

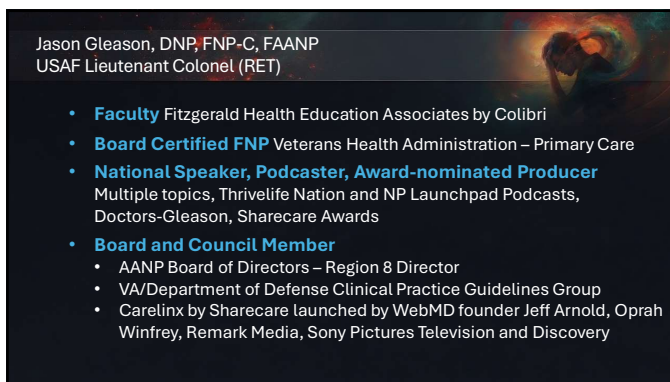


PTSD IN PRIMARY CARE

from hidden wounds
to hope and healing

Jason Gleason, DNP, FNP-C, FAANP
USAF Lieutenant Colonel (RET)

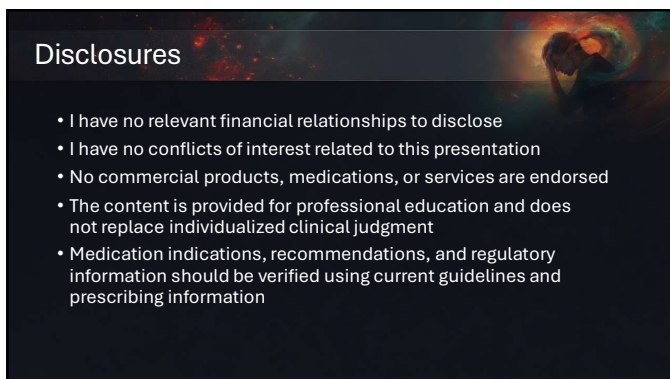
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Jason Gleason, DNP, FNP-C, FAANP
USAF Lieutenant Colonel (RET)

- **Faculty** Fitzgerald Health Education Associates by Colibri
- **Board Certified FNP** Veterans Health Administration – Primary Care
- **National Speaker, Podcaster, Award-nominated Producer**
Multiple topics, Thrivelife Nation and NP Launchpad Podcasts, Doctors-Gleason, Sharecare Awards
- **Board and Council Member**
 - AANP Board of Directors – Region 8 Director
 - VA/Department of Defense Clinical Practice Guidelines Group
 - Carelinx by Sharecare launched by WebMD founder Jeff Arnold, Oprah Winfrey, Remark Media, Sony Pictures Television and Discovery

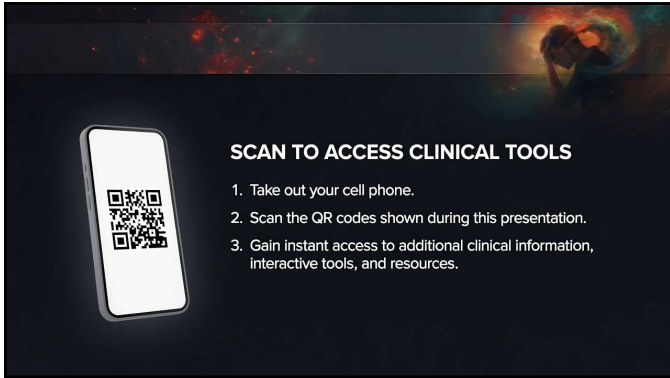
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- I have no relevant financial relationships to disclose
- I have no conflicts of interest related to this presentation
- No commercial products, medications, or services are endorsed
- The content is provided for professional education and does not replace individualized clinical judgment
- Medication indications, recommendations, and regulatory information should be verified using current guidelines and prescribing information

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SCAN TO ACCESS CLINICAL TOOLS

1. Take out your cell phone.
2. Scan the QR codes shown during this presentation.
3. Gain instant access to additional clinical information, interactive tools, and resources.

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Objectives

1. Develop the ability to effectively screen for PTSD using evidence-based tools and identify key symptoms.
2. Build confidence in understanding PTSD diagnostic criteria and distinguishing it from other mental health conditions.
3. Investigate various treatment options, including traditional therapy, pharmacological interventions, and novel approaches like Alpha-Stim and EMDR, to create comprehensive, individualized care plans.

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Session Talkpoints

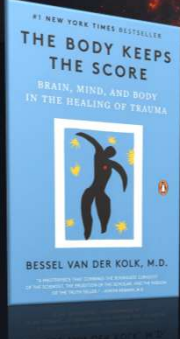


PATHOPHYSIOLOGY **RISK FACTORS**

SCREENING AND DIAGNOSIS **PHARMACOTHERAPY MODALITIES**

TRAUMA-FOCUSED THERAPIES **ONGOING CARE**

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#1 NEW YORK TIMES BESTSELLER
THE BODY KEEPS THE SCORE
 BRAIN, MIND, AND BODY
 IN THE HEALING OF TRAUMA
 BESSEL VAN DER KOLK, M.D.

- “Beneath the surface of the protective parts of trauma survivors there exists an undamaged essence, a self that is confident, curious, and calm, a self that has been sheltered from destruction by the various protectors that have emerged in their efforts to ensure survival...”

Bessel A. Van Der Kolk,
 The Body Keeps the Score

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What is PTSD?



- PTSD, can develop after exposure to death, serious injury, sexual violence, or another traumatic event
- Exposure may occur by:
 - Experiencing the trauma directly
 - Witnessing it
 - Learning that it happened to someone close
 - Repeatedly hearing or seeing traumatic details through work

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What is PTSD?

