

# Responding to Tech Addiction Exacerbated by Covid

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## Hechinger Report

Only 24 percent of public school teachers reported that all of their students had access to a computer or tablet to use for school work, according to a nationally representative survey of 600 public school teachers conducted in early May by Educators for Excellence (E4E).

<https://hechingerreport.org/?s=student+online+access>

## Washington Post - Homeschool

“Years of research shows that online schooling is ineffective — and that students suffer significant learning losses when they have a long break from school. Now they’re getting both, in a hastily arranged mess. And the kids who suffer most from the “summer slide” are the low-income students, the ones already struggling to keep up.”

[https://www.washingtonpost.com/outlook/coronavirus-homeschooling-will-hurt-students-badly/2020/03/27/f639882a-6f62-11ea-b148-e4ce3fbd85b5\\_story.html](https://www.washingtonpost.com/outlook/coronavirus-homeschooling-will-hurt-students-badly/2020/03/27/f639882a-6f62-11ea-b148-e4ce3fbd85b5_story.html)

## Habit, Dependence or Addiction?

Think on a Continuum from Use to Overuse, Habitual, Dependence & Addiction

“Dr. Nicholas Kardaras is the author of the 2016 book *Glow Kids: How Screen Addiction Is Hijacking Our Kids*.... There are brain-imaging studies of the effects of screen time, he says. And he also has treated many teens who are so wrapped up in video games that they don't even get up to use the bathroom.”

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“Regardless of the problem, “We feel the issue is best conceptualized as a ‘habit’ over an ‘addiction,’ ” Bishop says. “When teens think about their behavior as a habit, they are more empowered to change.”

Labeling someone an addict, essentially saying they have a chronic disease, is a powerful move. And it may be especially dangerous for teens, who are in the process of forming their identities, says Maia Szalavitz.

Szalavitz is an addiction expert and the author of *Unbroken Brain: A Revolutionary New Way Of Understanding Addiction*. Based on her experience with drug and alcohol addiction, she thinks grouping kids together who have problems with screens can be counterproductive. Young people with milder problems may learn from their more “deviant peers,” she says. For that reason, she would encourage families to start with individual or family counseling.

“Different habits demand different approaches to treatment. People who have problematic relationships with alcohol, drugs or gambling can choose abstinence, though it's far from easy. Those who are binge eaters, however, cannot. They must rebuild their relationships with food while continuing to eat every day.”

## Introduction and DSM Criteria

“While IAD is not established as a mental disorder, the estimated prevalence of Internet overuse among US adolescents is as high as 26.3%”.

“The description of a proposed Internet Addiction Disorder (IAD), also called problematic or pathological Internet use, is based on the criteria for substance dependence or pathological gambling.

“IAD is characterized by an individual’s lack of control over his or her use of the Internet, resulting in marked distress, preoccupation, mood changes, tolerance, withdrawal, and functional impairments of social, occupational, and academic performance.” <https://www.psychiatry.org/patients-families/addiction/what-is-addiction>

### **World Health Organization: What is gaming disorder?**

“Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of gaming behavior (“digital-gaming” or “video-gaming”) characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences.

For gaming disorder to be diagnosed, the behaviour pattern must be of sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning and would normally have been evident for at least 12 months.” <https://www.who.int/features/qa/gaming-disorder/en/>

### **Physical Issues**

- Immobilization and sedentary behavior
- Sleep disturbance
- Carpal tunnel
- Obesity
- Lack of sleep
- Lack of bone hardening
- Excessive use of caffeine and stimulants
- Delayed proprioception development
- Poor hygiene
- Back strain
- Lack of Interoception
- Eyestrain and dry
- Inadequate diet
- Blood clots
- Immune system compromised

### **Beware of Supernormal Stimulus ...**

“An artificial stimulus that produces in an animal a response that is stronger than would be evoked by the natural stimulus it resembles. For example, in some birds incubation behaviour is stimulated by the presence of an egg, and the larger the egg the stronger the stimulus; in such birds a very large artificial egg may be incubated in preference to a much smaller real egg. “ <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100543339>

