

# **KILLING THE ANTS AND DIRECTING YOUR THOUGHTS**

## **Stress Busters**

**Kill the ANTs That Steal Your  
Happiness and Make You Fat**

# ANTs = Automatic Negative Thoughts



# ANTs and Anteaters

- **Every time you have a thought your brain releases chemicals.....**
- **Every bad thought releases chemicals that make you feel bad**
- **Every good thought releases chemicals that make you feel good**
- **Thoughts are automatic**



# ANTs and Anteaters

- **Thoughts are based on complex chemical reactions and memories**
- **They are often erroneous**
- **You do not have to believe every thought you have...often they lie to you**
- **You have to take control**



# 9 ANT Species

➤ **Always thinking**

➤ **Mind reading**

➤ **Blame**

➤ **Focus on  
negative**

➤ **Fortune Telling**

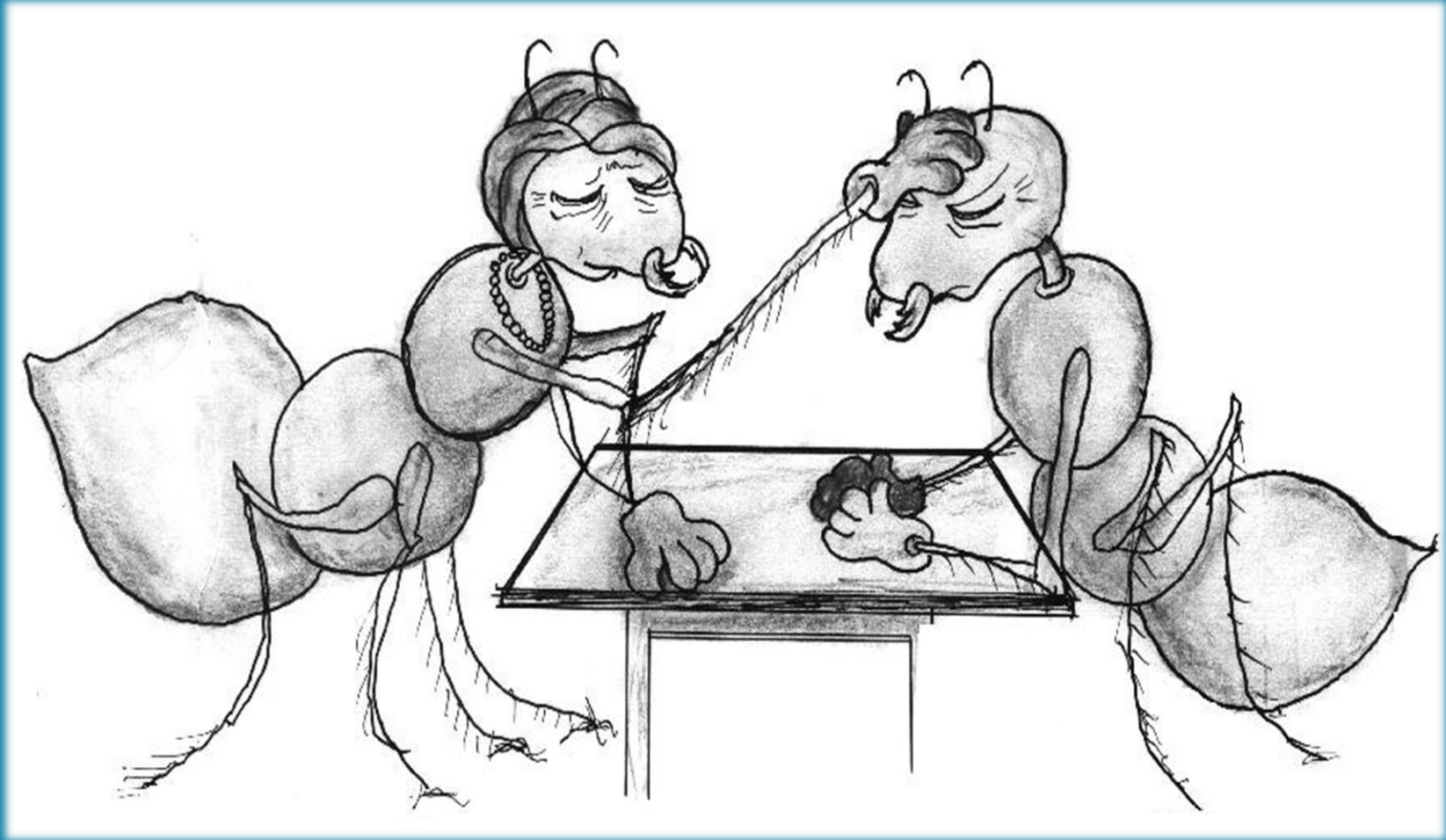
➤ **Thinking  
w/Feelings**

➤ **Guilt beating**

➤ **Labeling**

➤ **All or none**

# Mind Reading ANT



# Fortune Telling ANT



# Guilt Beating ANT





# Need an Internal Anteater



# ANT Killing Exercise

- **Whenever you feel sad, mad, nervous, or out of control**
- **Write down your ANTs**
- **Label them**
- **Talk back to them**
- **Don't believe every stupid thought you have!!**
- **ANT killing is a big part of getting well**

# Kill the ANTs Exercise

## Feed Your Anteater

### ANT

**This patient  
will be  
difficult**

### SPECIES

**Fortune  
Telling**

### ANTEATER

**This may be  
a great  
experience**



# Best Brain Foods

- Avocados
- Apples
- Berries/cherries
- Beans
- Broccoli
- Cauliflower
- Cherries
- Coconuts
- Oranges
- Olives/olive oil
- Red peppers
- Salmon
- Spinach
- Green Tea
- Tomatoes
- Walnuts





# Four Questions

- **Is it true?**
- **Can I absolutely know that it is true?**
- **How do I feel when I have this thought?**
- **Who would I be without the thought?**
- **Turn the thought around. Is the turnaround true or even truer than the original thought?**

# Four Questions Examples

- **I can never lose the weight.**
- **Doctor killed grandpa.**
- **I don't want to fire the employee.**
- **I miss my ex.**
- **My son treats me badly all the time.**





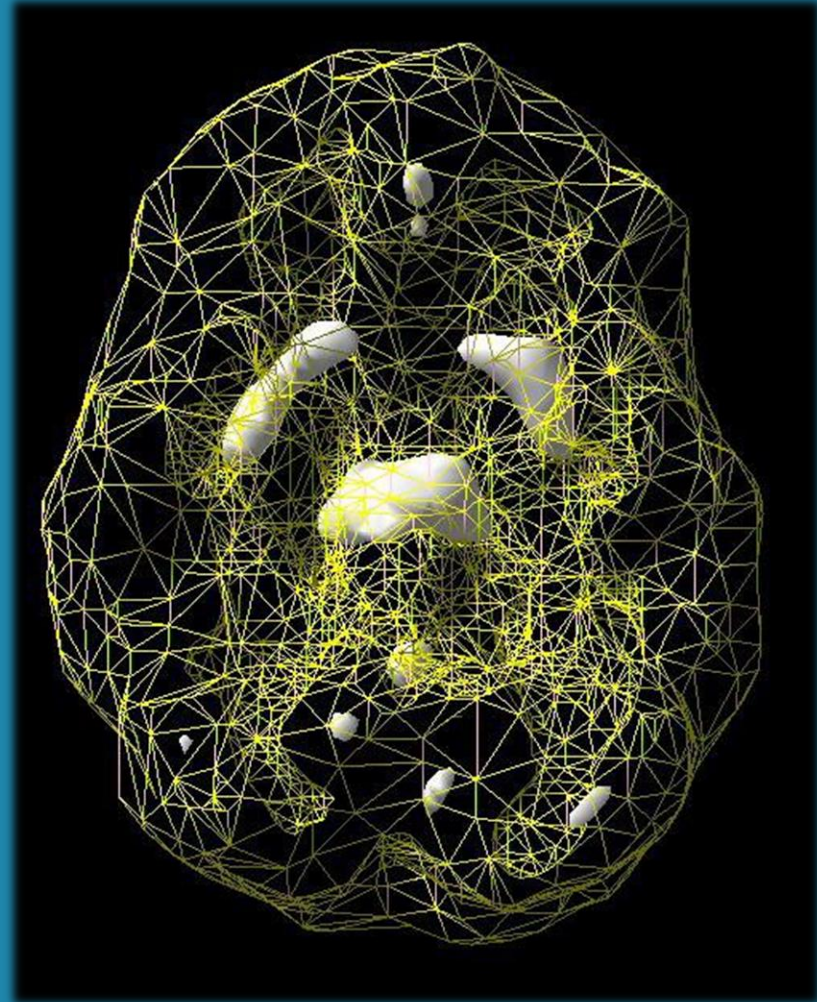
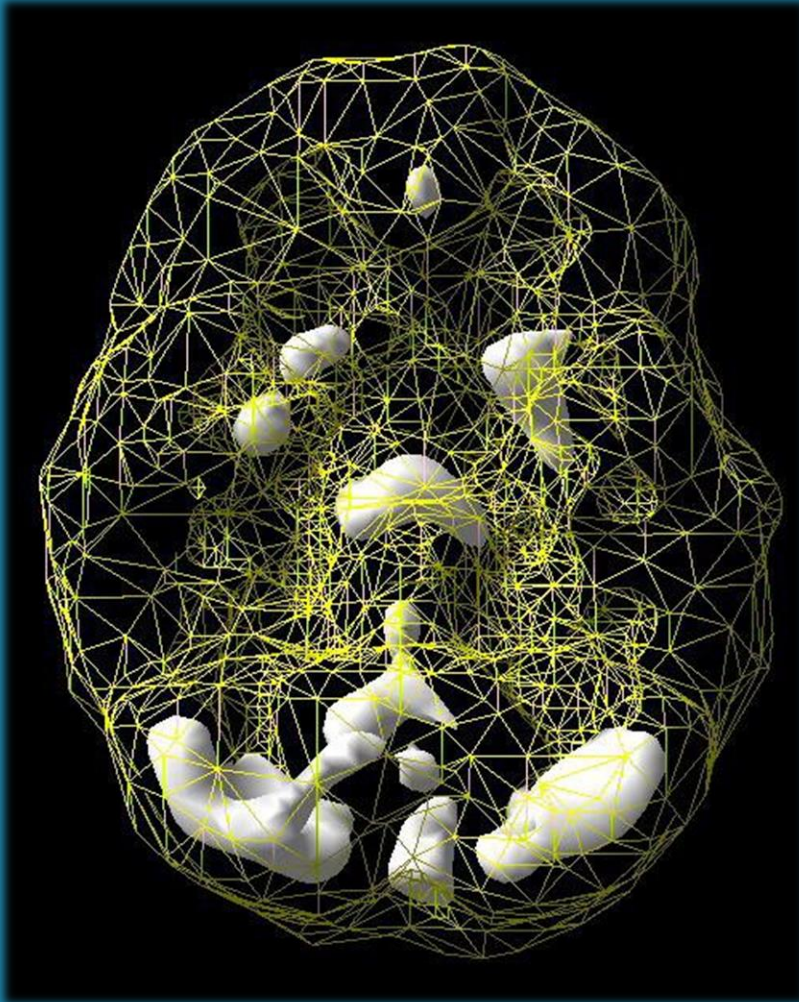
# Happiness New Research

