

# Posttraumatic Stress Disorder Among Veterans of the War in Iraq

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# Posttraumatic Stress Disorder

- Best estimate for rate of PTSD in veterans returning from Iraq 12-20% (National Center for PTSD)
- >1,500,000 deployed as of 7/07
- 52,375 treated by VA for PTSD as of 7/07

# Posttraumatic Stress Disorder Symptoms

- Reexperiencing: intrusive memories, nightmares, flashbacks, triggered distress
- Avoidance: isolation, withdrawal, emotional numbing, detachment, memory gaps
- Hyperarousal: insomnia, irritability, anger outbursts, poor concentration, hypervigilance, exaggerated startle

# Associated Features: Poor Occupational and Social Function

- Depression, suicidal ideation
- Alcohol and drug abuse
- Guilt, shame
- Unable to trust, overcontrolling
- Few or no close relationships, extreme isolation
- Unemployment
- Divorce
- Domestic violence and child abuse

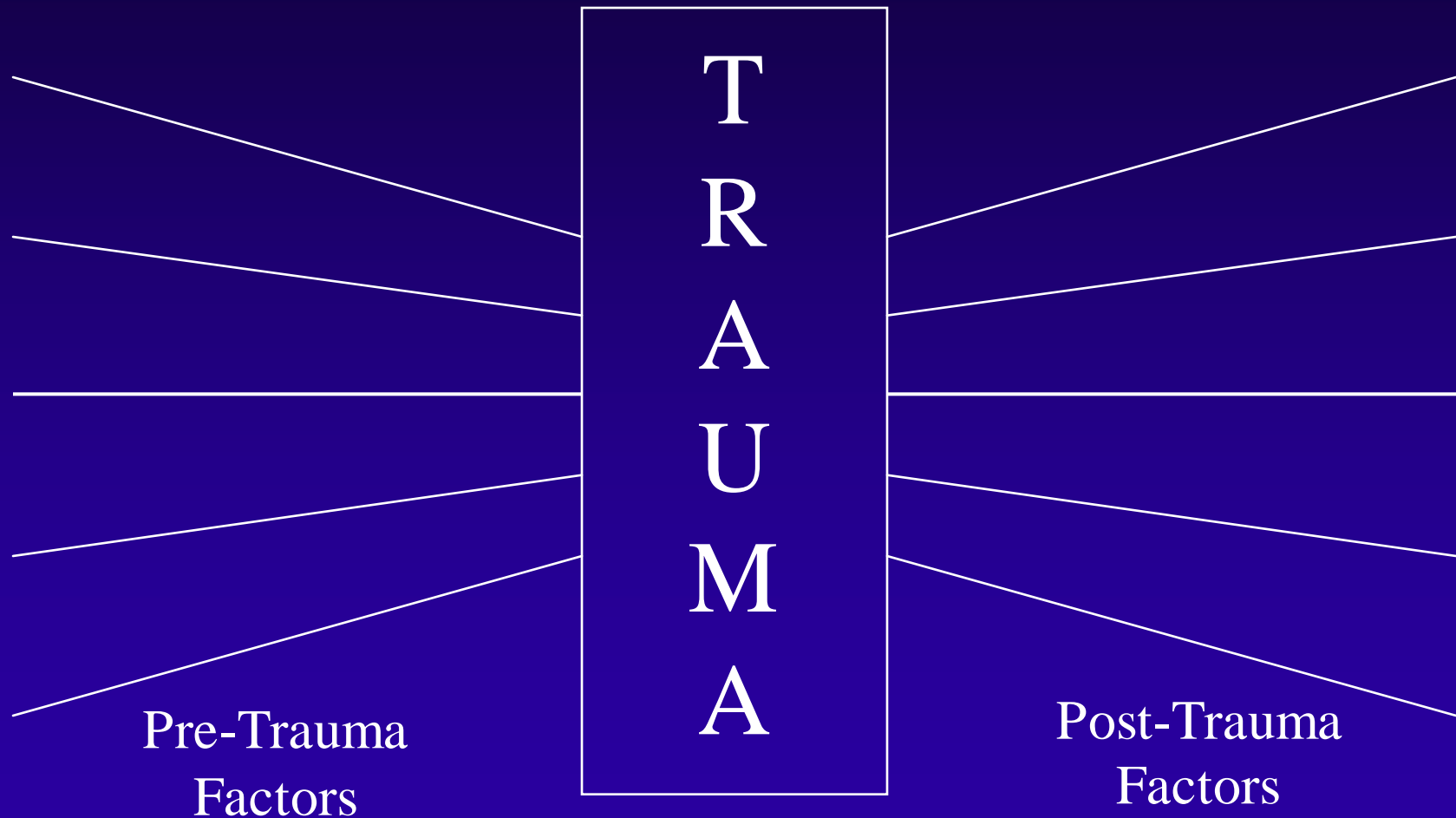
“...untreated PTSD can devastate life and incapacitate its victims from participation in the domestic, economic, and political life of the nation. The painful paradox is that fighting for one’s country can render one unfit to be its citizen.”

