

# Health Insights

August 2020

## Exercise Improves Memory, Boosts Blood Flow to Brain

Scientists have collected plenty of evidence linking exercise to brain health, with some research suggesting fitness may even improve memory. But what happens during exercise to trigger these benefits? New UT Southwestern research that mapped brain changes after one year of aerobic workouts has uncovered a potentially critical process: Exercise boosts blood flow into two key regions of the brain associated with memory. Notably, the study showed this blood flow can help even older people with memory issues improve cognition, a finding that scientists say could guide future Alzheimer's disease research.

"Perhaps we can one day develop a drug or procedure that safely targets blood flow into these brain regions," says Binu Thomas, Ph.D., a UT Southwestern senior research scientist in neuroimaging. "But we're just getting started with exploring the right combination of strategies to help prevent or delay symptoms of Alzheimer's disease. There's much more to understand about the brain and aging."

The study, published in the *Journal of Alzheimer's Disease*, documented changes in long-term memory and cerebral blood flow in 30 participants, each of them 60 or older with memory problems. Half of them underwent 12 months of aerobic exercise training; the rest did only stretching.

The exercise group showed a 47% improvement in memory scores after one year compared with minimal change in the stretch participants. Brain imaging of the exercise group, taken while they were at rest at the beginning and end of the study, showed increased blood flow into the anterior cingulate cortex and the hippocampus – neural regions that play important roles in memory function.

"We've shown that even when your memory starts to fade, you can still do something about it by adding aerobic exercise to your lifestyle," Thomas says.

Regarding the importance of blood flow, Thomas says it may someday be used in combination with other strategies to preserve brain function in people with mild cognitive impairment.

"Cerebral blood flow is a part of the puzzle, and we need to continue piecing it together," Thomas says. "But we've seen enough data to know that starting a fitness program can have lifelong benefits for our brains as well as our hearts."

UT Southwestern Medical Center. "Exercise improves memory, boosts blood flow to brain: Study: 1-year workout program shows benefits for older people at risk of dementia." ScienceDaily. [www.sciencedaily.com/releases/2020/05/200520084123.htm](http://www.sciencedaily.com/releases/2020/05/200520084123.htm) (accessed July 15, 2020).



## Replacing Time Spent Sitting with Sleep or Light Activity May Improve Your Mood

New research, published by the *American Journal of Preventive Medicine*, found that substituting prolonged sedentary time with sleep was associated with lower stress, better mood, and lower body mass index (BMI), and substituting light physical activity was associated with improved mood and lower BMI across the next year. Jacob Meyer, lead author and assistant professor of kinesiology at Iowa State University, says light activity can include walking around your home office while talking on the phone or standing while preparing dinner.

"People may not even think about some of these activities as physical activity," Meyer said. "Light activity is much lower intensity than going to the gym or walking to work, but taking these steps to break up long periods of sitting may have an impact."

Meyer and colleagues used data collected as part of the Energy Balance Study at the University of South Carolina. For 10 days, study participants, ranging in age from 21 to 35, wore an armband that tracked their energy expenditure. Meyer, director of the Wellbeing and Exercise Lab at Iowa State, says the data allowed researchers to objectively measure sleep, physical activity, and sedentary time, rather than relying on self-reports.

"It may be easier for people to change their behavior if they feel it's doable and doesn't require a major change," Meyer said. "Replacing sedentary time with housework or other light activities is something they may be able to do more consistently than going for an hour-long run."

"With everything happening right now, this is one thing we can control or manage and it has the potential to help our mental health," Meyer said.

Iowa State University. "Replacing time spent sitting with sleep or light activity may improve your mood." ScienceDaily. [www.sciencedaily.com/releases/2020/05/200520124958.htm](http://www.sciencedaily.com/releases/2020/05/200520124958.htm) (accessed July 16, 2020).

# Mental Health Moment

## Avoid Burnout While Working From Home during the COVID-19 Pandemic

The coronavirus disease 2019 (COVID-19) pandemic has shifted the workplace from the office to kitchen tables and living rooms for thousands of employees. This shift to telecommuting has made it possible for employees to work while staying safe and preventing the spread of COVID-19, but it has also created a few challenges, including increased levels of stress and burnout.

