CREATING BALANCE: Intervening in the Chemical Dependency Cycle through Awareness; Physiology & Nutrition

Dr. Alice Alibrio Naturopathic Physician
This information is for educational purposes. Please seek a qualified health care practitioner or doctor for individual medical care.
Sensation & Perception
Emotions & Reason

• The human body is a complex mysterious web of reaction & action; more than the sum of its parts. We share the same structure with myriad unique interpretations. Presented here are multidimensional puzzle pieces ready to fit.

• There are several billion neurons; ten trillion neural synapses & complete circuits are several hundred thousand miles long.

• Neurons fire within tens of milliseconds; millions of activity patterns throughout various body regions within each second.
• The body is a muscular, connective tissue tensegrity structure that depends on proper angles, balanced tension and hydrostatic pressure of fascia and fluids for optimal functioning.

• Key anatomical components house the central nervous system forming our electromagnetic reactions and conscious actions.

• They are brainstem, cerebellum and cerebrum within the 21 cranial bones of skull; the spinal cord composed of neurons & cerebral spinal fluid enclosed within the cartilaginous discs and 24 bony vertebrae.
• The brainstem controls automatic life functions-breathing, blood pressure and organ-viscera essentials. It connects the Cerebral hemispheres with the spinal cord & is the base for most of the cranial nerve nuclei.

• The Cerebellum fine motor coordinator; responsible for unconscious voluntary movement; connects to the brainstem via three major fiber bundles.

• The Cerebrum is the largest portion; the center for high reason, learning, memory and judgment. Bilateral ventricle cavities start cerebral spinal fluid’s slow rhythmic pulse around the skull and down the spine. It has two hemispheres divided into five lobes. Frontal forms personality; is the voluntary motor cortex; & ventral medial portion relays feelings sensation, perception, emotions. Temporal creates auditory reception & arousal; the anterior portion forms the Amygdala essential for trauma memory storage & emotions. Parietal initiates proprioception, cutaneous senses & taste perception. Occipital registers visual images.
• Emotions and bodily sensations are intricately intertwined in a bi-directional network - each can alter the other.

• The body’s internal milieu; visceral, vestibular and musculoskeletal are witnessed via breath, posture, muscle/tendon/ligament tension or relaxation, skeletal alignment, overall body movement and shaping.

• This extensive neuropeptide and opiate receptor psychosomatic network extends from internal organ pathways to the skin surface - it creates dialogue between the unconscious and conscious processes.

• The ventral/medial Frontal lobe brain sections are critical for connecting emotions and rational thought. It is a key pathway from spinal cord through Brainstem and Cerbellum. Reduction in emotion can contribute to irrational behavior; absent emotions will cause warped behavior. Emotions & reason are intertwined.
Distributed throughout the autonomic central nervous system are neuropeptides and opiate receptors that are the molecules translating sensations into emotions & physical reality.

They are chemically identical but mediate different functions according to their neuroanatomical locus.

Found in great abundance along Nodal Points at the five sense doors; sight/Occipital, sound/Temporal, touch, taste & smell Parietal lobes, and where somatosensory information is first formed down the spinal cord/ dorsal horn.

These neuropeptides regulate sensory input to screen out unnecessary overwhelming stimuli.

They produce feelings which translate to automatic regulatory emotions laden with complex ideas, values, principles & judgments.
Diagram Key

This is a general flow chart between brain, spine and central nervous system- the network core.

Blue lines are the pathways for the cerebral spinal fluid-which creates a rhythmic pulse.

Red lines are the autonomic nervous system-a simplified version of interactions between visceras and spinal cord levels.

Black lines depict the psychosomatic network- another animation representing more interactions than are visible. Feedback loops are along dorsal horn rami and five senses.
AWARENESS & EQUANIMITY

“There are two ways to be fooled. One is to believe what isn’t true; the other is to refuse to believe what is true.”

Soren Kierkegard

- Molecules of emotion are in a constant flux. If our bodily sensations, emotions, perceptions, & beliefs are intertwined in a bi-directional network that form reality, then we can work with nature’s gifts to overcome traumatic reactions; addictive behaviors and improve the quality of life.
- This modern neuroscience research demonstrating the role of neuropeptides and opiate receptors throughout the body is validating experiential evidence of ancient traditions.
- Living in peace filled harmony requires change & adaptation; acceptance and diligent work. Resistance; cravings or aversions increase pain and suffering. Learn and practice identifying physical sensations associated with specific emotions. Examples…
• Practice & teach mindfulness techniques.
• Start with the breath…It is the gateway to the autonomic central nervous system- unconscious & continuous without thought. Conscious intervention changes the flow of unconscious emotional reactions to choice actions.
• Observe its movement through the nose; concentrate and calm the mind.
• Deliberately change the breath when overwhelmed; anxious; fearful; angry; or generally upset. Take in a slow deep breath, release it, ponder your next best step and do it.
• Vipassana meditation; 10 day silent retreat starts with calming and concentrating the mind via observing the breath moving in and out of the nostrils.

• The technique uniquely trains the individual to systematically observe all body sensations without reaction.

• Deep old emotional cravings, aversions and wounds are accepted and released.

• Equanimity, peace, joy permeates decisions-blind reactions are reduced; choice actions can be better done- allows creation of a better life.
PHYSIOLOGY

“The Heart has reasons that reason does not know at all.” Blaise Pascal

• Physical pain is similar to mental resistance and suffering. It is caused by either stagnation; inflammation or both. Avoidance or suppression exacerbates the problem.

• The body is a tensegrity structure- must maintain proper alignment, balance; strong and limber enough to allow the refreshing, changing molecule flow for optimal health.
• Exercise daily- walk, run, bicycle, play a sport. Balance cardiovascular strength building with flexibility.

• Practice the ancient techniques of Yoga, Tai Chi and/or Martial Arts.

• Keep the spine supple; pay attention to minor aches, pain and misalignments. Receive according to your personal needs regular professional spinal manipulations, cranial-sacral alignments, acupuncture, acupressure, massage and hydrotherapy.

• Ahhh relax after workouts. Obtain regular sound refreshing sleep (6-8 hours).
NUTRITION

• The key is to maintain good circulation; a consistent flow.
• Drink 6-8 glasses of clean water per day
• Avoid denatured, packaged, processed foods and the white powders refined sugar, flour and salt. They will produce inflammation, stagnation, sudden blood glucose swings, high or low, set up anxiety, fear, anger, unhealthy cravings and addictions.
• Magnesium, B-complex & C vitamins are the critical coenzymes necessary in regular energy production. Eat whole grains; an abundance of fresh, colorful, green leafy in season vegetables and fruits.
REFERENCES

1. **Emotions & Reason**: My Naturopathic medicine research project submitted to Robert F. Waters PhD, June 10, 2004. The two major research scientists cited are Candace B. Pert PhD & Antonio R. Damasio MD, PhD.


3. **Southwest College of Naturopathic Medicine**: Class notes.

BLESSINGS ON YOUR JOURNEY!