- **Genetic predisposition**
- **Engagement in life**
- **Meaningful life**
- **The quality of your thoughts**

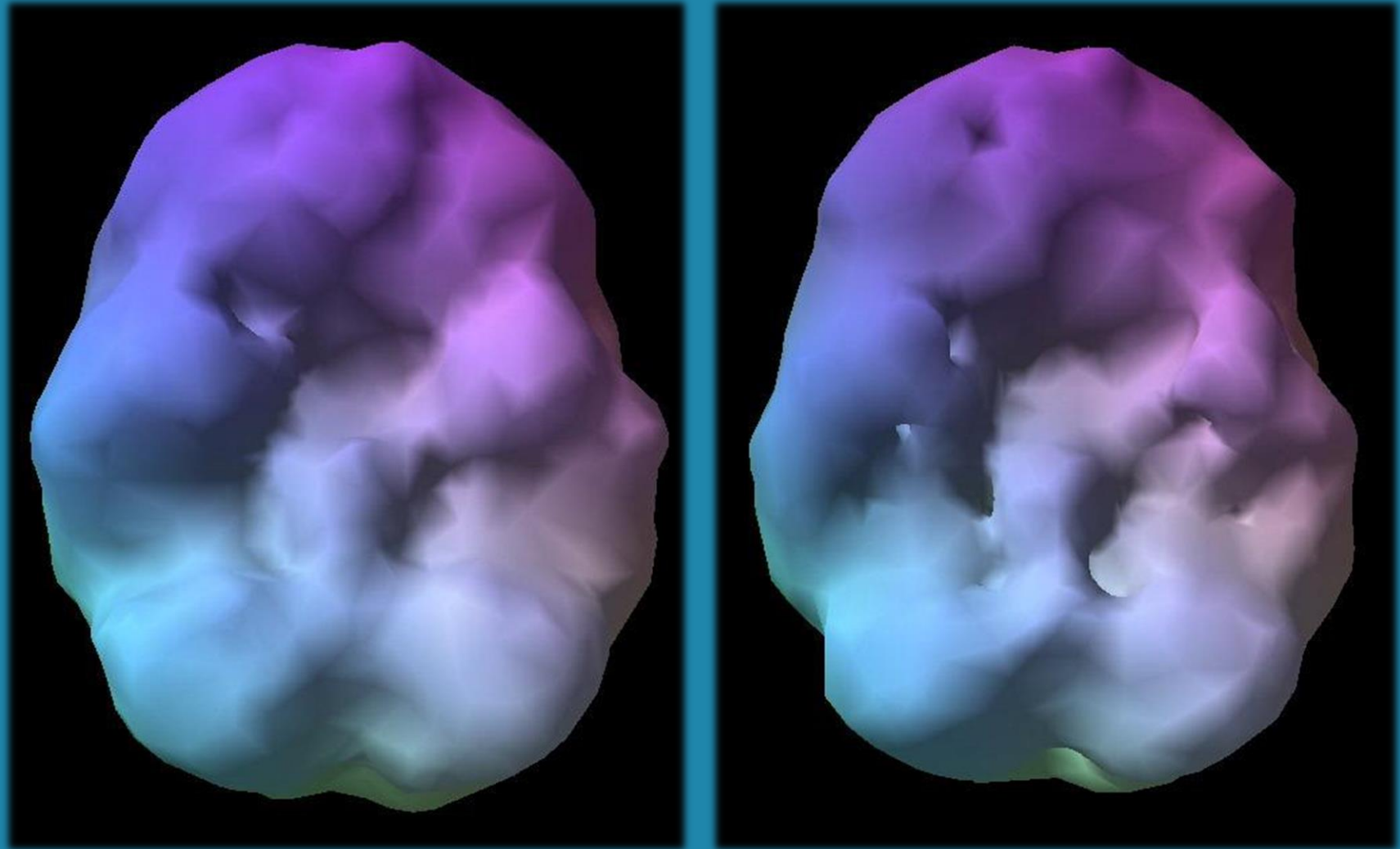
# Gratitude Therapy

- **Study of gratitude and fear**
- **Fear caused marked deactivation of cerebellum**
- **Fear increases confusion**
- **Athletic slump or emotional slump**

# Grateful and Hateful

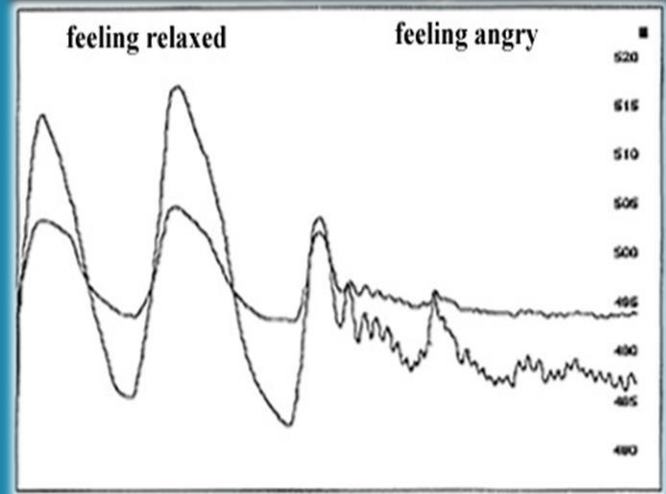


# Grateful and Hateful



# Best Ways to De-Stress Your Life

- **Prayer**
- **Gratitude**
- **ANT therapy**
- **Exercise**
- **Fish oil**
- **Deep breathing**
- **Sharing your challenges in a small group**



