

**Title of Intervention and Website:** Lifestyle changes in atherosclerotic patients

**Intervention Strategies:** Individual Education, Group Education, Supportive Relationships

**Purpose of the Intervention:** To reduce affect of coronary heart disease over one year on patients by making lifestyle changes.

**Population:** Adults and older adults with 1-3 atherosclerotic vessels

**Setting:** San Francisco, CA patients at Pacific Presbyterian Medical Center and Moffit Hospital of the UCSF School of Medicine; home-based intervention.

**Partners:** None mentioned

**Intervention Description:**

- Group Education: A residential retreat was held at a hotel to teach lifestyle intervention.
- Individual Education: Stress management techniques were taught and patients received information about them and an audiocassette to assist them. Individually-prescribed exercise levels were given to participants according to their baseline treadmill test results.
- Supportive Relationships: Participants attended regular support meetings lead by a clinical psychologist. Meetings were held to help patients adhere to the lifestyle change program, lasted 4 hours and were held twice a week.
- Other intervention components: Participants were also asked to adhere to a low-fat vegetarian diet and stop smoking.

**Theory:** Social support

**Resources Required:**

- Staff/Volunteers: Clinical psychologist and staff to lead and assist during the retreat
- Training: not mentioned
- Technology: not mentioned
- Space: retreat space and support group meeting space
- Budget: not mentioned
- Intervention: stress management techniques information and audiocassette, support group materials, diet information, exercise information and treadmill
- Evaluation: medical equipment for coronary arteriography, blood tests, diet diaries, diet analyzer, plasma cotinine test and exercise and stress management questionnaire.

**Evaluation:**

- Design: Randomized Control Clinical Trial
- Methods and Measures: Quantitative coronary arteriography & Selective coronary angiography were performed at baseline and at follow-up. Baseline 6-month and 1-year tests of 14-hour fasting blood samples were conducted for the following measures: serum lipids for total cholesterol, LDL, HDL, triglycerides (measured via Astra enzymes assays). Baseline and 1-year audit of 3-day diet diary to assess nutrient intake and dietary adherence. Diets were analyzed via CBORD diet analyzer based on USDA database. Baseline and 1-year questionnaires describing the type, frequency and duration of exercise and each stress management technique were given to participants. Random plasma cotinine samples were done for smokers who reported quitting.

**Outcomes:**

- Short Term Impact: not mentioned
- Long Term Impact: Significant decrease in serum lipid levels, similar to those seen with cholesterol-lowering drugs. There was significant overall regression of coronary atherosclerosis as measured by quantitative coronary arteriography.

**Maintenance:** Not mentioned

**Lessons Learned:** The degree of lifestyle recommendation adherence is directly correlated with positive changes in clinical outcomes.

**Citation(s):**

Ornish, D., S. E. Brown, et al. (1990). "Can lifestyle changes reverse coronary heart disease? The Lifestyle Heart Trial." *Lancet* 336(8708): 129-33.