



Head Office: PO Box 2282, Bath BA1 2QY, UK.

Phone +44(0)1225 471444

Fax +44(0)1225 427444

Email sherry.webster@AIM-Digest.com

AIM Websites www.alcoholinmoderation.com

Helena Conibear

AIM - Executive Director

Phone +44(0)1300 341601

Email Helena.Conibear@AIM-Digest.com

www.DrinkingandYou.com

The Case for moderate drinking

Alcohol in Moderation (AIM) was founded in 1991 as a not for profit independent organisation. One of its key functions is to monitor scientific publications on the association between moderate alcohol drinking and health for its journal and websites that have been dedicated to moderate drinking and associated policy and social issues for the past 16 years.

Clear parameters of moderate drinking

Accumulating scientific evidence (more than 100 studies from 25 countries) suggests that consumption of wine, beer and spirits does not pose a health risk to the vast majority of consumers who choose to drink in moderation.

AIM's recommendations also emphasise that adults should enjoy alcohol beverages in a sensible manner, preferably around mealtimes or in other responsible social settings that do not put themselves, or others at risk.

Moderation is the key to a healthy diet and lifestyle. It has not been possible to determine the exact inflection point in dose where a potentially beneficial, or harmless dose changes to a potentially harmful one, hence definitions of a drink and responsible drinking guidelines vary from country to country. Moderate drinking is generally medically defined, however, as up to 20g a day (one or two standard drinks) for women and 30g a day for men. Consumers should follow moderation guidelines such as those in the UK 1995 sensible daily drinking guidelines (2-3 units of 8g a day for women or 3-4 units of 8g for men) or the Dietary Guidelines for Americans which define moderation as up to two drinks (14g) a day for men and up to one drink a day for women.

Further, consumers should avoid alcohol during pregnancy, when driving, working with machinery or at heights, when on certain medications or if there is a personal or family history of certain illnesses.

Our message is that small amounts of alcohol on a regular basis (as little as one drink a day) confer the health benefits to a large segment of the adult population. 'Saving up' units for drinking on one or two occasions a week is not considered moderate drinking.

We endorse the WHO recommendations, where national guidelines do not exist of:

2 – women should not drink more than two drinks a day on average

3 – men should not drink more than three drinks a day on average

4 – Men or women should not to exceed four drinks on any one occasion

0 – Avoid alcohol in some situations, such as when driving, if pregnant or in certain work situations and abstain from drinking at least once a week.

Associated health benefits for certain segments of the population

The well documented beneficial effects of moderate alcohol intake on physical health are generally demonstrable among middle-aged or older adults, and are especially related to reductions in risk of many of the diseases of ageing (e.g., coronary heart disease, ischemic stroke, osteoporosis and bone density, type 2 diabetes, dementia). Often ignored are the less formally documented but still important beneficial effects of moderate alcohol intake on psychological and social well-being.

The beneficial effect of moderate drinking has been questioned by some in public health, hence the evidence base below.

Most recently for those over 70 (see reference report via: www.aim-digest.com/gateway/pages/oldage/articles/summary%20doc%20-%20ES.pdf by Dr Erik Skovenborg - alcohol - boon or bane for the elderly)

Valid component of a balanced lifestyle, irrespective of any health benefit

Although there are few demonstrable physical benefits associated with moderate alcohol use for pre menopausal women or men under 40, it is recognised that alcohol, consumed in the right context, in moderation with friends, at meal times, to celebrate, commiserate or unwind has both psychological and social benefit as a relaxant, stimulant and social lubricant. Alcohol in moderation has been enjoyed by many societies over the millennia and forms part of the Christian and Jewish religion.

Therefore, with or without the associated health benefits of moderate drinking for certain sectors of the population, drinking has a rightful place at the heart of many cultures and societies.

