

# “SUCCESSFUL CHANGING”

## HOW TO MAKE CHANGES IN YOUR LIFESTYLE HABITS

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# WHY CHANGING HABITS MAY BE IMPORTANT

Dr. Bukkapatnam's lecture on "Nutrition and Cardiovascular Disease"

## Main Points:

- Cardiovascular Disease is caused by conditions such as high cholesterol, high blood Pressure, Obesity, Diabetes
- How we eat affects all these conditions (*How much* food we eat, *what type* of food we eat)

Gaining the information about calories, plant based diet, etc. is the easy part.

## What's the hard part?

# ACTUALLY MAKING POSITIVE CHANGES AND BUILDING GOOD HABITS



## WHAT ARE OTHER HABITS WE CAN CREATE THAT WILL HELP IMPROVE OUR CARDIOVASCULAR RISK?

- Healthy diet
- Exercise 3- 5 days a week
- Managing our Stress
- Being smoke free
- Limiting or avoiding alcohol consumption
- Managing our blood pressure
- Managing our cholesterol levels
- Having healthy social connections

# WHAT IS A HABIT?

- “Something that you do often and regularly, sometimes without knowing that you are doing it”. (Cambridge Dictionary)
- “A well-learned behavior or automatic sequence of behaviors that is relatively situation specific and over time has become motorically reflexive and independent of motivational or cognitive influence—that is, it is performed with little or no conscious intent”. (American Psychological Association Dictionary)

<https://dictionary.cambridge.org/us/dictionary/english/habit>

<https://dictionary.apa.org/habit>

## WHAT IS A HABIT?

- Automatic sequence of behavior
- Situation specific
- Involving muscle movement
- Eventually performed independent of cognitive influence( you don't need to think about it)

