# CITY OF MADISON EMPLOYEE ASSISTANCE PROGRAM CONNECTIONS

NOVEMBER, 2017

# Why Gratitude Is So Hard

by Neel Burton at PsychologyToday.com (Used by permission from the author)

# Gratitude has many benefits, but is hard to cultivate.

Gratitude never came easily to us men and women, and is a diminishing virtue in modern times. In our consumerist society, we tend to focus on what we lack, or on what other people have that we do not, whereas gratitude is the feeling of appreciation for what we already have. More than that, gratitude is the recognition that the good in our life can come from something that is outside us and outside our control, and that owes little or nothing to us.

By turning us outward, gratitude shifts our focus from what we lack or strive for to what we already have, opening our eyes to the bounty that is life, something to marvel at, revel in, and celebrate rather than forget, ignore, or take for granted as it flies us by. This much broader perspective frees us to live life, no longer for our narrow selves, but for life itself.

The ancient philosopher Cicero called gratitude the mother of all the other virtues, and modern science has begun to catch up with him. Studies have linked gratitude with increased satisfaction, motivation, and energy; better sleep and health; and reduced stress and sadness. Grateful people are much more engaged with their environment, leading to greater personal growth and self-acceptance, and stronger feelings of purpose, meaning, and specialness.

Despite these many and varied benefits, gratitude is hard to cultivate. It opposes itself to some deeply ingrained human traits such as our striving to better our lot, our need to feel in control of our destiny, and our propensity to credit ourselves for our successes while blaming others for our failures. As human nature does not leave much place for it, gratitude is an attainment of maturity, or, to be more precise, emotional maturity. Children taught to parrot 'thank you' rarely mean it, and even as adults we often make a superficial display of gratitude because that is the 'done thing'. Gratitude is good manners, and good manners aim at aping profundity when profundity is lacking.

Real gratitude, in contrast, is a rare virtue. There is a fable in Aesop about a slave who pulls a thorn out of the paw of a lion. Some time later, the slave and the lion are captured, and the slave is thrown to the lion. The starved lion rushes bounding and roaring toward the slave, but upon recognizing his friend fawns upon him and licks his hands and face like a puppy dog. Gratitude', concludes Aesop, 'is the sign of noble souls.'



CITY OF MADISON EMPLOYEE ASSISTANCE PROGRAM 2300 S. Park St., Suite 111 Madison, WI 53703 www.cityofmadison.com/employee-assistance-program

Tresa Martinez, EAP Administrator: (608) 266-6561 Hailey Krueger, EAP Specialist: (608) 266-6561 Sherri Amos, Program Support: (608) 266-6561 VOLUME 3, ISSUE 11



Hello City Employees,

As November nears, we present to you information related to brain health, kindness, and gratitude. All timely topics for this season of thanks and giving.

In the article "15 Brain Exercises to Keep Your Mind Sharp," you will learn that exercising the brain produces benefits in memory, focus, mood and much more. Who would have known that eating with chopsticks is good for your brain? Bring on the sushi rolls!

In addition, did you know that the benefits of being kind are scientifically proven? Not only is it teachable, it increases the love hormone oxytocin, energy, happiness, your lifespan, pleasure and the feel good chemical serotonin. While decreasing pain, stress, anxiety, depression and blood pressure.

Speaking of decreasing pain and stress, you may want to think about what neuroscience says about transforming Black Friday into a Bright Friday in the article from Psychology Today. Black Friday's traditional frenzied shopping romp is a dopamine surging activity and dopamine by itself is how all addictions start. However, when combined with good levels of oxytocin and serotonin it makes your mind sharper. Coincidentally, both of those can be produced by helping someone else and being kind. Therefore, if you are going to shop for those deals, do it with gratitude and be nice to the person next to you in the checkout line.

In this season and always, show gratitude and seek ways to be kind to each other. It looks good on all of us.

