A Cutting-Edge Approach with Compelling Results Poses a Scientific Question: How Does It Work?





Energy Psychology, particularly **Emotional Freedom Techniques (EFT)**, has demonstrated strong outcomes in over 300 peer-reviewed clinical trials. The core procedure involves tapping on **acupuncture points (acupoints)** while evoking specific memories, emotions, or goals.

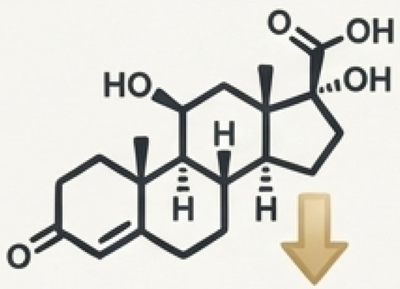
This unconventional method has faced **skepticism**, largely due to a lack of a clearly articulated, scientifically plausible mechanism of action. This presentation will unveil the **physiological journey**, step-by-step, from tapping on the skin to lasting **psychological change**.

More than **300** peer-reviewed clinical trials show **statistically significant improvements**.

BASED ON How Tapping Works: Physiological and Psychological Mechanisms in Energy Psychology Treatments by David Feinstein, Ph.D. (Frontiers in Psychology, Vol 16, November 2025).

The Effects Are Measurable — Tapping Creates Objective Biological Shifts.

Beyond subjective reports, acupoint tapping sessions consistently produce quantifiable changes in the body's physiology. These biological markers are not the primary mechanism, but rather the **objective evidence** of a clinical effect. They demonstrate that a real physiological process has been initiated.



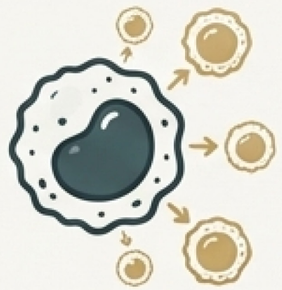
Stress Reduction: Significant reduction of the stress hormone cortisol.



Cardiovascular Health: Lowered blood pressure and improved heart rate variability.



Genetic Expression: Favorable expression of genes influencing emotional regulation, neuroplasticity, and synaptic connectivity.



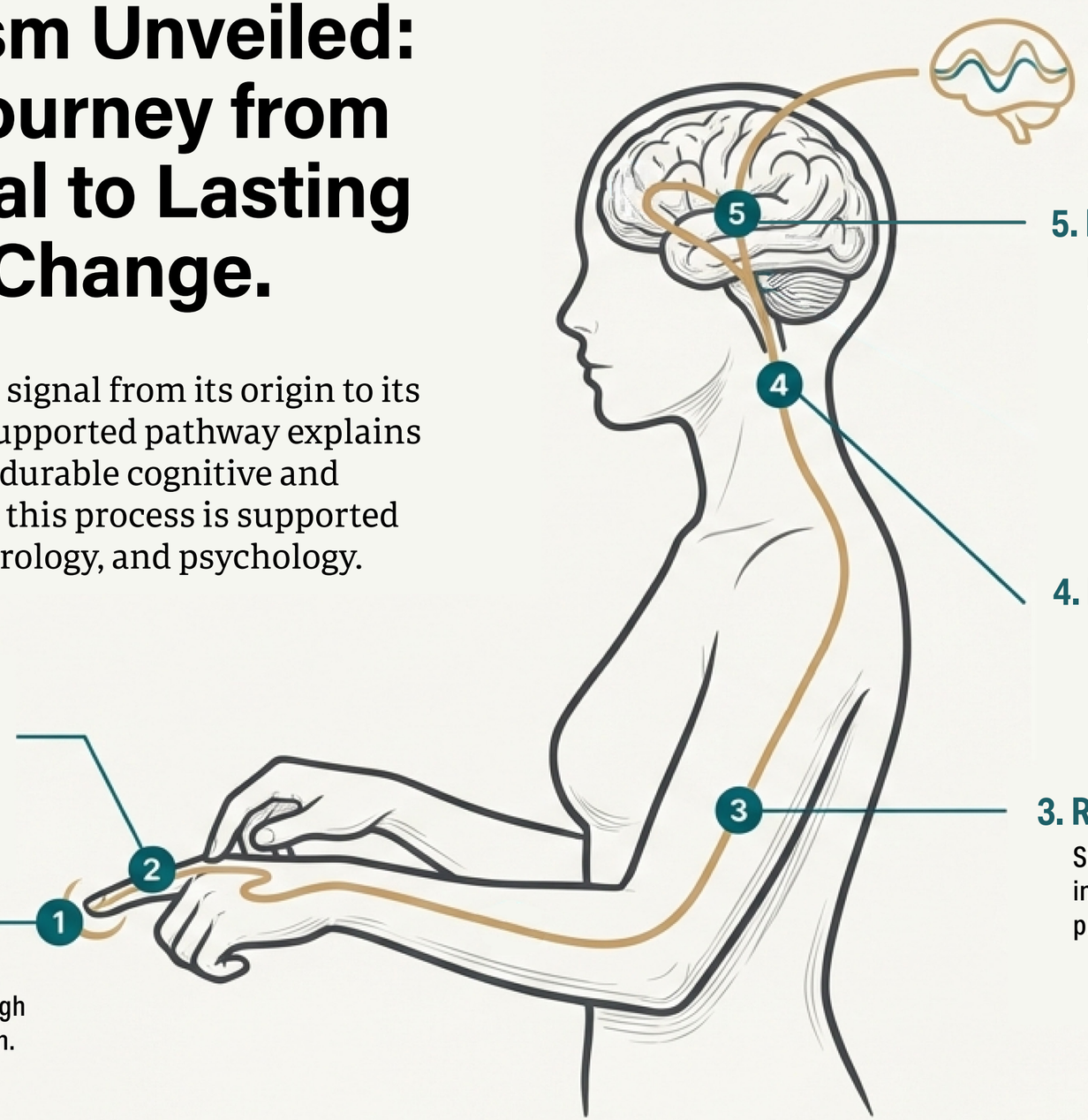
Immune Response: Increased lymphocyte production.