# WHERE DO HABITS COME FROM? 3 MAJOR PLAYERS

- Basal Ganglia
- Dopamine system
- Neuroplasticity

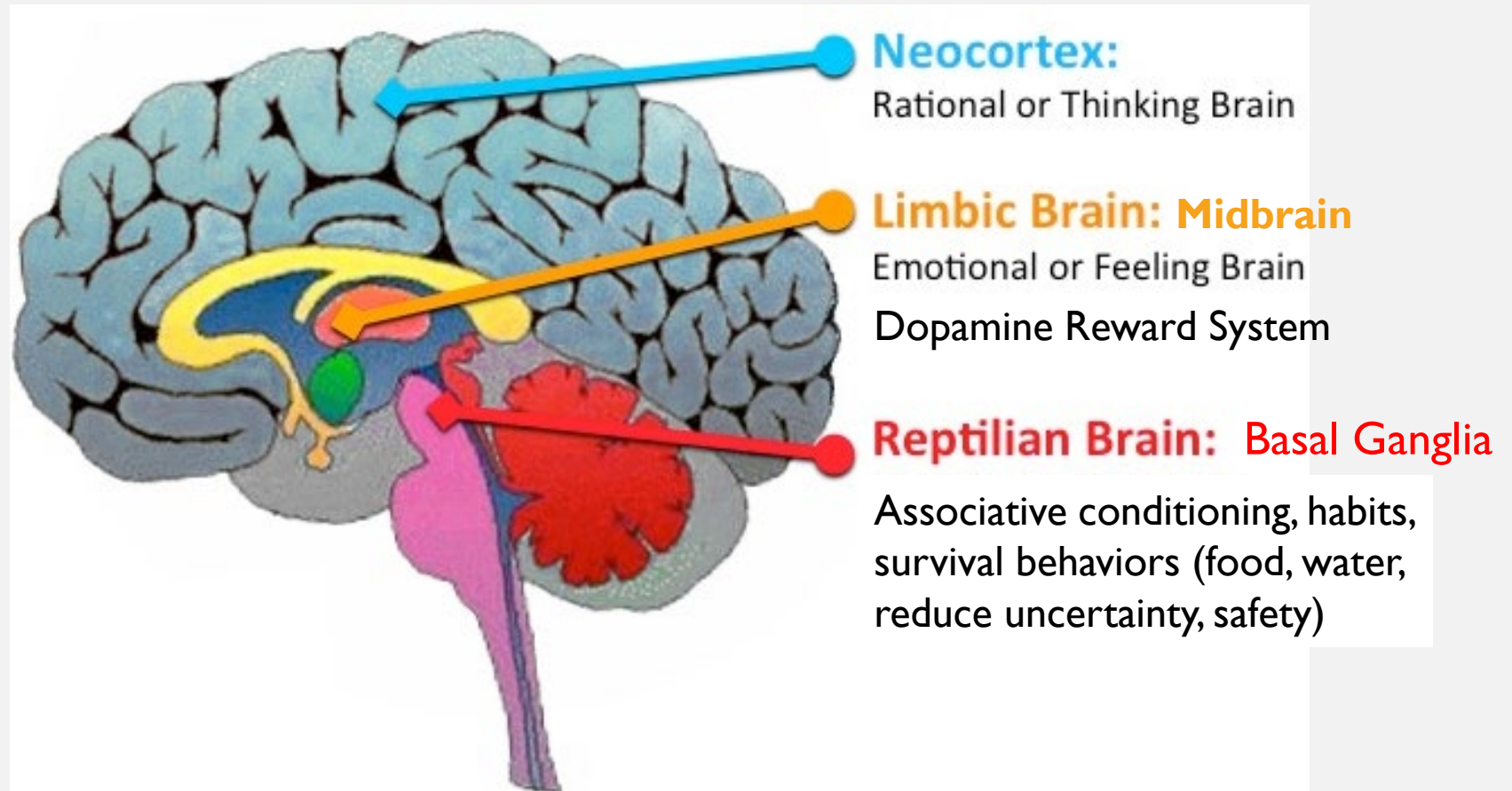


## WE ALL HAVE HABITS IN DAILY LIFE

- Every day we all engage in a surprising number of “habit” behaviors.
- Many of them we do on autopilot such as brushing our teeth, driving to work, or snacking on chips while watching TV
- Some habits help keep us healthy such as walking every day after dinner, or drinking water rather than soda.
- Some habits contribute to being unhealthy such as overeating in the evening while watching TV or drinking when we get overwhelmed with our family stress.
- Some bad habits can become almost compulsive such as overeating, smoking, or drinking, and can significantly affect our health and longevity.

