

# EXERCISING IN THE ZONE AT HOME

"Movement is BIG medicine; it's the signal to every cell in our bodies that no matter what kind of damage we've suffered, we're ready to rebuild and move away from death and back toward life." -Christopher McDougall, "Running with Sherman"

Like many things in life, you want to have a balance---and the same is true for exercise. Studies show that aerobic exercise can help the brain recover after it has been injured. In fact, moderate strength training not only improves muscle function, but it increases blood flow to your brain and helps with neuroplasticity, which allows our brains to grow and make new connections.

Many brain injury survivors struggle to add exercise into their daily routines because of limitations such as transportation to a gym and a general lack of resources and knowledge around exercise. But, you can get your daily dose of exercise at home.

After you have been cleared by your physician to begin an exercise program, you can start getting more active. Research shows the best exercise prescription is as follows: Try to exercise 3 to 4 times per week for 30-minutes or more and work hard enough to create an aerobic response or break a sweat.







An aerobic response is when you hit 65-75% of your max heart rate (MHR).

#### Follow these steps to find your Target Heart Rate and get into The Zone at Home (see chart below):

- To find your MHR: Subtract your age from 220.
- 2. Multiply your MHR times 0.65 to find 65% of your target heart rate (Zone 2).
- 3. Multiply your MHR times 0.75 to find 75% of your target heart rate (Zone 3).

#### Example for a 62 year old person:

- 1. 220 62 years = 158 beats per minute (bpm). 158 bpm is the MHR.
- 2. Multiply 158 x 0.65 = 103 bpm. 103 bpm = Zone 2
- 3. Multiply 158 x 0.75 = 119 bpm. 119 bpm = Zone 3

Target Heart Rate in beats per min (bpm)		Zone	Physical Signs of Each Zone
65% of MHR	103 bpm	2	Moderate Activity: can still carry on a conversation
75% of MHR	119 bpm	3	Hard Activity: out of breath, but can speak a sentence or 2

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## CASSANDRA DAUGHERTY: TBI SURVIVOR AS TOLD TO BENJAMIN WALDRUM



Cassandra (right) hugs her neice, Ellie, and newphew, Walker Lee

On Feb. 18, 2006, Cassandra Daugherty was riding in the passenger seat of her car, with a friend driving. It was a snow day for Bentonville High School, as a cold front had swept through that week and left just enough ice patches on the roads to make travel difficult.

The car drove over a patch of black ice, swerved off the road and through the median into opposing traffic. A tow truck plowed into the passenger side where Daugherty was seated.

She was airlifted from the wreck to Mercy Medical Center in Bentonville, stabilized, and then airlifted again to Cox Medical Center South in Springfield, Missouri.

"I have a severe traumatic brain injury (TBI)," she said. "From my understanding, it has affected my whole brain pretty equally. I still have soreness and pain in my back and jaw – my jaw was broken in three places. It has been 16 years, but the injury is still there."

She had what is called a closed head injury, which is an injury to the head that does not go through the skull. However, closed head injuries can include broken bones in the skull or face, as well as significant damage to the brain, including bruising or bleeding. Motor vehicle crashes are the single most common cause of TBIs in young adults.

Daugherty would awake nearly a month later from an induced coma. Once she awoke, she was transported to Arkansas Children's in Little Rock, where she remained for 49 days.

She began a regimen of extensive speech, physical and occupational therapy at Arkansas Children's, and then in Bentonville after returning home. There was a lot of catching up for her to do, including at school.

"While going to outpatient therapy, I had to make up the second semester of my junior year, so I had a home school teacher, Ms. Jan, during the summer after the accident," she said. "She was the counselor at my high school, and a great friend now."

Daugherty started her senior year with her class in the fall, including full eight-hour days as a student. On the surface, things appeared to be back to normal, but she was struggling.

"I was so fatigued," she said. "I had an IEP and 504 plan to help me get through the coursework I needed to graduate." Without my family, I know I wouldn't be where I am today.

The Individualized

Education Plan ensures that a child with a disability can receive specialized instruction and related services while in school.

Section 504 of the U.S. Rehabilitation Act of 1973 provides students with disabilities accommodations, such as adjusted schedules, technology aids and extended time on assignments, to succeed.



Cassandra with her sister (left), mom (second left), and dad

After returning to high school, she graduated on time with her class in 2007.Her family was her rock throughout the entire process - mom Jane, dad Keith, sister Makenzie, niece Ellie, nephew Walker Lee and her beloved dog, Blu.

"Family has been so very important," she said. "Without my family, I know I wouldn't be where I am today. Of course, the speech, occupational and physical therapy was all so very helpful in the beginning, but my mom, dad and sister have been such great support by giving me encouragement."

