

# Clinical trials of antioxidants for cardiovascular prevention in all type of patients

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## 1 antioxidant

| Trial   | Treatments   | Patients   | Trials design and methods                               |
|---|--|--|---|
| <b>vitamin E vs control</b>   |  |  |   |
| <b>GISSI , 1999</b><br>n=5660/5664<br>follow-up: 3.5y                                   | vitamin E 300mg/d<br>versus<br>no vitamin E  | patients with recent (3 months) myocardial infarction  | Factorial plan<br>open<br>Italy                         |
| <b>PPP , 2001</b><br>n=2231/2264<br>follow-up: 3.6y                                     | vitamin E (300 mg/day)<br>versus<br>no vitamin E   | men and women aged 50 years or greater, with at least one of the major recognised cardiovascular risk factors  | Factorial plan<br>open<br>Italy                         |
| <b>acetylcysteine vs placebo</b>  |  |  |   |
| <b>Tepel , 2003</b><br>n=64/70<br>follow-up: 14.5 y                                     | acetylcysteine 600 mg twice daily<br>versus<br>placebo   | patients undergoing maintenance hemodialysis for a minimum of 3 months 3 times weekly in an ambulatory center  | Parallel groups<br>double-blind<br>Germany              |
| <b>beta carotene vs placebo</b>   |  |  |   |
| <b>ATBC beta carotene , 1994</b><br>n=14560/14573<br>follow-up: 6.1 median (range 5-8y) | beta carotene 20mg four times daily<br>versus<br>placebo   | male smokers 50 to 69 years of age from southwestern Finland   | Factorial plan<br>double-blind<br>Southwestern Finland  |
| <b>CARET beta carotene , 1996</b><br>n=9420/8894<br>follow-up: 4 y                      | combination of 30 mg of beta carotene per day and 25,000 IU of retinol (vitamin A) in the form of retinyl palmitate per day<br>versus<br>placebo | smokers, former smokers, and workers exposed to asbestos   | Parallel groups<br>double-blind<br>USA                  |
| <b>NSCP (Green) beta carotene , 1999</b><br>n=820/801<br>follow-up: 4.5 y               | beta carotene 30mg four times daily<br>versus<br>placebo   | residents of Nambour   | Factorial plan<br>double-blind<br>Queensland, Australia |
| <b>PHS beta carotene , 1996</b><br>n=11036/1035<br>follow-up: 12 y                      | beta carotene 50 mg on alternate days<br>versus<br>placebo   | male physicians, 40 to 84 years of age with no history of cancer (except nonmelanoma skin cancer), myocardial infarction, stroke, or transient cerebral ischemia | Factorial plan<br>double-blind<br>USA                   |
| <b>SCP beta carotene , 1990</b><br>n=913/892<br>follow-up: 4.02 years                   | beta carotene 50mg four times daily<br>versus<br>placebo   | Age <85 years (most <65 years); previous non-melanoma skin cancer; 69% male  | Parallel groups<br>double-blind<br>USA                  |