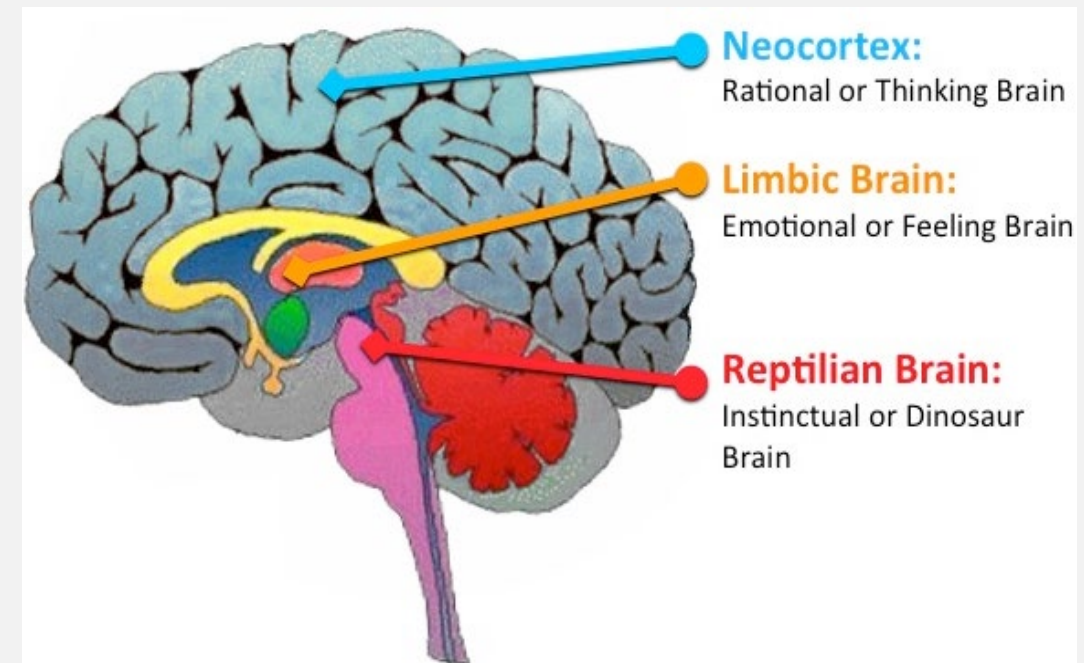


# THREE MAIN AREAS OF THE BRAIN



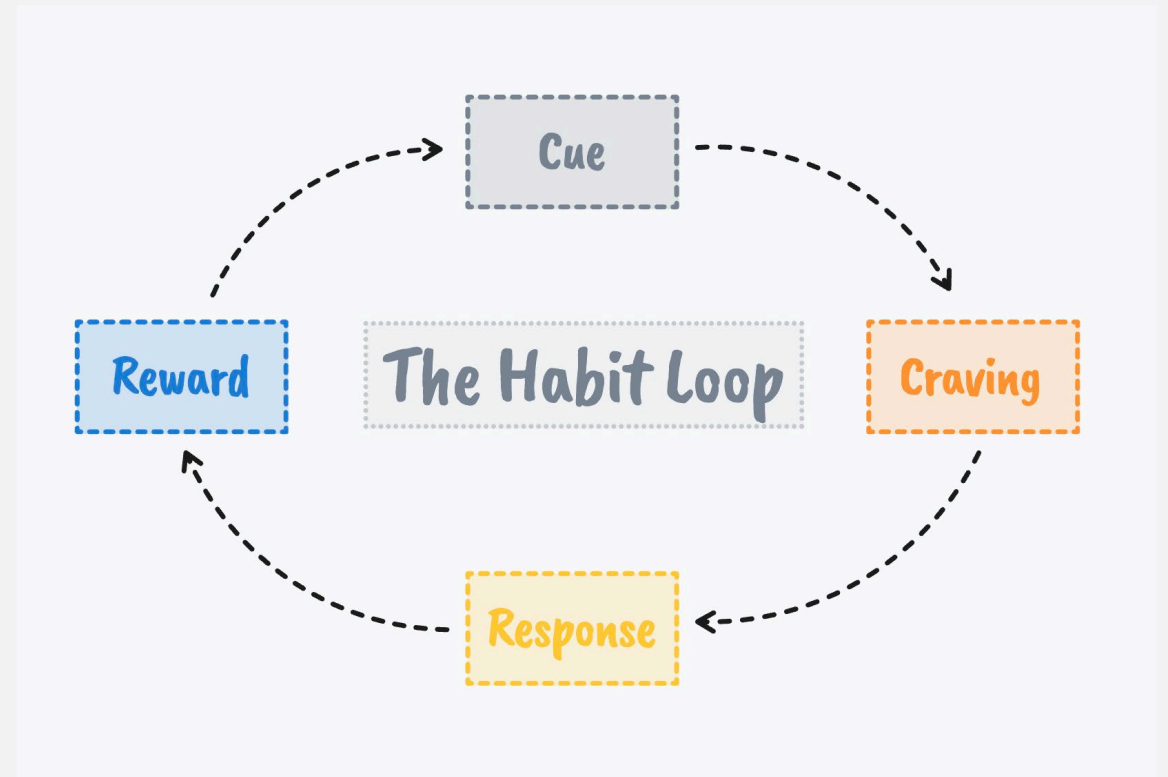
# THE BRAIN BUILDING HABITS

- There are complex neuronal connections and feed back loops between these areas of the brain.
- Information comes into our brain from our senses and our brain creates neuro pathways to organize and make sense of it all.
- When your brain recognizes a pattern, such as a connection between action and satisfaction, it files that information away in an area of the brain called the basal ganglia.
- At the same time, the Dopamine system gets involved and releases substances that make us feel pleasure in response to our behavior.
- As habits are practiced and become established, there is less need for our Neocortex to be involved, and behaviors become automatic and out of our conscious control
- The Dopamine reward system helps to solidify our automatic responses.



