8 ways to change your brain
8 Ways to Change Your Brain

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Why?

- Why do you need to change your brain?
  - Your brain is your most important, most complex and your most vulnerable organ.
  - Small changes in your neurochemistry can make major changes in your mood, thinking, behavior, feelings and memory.
  - And it impacts the entire body.
WHY?

- Your brain has 100 billion cells and a trillion connections.
- It is an amazing 3 pounds of organ that controls all functions in the body, our thinking and meaning.
- It helps you to put information together to make sense of the world around us and within us.
- It allows for new learning, experiencing, enjoying and interacting.
Why?

- Our brains are being attacked every day by:
  - Stress
  - Poor eating habits
  - Poor sleep routines
  - Being sedentary
  - Negative thoughts

- These things can make negative changes in our brains.

- When our brains experience these, negative chemicals are sent out throughout the body and brain.
Stress

- When your body is stressed, it is out of balance.
  - Your brain is telling you, you need to make a change and quick.

Your focus goes to survival mode and not much else matters.
Stress

- Cortisol is flooding body
- It prepares you for fight and flight
  - Muscles become tense
  - Agitated and need to move
  - Eyes opened wide
  - Distractible = on guard for what is going on around you
- In survival mode = not thinking clearly
Stress cycle

Do I need to pay attention to this? Is it new? Is it a threat?

This is something I have experienced before

Engage sympathetic nervous system – prepare for fight or flight

Heart rate increases
Cortisol and adrenaline released
Muscles prepare
Eyes open wide
Ears alert

Go back to “normal”

Stress – sensory signal
Stress

- To get out of stress
  - You cannot over ride stress in your conscious mind
  - What good does it do when you tell yourself “Relax”
  - You need to use your body to calm yourself
  - This is the way your body is set up to operate
We are what we eat!

Our bodies need real/whole, natural, colorful healthy food to thrive.

Rainbow colors, fruits and veggies, healthy fats, whole food

We also need water as our brain is 80% water and gets dehydrated easily.
Sleep and restoration

- Our brain needs 7–8 hours of good sleep

- Our brain does a lot of things when we are asleep:
  - Build new brain connections,
  - Cleans out the brain trash
  - Sets memories
  - Resets the brain for the next day

- You need to:
  - Keep a routine sleep schedule
  - Turn off tech 60 minutes or more before bed
  - Keep your room cool
  - Exercise
Get up and move

- Exercising your muscles, exercises your brain
- You need to move at least 30 minutes a day
- Break a sweat
- When you exercise:
  - Blood flow increases to the brain
  - New neural connections are made
  - Oxygen increases to the brain
  - The hippocampus (memory bank)
  - Of brain) is increased
Get Rid of Negative thoughts

- Dr Daniel Amen and ANTS
- Automatic Negative Thoughts
- Your body reacts to negative and positive thoughts with chemical reactions
- When you think negative thoughts, you get negative chemicals in your brain and body
Good News!

- But the good news is, that we can make positive changes to our brains, just by what we do.

- These changes are doable
- They are easy to build into your routine
- They don’t take much or any equipment
- They start the minute you start doing them
Making Brain Changes

8 ways to do this:

- 1). Exercise/Movement
- 2). Deep breathing
- 3). Music
- 4). Smiling
- 5). Being outdoors
- 6). Gratitude
- 7). Social Connections
- 8). Indulge in your senses
Exercise

- Exercise is the number one way to impact your brain and body!
  - 25 minutes of brisk walking, 5 times a week = adds 3–7 years on your life
  - Mental health providers should prescribe exercise more often.
  - If do with a friend or accountability partner, you are twice as likely to continue
  - Build it into everyday life routines
  - Do something you enjoy!
Exercise

- When you exercise, 15% of your oxygen goes directly to your brain, when you increase this, you increase focus, thinking and creativity

- Plus you add brain connections

- And your hippocampus makes more connections, so your memory improves
Exercise Benefits

- Reduces chronic physical disease
- Improves metabolism
- Improves mood
- Decreases weight gain
- Reduces stress reactions
- Creates BDNF = fertilizer for your brain cells
- Increases self esteem
Exercise

- Check with PCP if not exercised in awhile
  - Cardiovascular/Aerobic – uses oxygen, makes you breath faster & heart beat faster
  - Muscle strengthening – makes muscles stronger, able to do things better and longer
    - Bone strengthening – muscles pull on bone, makes stronger
  - Balance and stretching – enhances flexibility, balance, stability
Proprioception

- Proprioception is the sensation from the receptors in the muscles and joints that tell us what our body is doing and how we are doing it.
- Body normally seeks out touch and movement
- Proprioception – releases serotonin – feel good hormone
- Engages the parasympathetic system = relaxation, neutral and homeostasis and effects last for 2–4 hours after doing
- Exercise
- Massage
- Stretching
- Oral Motor Activities
- Hand fidgets
Deep Breathing

- Breathing is a learned habit and can be relearned to benefit your brain.