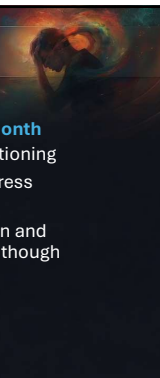
- Symptoms fall into four main groups:
 - **Intrusive symptoms:** nightmares, flashbacks, unwanted memories
 - **Avoidance:** avoiding people, places, thoughts, or feelings connected to the trauma
 - **Changes in mood and thinking:** guilt, fear, detachment, negative beliefs
 - **Hyperarousal:** poor sleep, irritability, hypervigilance, exaggerated startle



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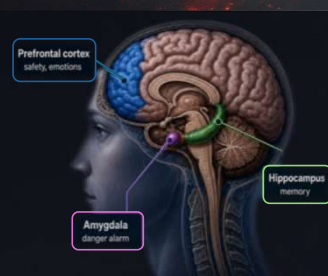
What is PTSD?

- Symptoms must
 - Last **longer than one month**
 - Interfere with daily functioning
- Most people experience stress after trauma
- PTSD occurs when the brain and body continue reacting as though the danger is still present



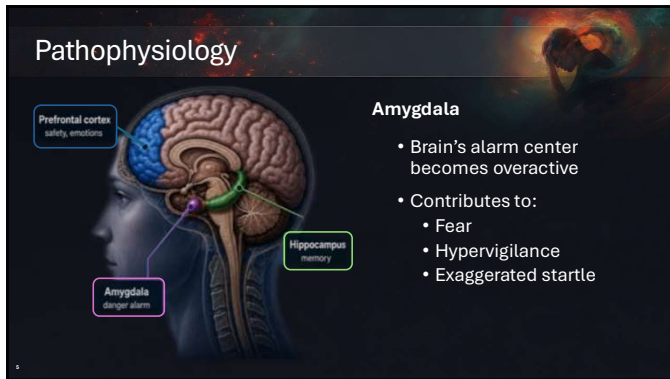
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Pathophysiology

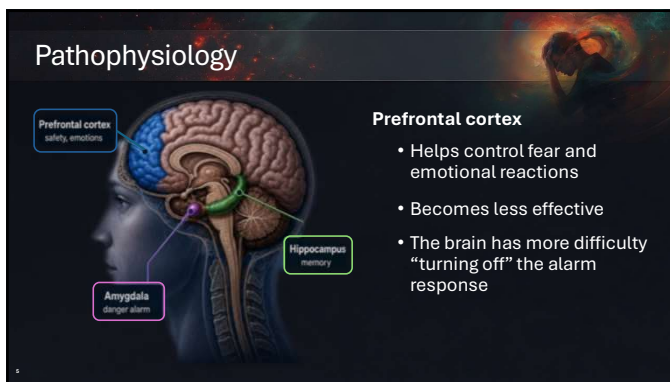


- Affects brain systems responsible for:
 - Detecting danger
 - Storing memories
 - Recognizing safety
 - Regulating emotions

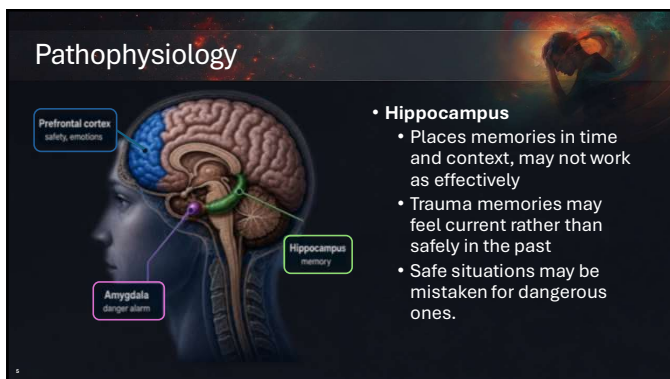
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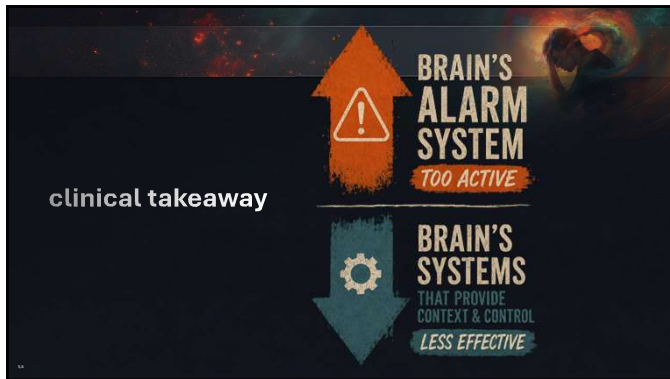
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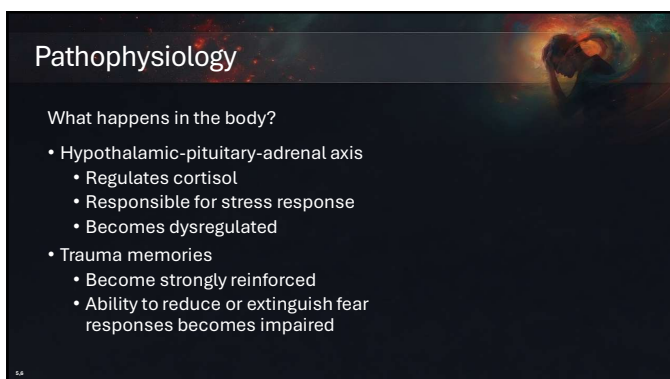
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Pathophysiology

What happens in the body?

- Increased inflammatory activity
 - Increased pain
 - Increased risk of cardiovascular and metabolic disease
- No laboratory test, brain scan, cortisol level, or inflammatory marker can currently diagnose PTSD.