Jonathan Shay, MD  
“Achilles in Vietnam”

# Suicide

- 2006 suicide rate in U.S. Army was highest ever recorded in 26 years of record keeping.
- Veterans of all wars are twice as likely to die of suicide as non-veterans in general population.  
(Kaplan et al. 2007)

# Probability of Developing PTSD



# Nature of Trauma

- Unpredictability and Uncontrollability
- Severity (Intensity and Duration)
- Significant Object Loss
- Human Design vs. Accident
- Relationship of Perpetrator
- Use of Weapon, Physical Injury
- Atrocities, Civilian Casualties, Friendly Fire



## Pre-Trauma Factors

- Family/social pathology: violence, substance abuse, chaotic environment
- Developmental trauma: physical/sexual abuse, early parental loss/separation
- Age at time of trauma
- Gender

## Post-Trauma Factors

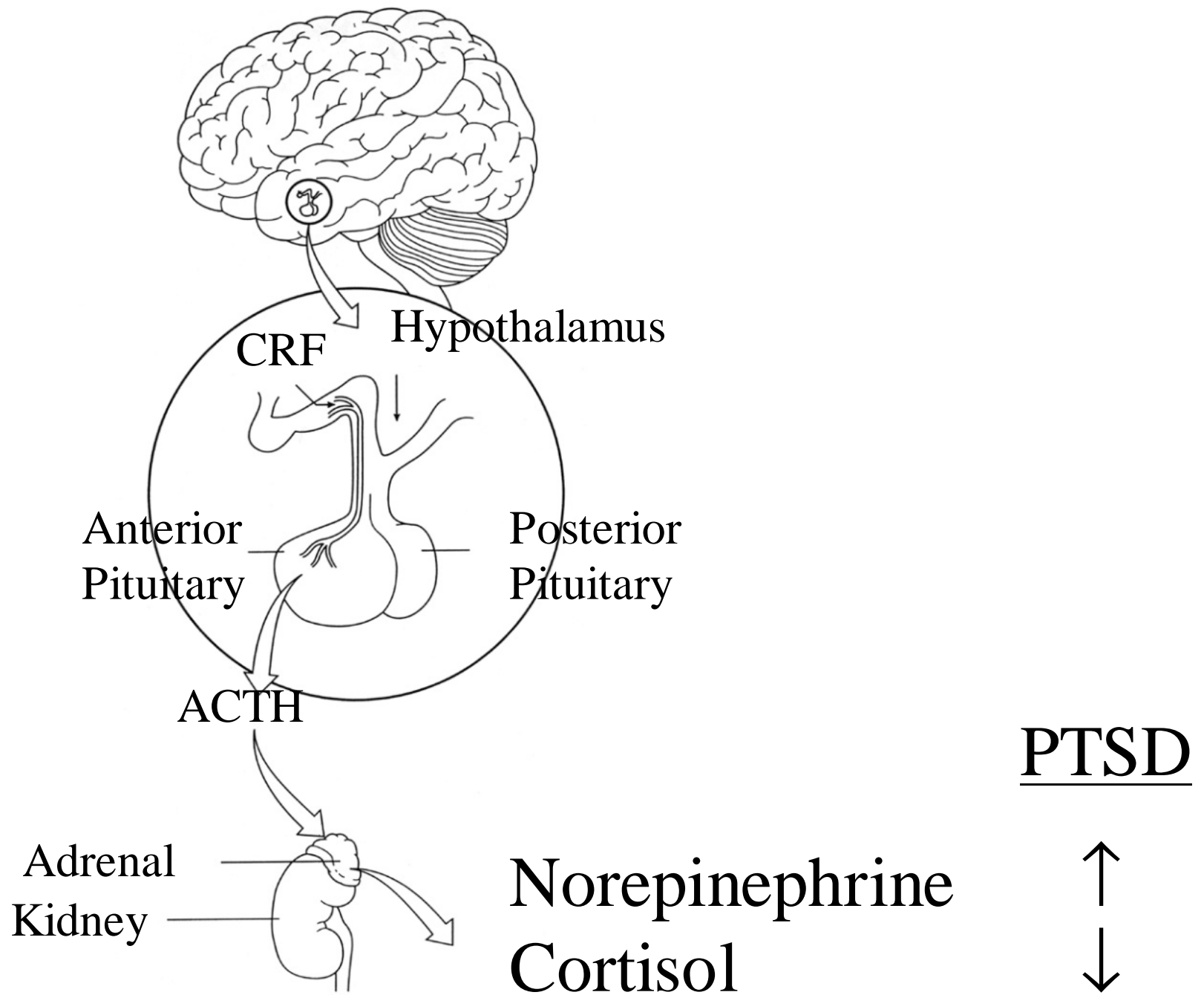
- Response of social group: stigmatizing, invalidating, rejecting, blaming, shaming
- Retraumatizing procedures: medical, psychiatric, court
- Medical and psychiatric comorbidity
- Family/social pathologies: unemployment, patient identity, legal problems
- Refugee displacement