Daugherty has fought her way back since the injury, pushing through "automatic negative thoughts" about the accident and difficulties and hard work that have followed since that day. She's still fighting.



"It is all so difficult, to be honest - mostly emotional," she said. "But I have achieved quite a bit. After 16 years, I have been able to compensate for most of the limitations caused by my injury."

Over the past several years, Daugherty has been using her experience to help others. She attended the University of Arkansas and earned a Bachelor's

of Science in communications disorders in 2012 and a Master of Science degree in rehabilitation counseling in 2014. For nearly eight years, she has been a rehabilitation counselor with the Arkansas Division of Workforce Services, helping clients who need support and encouragement during their own recoveries.

"It was a long road, but I feel I am just in the right place," she said. "I am being the best support I can be to others that are in the same season of their lives that I was in."

Outside of work, she loves to go camping and kayaking, and often takes Blu with her. Her favorite spot is Indian Creek in Anderson, Missouri. She's planning a camping trip to Colorado.

Her advice to other TBI survivors is to set goals and work hard to achieve them.

"One word as advice: persistence," she said.
"If you don't get it the first time, try, try again.
Never give up! You can do anything you put
your mind to, and I mean anything. Set your
goals high and don't quit."

#### Practical steps to start exercising NOW:

- Set a schedule for exercise on Monday, Wednesday, Friday and one day during the weekend.
- If 30-minutes of exercise is out of your range at this time then split it into 3 chunks of 10-minutes. For example, you can complete a 10-minute workout in the morning, then another one before lunch, and then another one before dinner.
- 3. Get a pulse oximeter and/or smart watch to monitor your heart rate. If you don't have access to heart rate monitors, just remember to "break a sweat."
- 4. Use your technologies. You can search for workouts on YouTube. Paula B and Yoga by Adriene are great places to start. There are also apps for timers and workouts to keep you on track. W.O.D Generator and FitOn are two great apps to start with.
- 5. You don't need an app or video to start. You can do this Tabata Challenge in your home: Do each exercise pictured for 20-seconds. When you finish, take a 10-second break and do them again. Repeat the series for up to 8 rounds! Once you get more comfortable, vou can track how many reps you do in each round. Try to get a little faster each week.



Superman



**Seated Jumping Jacks** 



**Modified Plank Hold** 

#### References:

Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report. Washington, DC: U.S. Dept. of Health and Human Services; 2008.

National Center on Health, Physical Activity and Disability. Addressing Barriers. https://www.nchpad.org/1246/5929/A-Proactive-Approach-to-Inclusive-Fitness. Accessed March 2, 2022.

Miczak, K. Exercise After Traumatic Brain Injury Fact Sheet; APTA Neuro Section, 2015.

Hamilton, M; Williams, G; Bryant, A; et al. Which factors influence the activity levels of individuals with traumatic brain injury when they are first discharged home from the hospital? Brain Inj. 2015; 29, 1572-1580.



Are you interested in learning more about the work being done around brain injury in Arkansas? Would you like to become an advocate or voice for brain injury in the state?

The purpose of the Administration for Community Living TBI State Partnership Program (SPP) is to maximize the independence, well-being, and health of persons with TBI.

The Arkansas Brain Injury Council meets four times a year to discuss the progress and plans for how to make our state better for people living with brain injury. All our meetings are open to the public, and we would love to have you attend!

At this time, all meetings are being held online, so you can attend from the comfort of your home! Here are the scheduled meetings for the upcoming year:

- February 8, 2022 at 10 a.m.
- May 10, 2022 at 10 a.m.
- August 9, 2022 at 10 a.m.

If you would like to receive email or text reminders with the links for these meetings, please let us know. You can email your name, contact information, and notification preferences to Amber at awatson@uams. edu.

If you miss a meeting, no worries. You can keep up with our efforts by visiting:

atrp.ar.gov/tbi-state-partnership-program

## RESOURCE HIGHLIGHT





Call 800-482-9921 | 24 hours a day, 7 days a week

## FREE 24-HOUR CALL CENTER: (800) 482-9921

### What have you done for your mental health lately?

As the pandemic drags on, you may be feeling isolated, anxious, or sad. That is completely normal! Did you know there are people who can help you? If you are experiencing increased stress or other concerns, **call AR-Connect**. Our team is trained to meet your needs.

What does AR-Connect do? We can help with strategies to manage your stress or other concerns, including alcohol and substance use. We provide virtual short-term therapy and, when needed, can help you find long-term treatment in your area. When you call, we will assess your needs and connect you with a mental health professional. This means that you can call anytime, but your appointment won't happen right when you call.