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Risk factor categories



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Risk factors

Pre-traumatic risk factors

- Temperament
 - Early childhood problems
 - Prior mental disorders
- Environmental
 - Lower socioeconomic status
 - Lower education
 - Prior trauma exposure
- Genetic/physiological factors
 - Female gender
 - Younger age at time of trauma exposure
 - Lower intelligence
 - Minoritized racial/ethnic
 - Family psychiatric history

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Risk factors

Peri-traumatic factors

- Environmental
 - Severity of trauma
 - Perception of life threat
 - Interpersonal violence
 - Personal injury
- Military personnel
 - Harming or killing the enemy (direct and indirect)
 - Witnessing atrocities or killing of the enemy

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Risk factors

Posttraumatic risk factors

- Negative appraisals
- Limited coping skills
- Repeated upsetting reminders also known as “triggers”
- Subsequent adverse life events
- Groups who have increased vulnerability to developing PTSD
 - Racial and sexual minorities
 - Suffered sexual trauma
 - Suffered from adverse childhood experiences (ACEs)

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Risk factors

Adverse childhood experiences

- Neglect
- Physical, emotional and sexual abuse
- ACE Questionnaire - widely used scale that assesses
 - Physical, emotional, and sexual abuse
- Household dysfunction
 - Alcohol or drug misuse
 - Parent who engaged in violent or criminal behavior in the household
 - Mental illness in the family

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Risk factors

Childhood sexual abuse disclosure

- 48-52 years old is average age of disclosure
- Male survivors disclose particularly late
- Comparable U.S. age estimates are not well established for childhood physical abuse

Military populations

- 20% of PTSD cases result from sexual trauma (both men and women)
- Occurs regardless of deployment history

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Risk factors



Adverse childhood events screening tool

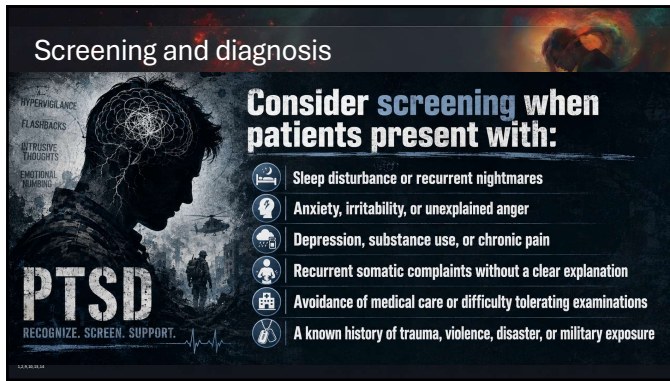
www.mdcalc.com

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Recovery factors

- Physical **safety** and removal from ongoing danger
- **Supportive** family, friends, coworkers, or community
- Stable **housing** and access to basic resources
- Effective **treatment** of pain, sleep problems, and medical injuries
- **Early recognition** of persistent or worsening symptoms
- **Access** to evidence-based mental health care
- Social support promotes recovery but it's a life-long journey

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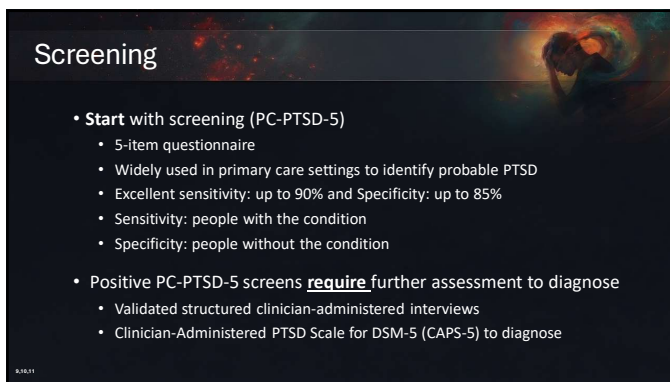
Screening and diagnosis

Consider screening when patients present with:

- Sleep disturbance or recurrent nightmares
- Anxiety, irritability, or unexplained anger
- Depression, substance use, or chronic pain
- Recurrent somatic complaints without a clear explanation
- Avoidance of medical care or difficulty tolerating examinations
- A known history of trauma, violence, disaster, or military exposure

PTSD
RECOGNIZE. SCREEN. SUPPORT.

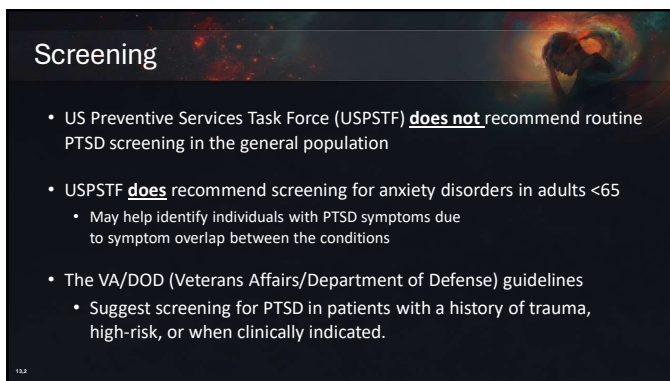
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Screening

- **Start** with screening (PC-PTSD-5)
 - 5-item questionnaire
 - Widely used in primary care settings to identify probable PTSD
 - Excellent sensitivity: up to 90% and Specificity: up to 85%
 - Sensitivity: people with the condition
 - Specificity: people without the condition
- Positive PC-PTSD-5 screens **require** further assessment to diagnose
 - Validated structured clinician-administered interviews
 - Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) to diagnose