### What is burnout?

According to the World Health Organization, doctors can diagnose you with burnout if you exhibit the following symptoms:

- Exhaustion or energy depletion
- Decreased engagement at work, or feelings of negativism or cynicism related to your job
- Reduced productivity or efficacy

### What are the signs of burnout?

Since burnout is the result of prolonged and chronic workplace stress, it's important to know how to recognize the signs of workplace stress. Common job stressors include:

- Heavy workload
- Lack of work-life balance
- Long work hours
- Concerns over job security

While dealing with stress is a normal part of everyday life, and these uncertain times may be elevating your overall stress levels, it's important to watch out for symptoms of prolonged stress:

- Anxiety or depression
- Fatigue
- Low morale
- Headache
- Short temper
- Stomach or back problems

If you experience any of these symptoms, it may be time to talk to your supervisor or manager to address your chronic stress.



## Vegetarian Black Bean Tacos

### Ingredients for the beans:

- 1 Tbsp olive oil
- ½ small yellow onion, diced
- 1 garlic clove, minced
- 1 15 oz can black beans, drained and rinsed
- ½ tsp cumin
- ¼ tsp smoked paprika
- ⅛ tsp cayenne pepper
- ½ tsp kosher salt
- Freshly ground black pepper, to taste
- 1 Tbsp tomato paste
- 1 Tbsp water

### Ingredients for the tacos:

- 8 hard corn taco shells
- 4 oz Hass avocado, from 1 small
- Juice from ½ small lime
- Pinch kosher salt
- Freshly ground black pepper, to taste
- ½ C shredded cheddar cheese
- 1 plum tomato, diced
- 1 C shredded romaine lettuce

Preheat oven according to taco shell package directions. Lay taco shells on a sheet pan in an even layer, bake shells for 6-7 minutes.

Meanwhile, heat a large skillet over medium heat. Add the canola oil, swirl to cover pan, then add the onion and sauté 2-3 minutes until onions have softened and become translucent. Add the garlic and sauté 30 seconds more. Add the beans, spices, tomato paste and water and mix until combined. Cook about 3 minutes to allow flavors to blend and beans to heat through.

In a small bowl, mash avocado with a fork until smooth. Add lime juice, salt, and pepper.

Place taco shells on a flat surface. Layer each shell with ⅛ of the bean mixture, then the cheese, mashed avocado, tomatoes, and lettuce. Serve immediately.

Calories: 367kcal, Carbohydrates: 42g, Protein: 13g, Fat: 15.4g, Saturated Fat: 5g, Cholesterol: 10mg, Sodium: 669mg, Fiber: 12g, Sugar: 2g

Gina Homolka, "Vegetarian Black Bean Tacos," June 30, 2020, <https://www.skinnytaste.com/black-bean-tacos/>.

## Physical Activity Quiz

1. How many minutes of moderate physical activity do you need each day?
 

a. 15 minutes	c. 45 minutes
b. 30 minutes	d. 60 minutes
  
2. True or False: You need a gym membership to be physically active.
 

a. True	b. False
---------	----------
  
3. What is the best way to rehydrate after exercise?
 

a. Eat fruit	c. Drink sports drinks
b. Drink water	d. Drink fruit juice
  
4. True or False: I should participate in strength training for all major muscle groups at least 2 days per week.
 

a. True	b. False
---------	----------
  
5. Exercising more can reduce your risk of what?
 

a. Obesity	c. Heart Disease
b. Diabetes	d. All of the above

See page 6 for quiz answers

This is for informational purposes only and is not intended as medical advice. For further information, please consult a medical professional. © 2007, 2010, 2013-2020 Zywave, Inc. All rights reserved.