Neurological Regulation: Regulation of microRNA, such as that associated with anxiety and depression.

The Mechanism Unveiled: A Five-Step Journey from Physical Signal to Lasting Neurological Change.

We will follow the therapeutic signal from its origin to its final effect. This empirically supported pathway explains how acupoint tapping creates durable cognitive and behavioral shifts. Each step in this process is supported by research in physiology, neurology, and psychology.



5. Lasting Change

Facilitates cognitive restructuring and the formation of new, adaptive neural pathways.

4. Brain Regulation

Modulation of the limbic system, hormones, and front brain activity promotes calm, clarity, and well-being.

3. Reaching the Target

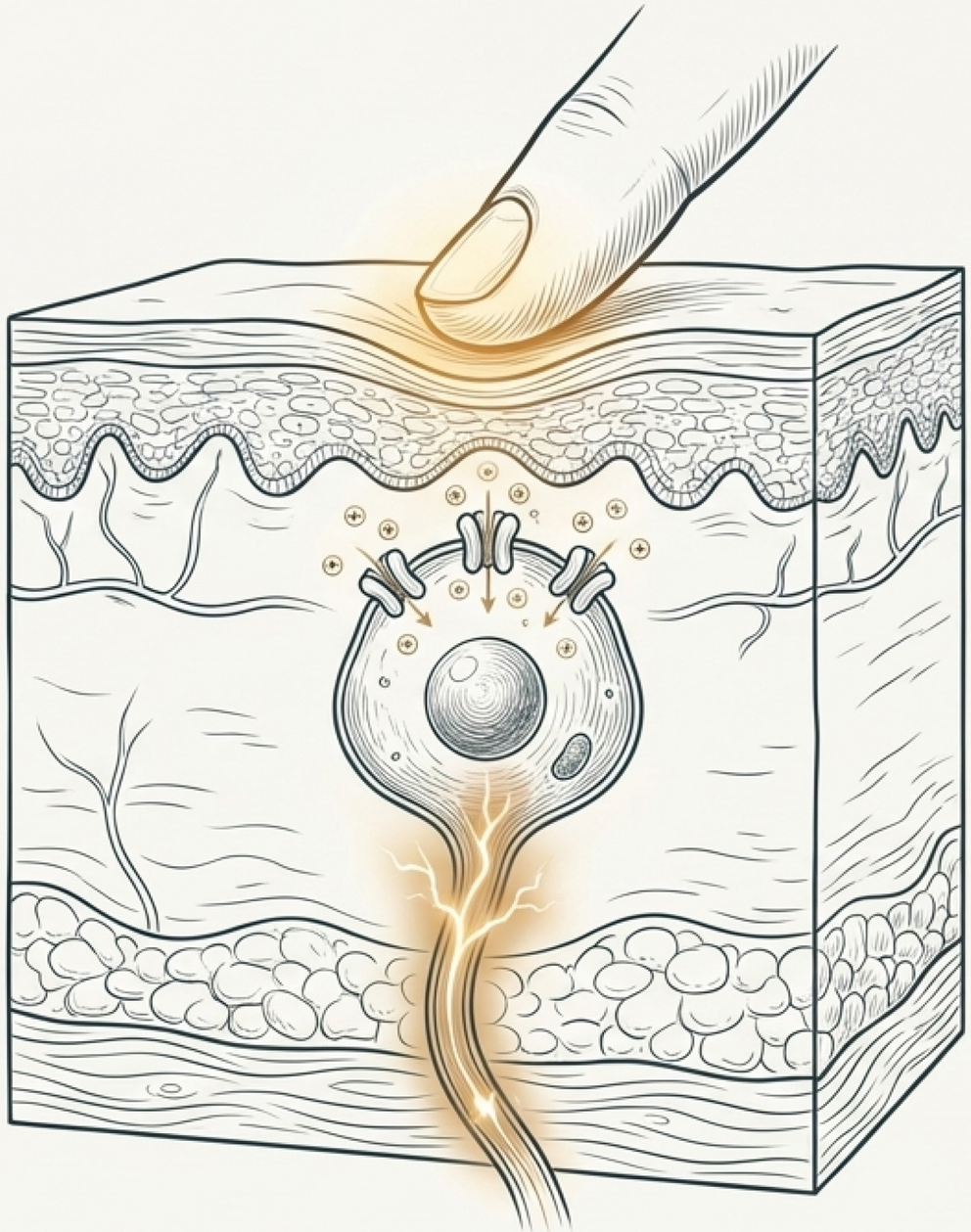
Signals access brain regions involved in the stress response, emotional processing, and rational thought.

2. Signal Transmission

Signals travel along the connective tissue and specific neural pathways toward activated brain regions.

1. Signal Generation

Physical tapping creates electrochemical signals through mechanosensory transduction.



Step 1: The Journey Begins When Physical Force Becomes an Electrical Signal

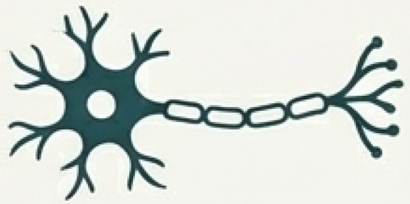
How does tapping create a signal? The process is called **mechanosensory transduction**, a fundamental biological mechanism. Acupoints have a higher density of mechanosensory cells and greater electrical conductivity than surrounding tissue. When tapped, specialized proteins in the cell membranes open, allowing ions to flow and converting the mechanical pressure into an electromagnetic signal.