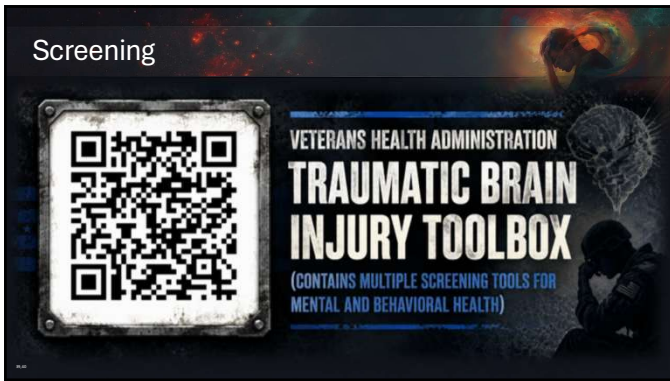
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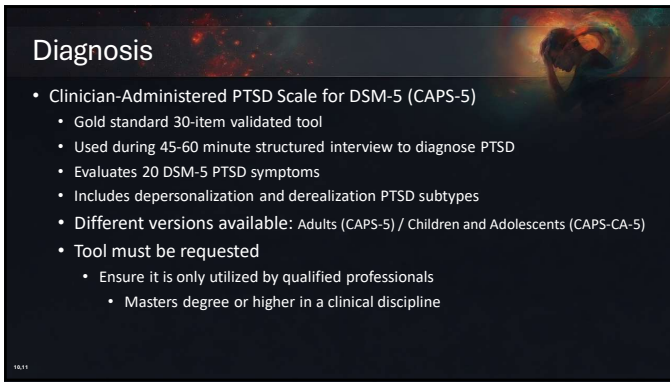
Screening

- US Preventive Services Task Force (USPSTF) **does not** recommend routine PTSD screening in the general population
- USPSTF **does** recommend screening for anxiety disorders in adults <65
 - May help identify individuals with PTSD symptoms due to symptom overlap between the conditions
- The VA/DOD (Veterans Affairs/Department of Defense) guidelines
 - Suggest screening for PTSD in patients with a history of trauma, high-risk, or when clinically indicated.

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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - Avoidance - Negative Cognition - Hyperarousal - Persistence - Distress - No alternate

- Criterion A: Requires **exposure** / causation (1 required)
 - Victim exposed to actual or threatened trauma
 - Directly experiencing the trauma
 - Witnessing in person the events that occurred to others
 - Learning that trauma happened to close family or friends
 - Experiencing repeated or extreme exposure to details

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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - **Intrusive** - Avoidance - Negative Cognition - Hyperarousal - Persistence - Distress - No alternate

- Criterion B: Traumatic event is **Intrusive** (1 required)
 - Nightmares
 - Intrusive thoughts
 - Flashbacks
 - Marked emotional distress when exposed to reminders
 - Strong physiologic reaction when exposed to reminders

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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - **Avoidance** - Negative Cognition - Hyperarousal - Persistence - Distress - No alternate

- Criterion C: **Avoidance** in one of two ways (1 required)
 - Avoidance of thoughts and feels associated with event
 - Avoidance of people, places and activities that may trigger recollections of the event

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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - Avoidance - Negative Cognition - Hyperarousal - Persistence - Distress - No alternate

- Criterion D: **Negative alterations** in cognition or mood (2 required)
- Inability to remember important aspect of the event
- Persistent or exaggerated negative beliefs about oneself/others
- Persistent distorted cognition about event cause
- Persistent, negative emotional state
- Markedly diminished interest in significant activities
- Feelings of detachment from others
- Persistent inability to experience positive emotions

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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - Avoidance - Negative Cognition - **Hyperarousal** - Persistence - Distress - No alternate

- Criterion E: **Hyperarousal** (2 required)
 - Irritable behavior
 - Angry outbursts
 - Reckless
 - Self-destructive
 - Hypervigilance
 - Startled response
 - Focus problems
 - Sleep issues

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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - Avoidance - Negative Cognition - Hyperarousal - **Persistence** - Distress - No alternate

- Criterion F: **Persistence** / Duration (required)
 - Duration of symptoms > 1 month
 - Disturbance causes clinically significant distress
 - Disturbance no attributable to substance use or other mental health conditions

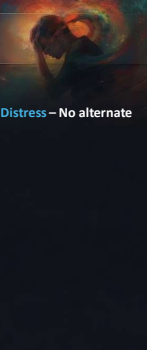
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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - Avoidance - Negative Cognition - Hyperarousal – Persistence – Distress – No alternate

- Criterion G: **Distress** (required)
 - Symptoms create distress or functional impairment (e.g., social, occupational)



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Diagnosis

Posttraumatic stress disorder: diagnostic criteria

Exposure - Intrusive - Avoidance - Negative Cognition - Hyperarousal – Persistence – Distress – **No alternate**

- Criterion H: **No alternate** / no other causation
 - Symptoms are not due to medication, substance use or other illness

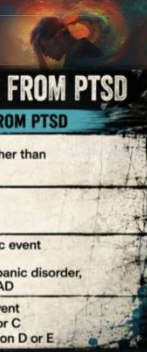


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Diagnosis

CLUES TO DISTINGUISH OTHER CONDITIONS FROM PTSD

CONDITION	CLUES TO DISTINGUISH IT FROM PTSD
 ADJUSTMENT DISORDERS	> Stressor can be any severity or type other than that which triggered PTSD
 ACUTE STRESS DISORDER	> Symptom last for 3 days to 1 month > PTSD symptoms last beyond 1 month
 ANXIETY DISORDERS AND OCD	> Not related to an experienced traumatic event > Recurrent intrusive thoughts of OCD > Arousal and dissociative symptoms of panic disorder, avoidance, irritability, and anxiety of GAD
 MAJOR DEPRESSIVE DISORDER	> Not related to experienced traumatic event > Does not include any PTSD criterion B or C > Does not include symptoms from criterion D or E