It should be noted, in the context of 'alcohol harm reduction' that the majority of consumers drink moderately most of the time. For example, in the UK it is estimate that 6% of women and 8% of men drink at hazardous levels (Department of Health). It is important that alcohol harm reduction policies do not penalise moderate drinkers, but are targeted at those causing harm to themselves or others through their drinking.

AIM also recognises that nearly half of world's adult population chooses not to drink for cultural, religious or health reasons. AIM does not advocate that non consumers should consume alcohol in order to improve their health, but that moderate drinking and the cultural, agrarian and social contribution of drinking that is interwoven into the fabric of many nations and cultures has a rightful place in society.

Evidence base

One of the first studies to suggest an inverse association between moderate alcohol consumption and coronary heart disease (CHD) was published more than 30 years ago by Professor Arthur Klatsky in 1974. Since then, more than 100 studies from 25 countries have confirmed and strengthened the association, with the protective effect applying predominantly to post menopausal women and men over 40.

Evidence from these studies suggests that beneficial changes in HDL cholesterol levels, clotting factors, insulin sensitivity, and markers of inflammation provide biological plausibility to the association. Moderation (defined as up to 20g a day for women and 30g a day for men) as recognised by most national government sensible drinking guidelines, is key.

Further epidemiological studies have assessed the importance of drinking patterns including frequency, quantity, and beverage choice. Most studies account for potential con-founders of the effect of moderate drinking - such as education, occupation, social status, physical activity, diet, and changes in alcohol consumption during lifetime.

The many epidemiological studies that have shown an inverse relation between alcohol and cardiovascular disease have come from a great variety of nations and cultures. Despite great diversity in the populations, study size, diet and lifestyle factors and length of follow-up the consistency and similarity of outcomes provide further support to the robustness of the findings. Inverse associations have been documented in France, Japan, Denmark, Germany, Finland, Korea, Great Britain Australia, China, Italy, Puerto Rico, the Netherlands, Sweden, Yugoslavia and the US for example.

Despite the strength and consistency across studies, some still argue that generalisation of the results may not be possible because of the selected nature of several of these study populations. However, general population surveys including the National Health and Nutrition Examination Survey (NHANES) in the US and population based cohorts in the UK, China and Japan have also found benefit from moderate alcohol consumption.

More recent studies of alcohol and CHD have focused on subgroups defined by age or health status. Although alcohol in moderation will likely provide greater benefit for older populations where rates of CHD are highest, the etiology of CHD is such that moderate consumption in middle age also is beneficial. Several important risk factors for CHD, such as obesity and the prevalence of type 2 diabetes, both of which have been increasing in younger adults around the world, are consistently reported to be inversely associated with moderate alcohol consumption.

In addition studies show moderate alcohol consumption is inversely associated with second heart attack risk and indeed all cause mortality. Thus, in summary, the epidemiological evidence for an inverse association between moderate alcohol consumption and health amongst older populations is extensive and general to populations defined by age, ethnicity, geography, and prevalent health conditions.

A notable exception to the inverse association may be for breast cancer risk. A growing body of epidemiological studies show evidence for a positive association, even at moderate levels, (estimated lifetime increased risk of 6% per daily drink) for alcohol consumption and breast cancer risk. Lifestyle factors such as diet and adequate folate intake may weaken the positive association, but this is an area still under study.

It has been suggested that the inverse association between alcohol and all cause mortality may not be causal but because moderate drinkers may be better off, more likely to eat better, exercise more, and live a healthier life. Although most prospective studies of alcohol and cardio vascular risk are observational, trials have been conducted to study changes in markers of CHD such as HDL cholesterol, triglycerides, glycemic control, and clotting factors and support the conclusions of the observational studies. Long-term trials of alcohol consumption and subsequent cardiovascular events are difficult to conduct due to the long follow up required, cost and ethical considerations regarding the randomisation to alcohol or no alcohol consumption over many years, but are not impossible.