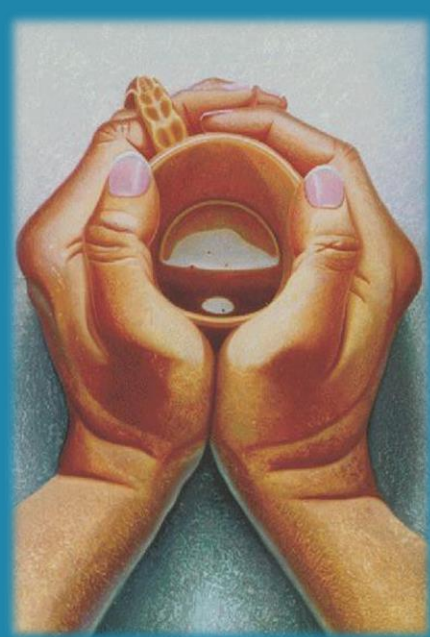
# De-Stress the Brain



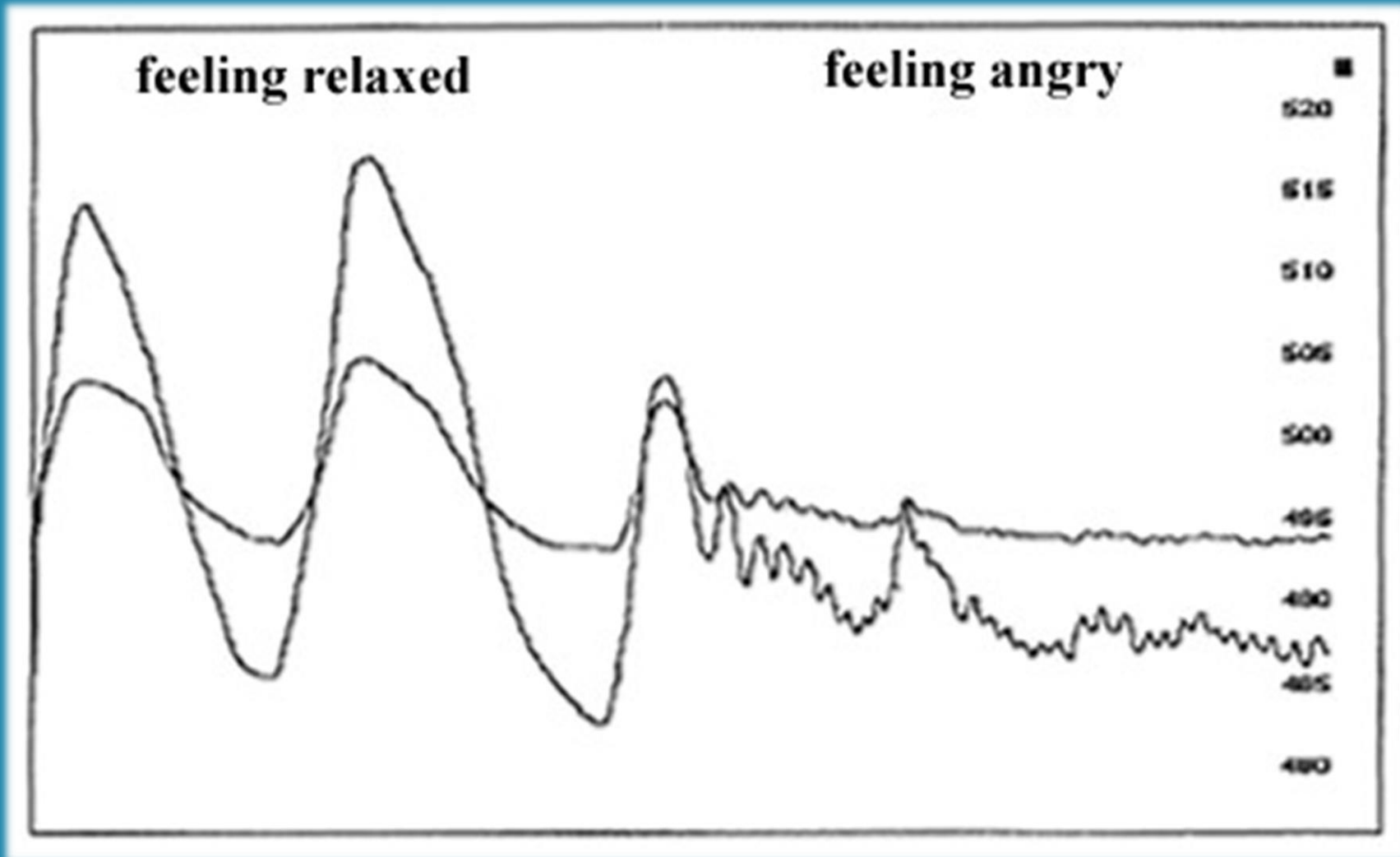
# Gaining Self-Control

## Breathing and Biofeedback

- Stress kills brain cells
- Relaxation training key to health
- Hand warming images
- Diaphragmatic breathing
- Meditation, prayer exercises
- Heart rate variability



# BG Rx - Breath







# Cognitive Therapy (ANT Rx)

- **Furmark, Sweden**
- **18 pts in Celexa vs. “group” CBT vs. wait group for social phobia**
- **After 9 weeks, equal effectiveness for CBT and Celexa, not in wait group**
- **Decreased R>L, in amygdala and hippocampus in responders in both groups**

Furmark T, Tillfors M, Marteinsdottir I, Fischer H, Pissiota A, Långström B, Fredrikson M. Common changes in cerebral blood flow in patients with social phobia treated with citalopram or cognitive-behavioral therapy. *Arch Gen Psychiatry*. 2002 May;59(5):425-33.

Courtesy Amen Clinics, Inc. [www.AmenClinics.com](http://www.AmenClinics.com)



# Cognitive Therapy (ANT Rx)

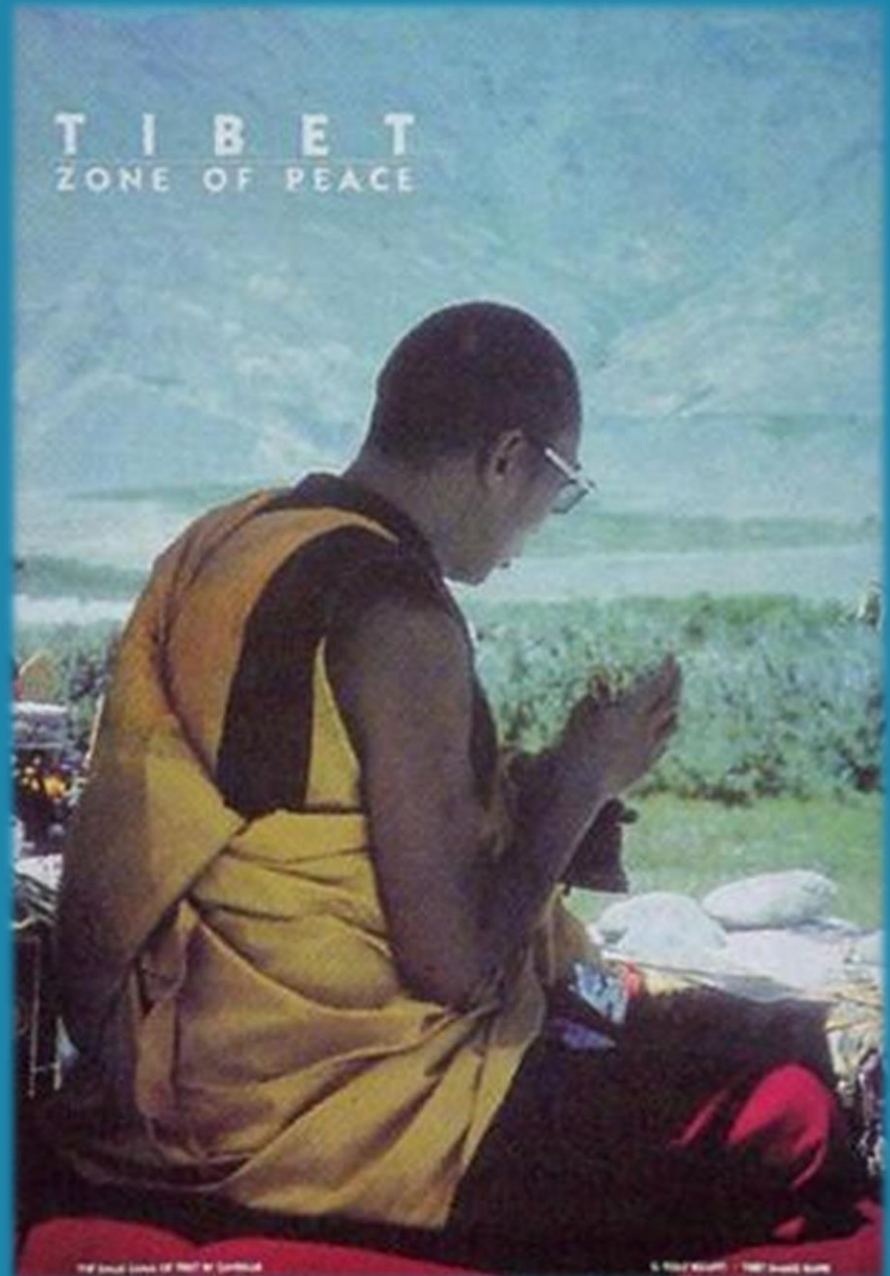
- Paquette, Canada
- 12 pts “spider phobias”
- fMRI
- Fear activated right lateral PFC
- After CBT, no activation of right lateral PFC



Paquette V, Lévesque J, Mensour B, Leroux JM, Beaudoin G, Bourgouin P, Beaugard M.

"Change the mind and you change the brain": effects of cognitive-behavioral therapy on the neural correlates of spider phobia. *Neuroimage*. 2003 Feb;18(2):401-9.