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# What Does Black Friday Do to Your Brain?

by Eva Ritvo on PsychologyToday.com (Used by permission of the author)

# Using neuroscience to transform Black Friday into a Bright Friday.

In "The Neuroscience of Giving" I told you about how giving to others awakens the *Happiness Trifecta* in your brain: dopamine, serotonin, and oxytocin. Together these neurochemicals create an amazing feeling and promote mental health. But what about the other direction? What is the neuroscience of *shopping*? As it turns out, rampant consumerism can do some very dangerous and unhealthy things to our minds!

During a chat with a dear friend, the famed photographer Robert Zuckerman, he offered the perfect solution: transform Black Friday into #BrightFriday with a collective commitment to giving and helping others.

# What does Black Friday do to our brains?

The time-sensitive sales (buy it *now*!) and electrified crowds of Black Friday do give a massive boost to one of the Happiness Trifecta neurochemicals: dopamine. You'll feel a pleasurable rush when you purchase a sizzling deal, and you will feel good . . . for a little while. The problem is that shopping doesn't do much for the rest of the *Happiness Trifecta*, serotonin and oxytocin, and the trifecta only works when all three are working in unison. Dopamine is all about the rush.

Think of dopamine as a **thrill-seeking** teen, oxytocin as a young adult, and serotonin as the parent. Primarily, dopamine is triggered by novelty, oxytocin by touch, and serotonin by meaningful connections with others. When you engage in a non-stop, dopamine-surging activity like Black Friday, you'll assault your brain with an excess of dopamine, and without the wiser, more powerful serotonin to keep things in check. Dopamine by itself is how all addictions start; in fact, unchecked dopamine is the root of all addictions. I'm sure we can all think of purchases we made on a Black Friday that we later came to regret, and we can lay the blame at dopamine's reckless feet. Dopamine with good levels of oxytocin and serotonin makes your mind sharper. Dopamine without the other two (especially serotonin) just wants more and bigger rushes, like a rebellious teen when the **parents** are out of town. Unchecked dopamine leaves you cognitively impaired.

The most powerful experience is one where you boost dopamine, oxytocin, and serotonin. Black Friday doesn't fit the bill. To fully awaken the *Happiness Trifecta*, you have to engage in novelty, human touch, and helping others.

# The #BrightFriday Challenge

We challenge you to spend 45 minutes this Black Friday giving and helping others.

Your 45 minutes of giving/helping is only limited by your imagination. Clean up a neighborhood street. Rake leaves for a friend. Contact a school, religious institution, homeless shelter, or pet shelter and offer to volunteer. The key ingredients are:

- 1. It must help someone else (serotonin)
- 2. It must be something you don't normally do (dopamine)
- 3. Hug, or at least shake the hands of, as many people as you can (oxytocin)

These 45 minutes will release a wave of the *Happiness Trifecta* neurochemicals. While you can do it alone, you'll get a happiness turbo boost if you do it with others, because doing something meaningful with others will put serotonin into overdrive. Throw in a few hugs and handshakes and you'll be brimming with oxytocin, too.

What will you do with your 45 minutes on Black Friday?

Eva Ritvo is the author of Bekindr: The Transformative Power of Kindness

# **The Benefits of Gratitude**

#### www.psychologytoday.com

Gratitude is an emotion expressing appreciation for what one has—as opposed to, for example, a consumerdriven emphasis on what one wants. Gratitude is getting a great deal of attention as a facet of positive psychology: Studies show that we can deliberately cultivate gratitude, and can increase our well-being and happiness by doing so. In addition, gratefulness—and especially expression of it to others—is associated with increased energy, optimism, and empathy.



# **Did You Know! There Are Scientifically Proven Benefits of Being Kind!**

www.randomactsofkindness.org (Used with permission)

# KINDNESS IS TEACHABLE

"It's kind of like weight training, we found that people can actually build up their compassion 'muscle' and respond to others' suffering with care and a desire to help." (Dr. Richard Davidson, University of Wisconsin)

# KINDNESS IS CONTAGIOUS

The positive effects of kindness are experienced in the brain of everyone who witnessed the act, improving their mood and making them significantly more likely to "pay it forward." This means one good deed in a crowded area can create a domino effect and improve the day of dozens of people!

