# Depressive disorders occur twice as often in women compared with men. 99

#### Marlene Freeman, MD

Associate Professor of Psychiatry, Harvard Medical School Director of Clinical Services, Perinatal and Reproductive Psychiatry Program, Massachusetts General Hospital

"Sex hormones affect neurotransmitters and shape the adult female brain during hormonal transition periods"

Frontiers in Neuroscience Max Planck Institute for Human Cognitive and Brain Sciences



### TREATMENT INNOVATIONS IN WOMEN'S MENTAL HEALTH

Women of All Ages and their HCPs Desire Treatment Options Designed to Address their Unique Mental Health Needs Effectively and Safely

**EnBrace HR small soft gel** All-Natural & Safe Ingredients Root Cause Treatment

#### **Clinically Proven Effectiveness for:**

Major Depressive Disorder PMS/PMDD & Menopause Including in and around pregnancy

### **INTERACTIONS BETWEEN SEX HORMONES AND NEUROTRANSMITTERS**

Frontiers in Neuroscience/Neuroendocrine Science, February 2015/Volume 9/Article 37/ Page 4

Estrogen receptor Progesterone receptor -Serotonin pathway 5-HT Striatum Thalamus Frontal cortex Nucleus accumbens Hypothalamus Pituitary gland Amygdala-Hippocampus VTA - ventral tegmental area Cerebellum Dorsal raphe Substantia nigra Brain stem -Medial raphe

"Promising therapeutic approaches to improve PMS, PMDD, Perimenopausal mood and depressive disorders should include a strategy that increases neurotransmitters by administering dietary coenzymes and mineral cofactors that are the precursors for the monoamines metabolized by MAO-A."

#### Serotonergic Pathways

Interaction between ovarian hormone levels, receptor sites, and circuits, modulate serotonergic functions, levels, and reactivity in females throughout adolescence and adulthood - Affecting mood, memory, emotions, appetite, and cognition.

# EnBrace HR Small Gel Cap

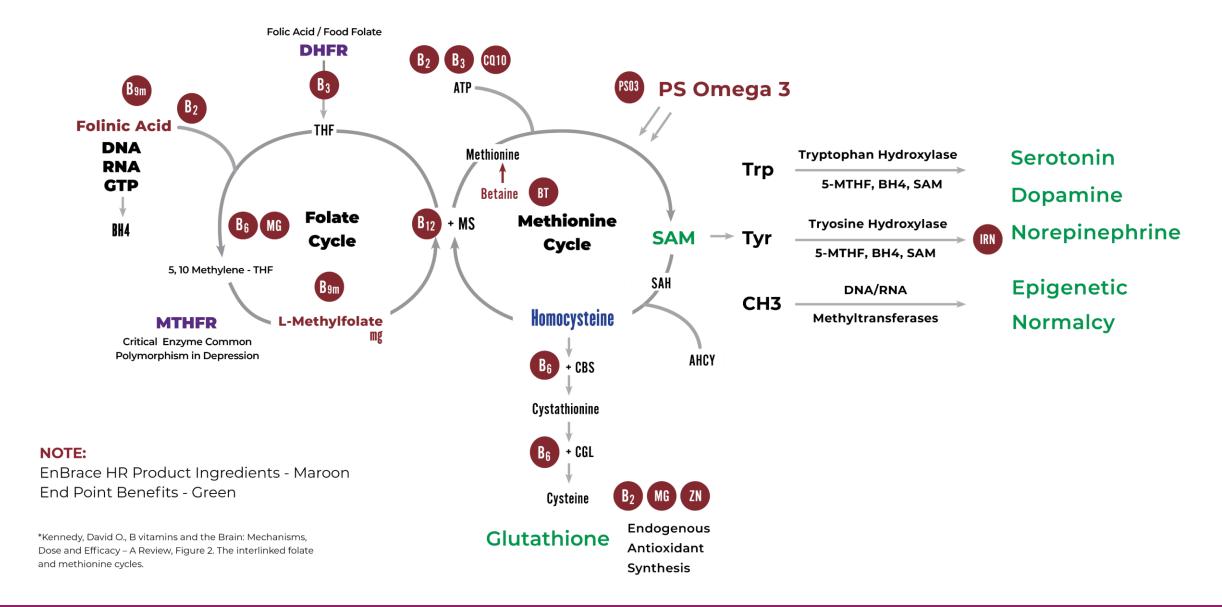
Rx | All Natural | Unique | Bioactive Coenzyme Vitamin Gel Cap

"EnBrace HR contains 5.53 mg. of L-Methylfolate Magnesium and small quantities of other folate derivatives (Img. folic acid and 2.5mg of folinic acid) optimal for a depressed population with high rates of MTHFR polymorphism that affect folic acid metabolism and high risk of neural tube defects and other birth defects."