# Prayer and Meditation



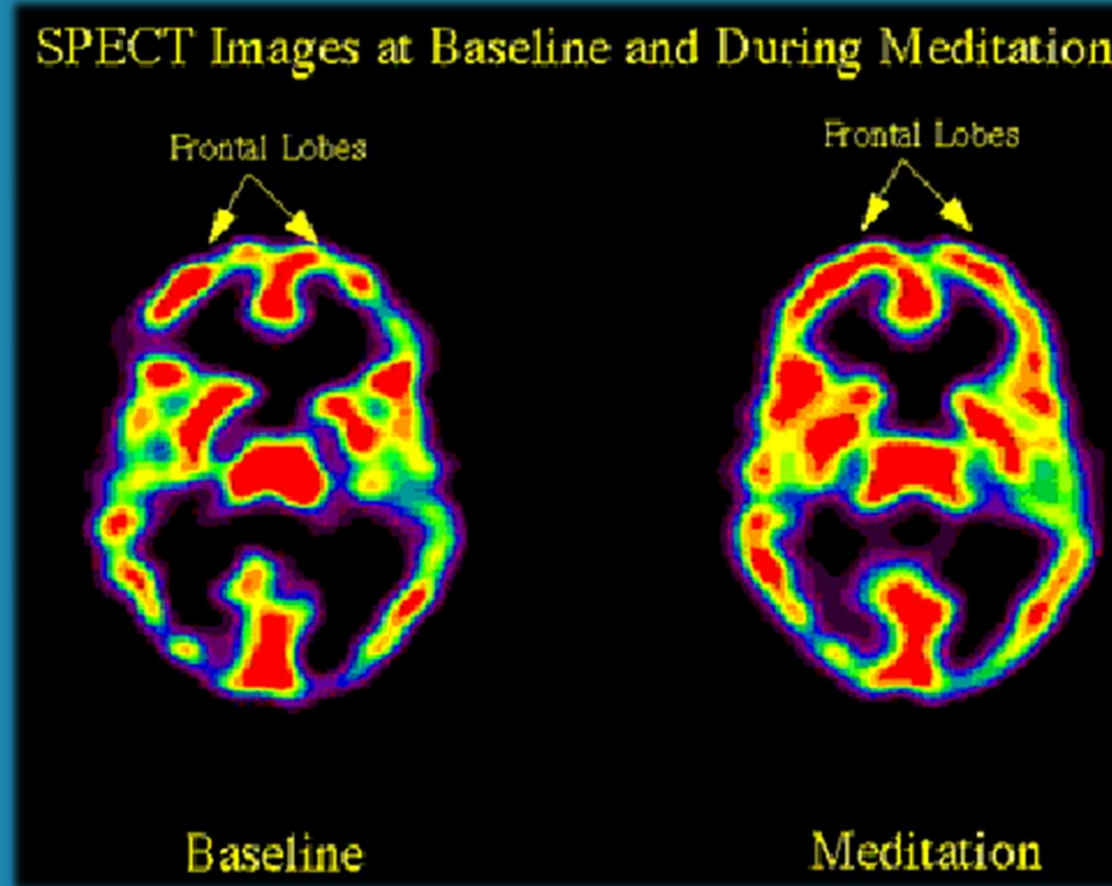


# SPECT, Meditation and Prayer

- **Andrew Newberg 2001 & 2003 Study**
- **Tibetan Buddhists and Franciscan Nuns  
prayer and meditation**
- **Increased PFC and decreased  
left parietal lobe**
- **Why Won't God Go Away?**



# Newberg Study 1993: SPECT and Meditation





# SPECT and Meditation



- **Amen Clinic 2009 Study**
- **11 subjects, 10 experienced meditators**
- **Baseline versus meditation (12 min)**
- **Kriya Kirtan Form, Saa Taa Naa Maa**
- **Results – down left parietal lobe, up left and right PFC and up right temporal lobe**

# Kriya Kirtan Meditation



# Kriya Kirtan Meditation





# Kriya Kirtan Meditation

DECREASES DURING MEDITATION

INCREASES DURING MEDITATION - ALL 11 SUBJECTS

Peak  $p < 0.005$

$z = -4.00$



$z = -4.00$



$z = -4.00$



$z = -4.00$



$z = -4.00$



$z = -4.00$



$z = -4.00$



$z = -4.00$



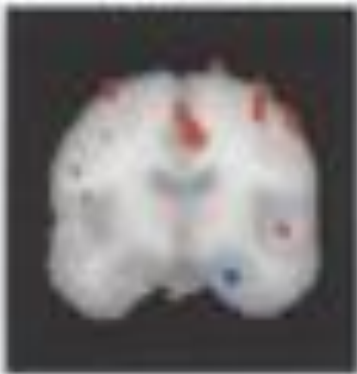
# Kriya Kirtan Meditation

DECREASES DURING MEDITATION

INCREASES DURING MEDITATION - ALL 11 SUBJECTS

P-value  $p = 0.0050$

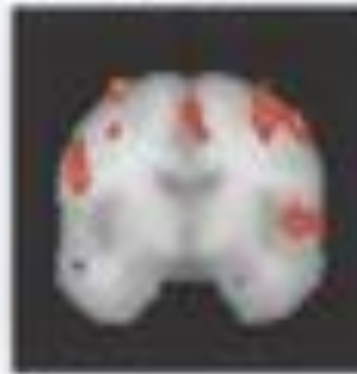
$y = -12\text{mm}$



$y = -10\text{mm}$



$y = -8\text{mm}$



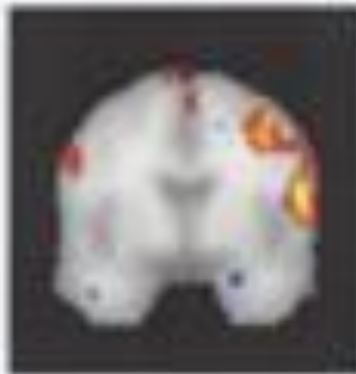
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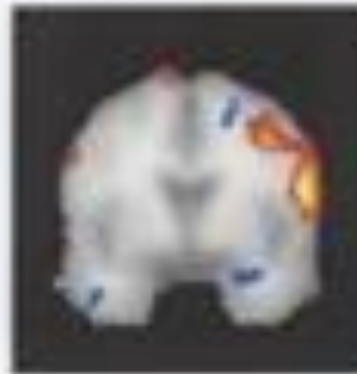
$y = -4\text{mm}$