Parameters of misuse

Heavy or hazardous drinking (more than twice the moderation guidelines), inappropriate drinking (drinking to drunkenness), and binge drinking (more than five drinks in quick succession) have no health benefits and are associated with both acute and chronic harms to health, both short and long term.

Drinking at all in some circumstances is hazardous, such as when pregnant, on certain medications, when driving, suffering from some illnesses, working with machinery or at heights.

Alcohol misuse also includes the sale or marketing of alcohol to minors, the antisocial or violent behaviour that can be associated with excess drinking and drink drive.

This statement is supported by:

Alcohol in Moderation's Social, Scientific and Medical Council

Professor Alan Crozier, Professor of Plant Biochemistry and Human Nutrition, University of Glasgow

Professor JM Orgogozo, Institut de Cerveau, University of Bordeaux

Professor OFW James, Head of Medicine, University of Newcastle

Dr Erik Skovenborg M.D., Scandinavian Medical Alcohol Board

R. Curtis Ellison, MD

Professor of Medicine & Public Health

Director, Institute on Lifestyle & Health, Boston University School of Medicine

Harvey Finkel MD, Clinical Professor of Medicine, Boston University School of Medicine

Tedd Goldfinger FACC, FCCP, Desert Heart Foundation, Tucson, University of Arizona

Professor Dwight B Heath, Anthropologist, Brown University, US

Arthur Klatsky MD, Senior Consultant in Cardiology, Kaiser Permanente Medical Research Center

Alfred de Lorimer MD

Dr Philip Norrie PhD, GP, Australia

Ellen Mack MD

Stanton Peele PhD, US Social Policy Consultant

Creina S Stockley, MSc, MBA, The Australian Wine Research Institute
Dr Thomas Stuttaford, Medical Correspondent to The Times and Author
Dr Elisabeth Whelan, President of American Council on Science and Health
Peter Duff, Chairman, Alcohol in Moderation
Helena Conibear, Executive Director, Alcohol in Moderation

and

Fulvio Ursini MD
Head of the Department of Biochemistry School of Medicine
University of Padova Italy

Dr Richard Baxter MD
Fellow of the American College of Surgeons (FACS)
Washington State Medical Association

Professor Richard Alan Smallwood
Emeritus Professor of Medicine, University of Melbourne;
Former Chief Medical Officer of Australia

Sources for statements:

Lucas DL, Brown RA, Wassef M, Giles TD. Alcohol and the cardiovascular system research challenges and opportunities. *J Am Coll Cardiol.* 2005;45:1916–1924. [Abstract](#) | [Full Text](#) | [Full-Text PDF \(165 KB\)](#) | [MEDLINE](#) | [CrossRef](#)

Klatsky AL, Friedman GD, Siegel AB. Alcohol consumption before myocardial infarction. Results from the Kaiser-Permanente epidemiologic study of myocardial infarction. *Ann Intern Med.* 1974;81:294–301. [MEDLINE](#)

U.S. Department of Health and Human Services and U.S. Department of Agriculture . Dietary Guidelines for Americans, 2005, 6th ed. Washington, DC: U.S. Government Printing Office; 2005;.

Maclure M. Demonstration of deductive meta-analysis: ethanol intake and risk of myocardial infarction. *Epidemiol Rev.* 1993;15:328–351.

Hill JA. In vino veritas: alcohol and heart disease. *Am J Med Sci.* 2005;329:124–135. [MEDLINE](#) | [CrossRef](#)

Rehm J, Gmel G, Sempos CT, Trevisan M. Alcohol-related morbidity and mortality. *Alcohol Res Health.* 2003;27:39–51. [MEDLINE](#)

Klatsky AL. Drink to your health?. *Sci Am.* 2003;288:74–81. [MEDLINE](#)

Friedman LA, Kimball AW. Coronary heart disease mortality and alcohol consumption in Framingham. *Am J Epidemiol.* 1986;124:481–489. [MEDLINE](#)