Freeman M. et al: A prenatal Supplement with Methylfolate for the Treatment and Prevention of Depression in Women Trying to Conceive and During Pregnancy, Annals of Clinical Psychiatry, February 2019.

L-Methylfolate Magnesium	7mg
Folinic Acid	2.5mg
Folic Acid	lmg
B12 (Adenosylcobalamin)	50mcg
B6 (Pyridoxal-5-Phosphate)	25mcg
B1 (Thiamine Pyrophosphate)	25mcg
B2 (Flavin Adenine Dinucleotide)	25mcg
B3 (Nicotinamide Adenine Dinucleotide)	25mcg
PS-Omega-3 (Phosphatidylserine, EPA, DHA)	20mg
Magnesium Ascorbate	24mg
Magnesium L-Threonate	lmg
Iron (Ferrous Glycine Cysteinate)	1.5mg
Zinc Ascorbate	lmg
Betaine	500mcg
Citric Acid Monohydrate	1.83mg
Sodium Citrate	3.67mg
CoQ10	500mcg
Piperine (B Vitamin Bioenhancer)	500mcg

# **METHYLATION CHART**



# **CLINCAL STUDY OVERVIEW**

Correlation of Clinical Response With Homocysteine Reduction Durn. Therapy With Reduced B Vitamins in Patients With MDD Who Arc Positive for *MTHFR* C677T or A1298C Polymorphism: A Randomi, d, Double-Blind, Placebo-Controlled Study

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W. Mech, ML and Andrew Farah, MD, DFAPAh.\*

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Point, NC 27262 (Brian farahig unchealth unciedu)

Objective: This study dissigned to evaluate the efficacy and safety of reducer trains as monotherapy in adults with major depress isorder (MDD) who were also positive for at large methyleneterially directate reductase (MTHFR) por mism associated with depression and further more than reduced (metaboliced) B methods: 330 adult patients with MDD (DSM 5) and

16 IN 18

RACT

Andy Farah,

Homocysteine metabolism, or the carbon-1 cycle, plays a key role in the synthesis of monoamines by providing methyl group donation for the production of norepinephrine and dopamine. Reduced, or metabolized, B vitamins are necessary coenzymes in the carbon-1 cycle and in various other enzymatic steps involved in monoamine synthesis, such as the generation of tetrahydrobiopterin, a cofactor for both tryptophan hydroxylase

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# THE JOURNAL OF CLINICAL PSYCHIATRY

### **330 ADULT PATIENT** RANDOMIZED DOUBLE BLIND PLACEBO CONTROLLED STUDY

#### **OBJECTIVE:**

This 8-week study was designed to evaluate the efficacy and safety of EnLyte/EnBrace HR as monotherapy in adults with major depressive disorder (MDD) who were also positive for at least 1 methylenetetrahydrofolate reductase (MTHFR) polymorphism associated with depression and further test the hypothesis that EnLyte/EnBrace HR will lower homocysteine in a majority of clinical responding patients.

#### MAY 2016

Correlation of Clinical Response With Homocysteine Reduction During Therapy With EnLyte/EnBrace HR in Patients With MDD Who Are Positive for MTHFR C677T or A 1298C Polymorphism - Andrew Farah, MD





2) 30% Reduction in Homocysteine Levels (Compared to Placebo)

#### NO SIDE EFFECT WAS REPORTED AT GREATER RATE THAN PLACEBO

**ONSET OF ACTION: 2 WEEKS** 

# **ENBRACE HR STUDY**

Adverse Events

uction

thods

in Criteria

www study included women with histories of MDD who were planning regnant <28 weeks. Group 1 participants were well (not in depressive episodes) and planned antidepressants for pregnancy. Group 2 participants were depressed at baseline Primary tiles, included MDD relapse and depressive symptoms, verified with the Mini International tic interview and the Montgomery-Asberg Depression Rating Scale (MADRS), respectively, tolic acid metabolism and inflammation were collected.

is of depressive relapse (27.3%; p=0.005) than expected when compared to historical controls.

p 1 participants (N=11; well at baseline) experienced no significant decreases in MADRS scores

depressed at baseline) experienced significant improvements in MADRS scores (p=0.001), with

vd treatment of perinatal depression. Larger controlled trials are necessary.