$y = -2\text{mm}$



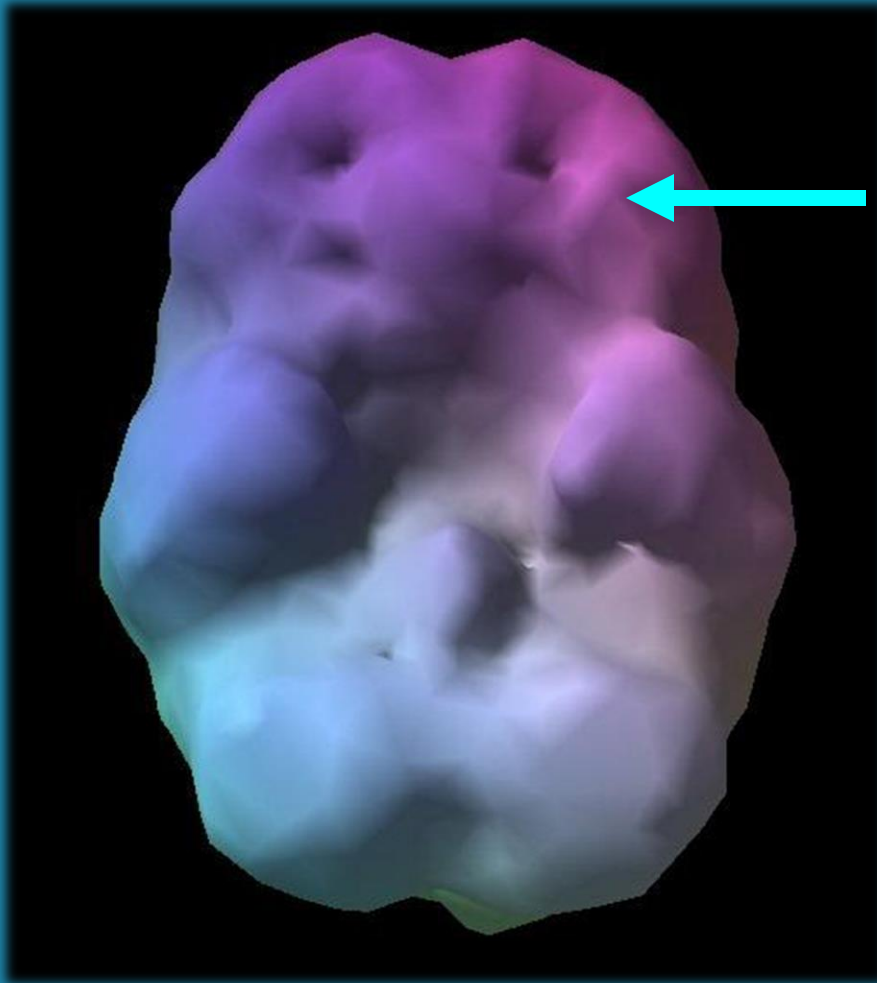
$y = 0\text{mm}$



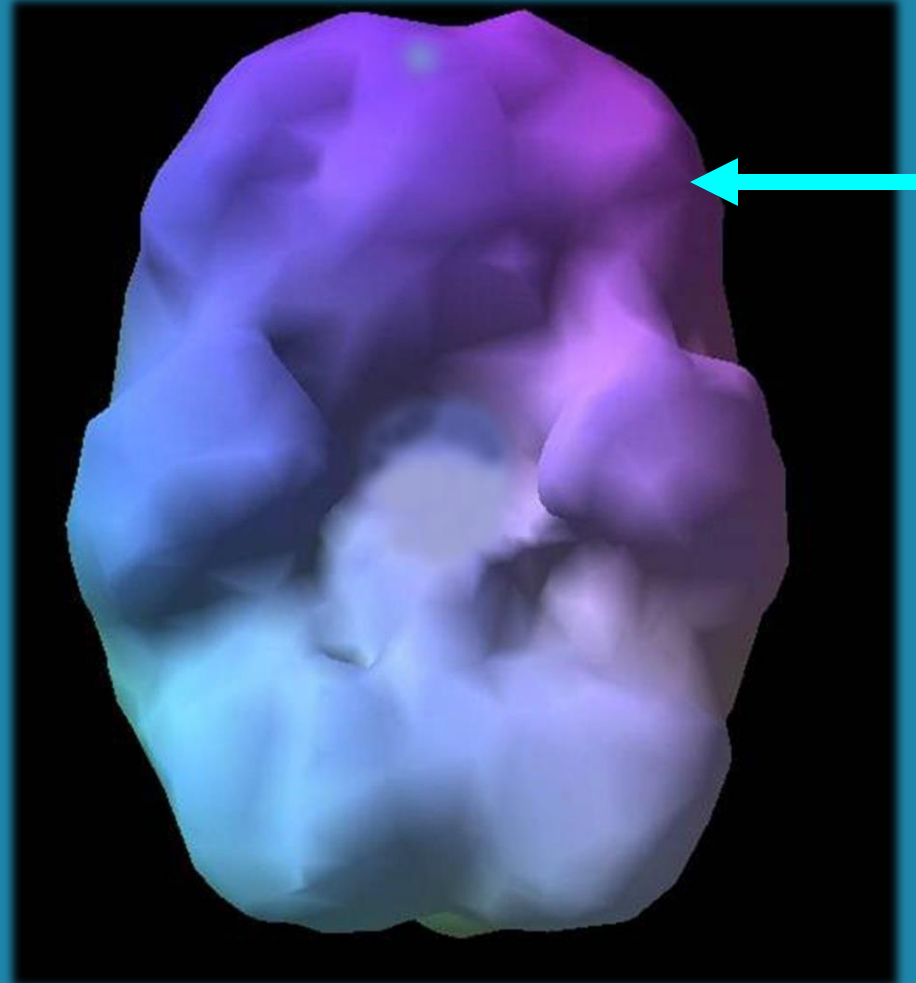
$y = 2\text{mm}$



# Meditation Boosts Brain Activity

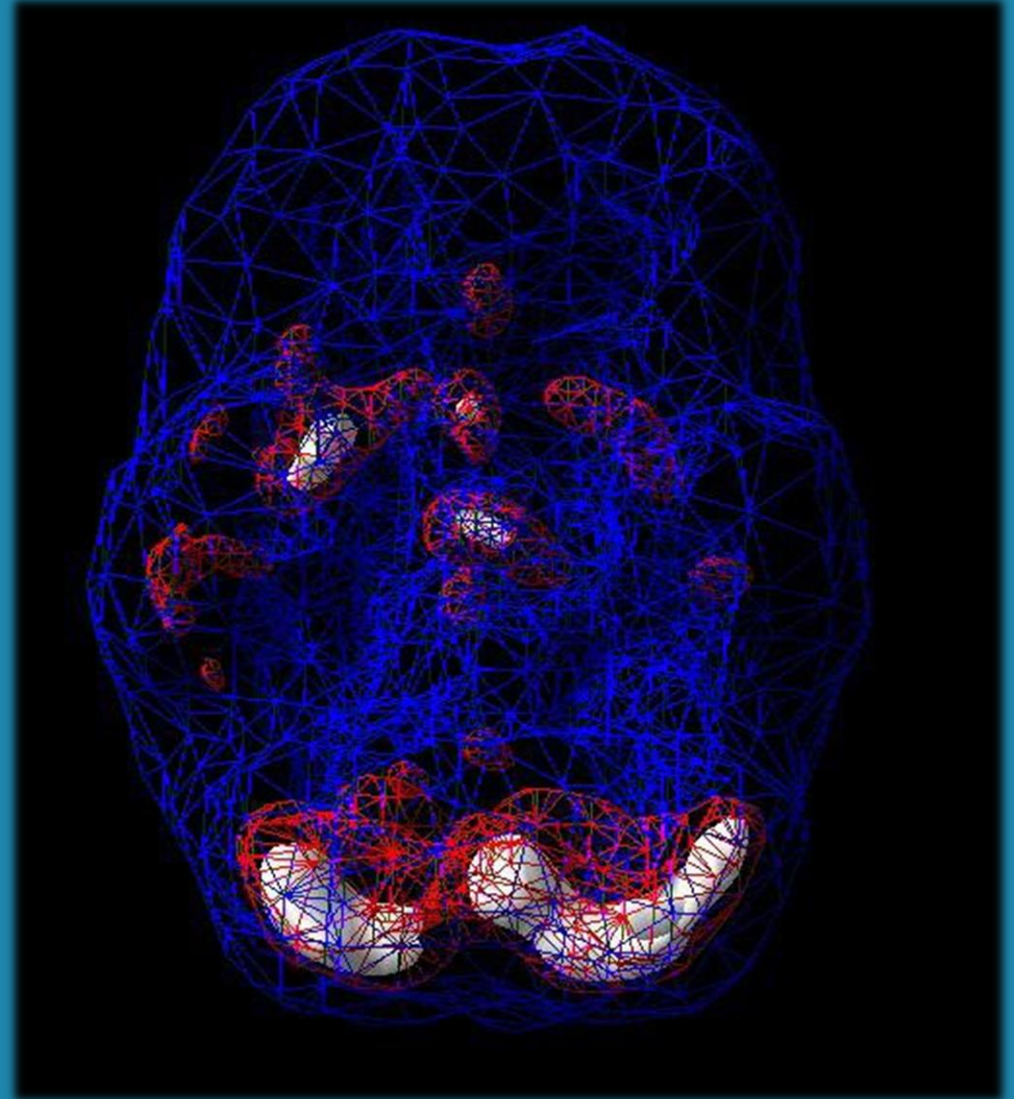
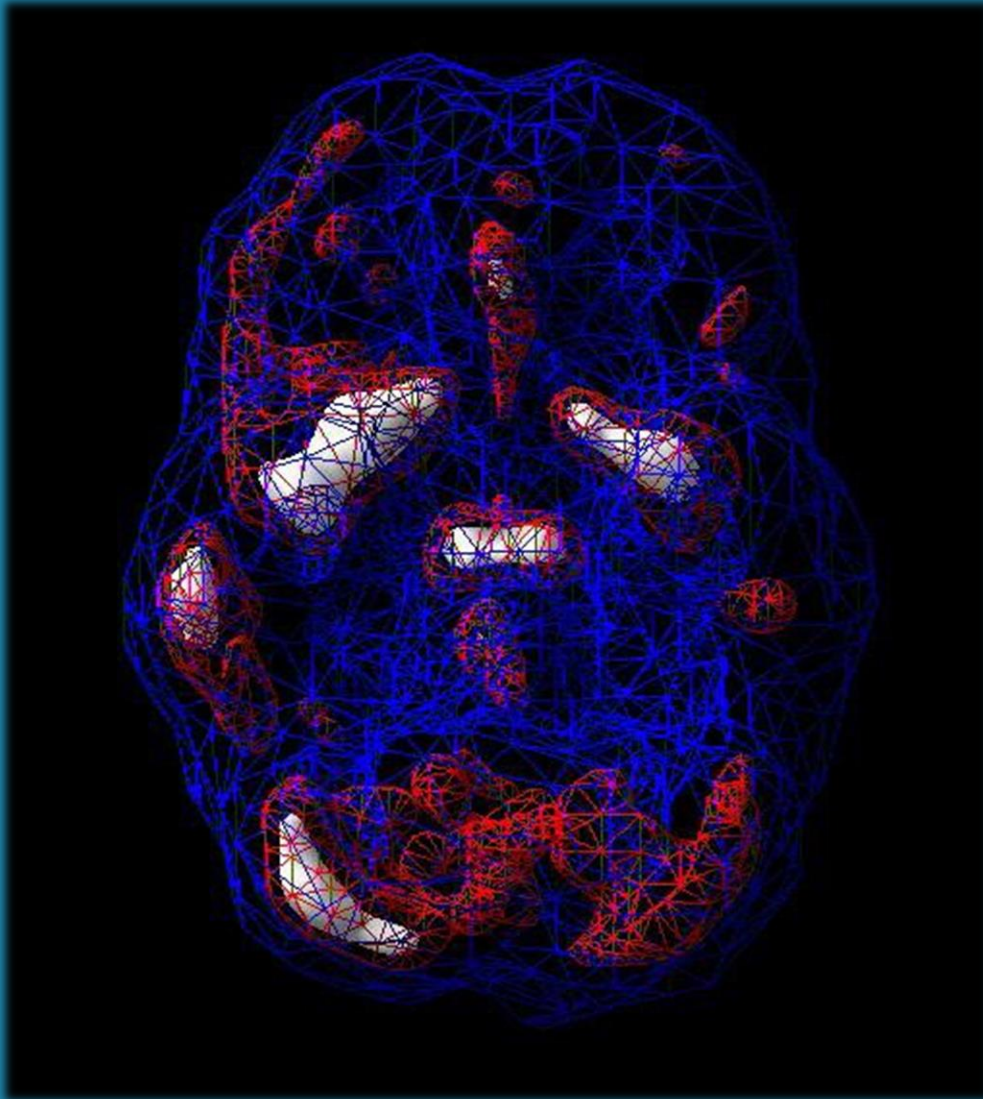


**Rest**

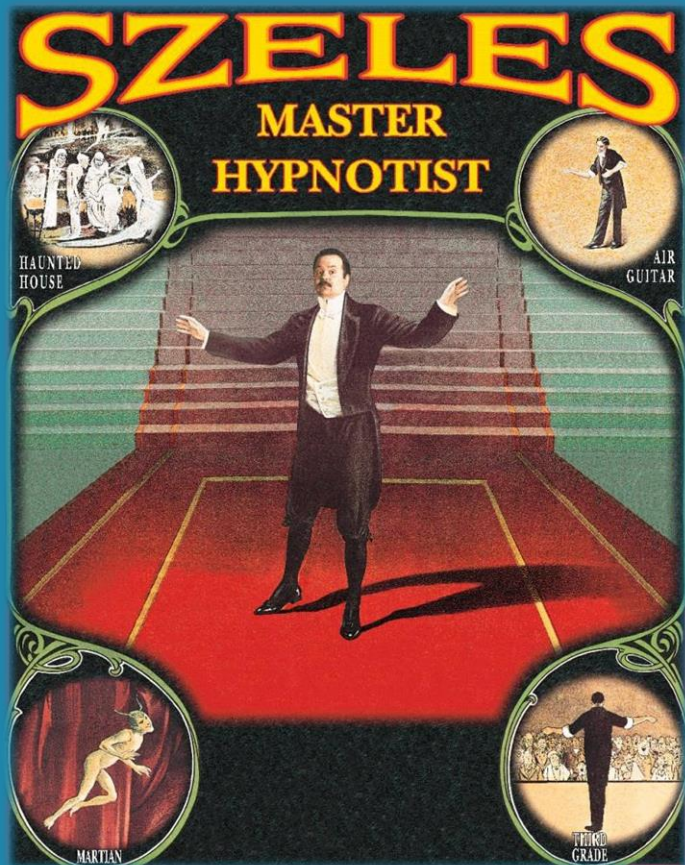


**Meditation**

# Kriya Kirtan Meditation



# Get Your Mind Right



# Psychotherapy Hypnosis



# Hypnosis

- **Maquet, Belgium, PET, increased left hemisphere**
- **Rainville, Canada, PET, increased brain's attentional system**
- **Faymonville, Belgium, PET, decreased pain and area of brain that feels pain**