# THE BRAIN BUILDING HABITS

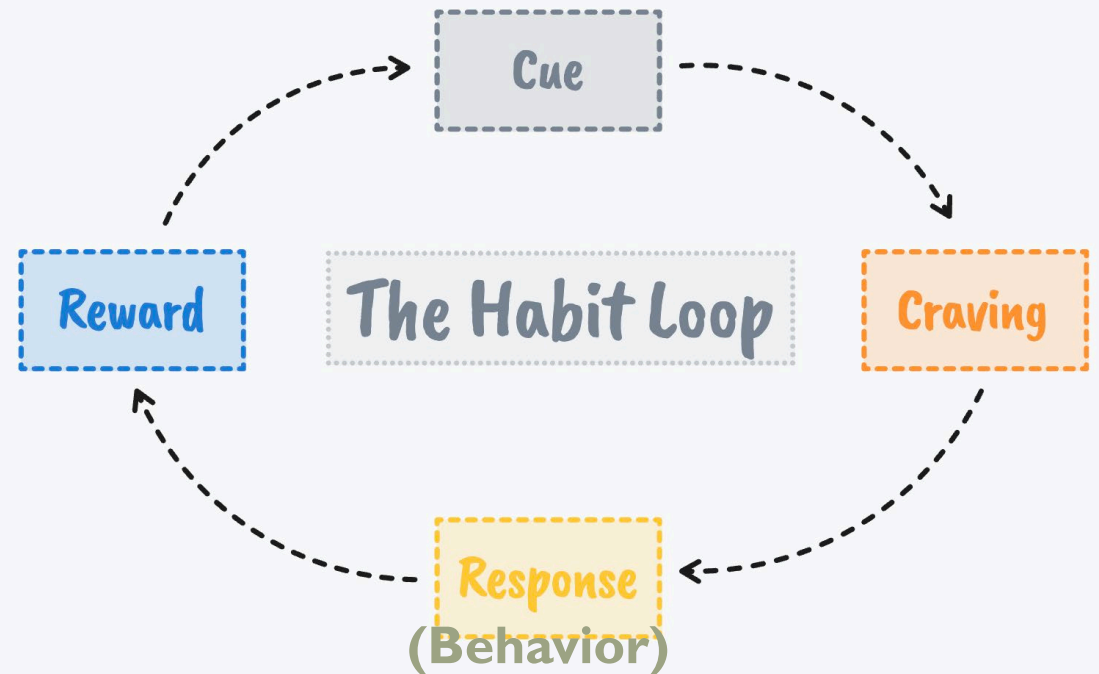
- Our brains chase that dopamine high. So when a behavior comes along that results in a reward ( such as relief from an uncomfortable feeling, relief of hunger, etc. ), the brain builds a connection between that behavior and pleasure or relief, that can be hard to shake.
- This linking of cue, action, and reward is how a habit is born.
- If we repeat this behavior in order to get the relief and hit of pleasure, the habit becomes strong and we create an ingrained pathway in our brain.



# BUILDING HABITS

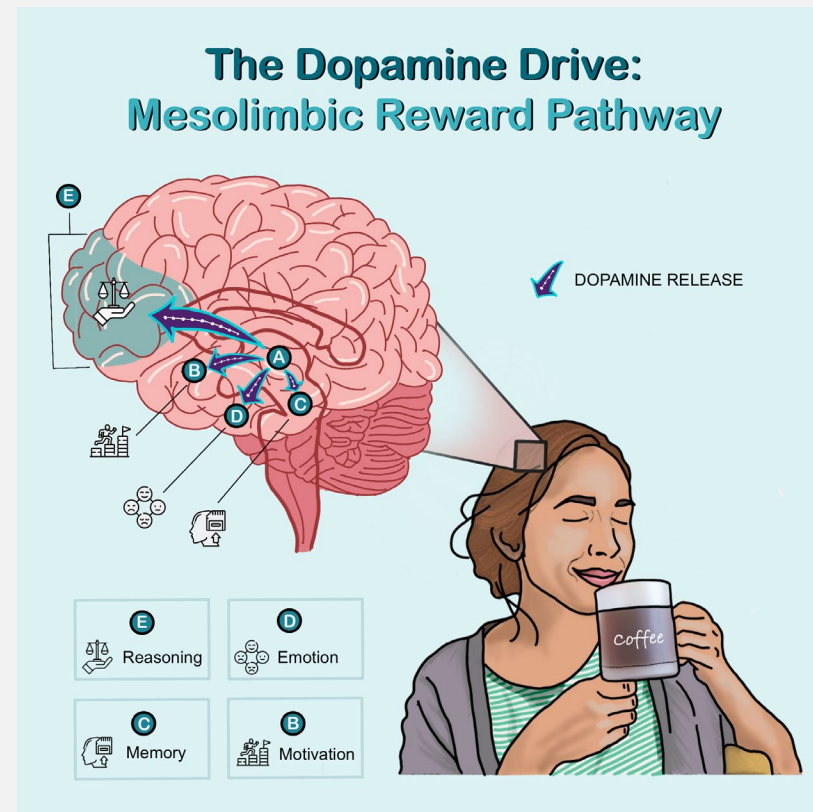
## THE HABIT LOOP

- 1. Cue.** You experience a stimulus — a trigger. It could be being in a certain location, smelling a certain smell, seeing a certain person, or feeling a particular emotional state, among many other possibilities.
- 2. Craving/Urges.** The stimulus causes you to desire a particular outcome that you find rewarding. Your reptilian brain creates thoughts that motivates you to act.
- 3. Response.** You engage in behaviors, thoughts, or actions you take to get that outcome.
- 4. Reward.** The outcome occurs and you feel a sense of reward as a result, satisfying your craving. The pleasure or relief you experience reinforces the cue, making the cue even better at triggering craving next time. That's why it's an endless loop.