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Diagnosis

CLUES TO DISTINGUISH OTHER CONDITIONS FROM PTSD

CONDITION	CLUES TO DISTINGUISH IT FROM PTSD
 PERSONALITY DISORDERS	<ul style="list-style-type: none"> › Emerge in adolescence and young adulthood › Interpersonal difficulties expected independently of any traumatic exposure
 DISSOCIATIVE DISORDERS	<ul style="list-style-type: none"> › May or may not be preceded by exposure to traumatic event › May or may not have co-occurring PTSD symptoms
 CONVERSION DISORDER (FUNCTIONAL NEUROLOGICAL SYMPTOM DISORDER)	<ul style="list-style-type: none"> › New onset or somatic symptoms that cannot be explained by a medical or neurological condition › Might be an indication of PTSD
 PSYCHOTIC DISORDERS	<ul style="list-style-type: none"> › Flashbacks in PTSD distinguished from illusions, hallucinations, and other perceptual disturbances

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Diagnosis and coordination of care



THERAPIST FINDER



VA FACILITY FINDER

CARE COORDINATION

Post-traumatic stress disorder and other complex mental health disorders are often co-managed with mental health specialists and primary care




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Suicide prevention is priority #1



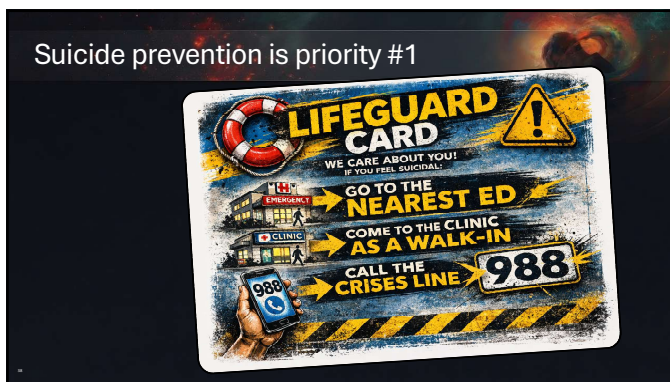
- Suicide prevention is a TOP priority...
- Columbia-Suicide Severity Rating Scale (C-SSRS)



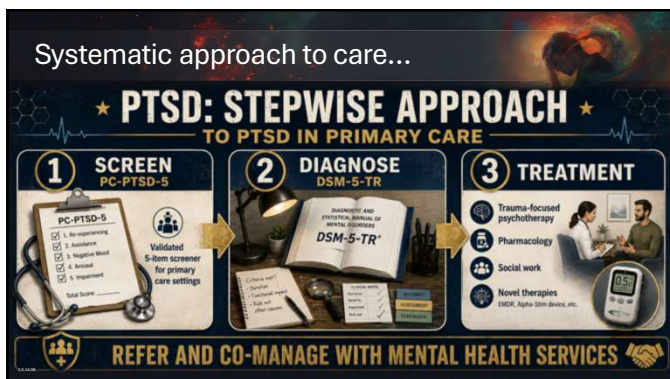
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Starting point for treatment



- Assume trauma may be present
- Prioritize safety, choice, empowerment
- Ask **permission** before discussing trauma
- Avoid forcing detailed recounting
- Normalize reactions **without** minimizing
- Validate strengths and values
- Document exposure and symptoms carefully
- Avoid stigmatizing language

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Starting point for treatment

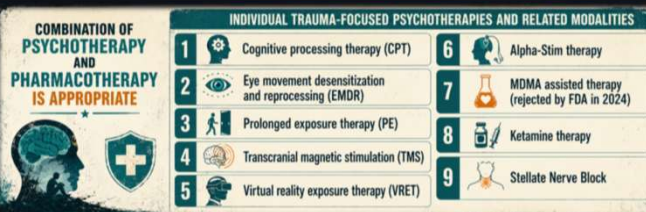


- Individual trauma-focused psychotherapy is **generally preferred** over medication as the initial treatment for PTSD
- Best outcomes are seen with wrap-around wholistic care
 - Trauma-focused therapies
 - Pharmacology
 - Social services

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Trauma-focused therapies

- Psychotherapies are recommended **over** pharmacologic interventions
- Combination of psychotherapy and pharmacotherapy is appropriate



COMBINATION OF PSYCHOTHERAPY AND PHARMACOTHERAPY IS APPROPRIATE		INDIVIDUAL TRAUMA-FOCUSED PSYCHOTHERAPIES AND RELATED MODALITIES	
1	Cognitive processing therapy (CPT)	6	Alpha-Stim therapy
2	Eye movement desensitization and reprocessing (EMDR)	7	MDMA assisted therapy (rejected by FDA in 2024)
3	Prolonged exposure therapy (PE)	8	Ketamine therapy
4	Transcranial magnetic stimulation (TMS)	9	Stellate Nerve Block
5	Virtual reality exposure therapy (VRET)		

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Trauma-focused therapies

Cognitive processing therapy (CPT)

- Individual or group therapy for PTSD
- Patient learns ways to evaluate/change upsetting thoughts about trauma
- Helps patients choose more helpful ways to think about trauma
- Empowers patients to look at circumstance with new perspective
- Treatment usually takes 12 weekly 60-minute sessions to complete
- Can cause moderate discomfort

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Trauma-focused therapies

COGNITIVE PROCESSING THERAPY (CPT)

Patient and provider resources at the VA

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Trauma-focused therapies

Eye movement desensitization and reprocessing (EMDR)

- Developed by Psychologist Francine Shapiro in 1987
- Rapid eye movement reduces distress
- Structured therapy – can be painful
- Patient focuses on trauma
- Bilateral eye movements
- Reduces vividness and emotions related to trauma

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Trauma-focused therapies

One patient reported...

"I remember it as though it was a real memory, but it was more distant. Typically, I drowned in it, but this time I was floating on top."