# Components of Hypnosis

- **Natural, all in hypnotic states**
- **Focused relaxation**
- **Focus eyes**
- **Deep breathing**
- **Progressive relaxation**
- **Deepening**
- **Imagery**
- **Individual techniques**







# Psychotherapy

- **When psychotherapy causes new learning:**
- **Enhances new neuronal pathways**
- **Encourages LTP**
- **Calms kindling**
- **Changes, remodels the brain (spring cleaning or remodeling an old bathroom or kitchen)**

# Behavior Therapy

- Lewis Baxter at UCLA
- OCD patients
- Increased caudate and cingulate - subcortical circuit that acts as a kind of filter, sifting out extraneous thoughts and impulses
- BT vs. Prozac
- Both calmed caudate



# Behavior Therapy

- **Nakatani, Japan 2003**
- **22 OCD patients, improved with BT**
- **Decreased right caudate after treatment**



# Psychotherapy

## Interpersonal Psychotherapy



# Interpersonal Psychotherapy (ITP)

- 2 studies with Major Depression
- Brody (12 weeks at UCLA) ITP vs. Paxil
  - Both calmed hyperactive prefrontal lobes
- Martin (6 weeks in England) ITP vs. Effexor
  - Both increased basal ganglia activity
- ITP is effective and helps change brain



# ITP Components

- **Involves current relationships**
- **Steps of effective relationships**
- **Improve social support**
- **Communications**
- **Assertiveness**
- **Reduce conflict**

# Cognitive Therapy Helps Weight Loss

- **Swedish study of 107 obese people**
- **CBT for 10 weeks lost 17 pounds**
- **Those with no interventions gained weight**
- **18 months later, CBT group lost another 5 lbs., control group still gaining**
- **Another study that used brain-scanning technology found that CBT causes changes in the brain stem and cortex areas**

Stahre L, Tärnell B, Håkanson CE, Hällström T. A randomized controlled trial of two weight-reducing short-term group treatment programs for obesity with an 18-month follow-up. *Int J Behav Med.* 2007;14(1):48-55.

# EMDR

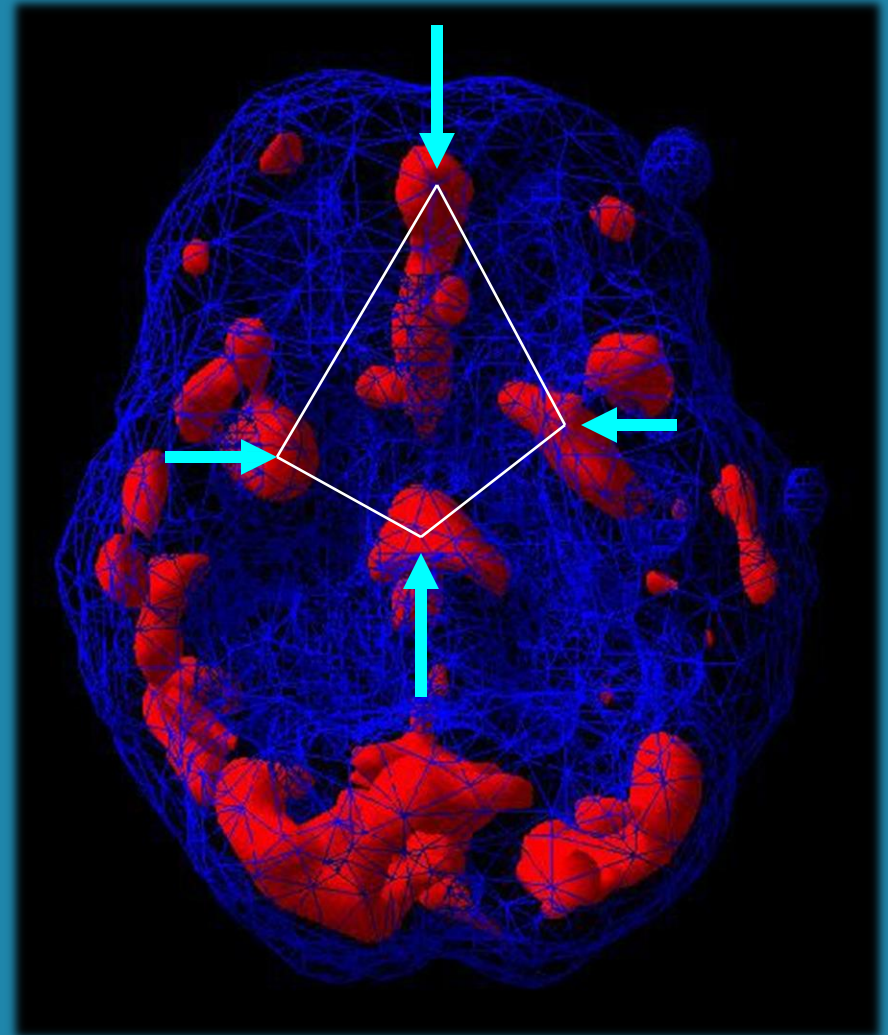
- **Eye movement desensitization and reprocessing therapy**
- **Developed by Francine Shapiro**
- **Systematic therapeutic system**
- **Positive Before and after SPECT studies**
- **PTSD, anxiety, performance anxiety**



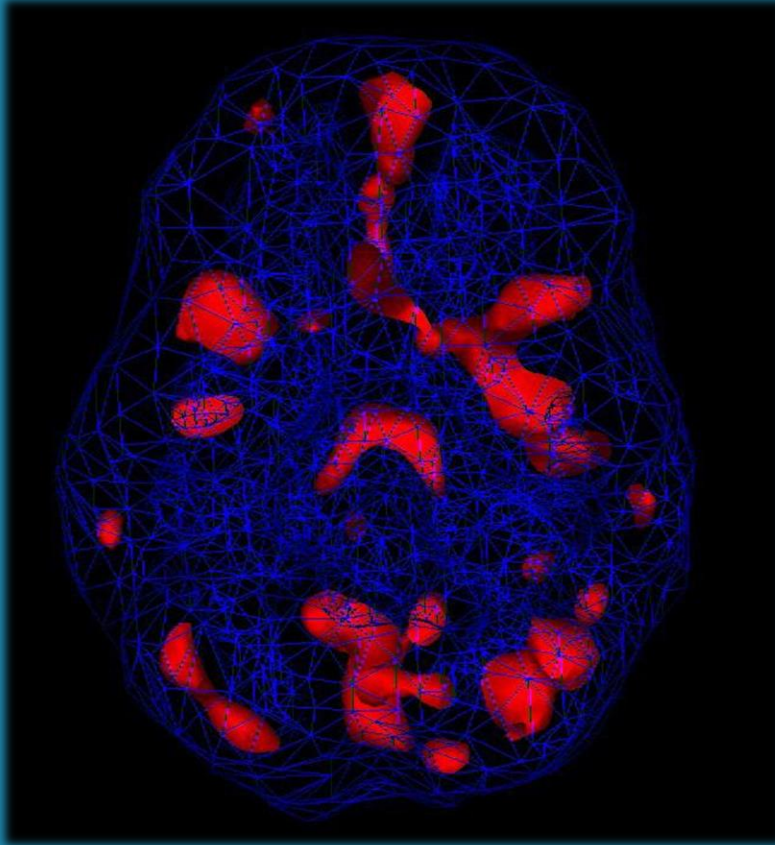
# Post Traumatic Stress Disorder

## ➤ Diamond Pattern

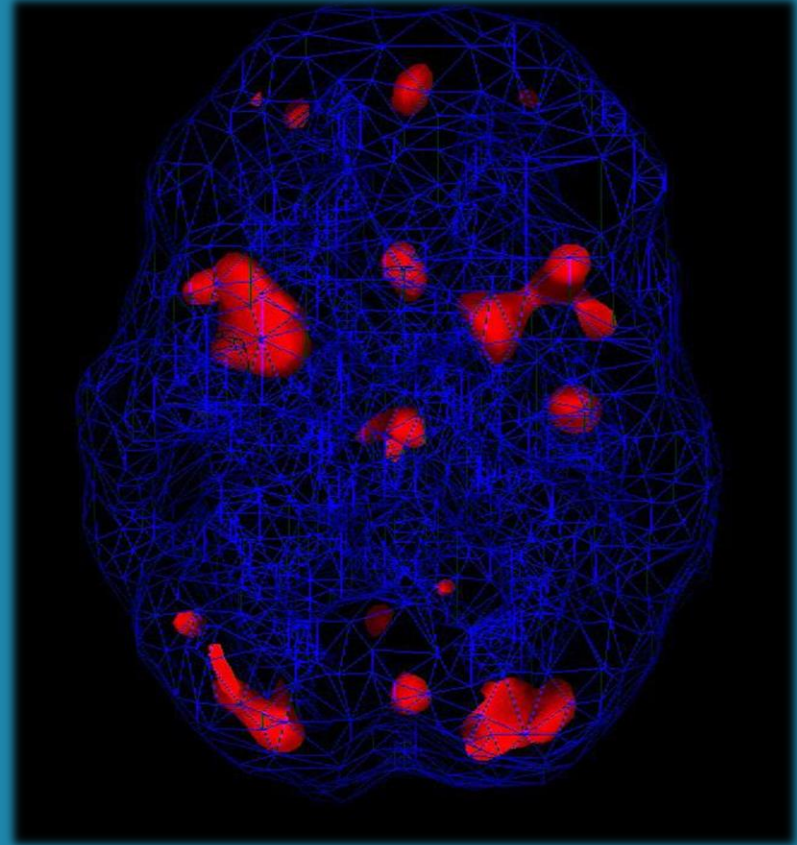
- ❖ Increased AC
- ❖ Increased BG
- ❖ Increased thalamus
- ❖ Increased right lateral temporal lobe