# DOPAMINE IS IMPORTANT IN HABIT FORMATION?

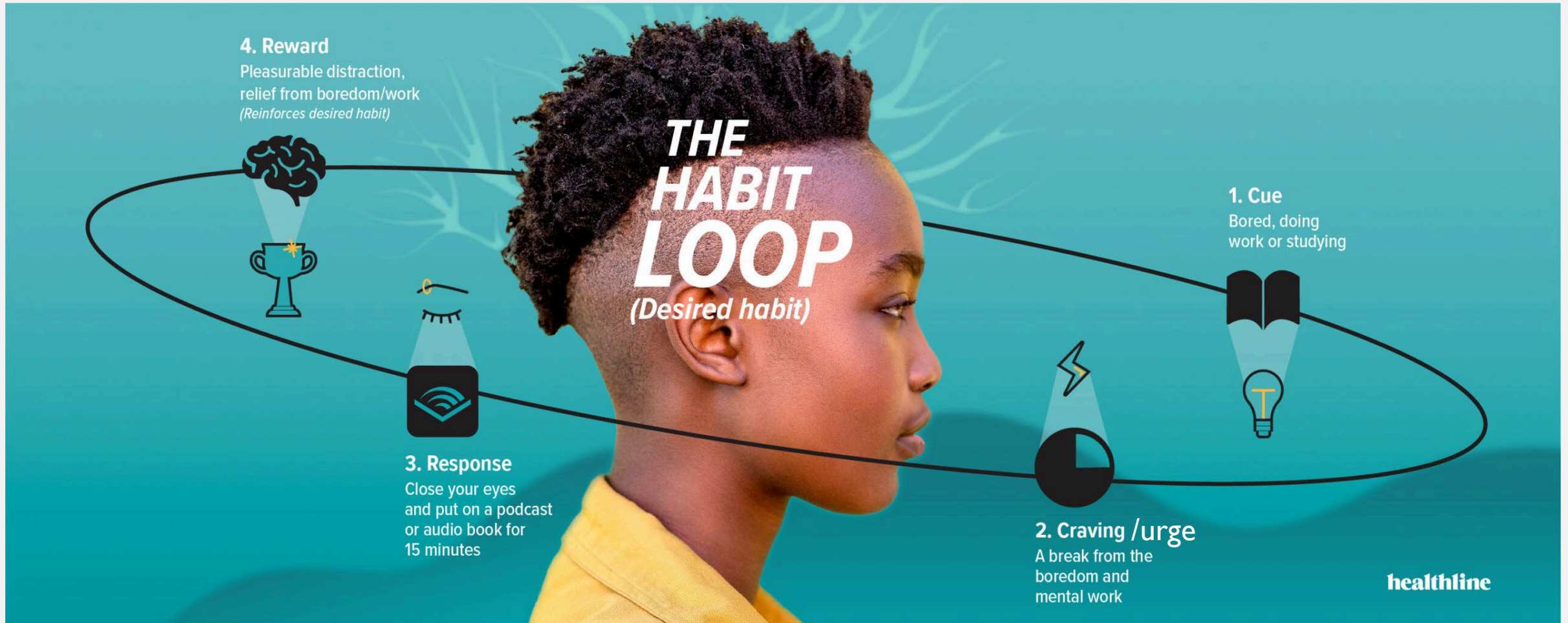
- We're wired to avoid pain and to survive.
- Your sensory nervous system is always monitoring for actions that keep us safe and avoid pain.
- We also get a release of dopamine which is the positive reward for making a connection between a cue and urge ( such as perceived danger, or an uncomfortable feeling) and taking an action that relieves that urge.
- Dopamine gives us an intense feeling of reward
- Dopamine helps us learn, focus, and affects our mood.



