely sugary drinks, processed meats, and refined grains.

"Related to this study, I would say it's best to reduce the intake of refined grains, especially fried grains [as well as] red, processed, and organ meat, and sugary beverages," Li said.

"To say to never eat these foods would be impossible, but try to reduce the intake of these foods and replace them with whole grain, plant-based, or other healthy sources of protein, such as fish.



Also, increase intake of leafy green and dark yellow vegetables and fruit,” she added.

In short, following a diet that’s rich in fruit and vegetables, along with whole grains and healthy proteins, is better for your health than eating refined and processed foods.

Dr. Andrew Freeman, a cardiologist and director of cardiovascular prevention and wellness at National Jewish Health in Denver, told Healthline that doctors have been recommending this for years.

“It’s really no surprise that predominantly whole, low fat, plant-based foods that are known to be anti-inflammatory continue to be the best way,” he told Healthline. “It’s also no surprise that foods like sugary drinks, meats, cheeses, fatty foods, and so on are associated with worse outcomes.”

“It’s just another signal in all the noise that’s out there that diet is a super important part of our approach to taking good care of patients, and eating a predominantly low fat, whole food, plant-based diet is really powerful,” Freeman added.

### **Finding the motivation**

The fact that plant-based diets are healthier than diets rich in processed foods isn’t exactly a new discovery.

Still, unhealthy diets are common, with heart disease being the leading cause of death in the United States.

While eating a burger and fries and washing them down with a soda might be more satisfying than eating a salad in the short term, thinking long term can yield positive results.

Freeman says he interviews patients to find out what personally motivates them. As an example, most parents probably want to stay in good health so they can see their children get married and enjoy time with their grandchildren when they get older.

While there’s no shortage of products on the market that promise better health, Freeman says the real solution is far simpler: lifestyle medicine.

“People are willing to do almost anything to get healthy, taking the most random and bizarre supplements and pills,” he said. “But at the end of the day, if there was a quote-unquote ‘pill’ that’s more powerful than the other stuff, would you take it? That ‘pill’ is lifestyle medicine.”

Freeman says that lifestyle medicine consists of living a healthy life: following a predominantly plant-based diet, getting regular exercise, getting rid of stress, and getting enough sleep. “Those things would probably conquer the vast majority of chronic disease in this country if we were able to really implement,” he said.



## HERE ARE GARDENING TIPS FOR JANUARY FOR TALLAHASSEE

Test your garden soil for its pH levels. Contact your local Cooperative Extension office for a soil kit. Then, apply lime, sulfur, and fertilizer according to the soil-test results. Spread manure or compost over the garden and plow it under if you did not do so in the fall.

Plant hardy vegetables and other cool-season crops, such as lettuce, cabbage, broccoli, beets, carrots, radishes, turnips, spinach, peas, and cauliflower. Start seeds of warm-season vegetables indoors. Make successive plantings of vegetables so that you have a continuous harvest throughout the growing season. Get plant beds or seed boxes ready for growing plants such as tomato, pepper, and eggplant. Have beds ready for planting in early February. Deadhead flowers to encourage new blooms.

Refrigerated bulbs should now be planted in prepared beds. Provide a layer of mulch for protection from cold temperatures. Plant cool-season annuals in the garden beds, such as

carnations, pansies, petunias, and snapdragons. You can start seeds of warm-season flowers now to have transplants ready for spring.

Plant any trees and shrubs now. Water until established. Fertilize established fruit trees. Plant dormant fruit trees. Prune any damaged or dead branches from your trees and shrubs. Fertilize.

To control scale on fruit trees, apply horticultural oil while plants are dormant. Ensure that your garden is watered if it is getting less than 1 inch of rain per week.

You can apply dormant oil spray to deciduous fruit trees. Prune dormant fruit trees if needed.

Use lukewarm water to wash any dust off your houseplants; check them for any diseases or insects. Every month, mow your lawn at recommended heights (St. Augustine and Bahia: 3 to 4 inches; Centipede: 1.5 to 2 inches; Dwarf St. Augustine: 2.5 inches).



# QUOTE OF THE MONTH

## HONESTY

“No legacy is so rich as honesty.”  
**William Shakespeare**

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