**EMDR
Institute**

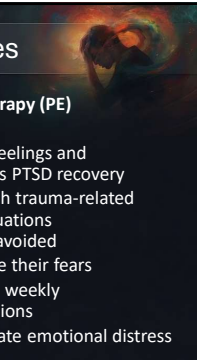


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Behavioral/Mental health modalities

Prolonged exposure therapy (PE)

- Individual therapy
- Avoiding trauma feelings and situations prevents PTSD recovery
- Gradually approach trauma-related memories and situations which have been avoided
- Helps patients face their fears
- Usually takes 8-15 weekly 60-90 minute sessions
- May cause moderate emotional distress



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Trauma-focused therapies

prolonged exposure therapy




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Trauma-focused therapies



Transcranial magnetic stimulation (TMS)

- Somatic neuromodulation treatment
- Electromagnetic coil is placed against the scalp
- Electromagnet stimulates nerve cells
- May reduce PTSD symptoms in some studies
 - Reduces flashbacks
 - Reduces hyperarousal
 - Reduces anxiety
- Sessions usually last 20-60 minutes
5 days a week for 4 to 6 weeks
- May cause mild headache, scalp discomfort

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Trauma-focused therapies



• Transcranial magnetic stimulation (TMS)



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Trauma-focused therapies



Virtual Reality Exposure Therapy (VRET)

- Individual therapy
- Immersive, controlled therapeutic tool
- Utilizes virtual reality headsets
- Stimulates traumatic memories
- Safe environment
- Desensitizes trauma
- Treatment of resistant combat related trauma
- Can be emotionally uncomfortable
- Provider **must stress** to patient that they are safe

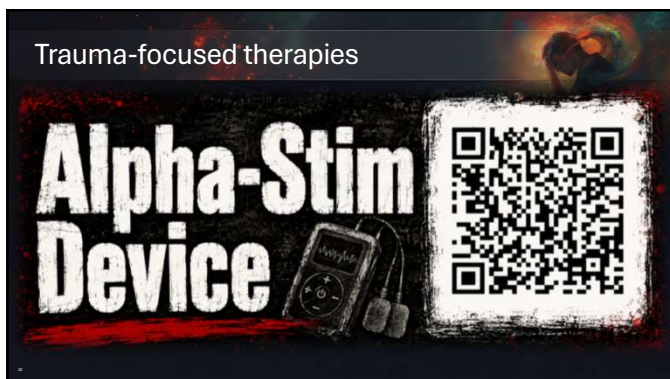
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Trauma-focused therapies

- Stellate nerve block
 - Sympathetic nerves
 - Connected to the amygdala
 - Blocking or "turning off" the sympathetic switch (stellate ganglion)
 - Allows amygdala to rest
 - Reduces fight or flight response
 - Procedure completed under ultrasound
 - Local anesthetic injection at C6 between trachea and carotid at level of cricoid

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Trauma-focused therapies

Stellate nerve block

- Mixed evidence
- Uncontrolled, unblinded retrospective case series
 - 70% to 75% improvement in PTSD symptoms
- RCT results inconclusive neither confirming or refuting findings in the case series.
- New RCTs are needed

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Trauma-focused therapies

Certified Service Dog

- Dog Tag Buddies
- Pairs rescue dogs with Veterans who have suffered PTSD and/or TBI
- Focuses on
 - Training
 - Companionship
 - Reducing Veteran suicide
- Includes owner training
- Two-year journey to complete
- No cost to Veterans

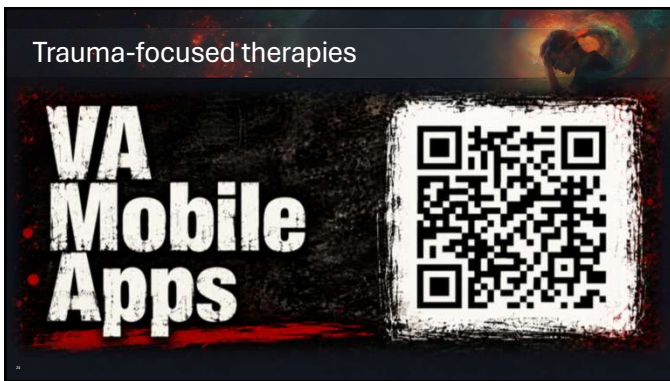
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Pharmacotherapy



Before prescribing:

- Confirm the diagnosis and treatment goals.
- Screen for bipolar disorder and substance use.
- Review pregnancy status when applicable.
- Consider suicide risk, medication interactions, and medical comorbidities.
- Use shared decision-making.

- Medication is reasonable when:
 - The patient prefers medication
 - Trauma-focused therapy is unavailable
 - The patient is not ready to begin trauma-focused therapy
 - Symptoms interfere therapy participation
 - Depression, anxiety, or another medication-responsive condition is also present

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Pharmacotherapy



CLINICAL TIP:

“Medication can reduce symptoms, but it does not directly provide the trauma processing and safety learning offered by trauma-focused psychotherapy.”