# EMDR – KC One Session

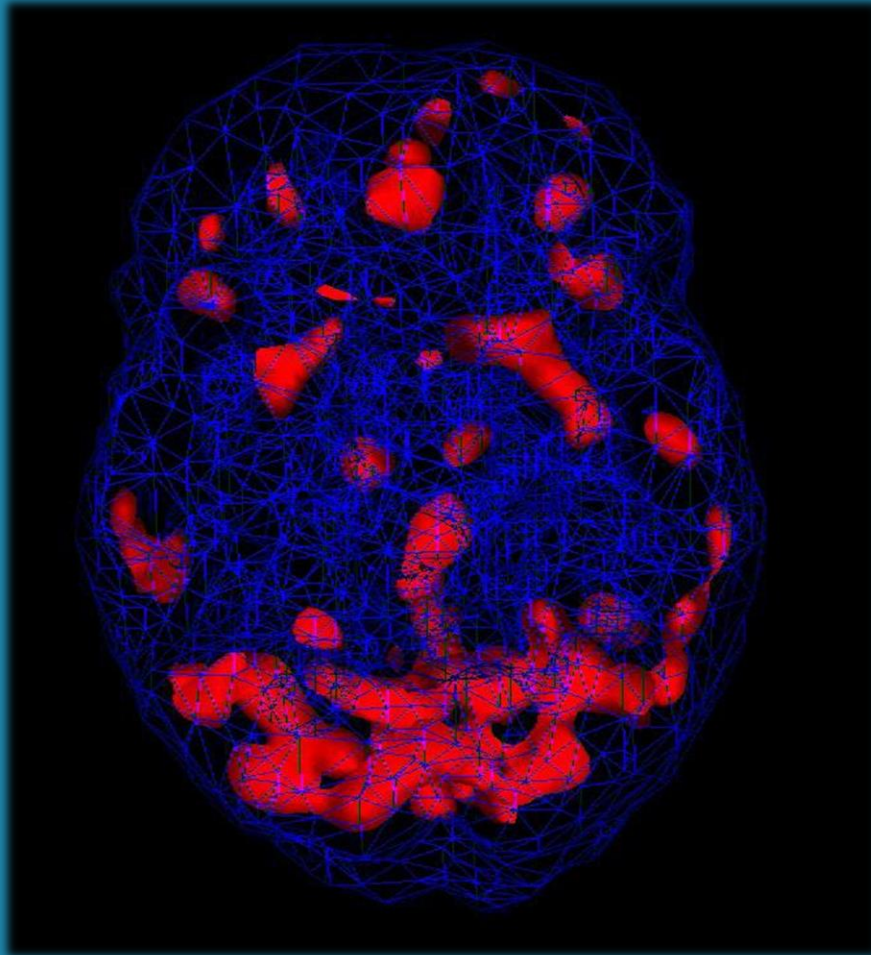


**Before**

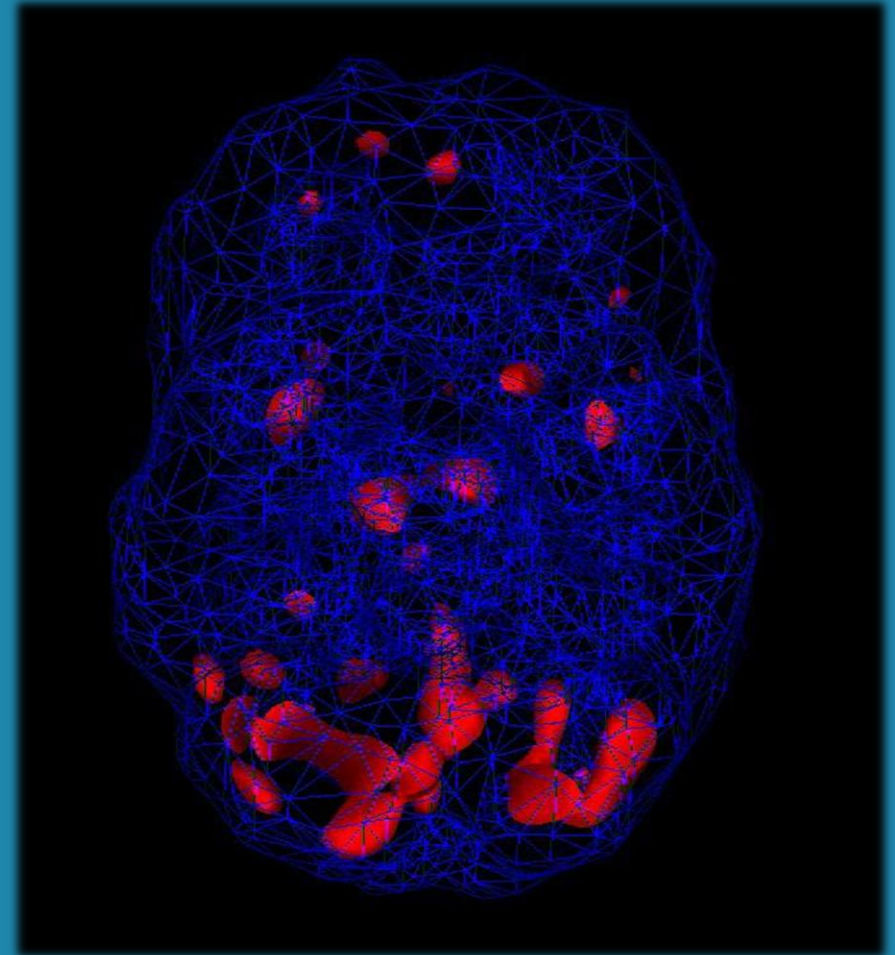


**After**

# EMDR - MH



**Before**



**After**

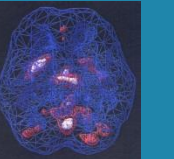
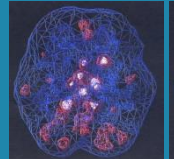
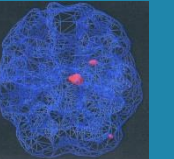
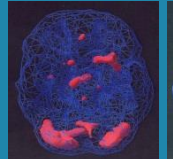
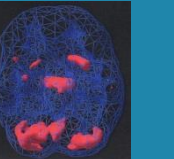
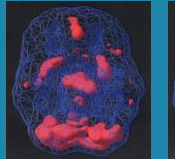
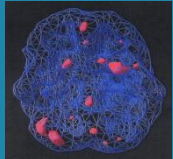
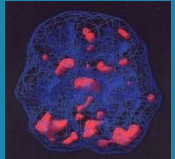
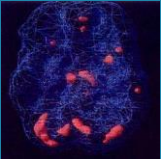
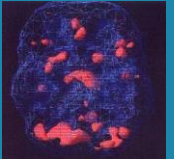
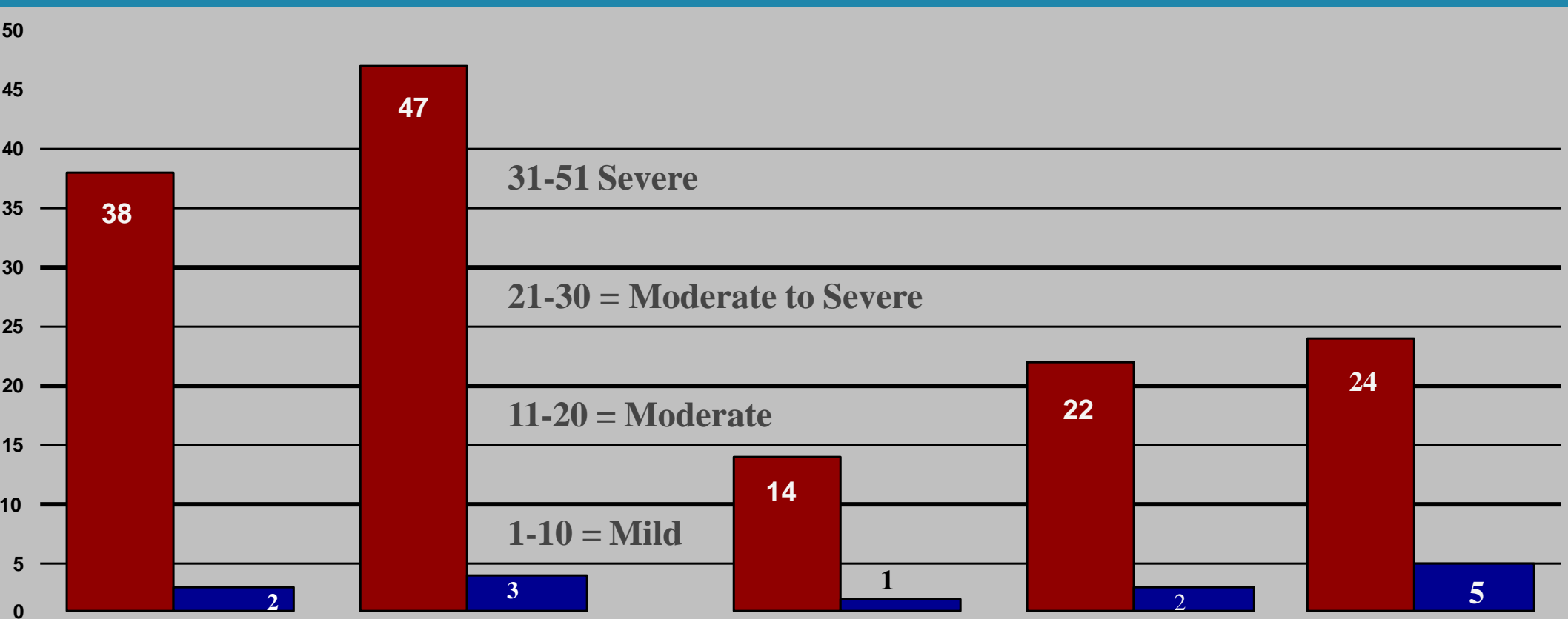
# SPECT and EMDR