# KINDNESS INCREASES

# The Love Hormone

Witnessing acts of kindness produces oxytocin, occasionally referred to as the 'love hormone' which aids in lowering blood pressure and improving our overall heart-health. Oxytocin also increases our self-esteem and optimism, which is extra helpful when we're anxious or shy in a social situation.

# Energy

"About half of participants in one study reported that they feel stronger and more energetic after helping others; many also reported feeling calmer and less depressed, with increased feelings of self-worth." (Christine Carter, UC Berkeley, Greater Good Science Center)

# Happiness

A 2010 Harvard Business School survey of happiness in 136 countries found that people who are altruistic—in this case, people who were generous financially, such as with charitable donations—were happiest overall.

# Lifespan

"People who volunteer tend to experience fewer aches and pains. Giving help to others protects overall health twice as much as aspirin protects against heart disease. People 55 and older who volunteer for two or more organizations have an impressive 44% lower likelihood of dying early, and that's after sifting out every other contributing factor, including physical health, exercise, gender, habits like smoking, marital status and many more. This is a stronger effect than exercising four times a week or going to church." (Christine Carter, Author, "Raising Happiness; In Pursuit of Joyful Kids and Happier Parents")

# Pleasure

According to research from Emory University, when you are kind to another person, your brain's pleasure and reward centers light up, as if you were the recipient of the good deed—not the giver. This phenomenon is called the "helper's high."

# Serotonin

Like most medical antidepressants, kindness stimulates the production of serotonin. This feel-good chemical heals your wounds, calms you down, and makes you happy!



# KINDNESS DECREASES

# Pain

Engaging in acts of kindness produces endorphins the brain's natural painkiller!

# **Stress**

Perpetually kind people have 23% less cortisol (the stress hormone) and age slower than the average population!

# Anxiety

A group of highly anxious individuals performed at least six acts of kindness a week. After one month, there was a significant increase in positive moods, relationship satisfaction and a decrease in social avoidance in socially anxious individuals. (University of British Columbia Study)

# Depression

Stephen Post of Case Western Reserve University School of Medicine found that when we give of ourselves, everything from life satisfaction to self-realization and physical health is significantly improved. Mortality is delayed, depression is reduced and well-being and good fortune are increased.

# **Blood Pressure**

Committing acts of kindness lowers blood pressure. According to Dr. David R. Hamilton, acts of kindness create emotional warmth, which releases a hormone known as oxytocin. Oxytocin causes the release of a chemical called nitric oxide, which dilates the blood vessels. This reduces blood pressure and, therefore, oxytocin is known as a "cardioprotective" hormone. It protects the heart by lowering blood pressure.





# **I 5 Brain Exercises to Keep Your Mind Sharp**

by Deane Alban of www.bebrainfit.com (Used by permission of the author)

Activities that are new and complex are good brain exercise. Get real benefits in memory, focus, mood & more with these best evidence-based brain exercises.

Brain exercises help your mental health and fitness in the same way your body benefits from physical exercise. And just as doing a variety of physical exercises like aerobics, strength training, and stretching is more beneficial than doing just one, so it is with doing different kinds of brain exercises too.

# What Makes an Activity a Brain Exercise?

Most of us live our lives as a series of fixed routines and there are many good reasons for this. It simplifies life, it limits brain-draining decision making, and it lets us perform complex tasks like driving a car with little mental effort. Routines are run by our subconscious and require very little brain energy and consequently they provide the brain with very little stimulation. Just as your body gets soft and lethargic from lack of physical activity, your brain gets sluggish and slow from too much routine. Proactively shaking up your daily routines is key to a healthier, sharper mind. The experts agree that for an activity to stimulate your brain enough to exercise it, the activity must be both novel and complex.