# Multiple Deployments

- >500,000 with 2 or more deployments
- Most important risk factor is intensity and duration of trauma (dose response)
- Increased risk of PTSD and increased severity of symptoms

# Neurophysiologic Alterations in PTSD

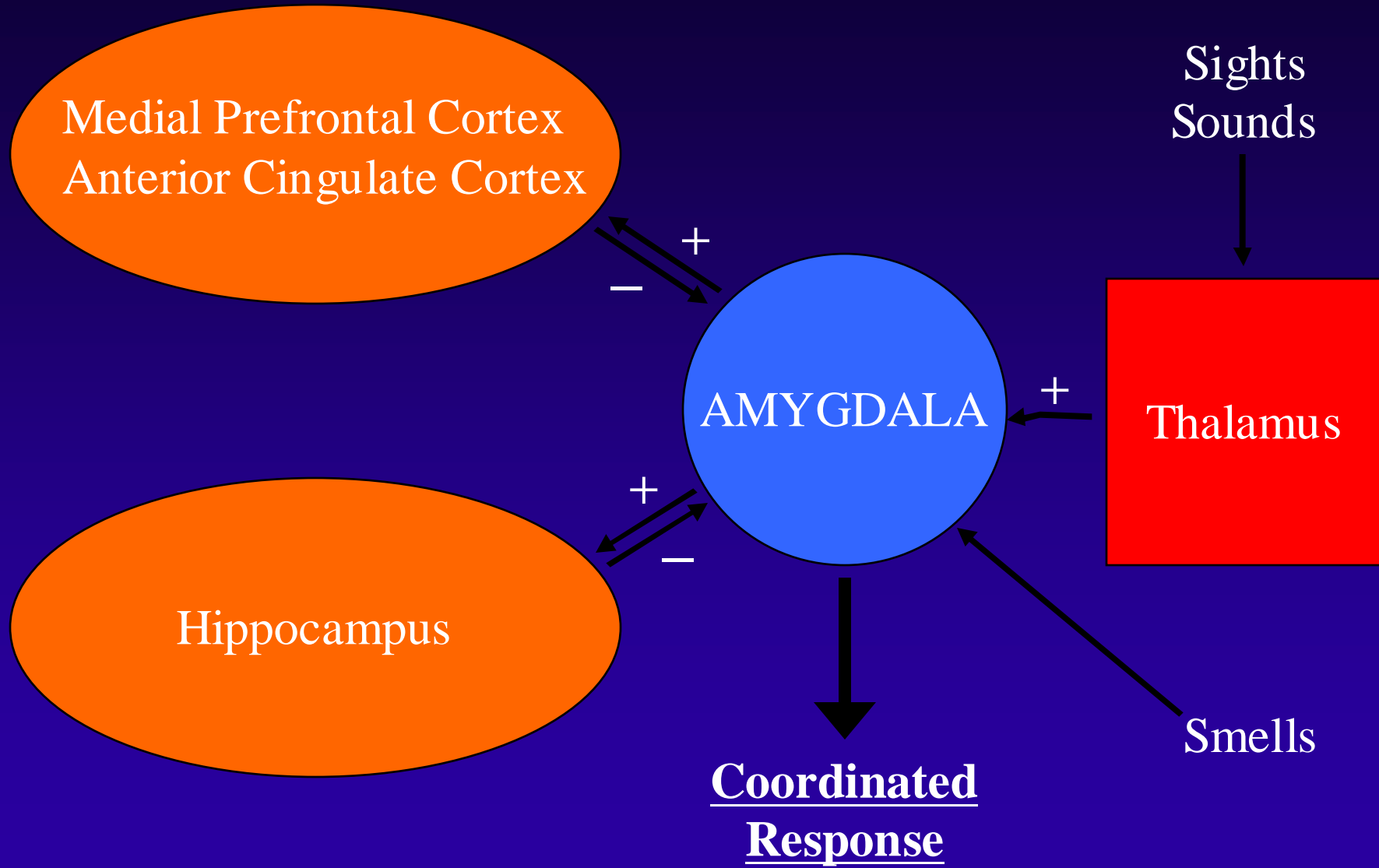
- Adrenal gland – stress hormones
- Neurotransmitter systems
- Thyroid
- Immune system
- Amygdala hyperactivity – fear and anger
- Hippocampal volume loss – memory deficits
- Anterior cingulate – “emotional clutch”