- Supernormal Stimuli : How Primal Urges Overran Their Evolutionary Purpose, by Deirdre Barrett, W.W.Norton and Company, 2010
- <https://www.enhancingmylife.blogspot.com>

**iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy--and Completely Unprepared for Adulthood--and What That Means for the Rest of Us** by Jean M. Twenge PhD (2019, July 28). iGen. Dr. Jean Twenge. [www.jeantwenge.com/igen-book-by-dr-jean-twenge/](http://www.jeantwenge.com/igen-book-by-dr-jean-twenge/)

### **Tech Companies use “persuasive design” to get us hooked. Psychologists say it’s unethical.**

<https://www.vox.com/2018/8/8/17664580/persuasive-technology-psychology#:~:text=Tech%20companies%20use%20%E2%80%9Cpersuasive%20design,like%20Facebook%20and%20Twitter%20use.>

### **Persuasive Technology Used to Train Developers**

Fogg, B. (2011). Persuasive technology using computers to change what we think and do. Amsterdam: Morgan Kaufmann , an imprint of Elsevier Science.

Eyal, N., & Hoover, R. (2014). Hooked: How to Build Habit-Forming Products (1st ed.). Portfolio.

Eyal, N., & Li-Eyal, J. (2019). Indistractable: How to control your attention and choose your life. Dallas, TX: BenBella Books.

### **“How evil is tech?”, New York Times columnist David Brooks**

“Tech companies understand what causes dopamine surges in the brain and they lace their products with ‘hijacking techniques’ that lure us in and create ‘compulsion loops’.” <https://www.nytimes.com/2017/11/20/opinion/how-evil-is-tech.html>

### **Tech Impacts Physical Health by Increasing Stress**

“More use of technology is linked to later increases in attention, behavior and self-regulation problems for adolescents already at risk for mental health issues”

- <https://today.duke.edu/2017/05/more-technology-use-linked-mental-health-issues-risk-adolescents>

### **Impact on Learning**

- Increased error rates
- Decreased spelling accuracy
- Increased impatience
- Higher plagiarism rates
- Decreased attention span

### **Benefits of Personal Interactions:**

Focus and Attention

Exposure to television and video games was associated with greater attention problems.

<http://pediatrics.aappublications.org/content/126/2/214.full>

### **Cell Phone Distraction in the Classroom Can Lead to Lower Grades, Rutgers Study Finds**

<https://news.rutgers.edu/cellphone-distraction-classroom-can-lead-lower-grades-rutgers-study-finds/20180723#.XEnpIc9Kh-U>

### **Writing Your Notes May Be More Beneficial**

In the study published in Psychological Science, Pam A. Mueller of Princeton University and Daniel M. Oppenheimer of the University of California, Los Angeles. "When people type their notes, they have this tendency to try to take verbatim notes and write down as much of the lecture as they can," Mueller tells NPR's Rachel Martin. "The students who were taking longhand notes in our studies were forced to be more selective — because you can't write as fast as you can type. And that extra processing of the material that they were doing benefited them."

"This is suggestive evidence that longhand notes may have superior external storage as well as superior encoding functions," Mueller and Oppenheimer write.

<https://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>

### **“Most individuals will acknowledge that this is wrong but continue to do it anyways”**

<https://www.canindia.com.com/is-your-cellphone-addiction-making-you-unsociable/>

### **Excessive tech use appears to impair the brains ability to communicate across it’s various sectors.**

A new brain scan study shows not only can that be the case, but also that Internet addiction might cause the same brain changes that are seen in alcoholics and drug addicts. For the study, published in the Jan. 11 issue of PLoS One, researchers studied 17 men and women who were diagnosed with Internet addiction disorder (IAD) and compared scans of their brains to scans of 16 healthy people who weren't addicted to the web. Study participants were between the ages of 14 and 21 and lived in China.

### **Are social networking sites turning teens into substance abusers?**

The researchers found more patterns of "abnormal white matter" on brain scans of Internet addicts, compared with scans of non-addicts. White matter areas in the brain contain nerve fibers that transmit signals to other parts of the brain. These changes showed evidence of disrupting pathways related to emotions, decision-making, and self control. The researchers said earlier studies have found similar white matter changes in the brain scans of people addicted to alcohol, cocaine, heroin, marijuana, meth, and ketamine (also known as "Special K"). "The results also suggest that IAD may share psychological and neural mechanisms with other types of substance addiction and impulse control disorders," the researchers wrote in the study.