women often discontinue standard antidepressant medications prior to or during pregnancy

few evidence-based alternatives to antidepressant medications for the treatment and prevention

aring pregnancy, leaving pregnant women and clinicians with the clinical dilemma of weighing

suggests various folate forms including folic acid, folinic acid, and methylfolate may have

ssant effects.<sup>9-12</sup> These interconvertible folate forms constitute the one-carbon cycle and are

foliate must be converted to its active form, methylfolate, for use in the body, polymorphisms a folate methylation may limit the efficacy of folate as an intervention targeting MD0.\*\*\* slate may be more readily absorbed in the brain than folate, and methylfolate has potential as a ifoliate treatment in early trials has been found to induce significant improvement in depressive

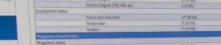
ssive Disorder (MDD) and Major Depressive Episodes (MDEs) in Women: rs approximately twice as often in women compared to men.12 gh risk for MDEs during pregnancy and the postpartum period.3

al exposure to medication against impact of untreated maternal depression.

21 to exert an antidepressant effect by impacting neurotransmitter synthesis<sup>10</sup>

mproving >50% and one improving 33.3%. One adverse event occurred, a hospitalization for

Results suggest EnBrace HR is a well-tolerated intervention with potential efficacy for the



Graduated college (BA, 85)

White/Caucasian

Native Hawalari or other Pacific blander

American Indian or Alaska Native

Non-Hispanic or non-Lating

Never married/ungle

Some Nigh school High school or received GED iome college or Associate Degr

Age (years), mean 2.5

No use of ART

Pregnancy Loss are inted for all 13 extrem who initiated study imp. 1 Table 1, Domogra

Figure 1. Mood and Quality of Life Outcomes

Group 1 – Relapse Prevention Group; Well at Baseline

Group 2 - Acute Treatment Group; Depressed at Baseline

**Discussion and Conclusions** 

**Results Summary**  We assessed EnBrace Hill in two samples of women obtain data regarding

study, and 5 of

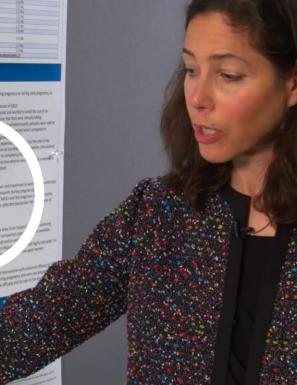
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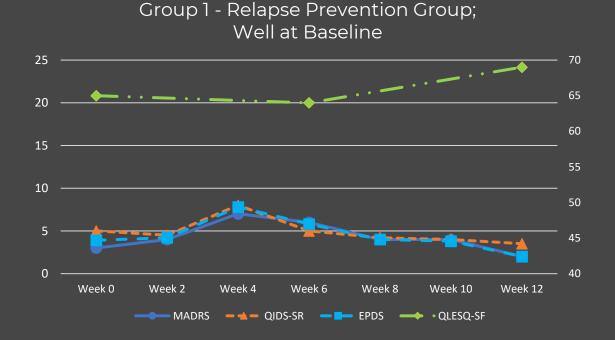
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Other strength

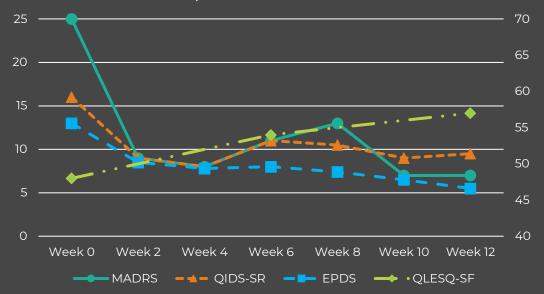


ms both when used as an adjunct to antidepressant therapy and when used as a monotherap;<sup>334</sup> elated compounds reduce rates of neural tube defects and improve child neurodevelopmental est, conferring benefits and minimizing potential risks of antidepressants during pregnancy.<sup>1,2</sup> e HR is a prescription prenatal/postnatal dietary management product that contains 5.53 mg L folate and other folate derivatives (1 mg folic acid, and 2.2 mg folinic acid), optimal for a population igh rates of polymorphisms that affect folic acid metabolism. Group 2: Depressed at Baseline; Acute Treatment Group Group 1: Well at Baseline; Inclusion Criteria: Relapse Prevention Group MDD as primary diagnosis Planning to conceive or <28 weeks pregnant at</li> 4DD as primary diagnosis lanning to concerne or CB weeks prepart at start of new antidepressant medication No dose increase of curr evently depressed, as veryled by Anni

### EnBrace HR For The Treatment and Prevention of Depression in Women Trying to Conceive and During Pregnancy <u>Marlene P. Freeman, MD et al, Annals of Clinical Psychiatry February 2019</u>



