

# Homocysteine lowering and atherosclerosis reduction trial (HART)

<b>Submission date</b> 26/09/2005	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 26/09/2005	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 09/08/2019	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**ClinicalTrials.gov (NCT)**  
NCT00217178

**Protocol serial number**  
MCT-44159

## Study information

**Scientific Title**

Correlations between plasma homocysteine and folate concentrations and carotid atherosclerosis in high-risk individuals

**Acronym**

HART

**Study objectives**

To evaluate whether combined therapy with folic acid 2.5 mg/day, vitamin B6 50 mg/day and vitamin B12 1 mg/day versus placebo reduces the rate of atherosclerosis, as evaluated by quantitative B-mode carotid ultrasound (US).

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Research Ethics Board of McMaster University approved on the 2nd February 2000

**Study design**

Randomised controlled trial

**Primary study design**

Interventional

**Study type(s)**

Treatment

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

Atherosclerotic cardiovascular disease (CVD)

**Interventions**

Intervention:

Combination of folic acid 2.5 mg, vitamin B6 50 mg and vitamin B12 1.0 mg daily, which is expected to reduce tHcy by about one quarter to one third, even in persons who are not frankly deficient and extremely safe.

Control:

Placebo.

Trial details received: 12 Sept 2005

**Intervention Type**

Supplement

**Phase**

Not Applicable

**Drug/device/biological/vaccine name(s)**

Vitamins

**Primary outcome(s)**

The change over time (annualised progression slope) in the mean maximum intima-media thickness (IMT (the mean maximum IMT slope), defined as the average of the maximum IMT across the 12 preselected carotid arterial segments.

### **Key secondary outcome(s)**

1. The change over time (annualised progression slope) in the single maximum IMT amongst any of the same preselected carotid artery segments, i.e., the haemodynamically most important lesion
2. The effect of folate and vitamins B6, B12 therapy on clinical outcomes

### **Completion date**

31/10/2005

## **Eligibility**

### **Key inclusion criteria**

1. Women and men aged greater than or equal to 55 years at high risk for cardiovascular (CV) events with:
  - 1.1. Documented (CAD):
    - 1.1.1. History of prior myocardial infarction (MI)
    - 1.1.2. Stable or unstable angina with documented multivessel coronary artery disease (CAD) or strongly positive stress test
    - 1.1.3. Multivessel CAD and percutaneous transluminal coronary angioplasty (PTCA) greater than or equal to 6 months prior to randomisation
    - 1.1.4. Multivessel CABG greater than or equal to 4 years prior to randomisation
    - 1.1.5. Multivessel CAD on angiography
  - 1.2. Documented peripheral vascular disease (PVD):
    - 1.2.1. Previous limb bypass surgery and/or previous peripheral percutaneous transluminal angioplasty and/or previous limb or foot amputation due to PVD
    - 1.2.2. History of intermittent claudication with ankle/arm blood pressure ratio of greater than or equal to 0.80 or with significant arterial stenosis on angiography
  - 1.3. Documented cerebrovascular disease: history of previous ischaemic stroke
  - 1.4. Diabetes mellitus with greater than or equal to one additional major CV risk factor(s)
2. Provision of informed consent
3. Adequate baseline carotid US examination

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Sex**

All

### **Key exclusion criteria**

1. Current use of folic acid supplements greater than 200 mg/day
2. Known previous adverse reactions to folic acid, vitamin B6 or B12
3. Planned cardiac, peripheral or cerebrovascular surgery

**Date of first enrolment**

01/04/2000

**Date of final enrolment**

31/10/2005

## Locations

**Countries of recruitment**

Canada

**Study participating centre**

HGH-McMaster Clinic

Hamilton

Canada

L8L 2X2

## Sponsor information

**Organisation**

McMaster University (Canada)

**ROR**

<https://ror.org/02fa3aq29>

## Funder(s)

**Funder type**

Research organisation

**Funder Name**

Canadian Institutes of Health Research (CIHR) (Canada) - <http://www.cihr-irsc.gc.ca> (ref: MCT-44159)

## Results and Publications

## Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	baseline results	01/11/2008	09/08/2019	Yes	No