# Healthy Habits Calendar

## August 2020 - Physical Activity

August is a great month to get outside and be active. The weather is warm and perfect for a myriad of outdoor activities. You can play soccer, go on a hike, go swimming, go rock climbing, and do many other activities. The choices are endless. This calendar will help you take small steps towards healthy habits so you are more likely to stick with them.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 <b>Welcome to August</b> Don't forget our squat challenge.
2	3 <b>Motivation Monday</b> What's your "why"?	4	5 <b>Workout Wednesday</b>	6 Remember to smile today!	7	8 <b>Try Something New</b> Go outside and try a new activity.
9 <b>Self-Care Sunday</b> Do something that makes you happy.	10	11 <b>Thoughtful Tuesday</b> Clear your mind and meditate.	12 <b>Workout Wednesday</b>	13 <b>Thirsty Thursday</b> Make sure you are staying hydrated.	14 <b>Feel Good Friday</b> Send words of encouragement to a friend.	15
16	17 <b>Squat Challenge</b> Have you been tracking your progress?	18	19 <b>Workout Wednesday</b>	20	21 <b>Call a Friend</b> Share with them the new activities that you love.	22 <b>Take a Hike</b> Go explore the great outdoors.
23 <b>Rest &amp; Relax</b> Take a day to recharge before the next week.	24	25 <b>Thirsty Tuesday</b> Go fill your water bottle up.	26 <b>Workout Wednesday</b>	27 Keep going! You're doing great.	28	29 <b>Saturday Snackin'</b> Fill your pantry with easy and healthy snacks.
30	31 <b>Make it Count</b> It's the last day of the month, go get active!					