#### Group 2 - Acute Treatment Group; Depressed at Baseline



#### CONCLUSION

Study results suggest EnBrace HR is a novel and well tolerated intervention with efficacy for the prevention and treatment of depression among women planning pregnancy and who are pregnant. Figure 1. The aim for Group 1 was to prevent depression relapse, and the aim for Group 2 was to improve depression symptoms, measured through several mood and quality of life questionnaires. Trends shown by group for the primary mood outcome measure, the MADRS (Montgomery-Asberg Depression Rating Scale) in dark blue; for secondary mood measures, the QIDS-SR (Quick Inventory of Depressive Symptomatology-Self Report) in orange and the EPDS (Edinburgh Postnatal Depression Scale) in light blue; and for a quality of life outcome, the QLESQ-SF (Quality of Life Enjoyment and Satisfaction Questionnaire -Short Form) in green. Group 1 experienced no significant changes in any of the four measures, and Group 2 experienced significant improvements in the mood questionnaires but not the quality of life questionnaire. All ANOVAs indicating significance are reported in Table 3.

### PMS (Premenstrual Syndrome) Mild/Moderate

Cyclic hormonal changes of the menstrual cycle causes fluctuations of serotonin levels leading to adverse symptomology – Mayo Clinic –

### **PMDD** (Premenstrual Dysphoric Disorder) Severe (DSM-5)

Tension/Anxiety, Depressed Mood – Irritability/Anger – Appetite Changes – Cravings – Insomnia – Social Conflict Withdrawal – Anhedonia – Feeling overwhelmed/ out of control - hopelessness

#### **Biochemical Wellness**

EnBrace HR normalizes serotonin levels and is an effective, all-natural, safe, root cause monotherapy option or adjunct to SSRIs, oral contraceptives, NSAIDs, and/or diuretics in the prevention or treatment of PMS/PMDD.

#### Clinical Result Example

A 17-year-old on Paxil for PMDD experienced side effects and withdrawal symptoms after discontinuing Paxil. She was hesitant to resume antidepressant medications after presenting again with PMDD depression, and a MADRS of 20. The patient elaborated she was "putting on a happy face". She was prescribed EnBrace HR and within 4 weeks her MADRS dropped from 20 to 6.

Dietary B Vitamin Intake and Incident of Premenstrual Syndrome. Manson et al. Am J Clin Nutr. 2011

Coenzyme Treatment of Childhood and Adolescent Depression: A Case Series. Farah et al. Clinical Psychiatry Vol 7 #5S3:93 April 2021

"For the emotional dysregulation of PMS and PMDD, we turned first-line to the natural, broad spectrum B vitamin coenzymes and mineral cofactor agent, EnBrace HR. This product has provided safe and effective relief for countless patients with these challenging symptoms"

> Andrew Farah, MD Attending Psychiatrist, Novant Health System, Winston-Salem, NC Medical Director of Strategic Mental Health Interventions

# MENOPAUSE

### Declining ESTROGEN levels in MENOPAUSE aggravated by MTHFR SNP cause SEROTONIN depletion and HOMOCYSTEINE increases leading to:

#### **EMOTIONAL DYSREGULATION**

- Depression Disorders
- Anxiety
- Lack of Motivation
- Aggressiveness
- Difficulty Concentrating
- Fatigue
- Irritability

#### **HOT FLASHES**

- Insomnia
- Warmth
- Flushing
- Rapid Heartbeat •
- Chills
- Headache
- Night Sweats

#### LOW BONE MINERAL DENSITY

- Back or Neck Pain
- Loss of Height
- Stooped Posture
- Brittle Bones/Nails
- Receding Gums
- Grip Strength
- Aching Muscles

#### **COGNITIVE DEFICITS**

- Working Memory
- Attention
- Reduced Processing Speed
- Reduced Verbal Memory
- Word Retrieval Trouble
- Loss of Train of Thought

\*Clinical references available upon request

EnBrace HR restores serotonin levels and reduces high homocysteine and is clinically proven to treat adverse health outcomes in Menopause naturally and safely, alone or adjunctively with HRT, SSRIs or Calcium/D.

# **HOW TO PRESCRIBE**



STEP

Fill in prescriber and patient information and then hit "submit"

### CLICK HERE

#### WE WILL OFFER YOUR PATIENT THEIR FIRST BOTTLE AT A DISCOUNTED PRICE OF \$29.95

STEP

We will also provide them with the insurance steps and help determine the most cost-effective option moving forward

#### IF IT'S COVERED ON INSURANCE, WE WILL CONTACT YOUR OFFICE WITH PRESCRIBING INFO

STEP

If your patient does not have coverage or has a high co-pay, we will offer our discounted cash-pay option for EnBrace HR. No further action is needed for your office.