Key Scientific Concepts

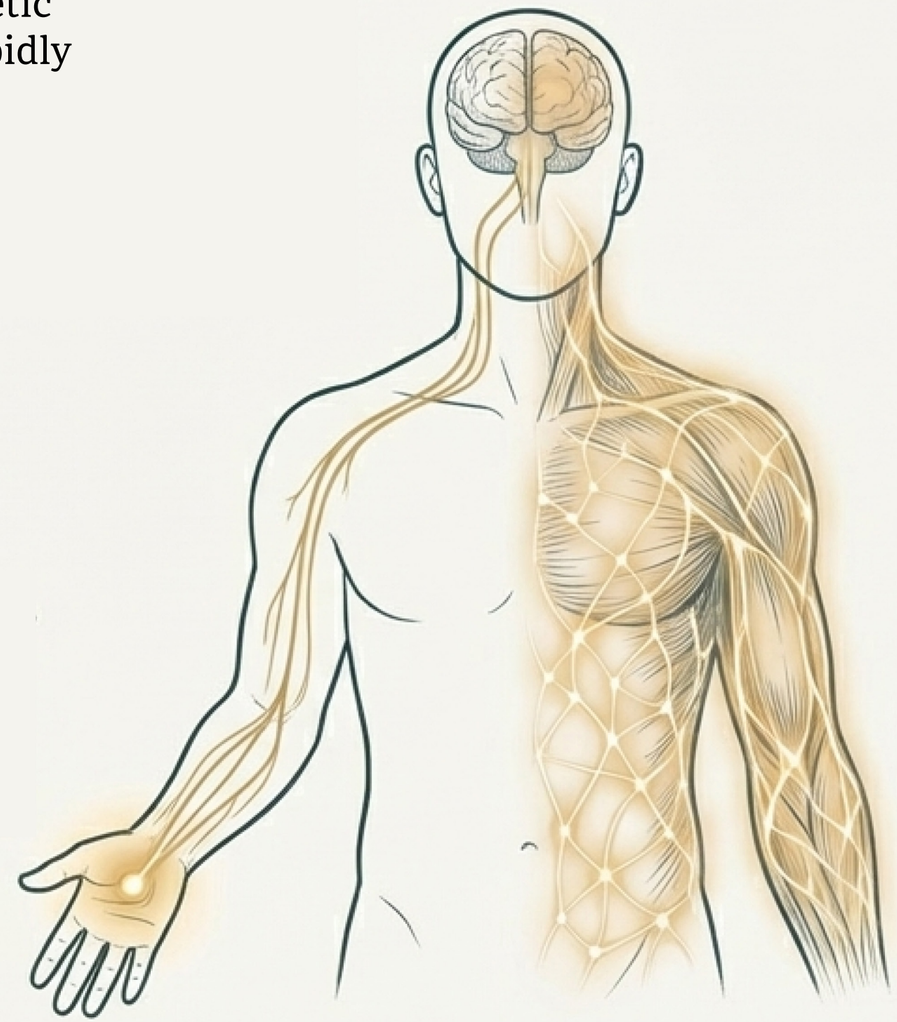
- **Acupoints**: Higher electrical conductivity and density of mechanosensory cells.
- **Mechanosensory Transduction**: The established biological process of converting mechanical force into an electrical signal. This is the same mechanism used in hearing, touch, and balance.

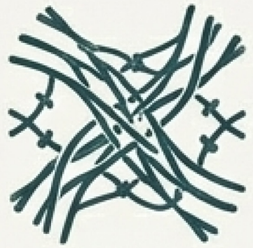
Step 2: The Signal Travels to the Brain Through Two Distinct Biological Pathways

Once generated, the electromagnetic signal is not lost; it propagates rapidly to the brain via well-documented physiological systems.



Pathway 1: The Nervous System. The signal is carried by **afferent nerves**, the standard communication network that sends sensory information from the body to the brain.