<http://www.cbsnews.com/news/internet-addiction-changes-brain-similar-to-cocaine-study/>

### **Us National Library of Medicine, National Institute of Health, Journal of Sleep Medicine**

"Among a range of technologies, interactive technological devices are most strongly associated with sleep complaints."

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836340/>

### **Comorbid & co-occurring issues**

Catastrophic thinking or over generalizing might contribute to compulsive use through psychological escape.

Young KS. [Accessed November 28, 2017]; Internet Addiction Test (IAT) 1998

[http://www.netaddiction.com/resources/Internetaddiction test.htm](http://www.netaddiction.com/resources/Internetaddiction%20test.htm)

### **Partial Focused Attention**

"More use of technology is linked to later increases in attention, behavior and self-regulation problems for adolescents already at risk for mental health issues"

<https://today.duke.edu/2017/05/more-technology-use-linked-mental-health-issues-risk-adolescents>

### **PTSD and Online Videos**

"What people do not realize is the power of video to affect certain people, to cause vicarious trauma or full-blown PTSD," Ottawa forensic psychiatrist Dr. John Bradford

<https://www.cbc.ca/news/canada/manitoba/ptsd-online-videos-graphic-1.4091667>

### **55 % of plastic surgeons report seeing patients who want to improve their appearance in selfies.**

"A new phenomenon called 'Snapchat dysmorphia' has popped up," said Neelam Vashi, MD, director of the Ethnic Skin Center at BMC and Boston University School of Medicine, "where patients are seeking out surgery to help them appear like the filtered versions of themselves."

### **ACE Study - Details and slides can be found at:**

- [www.ACEstudy.org](http://www.ACEstudy.org)
- [www.cdc.gov/violenceprevention/acestudy/](http://www.cdc.gov/violenceprevention/acestudy/)

Early childhood adversities linked to health problems in tweens, teens

Washington University School of Medicine in St. Louis, Published Oct. 30 in the journal JAMA Pediatrics.

When kids had > 3 adverse experiences:

- Smaller brain volumes
- Lower emotional expression scores
- Depression
- Worse social & emotional outcomes

"The researchers found that when kids had three or more adverse experiences, they also had smaller brain volumes that, in turn, were associated with lower scores on a scale that measures how well a child expresses emotions. Poor emotional expression has been associated with depression and worse social and emotional outcomes."

“Young children who faced multiple adverse experiences also were 15% more likely to develop severe depression by their preteen and early teen years and 25 % more likely to have physical health problems, such as asthma and gastrointestinal disorders.” - <https://medicalxpress.com/news/2017-10-early-childhood-adversities-linked-health.html>

“I don’t have a kid, but I have a nephew that I put some boundaries on, there are some things that I won’t allow. I don’t want them on a social network.” Apple CEO Tim Cook  
<http://variety.com/2018/digital/features/smartphone-addiction-apps-apple-facebook-google-1202724489/>

### **Family Strategies for Addressing Tech Dependence**

- Offer opportunities for interpersonal interaction
- Model what you want from your children
- Introduce yourself and your children to meditation, prayer and periods of introspection
- Log time on apps, email & texting
- Make a written agreement with the family as to when and where tech will be used
- Gain control over devices by scheduling & checking messages 4 - 6 times per day
- Pay yourself a “fine” when you find yourself mindlessly diverted or “surfing” some pop up

### **Online Resources**

- <https://www.samhsa.gov/find-help/national-helpline>  
SAMHSA’s National Helpline – 1-800-662-HELP (4357)
- Internet and Technology Addiction Anonymous (ITAA)  
<https://www.facebook.com/pages/category/Product-Service/Internet-and-Technology-Addiction-Anonymous-ITAA-136022783120158/>
- <https://www.netaddictionrecovery.com/>
- <https://fightthenewdrug.org/>
- [www.restart.org](http://www.restart.org)

### **Twitch**

Online streaming platform for gamers and those who like to watch others play video games.

