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Can a multivitamin supplement reduce menopausal symptoms and improve brain function during perimenopause?

Submission date
06/07/2026

Recruitment status
No longer recruiting

Registration date
09/07/2026

Overall study status
Completed

Last Edited
09/07/2026

Condition category
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Around 13 million women in the UK are going through or have gone through the menopause. Many experience symptoms such as hot flushes, night sweats, poor sleep, low mood, and difficulty concentrating, often called 'brain fog'. Currently, hormone replacement therapy (HRT) is the main recommended treatment, but it is not suitable or desirable for all women. There is a real need for safe, accessible alternatives. This study aims to investigate whether a commercially available multi-nutrient supplement called Vitals+ (Heights, London), which contains vitamins, minerals, omega-3 fatty acids, and a plant extract, can help to improve brain function, mood, cognition, and menopausal symptoms in a woman going through the menopause transition.

Who can participate?
We are looking for one healthy woman aged 45–55 years who has been experiencing perimenopausal symptoms for at least 2 years. She must not currently be taking HRT or any nutritional supplements and must be willing and able to attend regular visits at the University of East Anglia in Norwich.

What does the study involve?
The study lasts approximately 7 months and involves 32 visits to the UEA brain imaging centre, each lasting up to 1 hour. During each visit, the participant will have a brain MRI scan (30 minutes), a blood pressure measurement, and will complete a short mood questionnaire. She will also provide a small finger-prick blood sample. Each week, she will complete online cognitive and symptom questionnaires at home. For 12 weeks, she will take two capsules of the Vitals+ supplement each day. There is an 8-week monitoring period before and after taking the supplement.

What are the possible benefits and risks of participating?
There are no anticipated safety risks from the supplement, which is already on sale to the public. MRI is a non-invasive technique with no known side effects, though some people find the

scanner noisy or slightly claustrophobic. Minor discomfort may occur from finger-prick blood sampling. Potential benefits include improvements in mood, concentration, and menopausal symptoms, although this cannot be guaranteed.

Where is the study run from?
The study is run from the UEA Wellcome-Wolfson Brain Imaging Centre (UWWBIC) at the University of East Anglia, Norwich (UK)

When is the study starting and how long is it expected to run for?
January 2026 to July 2026

Who is funding the study?
The study is funded by Heights (Braincare Limited), who also supply the Vitals+ supplement. Some staff and MRI costs are provided by the University of East Anglia.

Who is the main contact?
Prof. Anne-Marie Minihane, A.Minihane@uea.ac.uk

Contact information

Type(s)
Principal investigator, Scientific, Public

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Additional identifiers

Study information

Scientific Title
The effect of a multivitamin supplement (Vitals+) on brain function, cognition, mood, and vasomotor symptoms in a perimenopausal woman: a proof-of-concept n = 1 deep-phenotyping study

Acronym
VITAL-BRAIN

Study objectives

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 01/09/2025, University of East Anglia Faculty of Medicine and Health Sciences Research Ethics Subcommittee (Research and Innovation Services University of East Anglia Norwich Research Park, Norwich, NR4 7TJ, United Kingdom; +44 (0)1603 456161; fmh.ethics@uea.ac.uk), ref: ETH2425-2520

Primary study design
Interventional

Allocation
N/A: single arm study

Masking
Open (masking not used)

Control
Uncontrolled

Assignment
Single

Purpose
Treatment

Study type(s)

Health condition(s) or problem(s) studied
Menopause

Interventions
The participant receives Vitals+, a commercially available multivitamin supplement (Heights, Braincare Limited, London), at a dose of two capsules per day for 12 weeks. The supplement contains 12 vitamins (thiamine/B1, riboflavin/B2, niacin/B3, pantothenic acid/B5, B6, biotin/B7, folate/B9 as 5-MTHF, B12 as methylcobalamin, vitamin A, vitamin C, vitamin D3, and vitamin E), 5 minerals (iron, zinc, selenium, chromium, and iodine), two omega-3 fatty acids from algae oil (EPA and DHA), and bilberry extract (36% anthocyanins). The supplement is an oral capsule.

The total study duration is 28 weeks (7 months): an 8-week pre-intervention baseline assessment phase, followed by the 12-week supplementation period, with an 8-week post-intervention assessment phase.

Intervention Type
Supplement

Primary outcome(s)
1. Cognition measured using a validated neuropsychological battery covering verbal memory (Wechsler Memory Scale), verbal episodic memory (WMS-IV Logical Memory), working memory (Digit Span, WAIS-IV), verbal fluency and executive function (COWAT, Trail Making Test A and B,

Hayling Sentence Completion), sustained attention (SART), and spatial navigation (Virtual Supermarket Test), delivered online and in person, at weekly during the 8-week pre-intervention baseline phase (weeks 1–8) and weekly during the 8-week post-intervention phase (weeks 21–28)

2. Mental wellbeing measured using Profile of Mood States (POMS) at weekly during the 8-week pre-intervention baseline phase (weeks 1–8) and weekly during the 8-week post-intervention phase (weeks 21–28)

Key secondary outcome(s)
1. Cerebral blood flow measured using MRI arterial spin labelling (ASL) at weeks 7 and 8 of each 8-week assessment phase (i.e. weeks 7, 8, 27 and 28)

2. Brain neural activity measured using functional MRI (fMRI) at each of 32 clinic visits across weeks 1–8 (pre-intervention) and weeks 21–28 (post-intervention)

3. Brain volume measured using MRI at weeks 7 and 8 of each 8-week assessment phase (weeks 7, 8, 27 and 28)

4. Omega-3 index measured using gas chromatography at the beginning and end of each 8-week assessment phase (weeks 1, 8, 21 and 28)

Completion date
31/07/2026

Eligibility

Key inclusion criteria
1. Female aged 45–55 years
2. Perimenopausal (as defined by NICE Menopause guidelines 2024) for at least 2 years
3. Free from major neuropsychiatric conditions (e.g., depression), neurological conditions (e.g. multiple sclerosis), and gynaecological conditions (e.g., endometriosis)
4. Able to provide informed consent
5. Willing to undergo the full study protocol, including 32 clinic visits, MRI scanning, and biological sample collection

Healthy volunteers allowed
Yes

Age group
Adult

Lower age limit
45 Years

Upper age limit
55 Years

Sex
Female

Total final enrolment

1

Key exclusion criteria
1. Currently taking hormone replacement therapy (HRT)
2. Use of any nutritional supplements within the last 3 months
3. Consumption of more than 1 portion of oily fish per month AND red blood cell omega-3 index >6%
4. Consumption of more than 4 portions of fruit and vegetables per day
5. Consumption of more than 4 portions of B-vitamin fortified foods per week
6. Contraindication to MRI (e.g. metallic implants, pacemaker, cochlear implant, severe claustrophobia)
7. Postmenopausal (no menstrual cycle for ≥12 months)

Date of first enrolment
20/01/2026

Date of final enrolment
20/01/2026

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Norwich Medical School, University of East Anglia
Norwich Medical School
University of East Anglia
Norwich Research Park
Earlham Road
Norwich
England
NR4 7TJ

Sponsor information

Organisation
University of East Anglia

ROR
https://ror.org/026k5mg93

Funder(s)

Funder type

Funder Name
Heights (Braincare Limited)

Funder Name
University of East Anglia

Alternative Name(s)
UEA University of East Anglia, UEA

Funding Body Type
Private sector organisation

Funding Body Subtype
Universities (academic only)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available