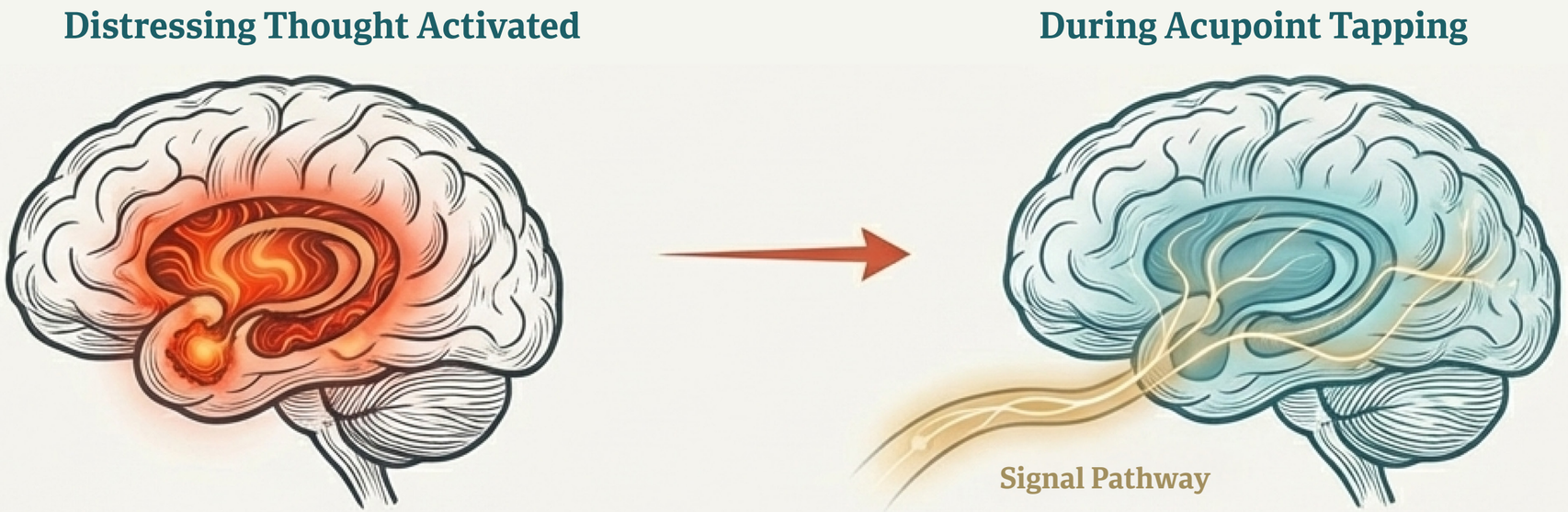




Pathway 2: Connective Tissue. Research suggests a potentially faster signaling mechanism through the body's connective tissue, whose collagen transmits electrical signals. Collagen fibers surround acupoints and are primary receptors of mechanical force during acupoint stimulation.

Steps 3 & 4: The Signal Intervenes, Impacting the Exact Brain Regions Activated During the Tapping

While tapping, the client focuses on a specific memory, image, or thought, which activates relevant neural circuits (e.g., the amygdala-hippocampus-prefrontal cortex circuit for fear). Brain imaging studies confirm that the signals generated by tapping travel to these *same aroused regions.* Once there, the signals modulate their activity-downregulating hyperaroused areas and upregulating underactive ones, promoting neurological balance.



fMRI (Pain): Decreased connectivity between the medial prefrontal cortex and thalamus, corresponding to reported pain reduction (Stapleton et al., 2022).

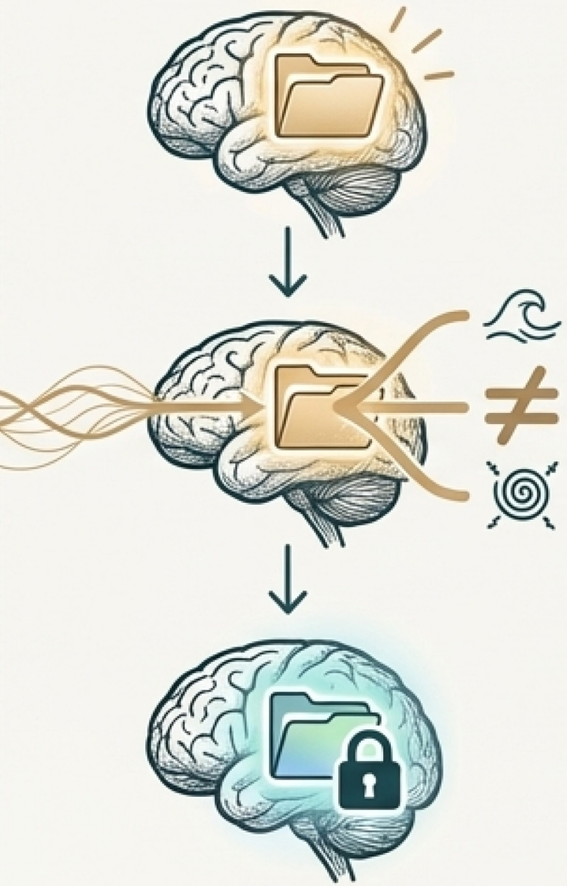
fMRI (Cravings): Reduced blood flow to the superior temporal gyrus (cognition) and lateral orbito-frontal cortex (reward) when viewing food images, corresponding to decreased cravings (Stapleton et al., 2019).

fMRI (Fear/Disgust): Selective modulation in the middle temporal gyrus and posterior middle cingulate cortex, corresponding to diminished intensity of reactions to disturbing images (Wittfoth et al., 2020).

MEG (Phobia): Neural downregulation of the threat response and activation of frontal executive regions (Di Rienzo et al., 2020).

Step 5: The Change is Made Permanent Through Neural Reconsolidation

Feeling calm or confident while tapping is at first only temporary. Lasting change requires updating the brain's original emotional learning. This happens via **neural reconsolidation**. When a memory or mental model is activated, it becomes temporarily "labile" or changeable. Tapping introduces a new contradictory experience– calmness where anxiety was expected, confidence where doubt was expected, etc. This mismatch creates a "**prediction error**" that forces the brain to update the memory or model. The newly updated state is then "reconsolidated" as the new normal.