## Amen Clinic 2001 - 2003 Study

- 6 police officers with PTSD by DSM-IV
- 3 States
  - ❖ Concentration
  - ❖ First EMDR session
  - ❖ After Treatment



# FOA SELF REPORT OF PTSD SYMPTOMS



Subject #1

Subject #2

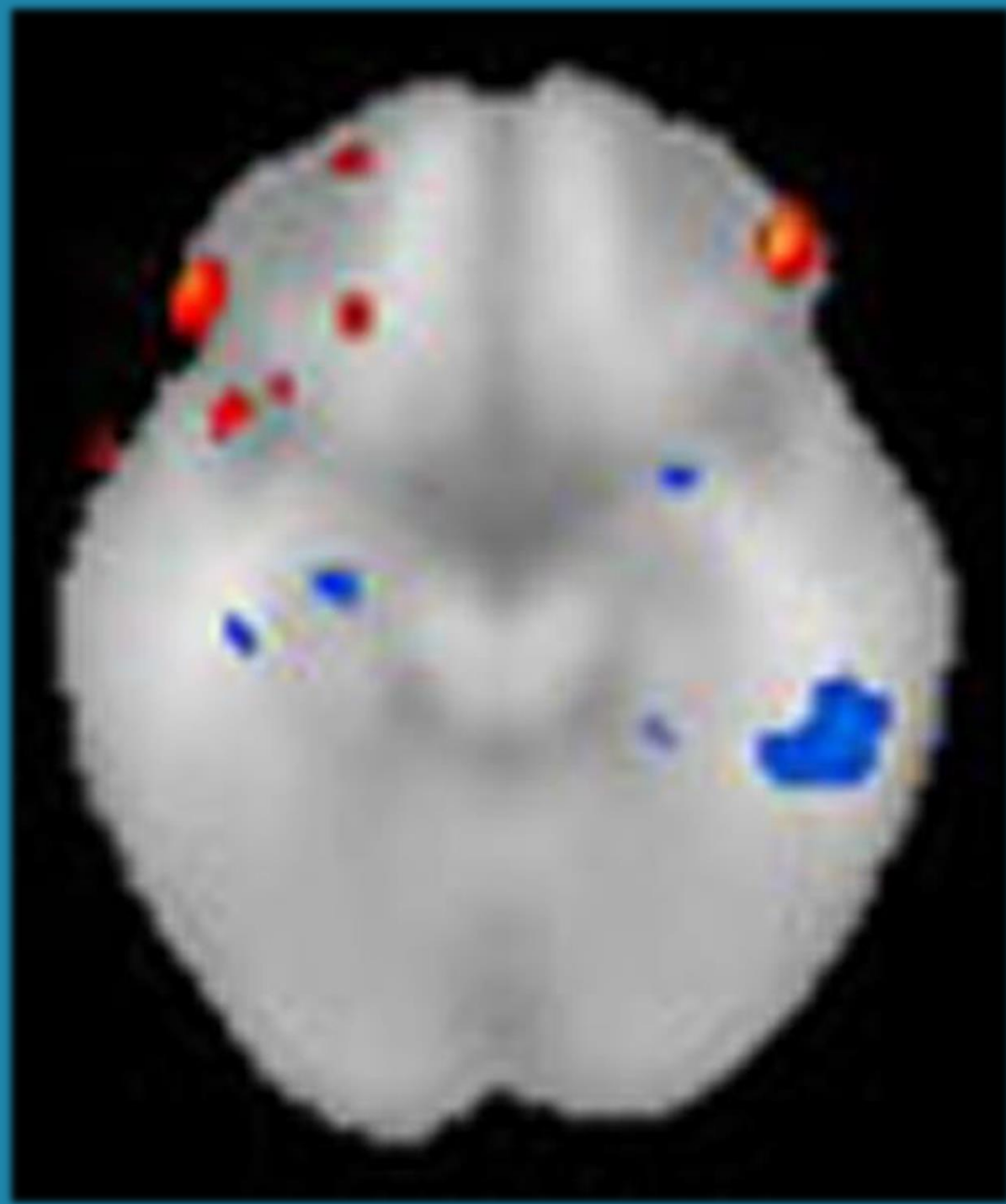
Subject #3

Subject #4

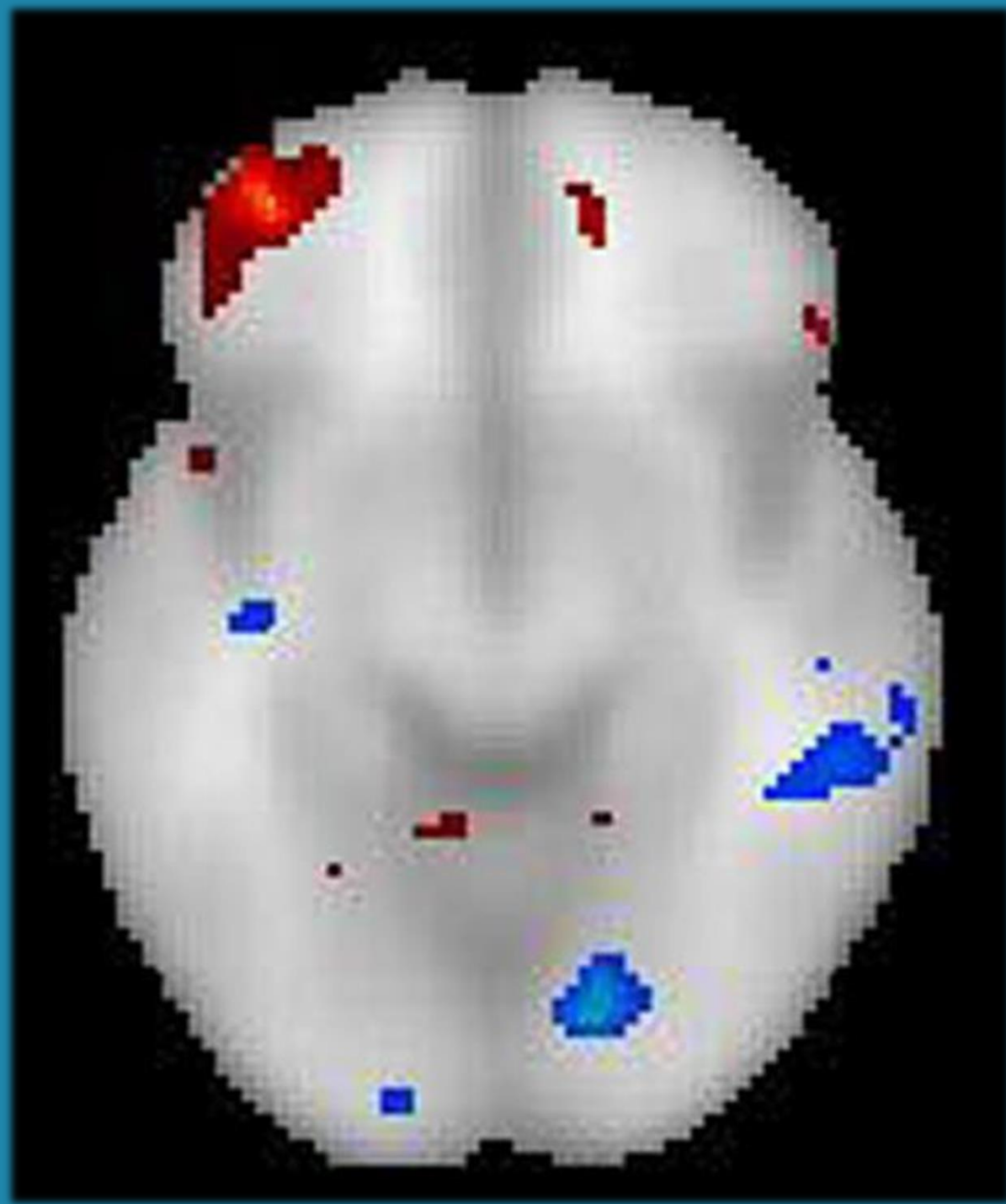
Subject #5

Pre-EMDR
  Post-EMDR

**SPECT/  
During  
EMDR  
p 0.005**



**SPECT/  
Post Rx  
EMDR  
p 0.005**



# Imaging and QiGong

- **Chinese meditation**
- **Litscher 2001**
- **rCBF on QiGong master**
- **Increased cerebral blood flow**