Rimm EB, Giovannucci EL, Willett WC, Colditz GA, Ascherio A, Rosner B, et al. Prospective study of alcohol consumption and risk of coronary disease in men. *Lancet.* 1991;338:464–468. [MEDLINE](#) | [CrossRef](#)

Fuchs CS, Stampfer MJ, Colditz GA, Giovannucci EL, Manson JE, Kawachi I, et al. Alcohol consumption and mortality among women. *N Engl J Med.* 1995;332:1245–1250. [MEDLINE](#) | [CrossRef](#)

Renaud SC, Guéguen R, Siest G, Salamon R. Wine, beer, and mortality in middle-aged men from Eastern France. *Arch Intern Med.* 1999;159:1865–1870. [MEDLINE](#) | [CrossRef](#)

Keil U, Chambless LE, Döring A, Filipiak B, Stieber J. The relation of alcohol intake to coronary heart disease and all-cause mortality in a beer-drinking population. *Epidemiology.* 1997;8:150–156. [MEDLINE](#)

Kitamura A, Iso H, Sankai T, Naito Y, Sato S, Kiyama M, et al. Alcohol intake and premature coronary heart disease in urban Japanese men. *Am J Epidemiol.* 1998;147:59–65. [MEDLINE](#)

Wannamethee SG, Shaper AG. Type of alcoholic drink and risk of major coronary heart disease events and all-cause mortality. *Am J Public Health.* 1999;89:685–690. [MEDLINE](#)

Tolstrup J, Jensen MK, Tjønneland A, Overvad K, Mukamal KJ, Grønbaek M. Prospective study of alcohol drinking patterns and coronary heart disease in women and men. *BMJ.* 2006;332:1244–1248.

Gartside PS, Wang P, Glueck CJ. Prospective assessment of coronary heart disease risk factors: the NHANES I epidemiologic follow-up study (NHEFS) 16-year follow-up. *J Am Coll Nutr.* 1998;17:263–269. [MEDLINE](#)

Wannamethee SG, Shaper AG, Perry IJ, Alberti KGMM. Alcohol consumption and the incidence of type II diabetes. *J Epidemiol Comm Health.* 2002;56:542–548.

Wannamethee SG, Camargo CA, Manson JE, Willett WC, Rimm EB. Alcohol drinking patterns and risk of type 2 diabetes among younger women. *Arch Intern Med.* 2003;163:1329–1336. [MEDLINE](#) | [CrossRef](#)

Wannamethee SG, Field AE, Colditz GA, Rimm EB. Alcohol intake and 8-year weight gain in women: a prospective study. *Obes Res.* 2004;12:1386–1396. [MEDLINE](#)

Conigrave KM, Hu FB, Camargo CA, Stampfer MJ, Willett WC, Rimm EB. A prospective study of drinking patterns in relation to risk of type 2 diabetes among men. *Diabetes.* 2001;50:2390–2395. [MEDLINE](#) | [CrossRef](#)

Beulens JW, Stolk RP, van der Schouw YT, Grobbee DE, Hendriks HF, Bots ML. Alcohol consumption and risk of type 2 diabetes among older women. *Diabetes Care*. 2005;28:2933–2938. [MEDLINE](#) | [CrossRef](#)

Koppes LL, Dekker JM, Hendriks HF, Bouter LM, Heine RJ. Moderate alcohol consumption lowers the risk of type 2 diabetes: a meta-analysis of prospective observational studies. *Diabetes Care*. 2005;28:719–725. [MEDLINE](#) | [CrossRef](#)

Mukamal KJ, Maclure M, Muller JE, Sherwood JB, Mittleman MA. Prior alcohol consumption and mortality following acute myocardial infarction. *JAMA*. 2001;285:1965–1970. [MEDLINE](#) | [CrossRef](#)

Beulens JW, Rimm EB, Stampfer MJ, Ascherio A, Hendriks HF, Mukamal KJ. Alcohol consumption and risk of coronary heart disease in men with hypertension. *Ann Int Med*. 2007;146(1):10–19.