**Who is it for?** Any Arkansan who is struggling with mental wellness, stress, anxiety, or other concerns.

**How does it work?** Call us. Our phone lines are open 24 hours a day, 7 days a week. After your first session, your mental health professional will decide how many more appointments you need. All therapy visits are virtual (by video).

**When is AR-Connect open?** Our virtual clinic is open Monday through Friday, 8:00 am to 4:30 pm, and Saturday, 10:00 am to 2:00 pm.

**Do I need to have health insurance?** No. Our services are FREE. If you have insurance, we will collect that information from you. But we will not bill you for our services.

Where can I get more help? The AR-Connect resource center can help with basic needs such as food or shelter. Visit: psychiatry.uams.edu/clinical-care/ARconnect/resources Or call: 501-355-6934.

For more information, contact AR-Connect at arconnect@uams.edu



Scan Me
psychiatry.uams.edu/ARconnect



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## A SUPPORT GROUP FOR EVERYONE!

Our partners at Sources for Community Living in Northwest Arkansas have been working hard to offer support group access for every member of the family. We are excited to share that we now have THREE categories of support groups, with hopefully more to come in the future!

Support groups are a positive place to meet people who understand your struggles, whether you are a survivor or a caregiver. They can also be a good place to learn new skills and strategies for living with your (or your loved one's) injury. The great thing about these groups is they are all online, so you can join from anywhere! Here are our current options:

For Adults with Brain Injury: Every Tuesday at 1 p.m. For Caregivers: 1st Monday of every month at 2:30 p.m.

#### To Join:

Download Ring Central Meeting to your computer or smartphone, click Join Meeting and type the meeting ID: 149 916 5893

-or-

Type this link into your browser:

https://meetings.ringcentral.com/join?jid=1499165893

No internet? No problem: Call +1 (650) 242-4929, type the above meeting ID then press #.

For more information contact NeCol Whitehead at nwhitehead@arsources.org or call/text 479-802-3903.

## For Teens (ages 14-18) with Any Disability

Meets the 2nd & 4th Thursday of the month from 4:30-5:30 p.m.

- Know yourself, what you need, and how to get it
- Build relationships with peers who have similar experiences
- A safe place to talk about struggles and challenges

To sign up, visit https://www.surveymonkey.com/r/JBKYM8Q or contact Kasi Miller at 479-802-3907 (calls or texts welcome)





Revenue Service.

# GET YOUR SOCIAL SECURITY BENEFIT STATEMENT (SSA-1099 / SSA-1042S)

By Tonya Cater, Social Security Public Affairs Specialist

We've made getting your annual benefit statement even easier. The benefit statement, also known as the SSA-1099 or the SSA-1042S, is a tax form we mail each year in January to people who receive Social Security benefits. It shows the total amount of benefits you received from us in the previous year. You can use this information



If you live in the United States and you need a replacement SSA-1099 or SSA-1042S, go online to get your instant, printable replacement form using your personal my Social Security account at www.ssa.gov/myaccount. Look for your replacement SSA-1099 or SSA-1042S for the previous tax year in your personal account after February 1.

If you don't have access to a printer, you can save the document to your computer or email it to yourself. If you don't have a my Social Security account, creating one is very easy to do and usually takes less than 10 minutes.

And that's not all you can do with a personal account. If you receive benefits or have Medicare, your personal my Social Security account is also the best way to:

- Request a replacement Social Security number card
- Get your benefit verification letter
- Check your benefit and payment information

when you file your tax return, as it shows how much

Social Security income to report to the Internal

- Change your address and phone number
- Change your direct deposit information
- Request a replacement Medicare card
- Report your wages if you work and receive Social Security disability insurance or Supplemental Security Income benefits.

If you don't have a personal my Social Security account, you can create one today at www.ssa.gov/myaccount.





Trauma Rehabilitation Resources Program

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Little Rock, AR

The Trauma Rehabiliation Resources Program offers a disability resource website to connect those with trauma-related disabilites to helpful resources and organizations in the community.

To access the disability resources website, go to:

## www.atrp.ar.gov

We also offer a 24-hour nurse call center for people with a brain or spinal cord injury, their caregivers, or medical providers. Call anytime with questions about your health, symptoms, or medical care.

To access the call center, call:

1-855-767-6983



For more information about the disability resource website or the nurse call center, call (501) 295-6576 or email trrp@uams.edu

The nurse call center is a partnership of the UAMS Institute for Digital Health & Innovation and the UAMS Department of Physical Medicine and Rehabilitation, and is funded by the Trauma Rehabilitation Resources Program.