### **BERT, Bedside Entertainment Theater**

“They’re used before surgery, of course, and also to calm kids who are at the hospital to get radiation therapy or MRI.”  
<https://www.npr.org/sections/health-shots/2016/06/29/483056065/doctors-get-creative-to-soothe-tech-savvy-kids-before-surgery>

### **One Week of Violent Video Game Play Alters Prefrontal Activity**

"For the first time, we have found that a sample of randomly assigned young adults showed less activation in certain frontal brain regions following a week of playing violent video games at home," said "These brain regions are important for controlling emotion and aggressive behavior."

Yang Wang, M.D., assistant research professor in the Department of Radiology and Imaging Sciences at Indiana University School of Medicine in Indianapolis

Presented 11/30/ 2011 at the 97<sup>th</sup> Scientific Assembly and Annual Meeting, McCormick Place, Chicago

[http://rsna2011.rsna.org/search/event\\_display.cfm?em\\_id=11004116](http://rsna2011.rsna.org/search/event_display.cfm?em_id=11004116)

## **Associations Between Screen-based Media use and Brain White Matter Integrity in Preschool-Aged Children**

“...screen use greater than that recommended by the American Academy of Pediatrics guidelines was associated with (1) lower measures of microstructural organization and myelination of brain white matter tracts that support language and emergent literacy skills and (2) corresponding cognitive assessments.”

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2754101>

## **Based on factors listed in the NIDA Preventing Drug Use among Children & Adolescents: A Research - Based Guide Indicators of future drug or alcohol problems**

Social isolation

Poor social skills

Early antisocial behavior

Inability to bond with positive peer groups

Low commitment to school and community

Positive attitude toward substance abuse

Lacking a positive peer group

Having an older sibling who is involved

## **Online Predator Complaints Spike During Pandemic**

<https://www.nbcwashington.com/news/online-predator-complaints-spike-during-pandemic/2377394/>

## **Exposure to Adult Content**

“Exposure now begins as young as 9 with the average age at 11”

“The largest group of pornography consumers being boys aged 12 to 17 yrs.”

10% of HS students have reported physical and sexual victimization from a dating partner in the past 12 months.

<http://www.abc.net.au/religion/articles/2015/05/29/4245269.htm>

[https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm?s\\_cid=ss6304a1\\_w](https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm?s_cid=ss6304a1_w)

## **Child Abuse Cases Drop 51%**

“The steep decline could be a sign that an unseen epidemic of abuse is spreading behind locked doors, according to the police, prosecutors and child protection officials.”

<https://www.nytimes.com/2020/06/09/nyregion/coronavirus-nyc-child-abuse.html>

## **Interpol Report**

Key environmental, social and economic factor changes due to COVID-19 which have impacted child sexual exploitation and abuse (CSEA) across the world include:

Closure of schools and subsequent movement to virtual learning environments;

Increased time children spend online for entertainment, social and educational purposes;

Restriction of international travel and the repatriation of foreign nationals;

Limited access to community support services, child care and educational personnel who often play a key role in detecting and reporting cases of child sexual exploitation.

<https://www.interpol.int/en/News-and-Events/News/2020/INTERPOL-report-highlights-impact-of-COVID-19-on-child-sexual-abuse>

## **Social Anxiety**

“Teens who spend five hours per day on a device are 71 percent more likely to have a risk factor for suicide”

<https://psmag.com/news/smartphones-present-a-siri-ous-problem>

## **Average age of suicidal ideation is 12**

In the present study, Dr. Klonsky utilized the IMSA to assess suicide attempt motivations of 52 adolescents ages 12-17 years (mean age 14.8 years) who were hospitalized at a psychiatric inpatient unit after a suicide attempt. Eighty-five percent of the sample were female. The average age of the initiation of suicidal ideation was 12 years old. The percentage of participants reporting only one suicide attempt was 67.