- Breathing can over ride stress and start to bring on calming in about 90 seconds.
Breathing has to be done the “right way” or it can also increase stress

- Shallow breathing— inhalation increases stress
- Deep belly breathing calms and engages the vagus nerve
Deep Belly Breathing

- Conscious, controlled breathing
  - Breathe in through nose = fills all the cavities in skull and gets more oxygen into the blood
  - Breathing deeply to abdomen also increases the amount of oxygen
  - Inhalation increases stress – need to breath = exercise
  - Exhalation = integrates mind and calms
Deep Breathing

Vagus nerve–

Long wandering nerve that travels through most of the body from the brain to the gut.

It brings on the rest and digest feeling when activated

By doing deep breathing with a longer exhalation the vagus nerve is activated
Music

- Music has many components to it!
- Tone-voice, way others react to you
- Rhythm-natural body rhythms, entrainment
- Melody -combination of tones- voice, harmonies
- Tempo- # beats- heart rate, breathing, brain waves
Music

- Hear with every cell of body—regulates the internal state of cell
- Music = auditory portion and motor portion—
  - Tap foot, nod, move
- Singing—breathing, facial muscles, posture, music
- Engage in music: play instrument, sing, dance
- Can engage the vagus nerve, especially with singing
- Vagus—changes regulation
Your face has 53 muscles and can make around 5000 expressions

Smiling is universal and has the same meaning across cultures

Smiling is contagious when you see someone else smile, you smile also.

Smiling relieves stress and sends out endorphins

Smiling boosts your immune system
Smiling

- You have fake, forced and real smiles
  - A forced smile is when you tell yourself to smile
    - When you do this, the contractions of the muscles increase blood flow to the frontal lobe and it produces dopamine so you feel happy. So “Put on a happy face!” really does work.
  - Real smile is unconscious, natural response and also produces dopamine.
  - Fake smile- when force the smile
Smiling

Smiling releases dopamine a high pleasure inducer

You are perceived as being more competent when you smile, especially at job interviews

You are perceived as being more attractive when you smile

It is easier to smile than to frown

FEELS GOOD!
They say we learn from our mistakes...
That’s why I’m making as many as possible.
I’ll soon be a genius!
Ecopsychology

Is a new field of psychology
- Relationship between human beings and the natural world
- Connections with nature can improve emotional well being, attention, creativity and feeling more alive
- Color green = stimulates parts of the brain that makes the muscles relax, respiration slow and you feel calmed and also invigorated at same time
- Natural environments =
  - Increase mood and optimism
  - Lowers stress, captures attention but also elicits pleasure, restores mental functioning, sense of peace and hope
Being Outdoors

- Being outdoors in nature is wonderful,
- But you can get the same effect with a picture or looking out a window
- Post pictures on your phone, in your office, bedroom, anywhere you need a quick escape and moment of relaxation.
Outdoors
Gratitude
Gratitude

- Practicing simple gratitude increases well being, decreases depression, improves attention, enthusiasm and optimism and the effects last for months.
- It effects several areas of the brain, so there is overlap in how it creates this feel good brain state.
- Starts a cycle that feels good, so do again and then keep doing it.
- Think about the positive, produces serotonin
Gratitude

- Simple things=
  - Write in a diary
  - Write down 3 things you are grateful for
  - Write a letter of thanks
  - Tell someone thanks (needs to be specific, not global)
  - Put it together with a daily ritual—lighting a candle, stirring coffee, brushing teeth, right before go to sleep.
Social Connections

- When we socialize, blood flows into different parts of our brains
  - We are listening, talking and thinking all at the same time
- Social connections help to keep brain connections strong
- Social connections affect your physical health and may help you to live longer
- You feel happier when you socialize
- Reduces stress and depression
Social Connections

Ways to connect:
- So go talk to someone in person rather than use social media or technology
- Use a hobby or activity you like to do, to connect with others
- Be interested in people you are getting to now—ask questions
- Activities in the community, such as church, work
- Call a friend
- Go to coffee
Indulging your senses

- When you use your senses, it causes a natural calming drug. Helps to keep focused and you feel “put together.”
- These are pleasurable sensory experiences.
- Releases serotonin
- Individualized
- Not only sensory input, but also an emotional component
Indulge

- Visual
- Hearing
- Tactile
- Taste
- Smell
- Proprioception
- Vestibular
Indulge
Thanks!

- Thanks for attending and participating today.

- What are two ways you could build these things into your life today?