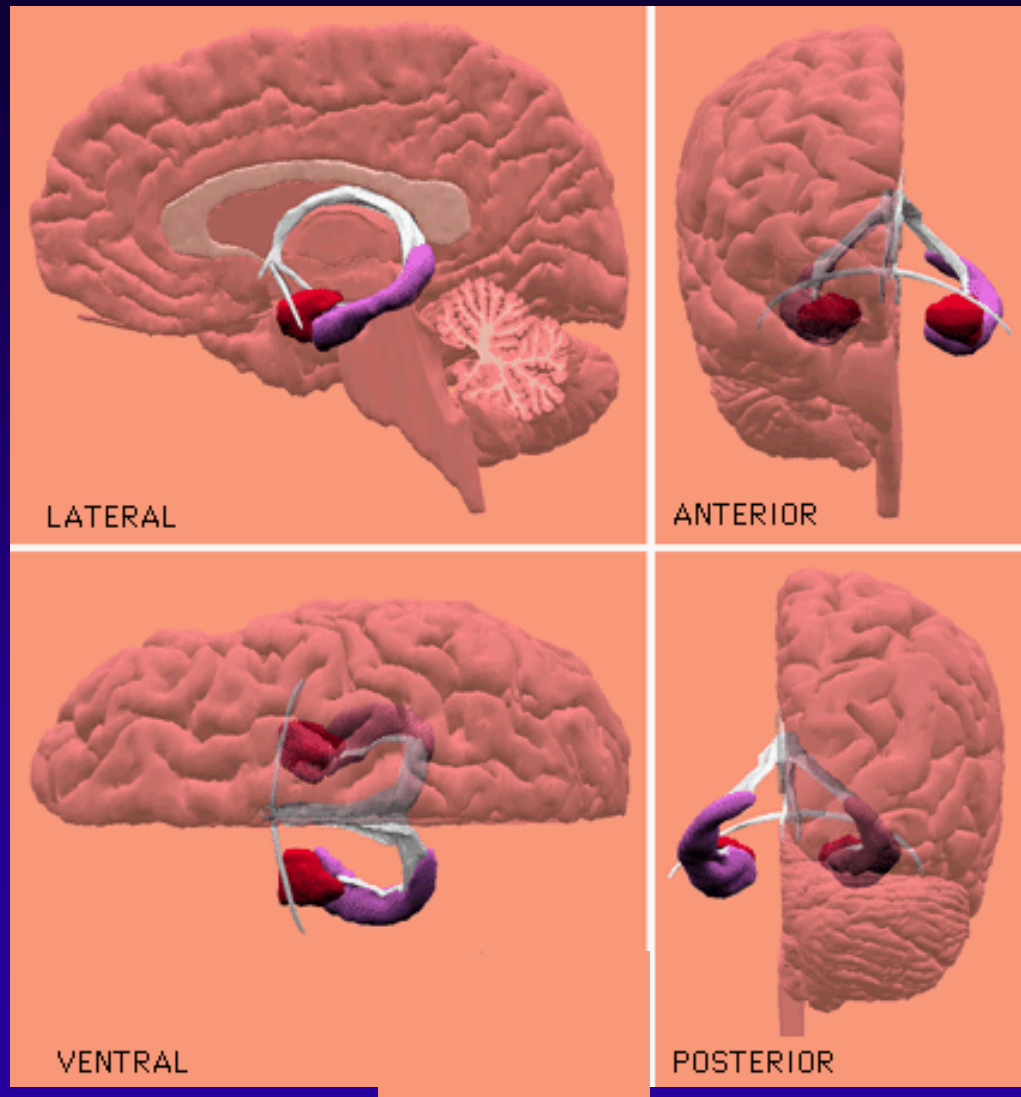


# Stress Hormone Systems

- Norepinephrine – “revving up” hormone
- Cortisol – “quieting down” hormone
- Both hormones are released in response to stress. They are normally in balance.