# Benefits You Can Expect from Brain Exercise

Exercising your mind helps you be your mental best now while it protects against future memory loss and cognitive decline. (1) Though you can't expect to get all of the following benefits from any one activity, brain exercise is reported to help in all these areas: (2, 3, 4, 5, 6)

- less stress
- better memory
- more positive mood
- increased focus and concentration
- boost in motivation and productivity
- enhanced fluid intelligence, creativity, and mental flexibility
- faster thinking and reaction time
- greater self-confidence
- sharper vision and hearing

Let's review some of the best activities that have repeatedly been proven to support cognitive and mental health. Remember, these and any good brain exercises are novel and complex.

# Neurobics: Brain Exercises That Use All Your Senses

Dr. Lawrence Katz is an internationally recognized neurobiologist who was a pioneer in neuron regeneration research. He wrote Keep Your Brain Alive: 83 Neurobic Exercises to Help Prevent Memory Loss and Increase Mental Fitness back in 1998 when few people were talking about brain fitness. (An updated version was released this year.) In his book, he coins the phrase "neurobics" to describe brain exercises that enhance brain performance by using all five senses in new and novel ways. He explains that mental decline is not usually from loss of brain cells as much as it is from loss of communication between brain cells. This occurs due to the decreasing number and complexity of dendrites, the branches on nerve cells. (7) He found that by doing the right kind of mental exercise, we can grow new dendritic connections.

Katz points out that most brain exercises rely mainly on sight. He believes that the key to fully exercising your brain is to engage all the senses—sight, sound, touch, taste, and smell—in non-routine ways. He contends that any activity can be turned into a good brain exercise provided it is new, fun, and challenging and he lists 83 brain exercises in his book. Some of them are a little kooky, like choosing the clothes you'll wear for the day with your eyes closed. Of all his neurobic exercises, here are some of my favorites that you can do anywhere, anytime.

### 1. Switch Hands

If you are right-handed, try using your left hand to do things like brushing your teeth, eating, and using your computer mouse. Using your non-dominant hand results in increased brain activity. This can be very hard at first which is why it gives your brain a good workout.

### 2. Eat with Chopsticks

This will force you to eat mindfully which is good for your brain, digestion and calorie consumption. If you're already good at this, use your non-dominant hand instead.

### 3. Do Chores with Your Eyes Closed

When taking a shower, washing your hair, or sorting laundry, try doing it with your eyes closed. This will force your brain to use new neural pathways. Obviously, don't do anything with your eyes closed that could put you or others in danger.

## 4. Do Things Upside Down or Backwards

No worries, you don't have to stand on your head for this one. Stimulate your brain by looking at things upside down. An easy one to start with is wearing your watch upside down. This forces your brain to really think every time you glance at your watch. You can also hang clocks or calendars upside down. When you get used to that, you can graduate to using your phone, or whatever else you can imagine, upside down. Or you can channel your inner Leonardo da Vinci and try mastering the art of writing backwards, known as mirror writing. (8)

#### 5. Read Books Aloud

Take turns reading and listening to a book with your significant other, a friend, or a child. If that's not feasible, alternate reading with listening to audiobooks. This engages the imagination in a different way. One of the earliest demonstrations of brain imaging clearly showed three distinct brain regions lighting up when the same word was read, spoken, or heard.

### 6. Take New Routes

On a routine commute, your brain is on autopilot and gets very little stimulation, but taking an unfamiliar route activates the cortex and hippocampus. (9) It has been said that Bill Gates would drive a different route on the way home from work each day to stimulate his brain, and look where that got him! There's no need to stick to driving, you can take new routes when walking, biking, or riding public transportation.

#### 7. Simultaneously Use All Your Senses

Travel, camping, and gardening are high on Dr. Katz's list of activities that utilize all your senses in new ways. One of his favorite examples is shopping at a farmer's market where you can look, touch, sniff, and taste the produce. Being sociable and talking with the farmer who grew your food provides additional brain stimulation.