SAFETY
TRUST
EMPOWERMENT
HEALING

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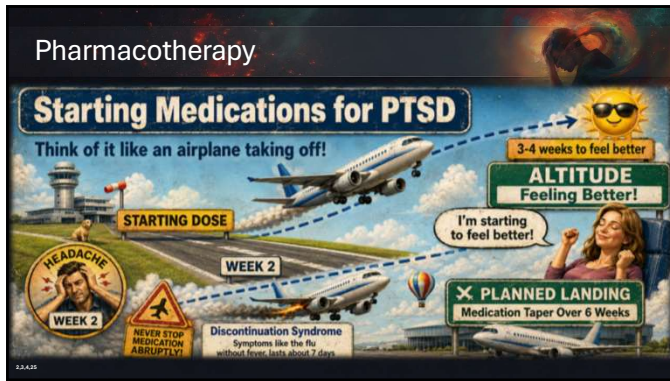
Pharmacotherapy



Pharmacotherapy considerations

- Symptoms direct treatment
- Time to remission 4-6 weeks
- Headache most common initial side effect
 - Goes away around week 3
- Discontinue taper over 6 weeks
- Increased suicidal ideation < 24 years old
 - Assess suicidal ideation at every visit
- Refer and co-manage complex patients

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Pharmacotherapy



AVOID ROUTINE USE OF BENZODIAZEPINES

- Do not effectively treat core PTSD symptoms.
- May cause dependence, cognitive impairment, falls, and interference with recovery.

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Pharmacotherapy



TREATING CONCURRENT ANXIETY

- Acute/PRN anxiety:** Hydroxyzine may provide short-term symptomatic relief without benzodiazepine dependence, but it is not an evidence-based treatment for PTSD itself.
- Insomnia:** Consider using trazodone, melatonin, doxepin and others used off-label when clinically appropriate
- Long-standing, daily treatment:** Buspirone potential option for co-occurring generalized anxiety, but evidence is insufficient to recommend it as a PTSD treatment.

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Treatment: Pharmacotherapy



AVOID CANNABIS

- Cannabis is not recommended for PTSD treatment
- No demonstrated benefit for overall PTSD symptoms
- Potential cognitive, psychiatric & substance-use harms
- Avoid routine antidepressant augmentation
- Reassess before adding another medication

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Pharmacotherapy

KETAMINE / ESKETAMINE

May be considered for a separate indication such as **treatment-resistant depression**

Not established treatment for **PTSD** itself




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Pharmacotherapy

KETAMINE THERAPY

- Not FDA approved for PTSD
- FDA approved:
 - Treatment-resistant depression
 - Major Depressive Disorder with acute suicidal ideation
- Combination or stand-alone therapy (January 2025)
- Esketamine (Spravato®) nasal spray
- Contraindications:
 - Aneurysmal vascular disease
 - History of intracerebral hemorrhage
- ONLY administered in certified center
- Monitored for at least 2-hrs post dose
- Misuse and dependency



Esketamine (Spravato®) Center Locator



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Treatment: Pharmacotherapy

ANORGASMIA

SSRI/SNRI sexual adverse effect

1 WHAT IT IS

- Inability to orgasm or climax
- Ejaculatory dysfunction

One of the most common reasons for discontinuation

2 ADJUNCT OPTION



Supplement with Bupropion (Wellbutrin®)

- May be energizing and cause anxiety exacerbation
- Take in the morning

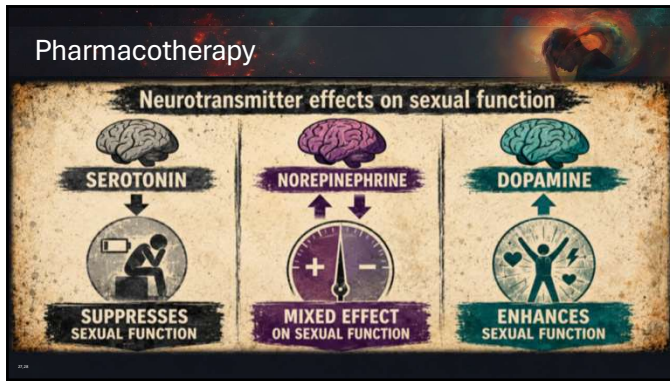
3 USE CAUTION / CONTRAINDICATIONS

- Contraindicated in seizure disorder, bulimia nervosa





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Pharmacotherapy

MDMA-Assisted Therapy for PTSD: Update

- MDMA (midomafetamine) "Ecstasy/Molly"
 - Investigational and used under supervision as an adjunct to psychotherapy
 - Not as a take-home daily medication
 - Increases release/signaling of serotonin, norepinephrine, and dopamine
 - Produces greater openness, trust, self-compassion, and prosocial feelings

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Pharmacotherapy

MDMA-Assisted Therapy for PTSD: Update

- Reduces threat reactivity and improved fear extinction/reconsolidation
- Makes traumatic memories easier to process during therapy
- The studied treatment course
 - 3 preparatory sessions
 - 3 MDMA dosing sessions
 - 9 integration sessions

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Pharmacotherapy



- MDMA-Assisted Therapy for PTSD: Update
 - Phase 3 MAPP2:
 - 86.5% had a clinically meaningful PTSD improvement
 - 71.2% no longer met PTSD diagnostic criteria
 - Compared 47.6% receiving placebo + therapy
 - Remission was 46.2% vs 21.4%.

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Pharmacotherapy



- MDMA-Assisted Therapy for PTSD: Update
- **MDMA is NOT FDA-approved for PTSD**
- FDA declined Lykos Therapeutics' application in **August 2024** and required another Phase 3 trial
 - Major concerns included:
 - Functional unblinding/expectancy bias
 - Durability of benefit
 - Adequacy of safety and abuse-potential data
 - Difficulty separating the medication effect from the psychotherapy effect

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Pharmacotherapy



- MDMA-Assisted Therapy for PTSD: Update
- **HOT OFF THE PRESS:**
 - VA has launched a new randomized controlled MDMA-assisted therapy
 - **80 Veterans with PTSD and alcohol use disorder**
 - Comparing MDMA-assisted therapy with identical psychotherapy plus an active placebo
 - VA is coordinating with FDA and plans to share the results with the agency.

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Pharmacotherapy

MDMA-Assisted Therapy Research for PTSD

★ Scan to find currently recruiting PTSD trials ★



SCAN FOR CURRENT TRIALS

Interested in MDMA-assisted therapy research?