# Coordination of Threat Response







# Why do I get so angry? What's wrong with my memory?

- Amygdala
  - » “Reptile brain, dinosaur brain”
  - » Emotional response
  - » Fear, anger, fight or flight
- Frontal lobe
  - » “Executive function”
  - » Cognitive response
  - » Working memory, attention, carrying out tasks

# “Battlemind”

- In a dangerous situation you don't want to sit around and think. You want to act immediately using your amygdala and bypassing your frontal lobe.
- In PTSD the brain acts like you are in a dangerous situation all the time. The amygdala is hyperactive and the frontal lobe functions poorly.
- Anger and poor concentration are related. They are both part of hyperarousal.

# Approach to Medication Treatment

- Literature extremely limited, few controlled trials
- No specific agent for PTSD
- Treat prominent symptoms
- Treat comorbidity

# Medications

- Antidepressants
- Anxiolytics
- Sedatives for sleep
- Antiadrenergic agents
- Mood stabilizers/anticonvulsants
- Antipsychotics

# Approach to Psychotherapy

- Three stages: safety, remembering, reconnection
- Education about trauma and PTSD
- Normalization and validation
- Relieve irrational guilt
- Determine ability to tolerate memories without decompensation or intolerable self-loathing
- Group therapy
- Relaxation, meditation, and mindfulness

# Some Effective Therapies

- Exposure Therapy – desensitization
- Cognitive Therapy – identify dysfunctional beliefs and behaviors
- Behavioral Activation



# Iraq and Vietnam - Similarities

- Not knowing who the enemy is
- Feeling like you have been lied to
- Front line is everywhere
- Inadequate training or preparedness
- Civilian casualties
- Friendly fire



# Iraq and Vietnam - Differences

- Supportive homecoming
- Greatly improved understanding of readjustment problems and traumatic stress disorders
- Early recognition and effective treatment

# The War at Home

- More marital problems
- More behavioral problems in children
- More family violence - generational
  
- Vietnam veterans with PTSD compared with those without PTSD
  - » Three to six times as likely to get divorced
  - » Partners reported markedly reduced satisfaction in their lives and greater demoralization

# Social Problems

- 9% of all unemployment
- 8% of all divorce or separation
- 21% of all spouse or partner abuse

are attributable to combat exposure

Prigerson, Maciejewski, Rosenheck. Am J Public Health 2002. Used data from National Comorbidity Survey (1990-92)

“The cost of war is often measured in the physical destruction...in the number of dead. But probably worse is the psychological and spiritual toll. This cost takes generations to heal. It cripples and perverts whole societies...”

Chris Hedges

“War is a Force that Gives Us Meaning”

# Disability Benefits

A U.S. veteran who is 100 percent disabled and unemployable receives compensation payments from the Department of Veterans Affairs (VA) of \$2,471 per month. Over a 50-year period, this could total more than \$1.4 million, without adjustment for inflation.

# Health Costs of War – U.S.

- Casualties
  - » 4000 dead
  - » 60,000 injured
  - » 300,000 psychiatric casualties
- Lifetime cost of health care and disability benefits estimated at up to \$660 billion (Bilmes)
- Unemployment, divorce, family violence



# Health Costs of War - Iraq

- >1,000,000 Iraqi civilian deaths (Roberts et al.)
- Malnutrition and infectious disease
- Refugee crisis: >4 million displaced
- Destruction of health care system
- Iraqi doctors:
  - » 34,000 in 2003
  - » 18,000 have fled
  - » 2000 killed



# PTSD and the Perpetuation of Conflict

- Anger outbursts
- Emotional numbing
- Hypervigilance
- Distrust and paranoia
- Preoccupation with enemy
- Isolation and despair

**Guides for: Military Personnel  
Families  
Clinicians**

**National Center for PTSD**

**[www.ncptsd.org](http://www.ncptsd.org)**

**Battlemind Training**

**[www.battlemind.org](http://www.battlemind.org)**



Veterans have experience  
that makes them the light at  
the tip of the candle,  
illuminating the roots of  
war and the way to peace.

Thich Nhat Hanh