[https://afsp.org/why-do-adolescents-attempt-suicide/?utm\\_source=All+Subscribers&utm\\_campaign=84dc210eaf-Research\\_Connection\\_July\\_COPY\\_01&utm\\_medium=email&utm\\_term=0\\_3fbf9113af-84dc210eaf-385274077](https://afsp.org/why-do-adolescents-attempt-suicide/?utm_source=All+Subscribers&utm_campaign=84dc210eaf-Research_Connection_July_COPY_01&utm_medium=email&utm_term=0_3fbf9113af-84dc210eaf-385274077)

## **What can be done?**

Finding Balance

Other than music, no child under the age of 2 should be exposed to electronic media

Keep electronic recreation to < 2 hours per day

Use electronics as a reward, combined w/facetime to positively modify behaviors

Stop all computing 1 - 2 hr. before bed

Don't allow phones, games or computers in bedrooms

Engage in reading, board games & non-electronic activities

For special needs children, limit hand held games to short rewards of no more than 15 to 20 min.

Ban texting, iPod use, and phone use at meals

Build tolerance for less stimulating activities when reducing tech use

Anticipate a reaction; this is an addiction!

## **Family Strategies**

Offer opportunities for interpersonal interaction

Model what you want from your children

Introduce yourself and your children to meditation, prayer and periods of introspection

## **Brain Builders**

Board games

Sign language

Finger painting

Play an instrument

Move your mouse to the other side of the keyboard

Learn to juggle

## **Levels of Prioritization**

1. Must do

2. Should do

3. Would like to do

## **Develop Effective Lists**

- Make a list of everything you need to do
- Prioritize the top 10 (If you categorized, still pick the top ten from the total list)
- Note the top 3
- Turn the page over and list the top 3
- As they are completed put a line through them
- When those 3 are done, bring over the next 3

## **Introspective Questions**

- How long does it matter? What's the urgency or need? How important is it or valued in your life?
- What will happen if you don't do it?

### **Being overwhelmed & immobilized**

- Value of self care
- Brief strategies for regaining equilibrium

### **Wish you had an assistant - use tech to clarify your life**

- Stop typing and dictate using notes
  - Use Siri as your secretary for reminders
  - Use Siri to set meetings, responsibilities and reminders
  - Link reminders to locations to have reminder show up when you arrive or depart from your location “Remind me when I arrive at the school” , “Remind me when I leave school” , “Remind me when I arrive at the Acme to get \_\_\_” or “Remind me when I get in the car to...”
  - Add locations to your contacts list of any of the locations you will be linked to
  - Set up your phone to link to your cars navigational system via Bluetooth
  - When in a website or on an email ask Siri to remind you to read “Remind me to read this in two days” or “Remind me to read this on Wed at 2pm” - a link will be embedded on the reminder which you can click to take you to the email or web site
  - You can also set a reminder to read something when you arrive at a location
- [https://www.youtube.com/watch?v=J\\_C2ezzmrUQ](https://www.youtube.com/watch?v=J_C2ezzmrUQ) (Get the most out of Apple reminders)

### **Scheduling Basics**

- Touch everything once
- Schedule in 2 hr blocks
- Undertake the 10 min. rule
- Schedule everything you do
- Scheduling increases leisure time
- Is what’s important to you on the schedule?

A schedule reduces idle time improving productivity

### **Schedule your life, like you schedule your work:**

- Put a sign on your door to come back In \_\_\_ min.
- Schedule your life, like you do your work. Include time for sleep, eating, introspective or spiritual contemplation, relationship development and maintenance, reading, proper hygiene, exercise, life event planning.
- Research indicates batching responses to your email maybe more beneficial they checking them throughout the day.

### **Get Control Of Your Life, Control Your Time**

- If you don't plan your day, someone else will.

### **Schedule Your Life To Find Time**

- Constraints actually creates space for you to do something you want to do.