1. Activate

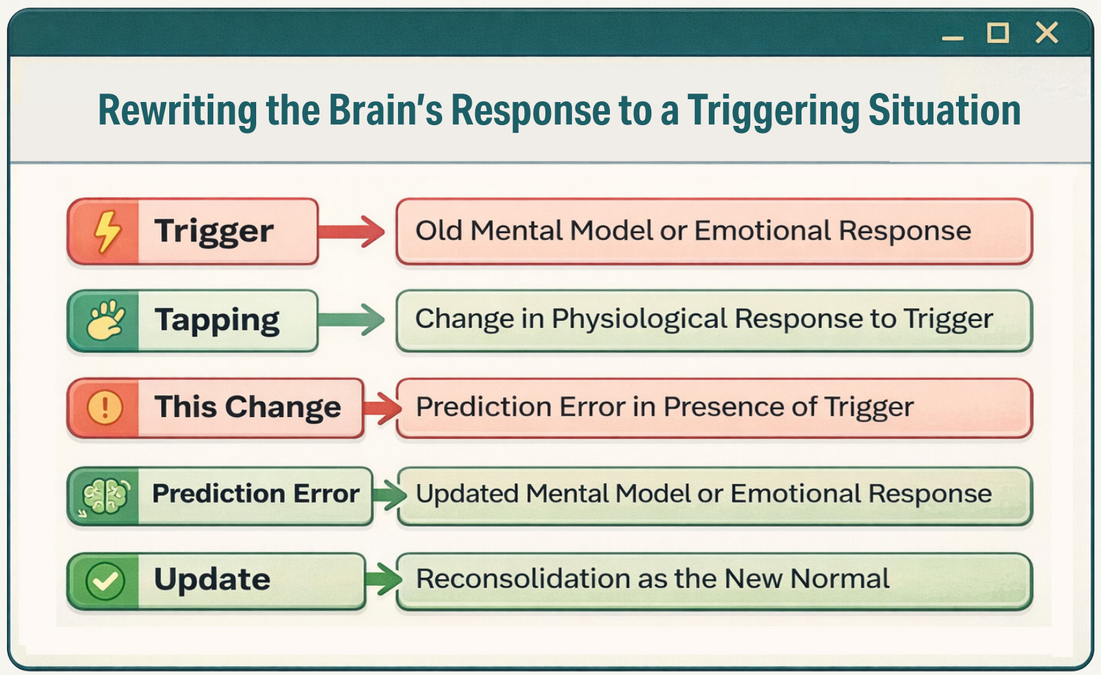
A distressing memory or self-defeating model is recalled, making it **labile**.

2. Mismatch

Tapping induces a new response, creating a "**prediction error**" (the expected distress or discouragement doesn't occur.)

3. Reconsolidate

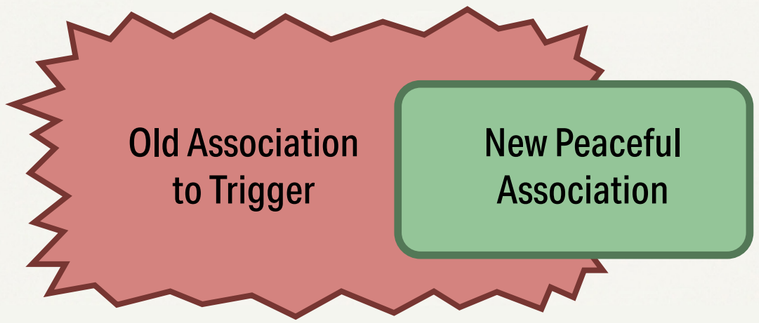
The brain updates the memory or mental model with the new, more adaptive association, making the change durable.



Tapping Makes Exposure Therapy Faster, More Effective, and More Durable

Critics often attribute energy psychology's success to its use of imaginal exposure. However, the evidence shows tapping accelerates the therapeutic use of exposure and makes improvements more durable. **Conventional exposure relies on slow habituation**, suppressing the old response. Tapping sends calming or stimulating signals to pertinent brain areas with each repetition, accelerating the process. This leads to **depotentiation**-eradicating the old fear association at the neurological level, rather than just suppressing it, making recurrence less likely.

Conventional Exposure



Suppresses rather than replaces old association while creating the new one. Vulnerable to recurrence.

Exposure with Tapping



Eliminates ("depotentiates") the original fear association. More durable outcomes.