Employee Name \_\_\_\_\_

Date (m-d-yyyy) \_\_\_\_\_

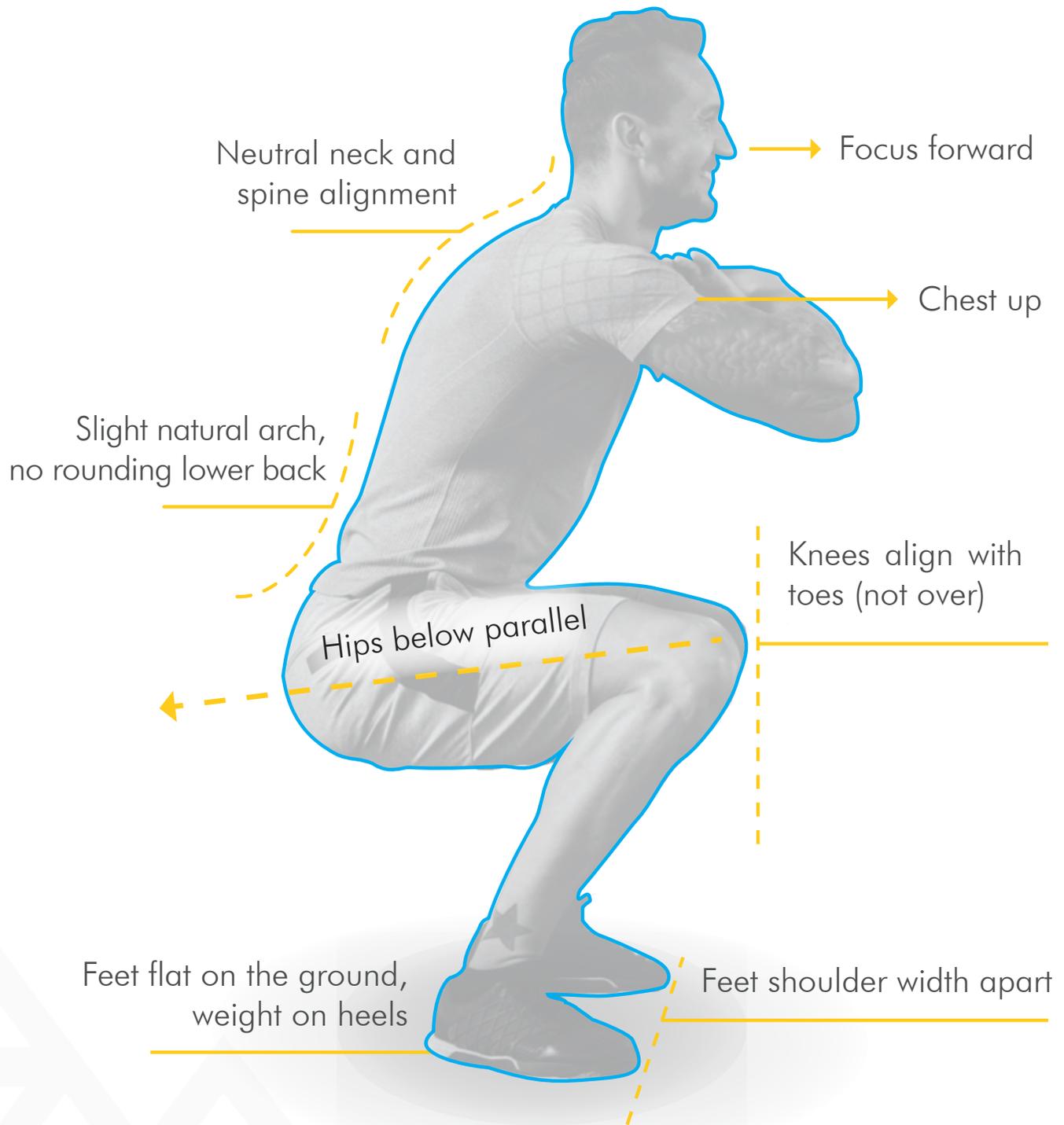
# 30 Day Challenge: Squats

For this challenge, participate in the 30 day squat challenge. Each day of the challenge, you will add in more squats, reaching a total of 250 squats. Focus on following the tips of proper form in order to correctly build muscle and prevent injuries.

- Breathe deeply as you squat (inhale as you lower, exhale as you stand).
- Lead with the butt and balance your weight on your heels. Push up through your heels and squeeze your glutes as you stand up.
- Keep the core activated and the chest lifted throughout the entire squat.
- Never let your knees cross over your toes.
- Alternate recommendations: Beginners may start with 15 squats and more advanced may start with 75 squats.

<b>Day 1</b> 50 Squats <input type="checkbox"/>	<b>Day 2</b> 55 Squats <input type="checkbox"/>	<b>Day 3</b> 60 Squats <input type="checkbox"/>	<b>Day 4</b> Rest Day <input type="checkbox"/>	<b>Day 5</b> 70 Squats <input type="checkbox"/>	<b>Day 6</b> 75 Squats <input type="checkbox"/>
<b>Day 7</b> 80 Squats <input type="checkbox"/>	<b>Day 8</b> Rest Day <input type="checkbox"/>	<b>Day 9</b> 100 Squats <input type="checkbox"/>	<b>Day 10</b> 105 Squats <input type="checkbox"/>	<b>Day 11</b> 110 Squats <input type="checkbox"/>	<b>Day 12</b> Rest Day <input type="checkbox"/>
<b>Day 13</b> 130 Squats <input type="checkbox"/>	<b>Day 14</b> 135 Squats <input type="checkbox"/>	<b>Day 15</b> 140 Squats <input type="checkbox"/>	<b>Day 16</b> Rest Day <input type="checkbox"/>	<b>Day 17</b> 150 Squats <input type="checkbox"/>	<b>Day 18</b> 155 Squats <input type="checkbox"/>
<b>Day 19</b> 160 Squats <input type="checkbox"/>	<b>Day 20</b> Rest Day <input type="checkbox"/>	<b>Day 21</b> 180 Squats <input type="checkbox"/>	<b>Day 22</b> 185 Squats <input type="checkbox"/>	<b>Day 23</b> 190 Squats <input type="checkbox"/>	<b>Day 24</b> Rest Day <input type="checkbox"/>
<b>Day 25</b> 220 Squats <input type="checkbox"/>	<b>Day 26</b> 225 Squats <input type="checkbox"/>	<b>Day 27</b> 230 Squats <input type="checkbox"/>	<b>Day 28</b> Rest Day <input type="checkbox"/>	<b>Day 29</b> 240 Squats <input type="checkbox"/>	<b>Day 30</b> 250 Squats <input type="checkbox"/>

# Improve Your Form: Squats



## Answers to Quiz:

Q1: b. 30 Minutes | Q2: b. False | Q3: b. Drink water | Q4: a. True | Q5: d. All of the above