### **Time management is self-management**

- Time management is like juggling
- How long does it matter?
- Give yourself permission to make a difference which will matter tomorrow
- What you don't do maybe more important than what you do - get good at saying no
- If you can't eliminate, automate or delegate
- There is a difference between procrastination and plan postponement
- Our work tends to expand into the time we have to do it
- Time boxing helps you contain the work
- This keeps it from bleeding into other areas of life
- With limited amount of time you are more focused so you waste less time
- Planning fallacy - over optimistic in planning-University of Waterloo-predicting tasks completion - We picture the best case scenario



### **Basic Self Sabotage Strategies - Time Management is Life Management**

- Are you engaging in “Ego protective maneuvers” out of fear you might fail?
- Not sure how to start?
- Immediate needs can override long-term gain
- You may experience unrealistic expectations on how long it's going to take to complete a task
- May lack experience, knowledge, skill or resources
- Lack of experience or knowledge on where to begin
- Stuck in Perfectionism - end product will not be as good as you want or others expect
- Don't subscribe fully to the task
- Belief it should be easier than it is
- *Plan on spending 3X longer than you plan for task completion*

### **Split larger tasks into smaller subtasks**

- Be flexible and see if interruptions need to be planned
- Don't over schedule-open space for creativity
- If it's on your mind, it's often in action and not an action
- If you don't pay attention to what demands your attention, you'll soon not be able to pay attention at all.

### **Changing will feel unnatural, unnecessary and imposing .**

- Schedule planning and thinking time
- Put groups and things together and do all it wants for smaller tasks
- What is the cost of doing? What's the cost of not doing?
- On my death bed will I regret not having done this?

### **Prioritize Your Life**

- Have you assessed your priorities?
  - Once you assess them make a list of all of the priorities in your life and prioritize them.
  - Do they show up in your schedule according to your priorities?
  - Did they show up on your schedule at all?
  - What's missing?
  - Is the majority of your time spent on tasks related to your priorities?
- Do all of these areas that you prioritize show up on your schedule?
- Seeking distraction it is a way that our brains attempt to deal with pain and discomfort.

### **STOP Method**

- Stop whirling and recognize your out of balance
- Take three deep breaths to exit the cognitive process
- Observe what's going on; 1st internally, then externally
- Proceed only after going through the 1st 3 steps

### **Web Resources: (If any problem with the link, cut and past the link into your search engine)**

<https://centerhealthyminds.org/about/overview> (Univ. of WI Center for Health Minds)

<https://www.mindfulschools.org/training/mindfulness-fundamentals/> (Meditation for schools)

<http://www.freemindfulness.org/download> (Free mindfulness resources)

<https://www.waterford.org/resources/mindfulness-activities-for-kids/> (Mindful activities for kids)

<https://kidshealth.org/en/teens/mindful-exercises.html> (Mindful exercises for teens)

<https://www.psychologytoday.com/us/blog/in-practice/201302/6-mindfulness-exercises-each-take-less-1-minute> (Quick mindful exercises)

<https://www.youtube.com/watch?v=wPNEmxWSNxg> (Definition of mindfulness video)

<https://LabyrinthSociety.org> (Labyrinth Society website)

<https://palousemindfulness.com/> (Free online 8 week mindfulness course)

<https://www.youtube.com/watch?v=D9H9qTdserM> (Stanford neuroscientist Robert M. Sapolsky, Why Zebras Don't Get Ulcers)

[https://www.youtube.com/watch?v=J\\_C2ezzmrUQ](https://www.youtube.com/watch?v=J_C2ezzmrUQ) (Get the most out of Apple reminders)

### **Impact of Quieting the Mind**

“After 12 weeks of daily yoga and coherent breathing, the subjects depressive symptoms significantly decreased and their levels of gamma and aminobutyric acid, a brain chemical that has calming and anti-anxiety affects, had increased.”

“They show that a behavioral intervention can have effects of similar magnitude as an antidepressant.”

Dr. Chris Streeter, an associate professor of psychiatry and neurology at Boston University

<https://www.nytimes.com/2016/11/09/well/mind/breathe-exhale-repeat-the-benefits-of-controlled-breathing.html>

### **Labyrinth Resources**

- <https://labyrinthSociety.org/>

### **Mindful Breathing**

1. Sitting upright or lying down, place your hands on your belly.
2. Slowly breathe in, expanding your belly, to the count of five.
3. Pause.
4. Slowly breathe out to the count of six.
5. Work your way up to practicing this pattern for 10 to 20 minutes a day.

<https://www.nytimes.com/2016/11/09/well/mind/breathe-exhale-repeat-the-benefits-of-controlled-breathing.html>

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