



A novel combination reduces objective measures and subjective stress perception



- Magnesium**
Mg (together with **B-vitamins**) displays mood stabilizing effects
- Rhodiola**
Alleviates stress, anxiety and fatigue
- Green tea**
Reduces psychological and physical distress

A double-blind, randomised, parallel (4 arms), placebo-controlled trial in moderately stressed healthy adults (N = 100)



Placebo (N=25)



Combination (N=25)

Green tea + Rhodiola (**Teadiola**®),
Mg, B vitamins (B6, B9, B12)



Green tea (N=25)

Green tea, Mg,
B vitamins (B6, B9, B12)



Rhodiola (N=25)

Rhodiola, Mg,
B vitamins (B6, B9, B12)

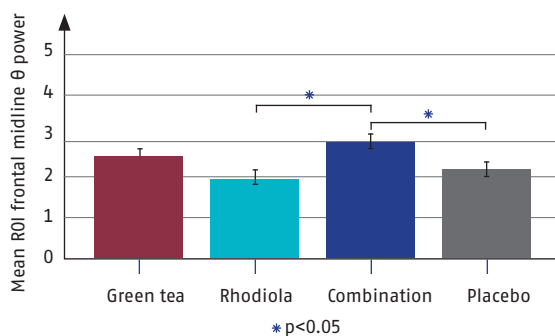
Trier Social Stress Test



Primary endpoint
Oscillatory brain activity
(Theta, Alpha waves)

Secondary endpoints
Perceived Stress,
Mood states

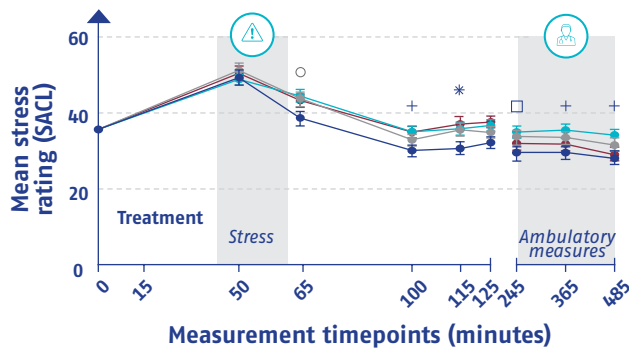
Combined treatment significantly increases EEG resting state theta brain waves (4–7Hz) in the midline frontal brain region and heightened subjective and autonomic arousal



Effects of the four treatments on the primary outcome parameter, θ power, as measured by EEG. ROI: region of interest; θ : theta.

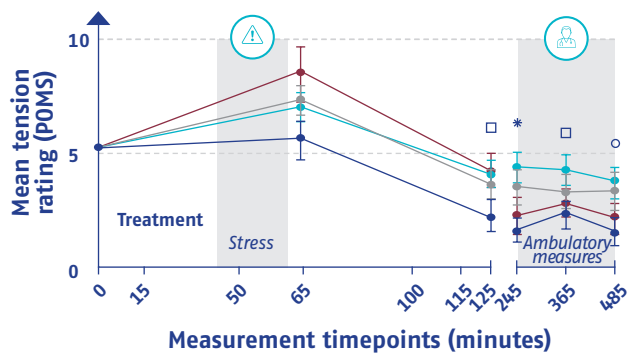
Combined treatment reduced subjective stress and anxiety, reduced fatigue and protected against negative mood disturbance

Stress



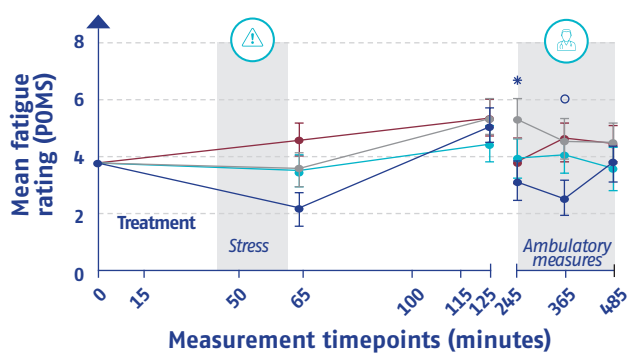
- * Combination<placebo & Rhodiola: $p=0.04$
- Combination<placebo: $p=0.07$; combination<Rhodiola: $p=0.05$
- Combination<placebo: $p=0.08$; combination<Rhodiola: $p=0.03$
- + Combination<Rhodiola: $p=0.03$

Tension-Anxiety



- * Combination<placebo: $p=0.02$; combination<Rhodiola: $p=0.002$
- Combination<placebo: $p=0.06$; combination<Rhodiola: $p=0.03$
- Combination<Rhodiola: $p=0.05$

Fatigue



- * Combination<placebo: $p=0.02$
- Combination<placebo: $p=0.05$

—●— Green tea —●— Rhodiola —●— Combination —●— Placebo

Overall, this double-blind, randomised, placebo-controlled trial showed that Green tea, Rhodiola, magnesium and B vitamins, in combination, modulate brain activity and may protect from the negative effects of acute stress.