# Exercising Your Brain Increases Intelligence

In 2008, a groundbreaking study proved for the first time that overall intelligence could be improved. This was huge news that changed the way science regarded intelligence. (10) Several important findings resulted from this study:

- Intelligence is fluid and can be increased with the right stimulus.
- The gains are dependent on the amount of training, i.e. the more you train, the more you gain.
- Anyone can increase their cognitive abilities, no matter their starting point.
- Cognitive enhancement made in one area could improve totally unrelated skills.

Here are some of the most significant ways to stimulate your cognitive potential. (11)

### 8. Try New Things

Do things you've never done before. Travel somewhere you've never been. Check out an unfamiliar ethnic cuisine. Try a hobby that is totally out of character for you. If you are a couch potato, sign up for a dance class. If you are athletic, try needlepoint. Novel experiences trigger release of dopamine, the "motivation" neurotransmitter. It also stimulates the creation of new neurons.

### 9. Challenge Yourself with Mastery

Learning something new stimulates brain activity. But as soon as you master it, the mental benefit stops because your brain becomes more efficient at the activity. The only way to continue to stimulate your brain is to give it new challenges and stay out of your comfort zone. So once you master something, challenge yourself with the next level of difficulty or learn a related skill. For this reason, pursuits like learning languages, playing musical instruments, or chess are ideal brain exercises because there is always more to learn.

### 10. Do Things the Hard Way

The most obvious way to do things the hard way is to stop relying on technology. Use your brain instead of your smartphone for basic mental skills like spelling and math. Impress your friends by memorizing their phone numbers (gasp!). Turn off the GPS and learn to read a map and use your innate sense of direction to find your way around instead. (12) London cab drivers give their brains a tremendous workout by building a map of London in their heads. They must memorize 25,000 streets and 20,000 landmarks to get their license. Research found that the hippocampus, the part of the brain responsible for storing and organizing memories, in a typical London cabbie is significantly larger than average. (13)

### 11. Connect with Different People

Anytime you connect with others, you expose yourself to new ideas and other ways of thinking about things, but you can get even more brain benefits from spending time with people unlike you. Intentionally seek out others with different interests, careers, or skill sets or those who are from different social or cultural environments. This opens you up to new perspectives and ideas and this challenge to your current way of thinking stimulates mental growth.

# The (Surprisingly) Best Brain Exercises of All

The next three ways to stimulate your mind won't feel like a mental workout, but may be the best brain exercises of all.

### 12. Start Meditating

It's estimated that over 18 million Americans meditate (14) and Mayo Clinic, Harvard, and the National Institutes of Health extol its many benefits. (15, 16, 17) Major corporations like Google, General Mills, Target, Apple, Nike, Procter & Gamble and AOL offer structured meditation programs for executives and encourage employees at all levels to do it. (18) The US Marines use meditation to help troops deal with stressful situations they face on the job and to help them cope with posttraumatic stress disorder. (19) But is meditation really exercising your mind?

Here's why meditation makes it onto our list of top brain exercises. Of all mental exercises, meditation may be the most challenging and therefore the best. Our brains are non-stop thinking machines that pour out upwards of 70,000 thoughts daily. (**20**) And 95% of these thoughts are the same thoughts day in, day out, (**21**) so training your mind to be quiet can be hard work! Meditation works so much like exercise, it's been called "pushups for the brain." (**22**) Over 1,000 published studies have demonstrated the health benefits of meditation. (**23**) The brain benefits of meditation include stress reduction, improved memory, learning ability and mood, increased focus and attention, and even reversal of brain atrophy.

### 13. Get Physical Exercise

No discussion about brain exercise would be complete without emphasizing how important physical exercise is for the brain. Physical exercise might just be the most important thing you can do to keep your brain in good shape. It may be even more important than using your brain to think! (24) Exercise reduces stress by increasing the feel-good brain chemicals serotonin, dopamine, and norepinephrine. (25) It increases the levels of brain chemicals that promote new brain cell formation and new neural connections. (26) It protects against mental decline and reduces the risk of dementia. (27) Exercise improves circulation and sends more oxygen to your oxygen-hungry brain. Exercising for brain health doesn't need to be strenuous. Walking is particularly beneficial for the brain as are exercises with a strong mind-body connection like yoga and tai chi. (28, 29, 30)

