

American Association of Naturopathic Physicians

Naturopathic Medicine is Effective and Cost-Effective

Naturopathic medicine excels in addressing the root cause of illness, preventing serious chronic ailments, and improving overall patient wellness by enhancing the body's inherent ability to heal.

Studies repeatedly show that naturopathic medicine is effective and that utilizing it is cost-effective. In fact, corporate health management programs associated with prevention and wellness demonstrate a 26 percent reduction in health care costs and a \$6 return for every \$1 invested. In a country with ever-increasing rates of chronic disease and preventable illnesses, investing in naturopathic medicine is a smart choice. It is wise to invest in prevention and wellness based models, in addition to the established allopathic model of symptom management.

One study that reviewed the efficacy and cost-effectiveness of integrative medicine estimates that changes in lifestyle and stress reduction – a major focus of naturopathic medicine – could save the US \$10 billion annually in reduced coronary angioplasty procedures and coronary bypass operations alone, and result in an insurance savings of almost \$30,000 per patient.

See Guarneri E, Horrigan, BJ, Pechura, CM. 2010. The Efficacy and Cost-Effectiveness of Integrative Medicine: A Review of the Medical and Corporate Literature. Bravewell Collaborative Report. June, 2010.

Naturopathic medicine is well-established in the state of Washington, where Naturopathic Doctors serve as primary care providers. A Blue Shield of Washington study found that utilizing Naturopathic Doctors would reduce the cost of treating chronic and stress related illness up to 40 percent and cut costs of specialist utilization by 30 percent.

See Henry. 1995. King County Medical Blue Shield Phase I Final Report: Alternative Healthcare Project Steering Committee. August 5, 1995.

A recent comparison in Washington State revealed a \$356 annual health cost savings for each user of Complementary and Alternative Medicine (CAM) when compared to CAM nonusers.

See Lind, BK, Lafferty WE, Tyree We, Diehr, PK. 2010. Comparison of Health Care Expenditures Among Insured and Nonusers of CAM Medicine in Washington State: A Cost Minimization Analysis. J. of Alt. and Comp. Med. 16(4) 411-417.

Naturopathic medicine has proven effective for specific conditions, including:

Anxiety

One study explored the effectiveness of naturopathic care on anxiety symptoms using a randomized trial. Employees with moderate to severe anxiety lasting longer than 6 weeks were randomized based on age and gender to receive naturopathic care (NC) or standardized psychotherapy intervention (PT) in a blind study over a 12-week period. Participants in the NC group received dietary counseling, deep breathing relaxation techniques, a standard multi-vitamin, and the herbal medicine *ashwagandha*. The PT group received psychotherapy, and matched deep breathing relaxation techniques, and placebo. The primary outcome measure was the Beck Anxiety Inventory (BAI). Seventy-five participants (93 percent) were followed for eight or more weeks on the trial. Final BAI scores decreased by 56.5 percent in the NC group and 30.5 percent in the PT group. BAI group scores were significantly decreased in the NC group compared to PT group. Both treatments led to significant improvements in patients' anxiety but a group comparison demonstrated a significant decrease in anxiety levels in the NC group over the PT group. Significant improvements in secondary quality of life measures were also observed in the NC group. The study concluded that the whole system of naturopathic care for anxiety deserves to be investigated further.

American Association of Naturopathic Physicians

See Cooley K, Szczurko O, Perri D, Mills EJ, Bernhardt B, et al. (2009) Naturopathic Care for Anxiety: A Randomized Controlled Trial ISRCTN78958974. PLoS ONE 4(8): e6628. doi:10.1371/journal.pone.0006628.

Cardiovascular Disease (CVD)

In a study to evaluate the naturopathic approach to CVD prevention and to determine the cost-effectiveness of such an approach, researchers found that after a single year of naturopathic care, the 10-year CVD event risk was reduced by 3.3 percent, based on equations developed in the Framingham heart study. This resulted in an average net reduction in societal costs by \$1,138 per participant and a reduction in employer costs by \$1,187 per participant compared to usual care alone. The majority of cost savings were attributed to reductions in losses due to reduced productivity while at work. The only CVD intervention known to be of lower cost is daily aspirin.