- Scan to find currently recruiting PTSD trials.
- Enrollment is determined by the individual research site.
- This is better than linking to a single study because recruitment status can change before presentation day.
- Important: the new VA NCT07118839 study specifically requires co-occurring PTSD + alcohol use disorder.
- It is not a general MDMA/PTSD referral pathway.

CLINICAL TRIAL

- ☒ RESEARCH
- ☒ SAFETY
- ☒ HOPE

<https://clinicaltrials.gov/search?cond=PTSD&term=MDMA>

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Pharmacotherapy

VA PSYCHEDELIC PTSD TRIALS

Official VA National Center for PTSD psychedelic/MDMA research page

- Covers MDMA and psilocybin
- Helps Veterans connect to active approved clinical trials

DOWNLOAD THE VA PSYCHEDELIC PTSD TRIALS QR CODE



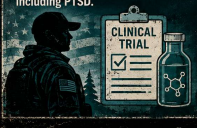
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VA VA LEADING THE WAY IN PTSD TREATMENT

★ MAY 26, 2026 ★

VA announced a new MDMA-assisted therapy clinical trial involving severe mental health disorders including PTSD.



★ JULY 13, 2026 ★

VA and HHS announced expanded collaboration on psychedelic research.

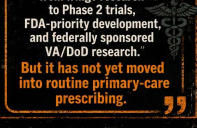
VA reported involvement in **20** active psychedelic clinical trials.

Clinical use outside research would still require **FDA approval**.



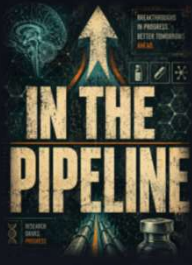
★ CLINICAL TAKE-HOME ★

“The psychedelic/PTSD conversation has moved from fringe research to Phase 2 trials, FDA-priority development, and federally sponsored VA/DoD research. But it has not yet moved into routine primary-care prescribing.”



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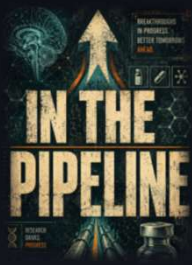


Methylone (TSND-201) for PTSD

- Investigational oral rapid-acting neuroplastogen related to MDMA
- Not hallucinogenic
- Increases release of serotonin, norepinephrine, and dopamine without direct 5-HT_{2A} activity
- Phase 2 IMPACT-1:
 - 65 adults with severe PTSD
 - Received 4 once-weekly oral doses
 - No formal psychotherapy was provided

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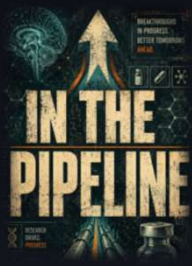


Methylone (TSND-201) for PTSD

- PTSD symptoms improved significantly versus placebo
- **9.64-point greater** CAPS-5 reduction at Day 64
- Response: **57.1% vs 19.2%** placebo
- Remission: **32.1% vs 11.5%** placebo
- Loss of PTSD diagnosis: 60.7% vs 30.8%
- Most common adverse effects: headache, ↓ appetite, nausea, dizziness, ↑ BP, dry mouth, and insomnia; most were transient around dosing

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Methylone (TSND-201) for PTSD

- Phase 3 EMPOWER-1 is underway now in the U.S.
 - Study completion is expected around late 2027
- **Dramatic shift** in treatment...
- Instead of taking a medication every day for months or years
- Methylone is being studied as a brief course of intermittent oral dosing with potentially rapid and durable effects

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Methylone (TSND-201): In the Pipeline

- Investigational oral PTSD treatment
- Not FDA-approved
- Phase 3 EMPOWER-1 recruiting now
- Once weekly for 4 weeks
- ~300 adults at multiple U.S. sites
- Access only through clinical trial
- NCT07456696

Scan for trial info



TSND-201 (Methylone) PTSD Trial
ClinicalTrials.gov • NCT07456696

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Ongoing monitoring and care

PTSD Checklist for DSM-5 (PCL-5)

- 20-item patient self-report tool measuring DSM-5 PTSD symptoms.
- Scores 0–80; higher scores reflect greater PTSD symptom severity.
- Obtain a baseline score before treatment.
- Repeat during and after treatment to objectively monitor symptom change and treatment response
- Never used to make the diagnosis – use CAPS-5 (Clinician administered PTSD Scale for DSM-5)

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Ongoing monitoring and care

PTSD Treatment Timeline

1

Visit 1

- screen, safety,
- validate,
- start pathway,
- set follow-up

2

Visit 2 (1-2 wks)

- review PCL-5,
- finalize diagnosis,
- initiate/adjust meds,
- confirm therapy referral

3

Visit 3 (4-6 wks)

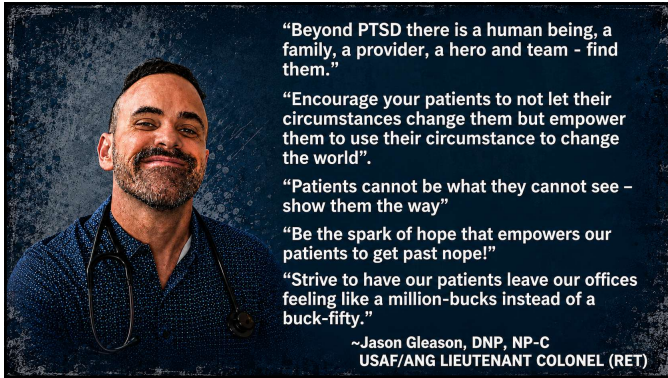
- monitor adherence,
- side effects,
- symptom change,
- comorbidities

Ongoing

- every 4-8 wks until stable,
- then every 3-6 months with relapse prevention plan

Assess for suicidal ideation at every visit

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