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| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>   | <b>Trials design and methods</b>              |
|---|---|---|---|
| <b>WACS beta-caroten , 2007</b><br>[NCT00000541]<br>n=4084/4087<br>follow-up: 9.4 years                   | beta carotene (Lurotin) 50 mg every two days<br>versus<br>placebo   | female health professionals at increased risk<br>(40 years or older with a history of CVD or 3<br>or more CVD risk factors)   | Factorial plan<br>double blind                |
| <b>WHS beta carotene , 1999</b><br>[NCT00000479]<br>n=19939/19937<br>follow-up: 2.1y (range 0 -<br>2.72y) | beta carotene 50mg four times daily<br>versus<br>placebo  | female health professionals, aged 45 years or<br>older and without a history of cancer (except<br>nonmelanoma skin cancer), coronary heart<br>disease, or cerebrovascular disease | Factorial plan<br>double-blind<br>USA         |
| <b>combination vs placebo</b>   |   |   |   |
| <b>PHS II (multivitamin) , 2012</b><br>[NCT00270647]<br>n=7317/7324<br>follow-up: 11.2y (median)          | Daily multivitamin<br>versus<br>placebo   | male US physicians initially aged 50 years or<br>older  | Parallel groups<br>double-blind<br>USA        |
| <b>POPADAD (antioxydant) , 2008</b><br>[ISRCTN53295293]<br>n=640/636<br>follow-up:                        | antioxidant capsule containing<br>(alpha-tocopherol 200 mg, ascorbic acid 100<br>mg, pyridoxine hydrochloride 25 mg, zinc<br>sulphate 10 mg, nicotinamide 10 mg, lecithin<br>9.4 mg, and sodium selenite 0.8 mg)<br>versus<br>placebo | patients with diabetes mellitus and<br>asymptomatic peripheral arterial disease   | Factorial plan<br>double blind<br>Scotland    |
| <b>HATS , 2001</b><br>n=84/76<br>follow-up:   | antioxidant-therapy (vitamins)<br>versus<br>placebo   | patients with coronary disease, low HDL<br>cholesterol levels and normal LDL cholesterol  | Factorial plan<br>double-blind<br>USA, Canada |
| <b>MVP , 1997</b><br>n=158/159<br>follow-up: 6 montsh   | multivitamins (30,000 IU of beta carotene,<br>500 mg of vitamin C, and 700 IU of vitamin<br>E) for four weeks before and six months after<br>angioplasty<br>versus<br>placebo   | patient undergoing angioplasty  | Factorial plan<br>double-blind<br>Canada      |
| <b>HPS antioxidant , 2002</b><br>n=10269/10267<br>follow-up: jul 1994 - may 1997                          | antioxidant vitamin supplementation (600 mg<br>vitamin E, 250 mg vitamin C, and 20 mg<br>-carotene daily)<br>versus<br>matching placebo   | UK adults (aged 4080) with coronary disease,<br>other occlusive arterial disease, or diabetes   | Factorial plan<br>double-blind<br>UK          |
| <b>PHS II beta carotene , 2003</b><br>[NCT00270647]<br>n=2967/2989<br>follow-up: 8 years                  | 400 IU of vitamin E every other day and 500<br>mg of vitamin C daily<br>versus<br>placebo   | US male physicians enrolled, aged 50 years or<br>older  | Factorial plan<br>double-blind                |
| <b>SUVIMAX , 2005</b><br>n=6481/6536<br>follow-up: 7.5 years  | single daily capsule of combination of<br>antioxydants: 120 mg of ascorbic acid, 30 mg<br>of vitamin E, 6 mg of beta carotene, 100 g of<br>selenium, and 20 mg of zinc<br>versus<br>matched placebo                                   | women aged 35-60 years and men aged 45-60<br>years  | Parallel groups<br>double-blind<br>France     |

continued...

| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b>  |
|---|---|--|---|
| <b>WAVE (Waters) , 2002</b><br>n=212/211<br>follow-up: 2.8 years                            | 400 IU of vitamin E twice daily plus 500 mg of vitamin C twice daily<br>versus<br>placebo | postmenopausal women with at least one 15% to 75% coronary stenosis  | Factorial plan<br>double-blind<br>US, Canada  |
| <b>succinobucol vs placebo</b>  |   |  |   |
| <b>ARISE , 2008</b><br>[NCT00066898]<br>n=3078/3066<br>follow-up: 24 mo (range 12-36 mo)    | succinobucol 300 mg once daily<br>versus<br>placebo                                       | patients with recent (14-365 days) acute coronary syndromes already managed with conventional treatments   | Parallel groups<br>double blind<br>Canada, US, UK, South Africa                     |
| <b>vitamin C vs placebo</b>   |   |  |   |
| <b>PHS II vitamin C , 2008</b><br>[NCT00270647]<br>n=7329/7312<br>follow-up: 8 years (mean) | vitamin C 500mg daily<br>versus<br>placebo  | US male physicians aged 50 years or older  | Factorial plan<br>double blind<br>US  |
| <b>WACS vitamin C , 2007</b><br>[NCT00000541]<br>n=4087/4084<br>follow-up: 9.4 years        | vitamin C (ascorbic acid) 500 mg/d<br>versus<br>placebo                                   | female health professionals at increased risk (40 years or older with a history of CVD or 3 or more CVD risk factors)  | double blind<br>US  |
| <b>vitamin E vs placebo</b>   |   |  |   |
| <b>CHAOS , 1996</b><br>n=1035/967<br>follow-up: 1.5y  | vitamin E 400-800IU/d (alpha tocopherol)<br>versus<br>identical placebo                   | patients with angiographically proven coronary atherosclerosis   | Parallel groups<br>double-blind<br>UK   |
| <b>HOPE , 2000</b><br>n=4761/4780<br>follow-up: 4.5y  | vitamin E 400IU/d from natural sources<br>versus<br>matching placebo                      | women and men 55 years of age or older who were at high risk for cardiovascular events because they had cardiovascular disease or diabetes in addition to one other risk factor. | Factorial plan<br>double-blind<br>Multinational: Canada, USA, Europe, South America |
| <b>ATBC vitamin E , 1994</b><br>n=14564/14569<br>follow-up: 6.1 median (range 5-8y)         | vitamin E (alpha-tocopherol) 50mg/d<br>versus<br>placebo                                  | male smokers 50 to 69 years of age from southwestern Finland   | Factorial plan<br>double-blind<br>Southwestern Finland                              |
| <b>WACS vitamin E , 2007</b><br>[NCT00000541]<br>n=4083/4088<br>follow-up: 9.4 years        | vitamin E (600IU every two days)<br>versus<br>placebo                                     | female health professionals at increased risk (40 years or older with a history of CVD or 3 or more CVD risk factors)  | Factorial plan<br>double blind<br>US  |
| <b>WHS vitamin E , 2005</b><br>[NCT00000479]<br>n=19937/19939<br>follow-up: 10.1 y          | vitamin E 600 IU every other day (-tocopherol)<br>versus<br>placebo                       | apparently healthy US women aged at least 45 years   | Factorial plan<br>double-blind<br>US  |
| <b>PHS II vitamin E , 2008</b><br>[NCT00270647]<br>n=7315/7326<br>follow-up: 8 years (mean) | vitamin E 400IU every two days<br>versus<br>placebo                                       | US male physicians aged 50 years or older  | double blind<br>US  |

continued...

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|---|---|---|---|
| <b>ASAP , 2000</b><br>n=260/260<br>follow-up: 3 years   | d-alpha-tocopherol 91 mg (136 IU) twice daily<br>versus<br>placebo  | smoking and nonsmoking men and<br>postmenopausal women aged 45-69 years<br>with serum cholesterol $\geq$ 5.0 mmol/l | Factorial plan<br>double-blind<br>Finland |
| <b>AREDS , 2001</b><br>n=2370/2387<br>follow-up: 6.3 y  | daily supplementation of antioxidants (500<br>mg of vitamin C, 400 IU of vitamin E, and 15<br>mg of beta carotene)<br>versus<br>placebo | patients with age-related lens opacities and<br>visual acuity loss  | Factorial plan<br>double-blind<br>USA     |
| <b>Linxian , 1993</b><br>n=14792/14792<br>follow-up: 5y | -   | Apparently healthy Individuals of ages 40-69  |   |

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## **2 About TrialResults-center.org**

TrialResults-center is an innovative knowledge database that collects the results of RCTs and provides dynamic interactive systematic reviews and meta-analysis in the field of all major heart and vessels diseases.

The TrialResults-center database provides a unique view of the treatment efficacy based on all data provided directly from clinical trial results, offering a valuable alternative to personal bibliographic search, published meta-analysis, etc. Furthermore, it would allow comparing easily the various concurrent therapeutic for the same clinical condition.

Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

TrialResults-center is non-profit and self-funded.