# HOW WE CREATE UNWANTED HABITS

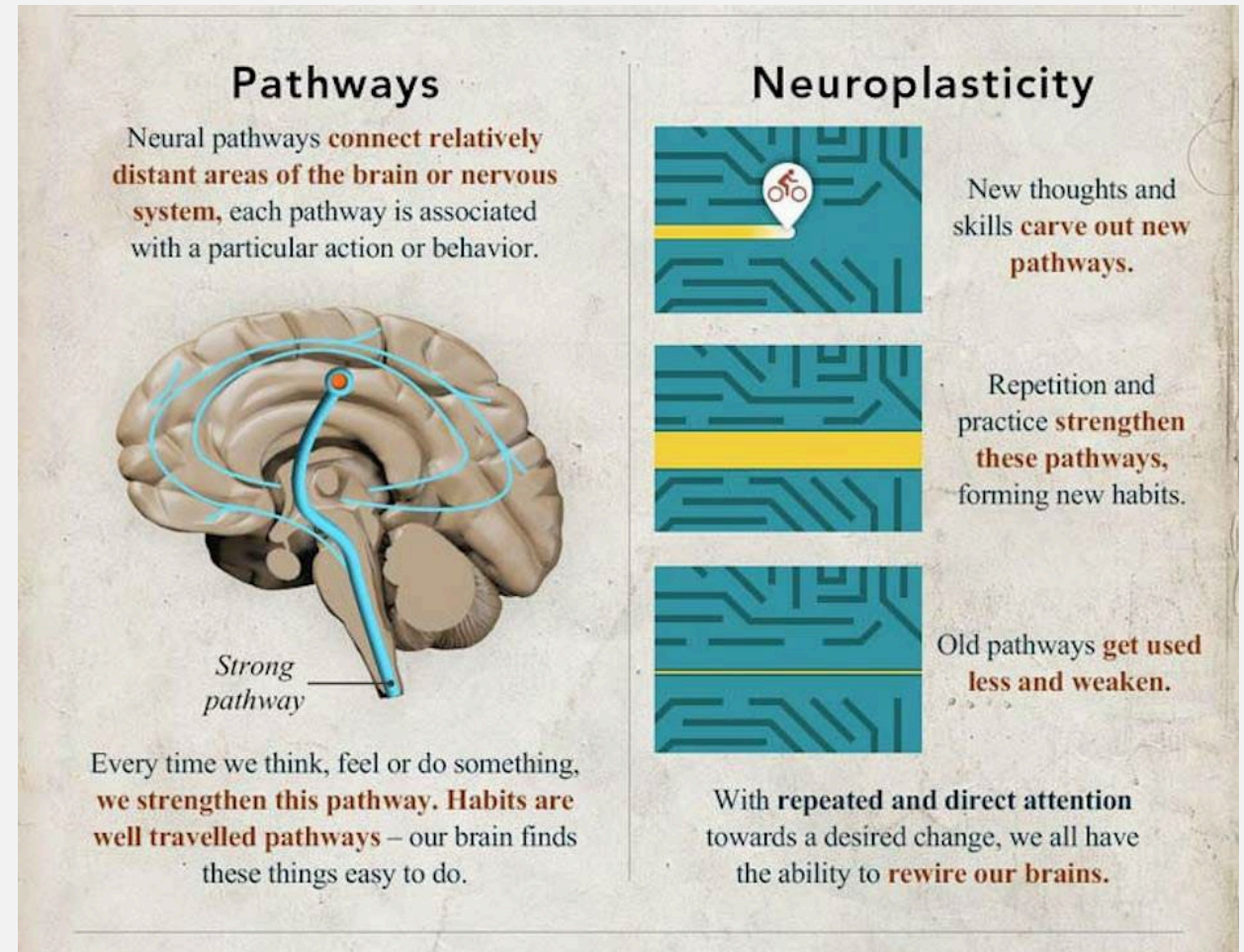


# HOW WE CREATE GOOD HABITS



# THE HABIT LOOP CREATES A PATHWAY IN THE BRAIN

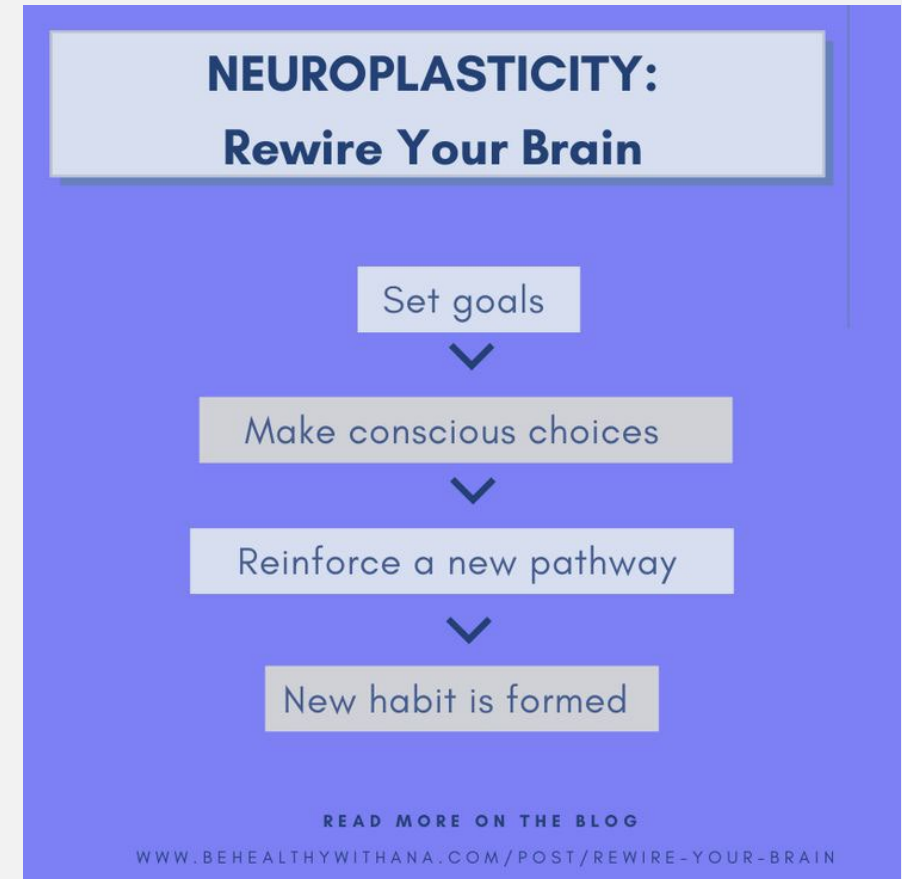
- Neuroplasticity and habits are closely intertwined.
- When you intentionally introduce new behaviors or habits, you are forging new neural pathways in your brain.
- As you repeat these behaviors, **good or bad**, the corresponding neural connections grow stronger. The habit grows stronger.
- You can rewire your brain by consciously choosing to perform new good or health-oriented habits that are of value to you.





# NEUROPLASTICITY MAKING IT STICK

- **Neuroplasticity** refers to the brain's ability to change its structure and function in response to experience or damage.
- Umbrella term referring to the brain's ability to change, reorganize, or grow neural networks.
- *Neuro* refers to [neurons](#), the nerve cells that are the building blocks of the brain and nervous system
- *Plasticity* refers to the brain's malleability or ability to change.
- Neuroplasticity allows nerve cells to change, relearn, or adjust. It enables us to learn and remember new things and do new behaviors.



# THE CORE STEPS IN CHANGING YOUR BEHAVIOR AND REWIRING YOUR BRAIN STEP I

- Focus on the “Why”
  - ✓ The change you want to make must be important or meaningful to YOU
  - ✓ What is it that I value about creating this new habit or stopping the old habit?
  - ✓ Do some reflection on why the behavior change you are wanting to make is important to you
  - ✓ Visualize the you and what your life will look like once the old habit is not longer present, and what it will look like with the new healthy habit?