Malinski MK, Sesso HD, Lopez-Jimenez F, Buring JE, Gaziano JM. Alcohol consumption and cardiovascular disease mortality in hypertensive men. *Arch Intern Med*. 2004;164:623–628. [MEDLINE](#) | [CrossRef](#)

Koppes LL, Dekker JM, Hendriks HF, Bouter LM, Heine RJ. Meta-analysis of the relationship between alcohol consumption and coronary heart disease and mortality in type 2 diabetic patients. *Diabetologia*. 2006;49:648–652. [CrossRef](#)

Rimm EB, Williams P, Fosher K, Criqui M, Stampfer MJ. Moderate alcohol intake and lower risk of coronary heart disease: meta-analysis of effects on lipids and haemostatic factors. *BMJ*. 1999;319:1523–1528.

Klatsky AL, Armstrong MA, Friedman GD. Risk of cardiovascular mortality in alcohol drinkers, ex-drinkers, and nondrinkers. *Am J Cardiol*. 1990;66:1237–1242. [MEDLINE](#) | [CrossRef](#)

Mukamal KJ, Conigrave KM, Mittleman MA, Camargo CA, Stampfer MJ, Willett WC, et al. Roles of drinking pattern and type of alcohol consumed in coronary heart disease in men. *N Engl J Med*. 2003;348:109–118. [CrossRef](#)

Tanasescu M, Hu FB, Willett WC, Stampfer MJ, Rimm EB. Alcohol consumption and risk of coronary heart disease among men with type 2 diabetes mellitus. *Am J Coll Cardiol*. 2001;38:1836–1842.

Chiuvè SE, McCullough ML, Sacks FM, Rimm EB. Healthy lifestyle factors in the primary prevention of coronary heart disease among men. *Circulation*. 2006;114:160–167. [CrossRef](#)

Mukamal KJ, Chiuvè SE, Rimm EB. Alcohol consumption and risk for coronary heart disease in men with healthy lifestyles. *Arch Intern Med*. 2006;166:2145–2150. [MEDLINE](#) | [CrossRef](#)

Kiechl S, Willeit J, Poewe W, Egger G, Oberhollenzer F, Muggeo M, et al. Insulin sensitivity and regular alcohol consumption: large, prospective, cross sectional population study (Bruneck study). *Br Med J*. 1996;313:1040–1044.

Vitelli LL, Folsom AR, Shahar E, Winkhart SP, Shimakawa T, Stevens J, et al. Association of dietary composition with fasting serum insulin level — the ARIC study. *Nutr Metab Cardiovasc Dis*. 1996;6:194–202.

Davies MJ, Baer DJ, Judd JT, Brown ED, Campbell WS, Taylor PR. Effects of moderate alcohol intake on fasting insulin and glucose concentrations and insulin sensitivity in postmenopausal women — a randomized controlled trial. *JAMA*. 2002;287:2559–2562. [MEDLINE](#) | [CrossRef](#)

Langer RD, Criqui MH, Reed DM. Lipoproteins and blood pressure as biological pathways for effect of moderate alcohol consumption on coronary heart disease. *Circulation*. 1992;85:910–915. [MEDLINE](#)

Mukamal KJ, Jensen MK, Grønbaek M, Stampfer MJ, Manson JE, Pischon T, et al. Drinking frequency, mediating biomarkers, and risk of myocardial infarction in women and men. *Circulation*. 2005;112:1379–1381. [CrossRef](#)

Tjønneland A, Grønbaek M, Stripp C, Overvad K. Wine intake and diet in a random sample of 48763 Danish men and women. *Am J Clin Nutr*. 1999;69:49–54. [MEDLINE](#)

Rimm EB, Klatsky A, Grobbee D, Stampfer MJ. Review of moderate alcohol consumption and reduced risk of coronary heart disease: is the effect due to beer, wine, or spirits?. *Br Med J*. 1996;312:731–736.