



Information taken from “Change Your Brain, Change Your Life” & Amen Clinics

The **Cingulate Gyrus** (Gear shifting and integration), a part of the brain that runs longitudinally through the middle part of the frontal lobes, the anterior portion part of the brain is called your “gear shifter”. It allows you to shift attention from thought to thought between behaviors. When this part of the brain is overactive, people have problems getting stuck in certain loops of thoughts of behaviors.

- ❖ Posterior cingulate: Memory integration
- ❖ Medial cingulate: Pain perception
- ❖ Anterior dorsal cingulate: Thought shifting
- ❖ Anterior ventral cingulate: Emotional shifting

Functions

1. Ability to shift attention
 2. Cognitive flexibility
 3. Adaptability
 4. Movement from idea to idea
 5. Ability to see options
 6. Ability to “go with the flow”
 7. Ability to cooperate
 8. Error detection
- Feelings of safety and security have also been attributed to this part of the brain.
 - Cooperation is influenced by this part of the brain.
 - Along with the PFC implicated in “future-oriented thinking”-planning and goal setting
 - Stress often increases activity in cingulate system- increased when trying to concentrate, get worse (more stuck)
 - The posterior cingulate (under the parietal lobes) is involved with memory integration and is the first area that deteriorates in Alzheimer’s disease. Increased activity in the posterior cingulate may be associated positively with I.Q.
 - Dorsal anterior cingulate is involved with thought shifting and error detection.
 - Ventral anterior cingulate is associated with mood disorders and emotional shifting.

Problems

Conditions related to underactivity in the anterior cingulate system:

- Mutism
- Decreased motivation and movement (people don’t talk, don’t move, and don’t care)

Conditions related to overactivity in the anterior cingulate system:

- Anxiety disorders

- PTSD
- Eating disorders
- Addictions
- Difficulty shifting attention and get stuck in ineffective behavior patterns
- Difficulties in this part can cause a person to perceive fearful situations where there are none, predict negative events, and feel very unsafe in the world.
- Worrying-to the point of causing emotional and physical harm to themselves (tension, stress, stomachaches, headaches, irritability)
- Holding on to hurts from the past
- Getting stuck on thoughts (obsessions)
- Getting stuck on behaviors (compulsions)
- Oppositional behavior-disorder of children and teenagers who are negativistic, hostile, defiant, and contrary. Tend to be argumentative, are easily annoyed and lose temper often. (Tends to be genetic).
- Argumentativeness
- Uncooperativeness: tendency to say no automatically-may come back later after thinking of request and sometimes changes mind
- Chronic pain
- Cognitive inflexibility-the need to do it now-appear selfish but in reality they are rigid
- OCD spectrum disorders-obsessions (recurrent disgusting or frightening thoughts) or compulsions (behaviors that a person knows makes no sense but feels compelled to do anyway). The more a person tries to control them, the more powerful they become
- Road rage
- PMS

“Prescriptions”

1. Notice when you’re stuck, distract yourself, and come back to the problem later
 - sing a song
 - listen to positive music
 - take a walk
 - do a chore
 - play with a pet
 - do structured meditation
 - focus on a word and do not allow any other thoughts to enter your mind
 - if you actively distract yourself from repetitive thoughts or block them, over time they will lose their control over you.
2. Think through answers before automatically saying no
 - Training the mind to see options and new ideas. Changing behavior can also change brain patterns.
 - Before answering, take a deep breath for 3 seconds, take 5 seconds to exhale and think first whether or not “no” is the best answer
3. Write out options and solutions when you feel stuck
 - this helps you to get it out of your head
 - easier to deal with it in a rational way
 - when repetitive thoughts keep you from sleeping keep a pen and paper next to the bed to write them out

- after you have written out the thought that has “gotten stuck” generate a list of things you can do about it and things you cannot
4. Seek the counsel of others when you feel stuck
 - often just talking about feeling stuck will open new options
 5. Memorize and recite the serenity prayer when bothered by repetitive thoughts
 6. Don't try to convince someone else who is stuck; take a break and come back later
 - take 10 mins, 10 hrs., 10 days; if you distract yourself from a lose-lose situation, you're often able to come back later and work it out
 - distract the other person; distraction allows time for the other person's subconscious mind to process what was said w/out having to lock in on it or fight it
 - Give them options and sense of sovereignty
 7. Try making paradoxical requests
 - reverse psychology
 - make them think it is their idea; ask for input or feedback
 8. Learn to deal with oppositional children
 - know when to distract their attention in order to break loops of thoughts or behaviors
 - change subject, or get them to do something physical
 - parents should assert their authority
 - parents must quickly intervene if the child does not comply the first time
 - deal with misbehavior quickly, firmly, and unemotionally
 - rule-no arguing with parents
 9. Cingulate Supplements
 - 5HTP
 - Inositol
 - Saffron
 - B6
 - L-tryptophan
 - St. John's Wort
 - DHA fish oil
 10. Common Cingulate medications
 - Prozac
 - Zoloft
 - Lexapro
 - Celexa
 - Paxil
 - Luvox
 - Anafranil
 - Risperdal & Zyprexa calm AC & PFC
 11. Try Nutritional Interventions
 - foods high in (simple) carbohydrates can increase serotonin levels
 12. Exercise
 - Raises serotonin and energy levels
 - Distracts you from the repetitive bad thoughts