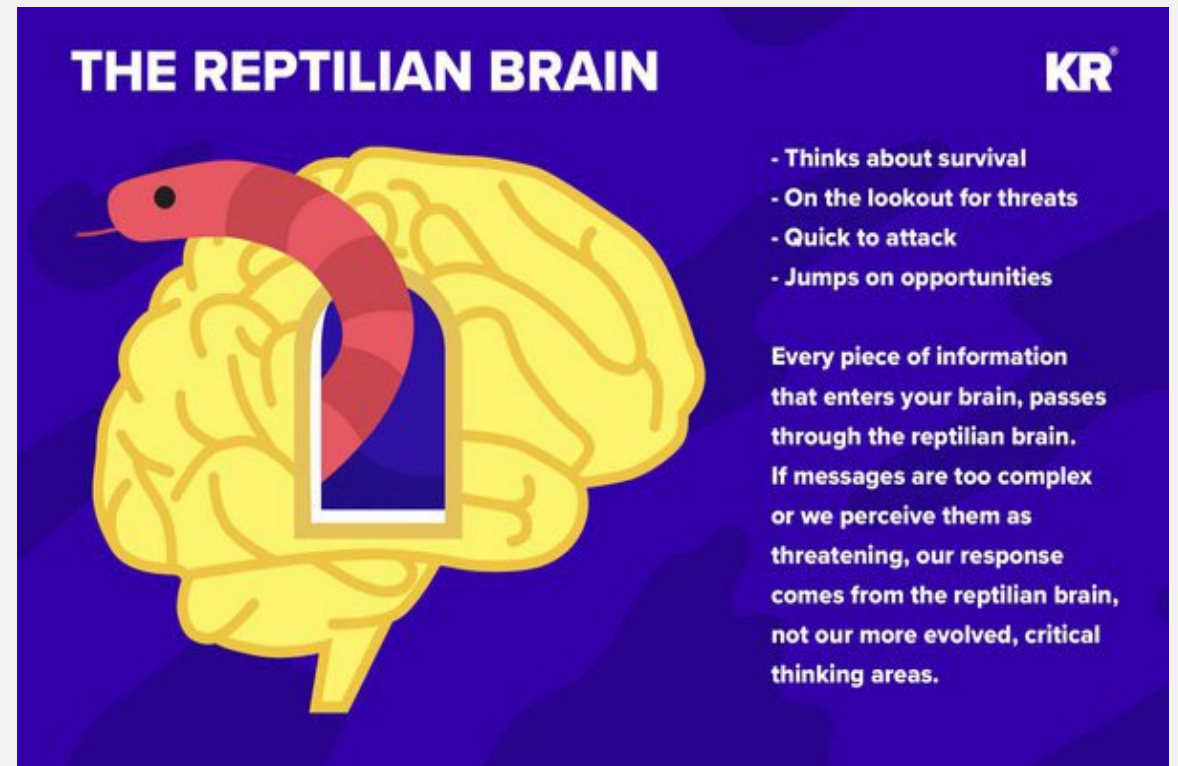
## STEP 2 GETTING RID OF BAD HABITS

- You weren't born doing your bad habit
- Your habit is the result of you reacting in certain way to trying to cope with your environment and listening thoughts that you thought were helpful.
- They may have been helpful at one time, but not in your current situation
- Or they may feel helpful to relieve the urge/craving. But there is a big downside.
- Example...



## STEP 2 GETTING RID OF BAD HABITS

- Don't listen to your reptilian(basal ganglia) voice.
- “The difference between a person for whom a particular thought or behavior becomes a habit and the person for whom it is not, is that the person with the habit, entertains, takes seriously, and ultimately acts on some thoughts or urges that others do not. That it.”
- ( Amy Johnson, 2016)



*(The Little Book of Big Change, Amy Johnson, 2016)*

## STEP 2 (CONT.) GETTING RID OF BAD HABITS

- Create a name for the voices that come from the reptilian brain such as “The Beast” or “neurological Junk”.
- Separate the reasoning intelligent part of your brain( Pre-frontal Cortex) from the reactive part of your brain(Basal Ganglia reptilian) that is sending out urgent urges for you to do your habitual behavior
- Naming allows you to be able to pause and just observe the urges for what they really are, old neurological junk that no longer serves you.
- We do our behavior to relieve the *urge*
- This is just an old reactive pattern that is not helpful and you don't need to listen to or value this *urge*.
- Think, “I get to practice and begin developing a new neural pathway that is helpful to me and extinguish the old pathway that is not helpful”.

## CREATING NEW HELPFUL HABITS

- We already discussed **separating yourself from the urges of the reptilian brain**. You are not your urges. You don't respond to every urge you have during the day.
- Set up your environment to support your success
  - ✓ Hang out with like minded people who are doing what you are trying to do
  - ✓ Make it easy to do your new behavior
  - ✓ Make it hard to do your old behavior
  - ✓ Have a substitute for your old bad behavior. Must be something quick & easy
- Association technique
- Stacking technique
- Mindfulness Practice- meditation, deep breathing, Qigong

# “THE LITTLE BOOK OF BIG CHANGE”

## SOME GOLDEN NUGGETS

- Bad habits not symptoms of having bad mental health. They are our best attempt to take care of ourselves
- Think of yourself as a healthy person with a bunch of experiences moving through you.
- We aren't our brain. **OUR BRAIN IS NOT THE BOSS OF US**
- Our brain can toss out suggestions and we have veto power
- Since we have veto power, we don't need to fear the urges.
- Thoughts, feelings and cravings just move through us. We don't need to latch onto them, or act on them.
- Be happy you are having urges telling you to do your habit, because that just gives you an opportunity to practice not acting on them. And an opportunity to build a new pathway for your new better habit.

# REFERENCES

## **Books:**

- Atomic Habits- James Clear
- Brain Over Binge- Katheryn Hansen
- Rational Recovery –Jack Timpey
- The Little Book of Big Change- Amy Johnson

## **Journal Article:**

Wyatt, Zoe, Neuroscience of Habit Formation, *Neurology and Neuroscience*(2024)