Supporting Studies

- **Speed**: TFT achieved results for agoraphobia in 5 sessions vs. 12 for CBT (Irgens et al., 2017).
- **Durability**: In studies on depression/anxiety, CBT outcomes were not retained on follow-up, while EFT outcom outcomes were retained and even improved (Chatwin et al., 2016; Stapleton et al., 2016).

Advancing the Science: Limitations and the Path Forward for Research

While this seven-premise model provides a plausible framework, it is not definitive. In fact, the mechanisms of most effective psychotherapies, including CBT, are not yet fully understood. Understanding will evolve with further research.

Current Limitations



Small sample sizes in some imaging studies.



Early studies were conducted by proponents of the method.



Most research has focused on clinical efficacy rather than mechanisms.



Difficulty isolating specific effects from non-tapping components of EP such as psychological exposure, cognitive restructuring, and therapeutic alliance.

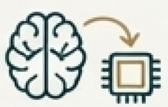
Future Research Directions



Directly measure and track the electromagnetic signals generated by tapping.



Use real-time brain imaging during treatment sessions as it becomes more available.



Examine the precise interaction between tapping and memory reconsolidation.

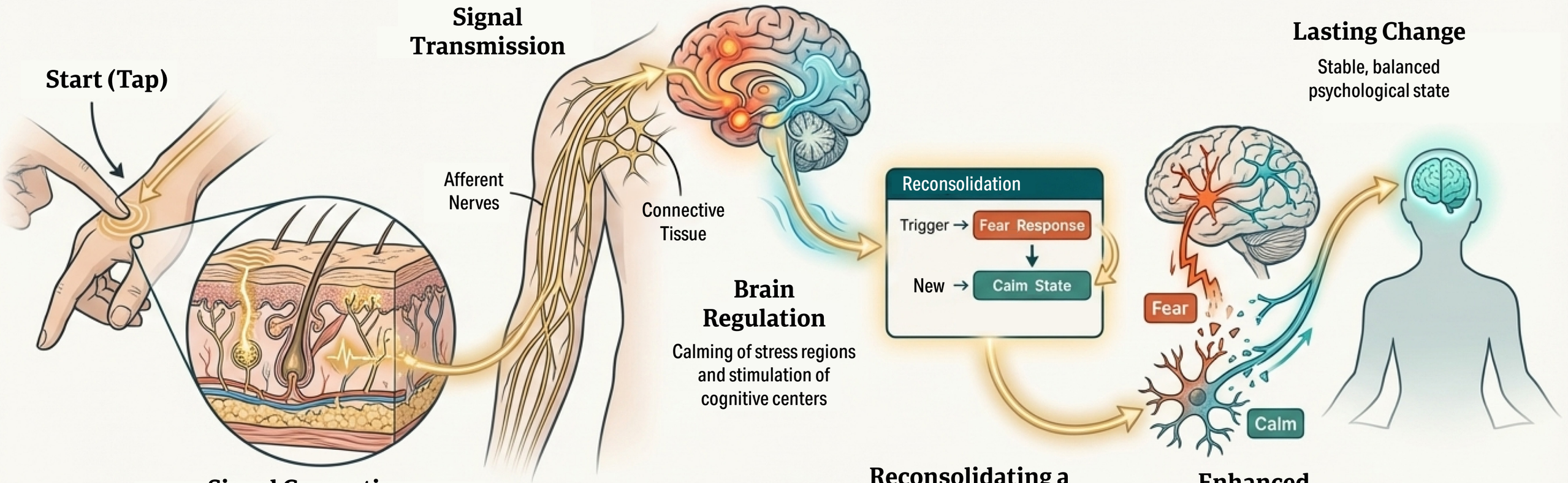


Explore the differential effects of the specific acupoints used in energy psychology protocols.



Conduct longitudinal studies on long-term neuroplastic changes.

The Complete Pathway: From Tapping to Transformed Memory



Aligning an Unconventional Method with Modern Neuroscience

The claim that tapping on the skin can heal trauma is no longer relegated to "subtle energies" or unverifiable constructs. The physiological mechanisms — from mechanosensory transduction to signal propagation, brain modulation, and memory reconsolidation — provide an evidence-based explanation for the rapid and durable outcomes observed in clinical practice. This emerging understanding bridges the gap between efficacy and explanation, paving the way for greater integration of Energy Psychology into mainstream mental health care.