See Seely, Dugard. American Association of Naturopathic Physicians 2010 Convention Proceedings; Herman PM, Szczurko O, Cooley K, Seely D. A naturopathic approach to the prevention of cardiovascular disease: A cost-effectiveness analysis of a pragmatic multi-worksites randomized clinical trial. *J Occup Environ Med* 2014 56(2): 171-6; D'Agostino RB, Vasan RS, Pencina MJ, et al. General cardiovascular risk profile for use in primary care: the Framingham Heart Study. *Circulation* 2008; 117:743-53; Greving JP, Buskins E, Koffijberg H, Algra A. Cost effectiveness of aspirin treatment in the primary prevention of cardiovascular disease events in subgroups based on age, gender and varying cardiovascular risk. *Circulation* 2008; 117: 2875-2883; and Franco OH, der Kinderen AJ, De Laet C, Peeters A, Bonneux L. Primary prevention of cardiovascular disease: cost-effectiveness comparison. *Int J Technol Assess Health Care* 2007; 23(1): 71-79.

Diabetes

Lifestyle modifications were found to be more cost-effective in preventing type 2 diabetes in adults with impaired glucose intolerance than metformin, a diabetes medicine that helps control blood sugar levels. In a study, 3,234 adults with impaired glucose tolerance were randomly assigned to receive metformin twice daily, to participate in a lifestyle medication program (which included reducing fat intake and adding 150 minutes of exercise per week), or to receive a placebo. When compared to placebo, metformin reduced the incidence of diabetes by 31 percent. Lifestyle modifications reduced the incidence of diabetes by 58 percent. Researchers also estimated that compared with placebo, lifestyle interventions delayed the onset of diabetes by 11 years while metformin therapy delays the onset of diabetes by three years in those with impaired glucose tolerance. The lifestyle modification program would cost \$8,800 while metformin therapy would cost \$29,000 per quality adjusted life year saved. Finally, the lifestyle modification program was shown to be cost-effective in all adults, while metformin was not cost-effective after age 65.

See Herman WH, Hoerger TJ, Brandle M, etc. The Cost-Effectiveness of Lifestyle Modification or Metformin in Preventing Type 2 Diabetes in Adults with Impaired Glucose Tolerance. *Ann Intern Med* 2005; 142(5): 323-332.

Lower Back Pain

Researchers conducted a small cost-effectiveness analysis of naturopathic treatment for chronic lower back pain in 75 warehouse workers in a large American corporation. Naturopathic treatment consisted of a specific 3-month protocol of acupuncture, relaxation training, exercise, dietary advice, and written education on back care. It was compared to a 3-month standard physiotherapy program consisting of written education on back care. Participants who received naturopathic care enjoyed a statistically significant improvement in symptoms and quality of life, as employers and insurers enjoyed a decrease in costs by \$1,212 per study participant. Workplace absenteeism was also reduced by an average of 6.7 days. The authors concluded that naturopathic care is more cost-effective than a standard physiotherapy plan and produces a return on investment of 7.9 percent.

See Szczurko O, Cooley K, Busse JW, Seely D, Bernhardt B, et al (2007) Naturopathic Care for Chronic Low Back Pain: A Randomized Trial. PLoS ONE 2(9): e919. doi:10.1371/journal.pone.0000919.

*For further information and research, see Oberg EB, Bradley R, Cooley K, Fritz H, Goldenberg JZ, et al. (2015) Estimated Effects of Whole-system Naturopathic Medicine in Select Chronic Disease Conditions: A Systematic Review. *Altern Integr Med* 4: 192. doi:10.4172/2327-5162.1000192; <http://www.ccnm.edu/research/abstracts>; and <http://worldnaturopathicfederation.org/naturopathic-research-institutes/>.