### 14. Take Up a Creative Hobby

Craft hobbies may not be high art, but they are finally getting more attention for another reason. They have the power to focus the brain similarly to meditation and they act as a natural antidepressant and may protect against brain aging. (**31**) Knitting, particularly, got a big thumbsup recently. In a large study of more than 3,500 knitters, over 80% of those with depression reported feeling happy when they knitted. (**32**)

Another study found that "purposeful activities" such as music, drawing, meditation, reading, arts and crafts, and doing home repairs specifically stimulated the neurological system and enhanced health and mental well-being. (**33**)

If you're like the average American, you spend 10 hours every day staring at screens. (34) Carve out a little time to try one of these brain-boosting hobbies instead:

- camping
- craft hobbies of all kinds
- creating any form of art
- creative writing
- dancing
- gardening
- geocaching
- learning a second language
- martial arts
- playing a musical instrument
- playing chess or Scrabble
- scrapbooking
- traveling

I bet there is at least one thing on this list that you already enjoy.



# Is Online Brain Training Good Brain Exercise?

Online brain training programs like Lumosity, BrainHQ, and Fit Brains promise everything from a better memory to increased IQ. Do they work as advertised? The companies behind these programs naturally say yes, but keep in mind there is a lot of money at stake. Brain training is now a billion dollar a year industry. (35) In 2016, Lumosity, the undisputed leaders of brain training programs, was fined \$2 million for making unsubstantiated claims. (36) A group of 73 leading brain scientists released a statement criticizing the companies that promote and sell brain training programs for making exaggerated claims and for feeding on the fears of seniors and baby boomers concerned with future cognitive decline. (37) Two months later, another group of neuroscientists who believe brain training can work issued a rebuttal. (38) It's pretty clear the answer to the question "does brain training work?" is yet to be definitively answered. (39)

If you think you could benefit from playing online games to stimulate your brain, find one that has a free trial and give it a try. But if you're like most people, you already spend WAY too much time on your electronic devices and almost everyone would benefit more from physical exercise or meditation than from playing online games.



# 15. Use Apps that Exercise Your Brain in Unexpected Ways

I know, I've been telling you to put down your electronics a little more. But, let's face it—few of us will! So here's a way technology can exercise your brain. Most online brain training programs like Lumosity and Fit Brains have app versions of their brain games, but we prefer apps that use real life skills to stimulate your mind instead.

- Get your daily dose of culture with **Daily Art app**. This app shares interesting background stories about one painting masterpiece every day.
- **TED iPad app** allows you to create your own playlists of talks from the world's most innovative thinkers.
- Khan Academy allows you to "learn almost anything for free" with a series of more than 10,000 educational videos that cover math, science, economics and the humanities. Khan Academy can help you with grammar but it doesn't teach foreign languages.
- You can download **Duolingo** for that. This app will help you learn Spanish, French, or many other foreign languages for free. And there's a version to help you brush up on your English if it's not your native language.
- At **Chess.com** you can learn or master chess either on your computer or phone.

# **Brain Exercises: The Bottom Line**

Your brain thrives on variety to keep those synapses firing. Exercise your brain with activities that are novel, challenging, and complex. The more kinds of mentally stimulating activities you engage in, the happier and healthier your brain will be. We've shown you many ways to incorporate brain exercise of all kinds into your life. You are limited only by your imagination! Above all, remember that learning real life skills is a better way to enhance your brain power. Computerized brain training is optional.

Thanks for reading,

we hope you found the information useful!

You can reach any of us by calling the EAP Office at (608) 266-6561

Tresa Martinez, tmartinez@cityofmadison.com

Hailey Krueger, hkrueger@cityofmadison.com

External Available 24/7: FEI Workforce Resilience (800) 236-7905

Sherri Amos, samos@cityofmadison.com

To learn more about your external EAP services, please contact FEI at 1-800-236-7905 or log on to **feieap.com** and type username: madison.