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Ukraine

The Ukraine's Department of Revenue and Duties has announced plans to introduce new excise stamps with three levels of forgery protection. The stamps are part of an integrated accounting system that will regulate the production and retail stages of the trade, and improve state control over tax revenue and consumer protection from counterfeit products.

Netherlands

From January 1, 2014 in the Netherlands there will be an age limit of 18 years for both on and for off premise purchasing and for public possession of both mildly and strong alcoholic beverages.

Switzerland

Switzerland's city association has drawn up a report with a series of measures to help combat the difficulties brought about by night-life in Switzerland's cities. The report calls for the identity of offenders to be more easily determined and increased and intensified police patrols and sale.

Cities are calling for the purchase of alcohol to be limited, and for retailers, especially those in train stations, to take more responsibility. Discussions are underway as to whether alcohol tax should be raised. Commission president Konrad Graber does not think that the proposed 10% increase will suffice. The Swiss parliament is also to decide whether the minimum legal age for the consumption of beer and wine should be increased to 18 years old.

Quebec

In Quebec, home of the state monopoly Société des Alcools du Québec (SAQ), a petition has been started demanding a change to legislation that would allow residents to import wine from other provinces without having to transit via the SAQ and be liable for its taxes and mark-ups. The petition comes a few months after the federal government changed legislation to allow Canadians to buy alcohol in one state and drink it in another. However, each province was given the chance to decide whether or not the legislation was transposed to provincial level; some provinces have made the change, others such as Quebec have yet to rule on the issue. Quebec is the only Canadian province that does not allow its residents to import alcohol personally. The SAQ says that talks over alignment of Quebec legislation with other provinces are ongoing.

Japan

Tokyo University of Foreign Studies has developed an 'alcohol passport' programme to help students avoid excessive drinking during a five-day festival. The passports are given to students and visitors aged 20 years and older after they show proof of age identification, and stickers are added to the passport each time alcohol is purchased creating a visual tally of drinks. Pernod Ricard Japan has bestowed its "No Ikki!" award on the university in Fuchu, Western Tokyo. The award praises the efforts that university students have gone to at their annual festival to prevent underage drinking and over-consumption of alcohol under peer pressure.

Primary prevention of cardiovascular disease with a Mediterranean diet

About 30 percent of heart attacks, strokes and deaths from heart disease can be prevented in people at high risk if they switch to a Mediterranean diet rich in olive oil, nuts, beans, fish, fruits and vegetables, and including wine with meals, a large study has found.

Previous observational cohort studies and a secondary prevention trial have shown an inverse (protective) association between adherence to the Mediterranean diet and cardiovascular risk. Researchers in Spain conducted a randomised trial of this diet pattern for the primary prevention of cardiovascular events.

In the multicenter trial in Spain, participants who were at high cardiovascular risk, but with no cardiovascular disease at enrollment were randomly assigned, to one of three diets. One group was assigned to a Mediterranean diet and was given extra-virgin olive oil each week with instructions to use at least 4 four tablespoons a day. The second group was also assigned the Mediterranean diet but with a combination of walnuts, almonds and hazelnuts and instructions to eat about an ounce of the mix each day. The third group were assigned to a low fat diet.

The Mediterranean diet consisted of at least three servings a day of fruits and at least two servings of vegetables. Participants were to eat fish at least three times a week and legumes, which include beans, peas and lentils, at least three times a week. They consumed white meat instead of red, and, for those accustomed to drinking, at least seven glasses of wine a week with meals. They avoided commercially made cookies, cakes and pastries and limited their consumption of dairy products and processed meats.

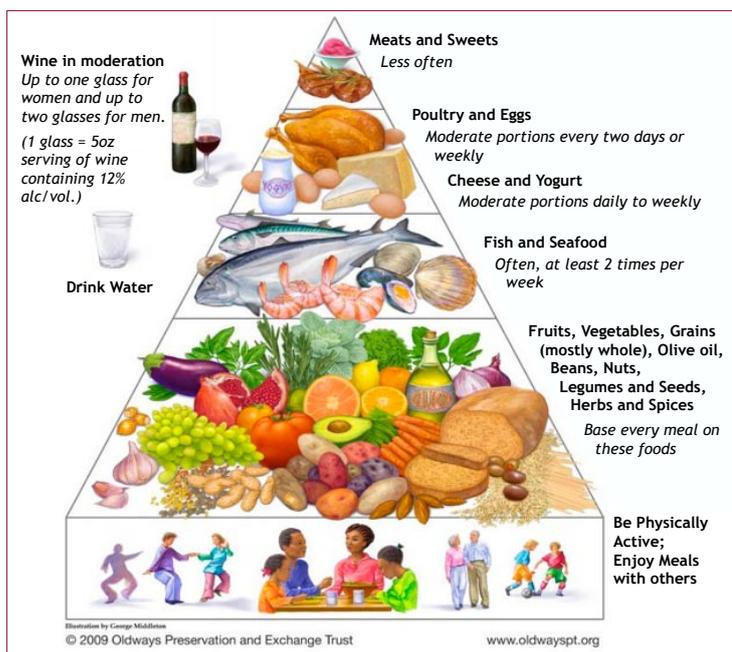
In order to assess compliance with the Mediterranean diet, researchers measured levels of a marker in urine for olive oil consumption - hydroxytyrosol - and a blood marker for nut consumption - alpha-linolenic acid. Investigators reported that the participants adhered to the Mediterranean diet, but those assigned to a low-fat diet did not lower their fat intake very much. The controls therefore provided a comparison against a typical modern diet, with a regular consumption of red meat, fizzy drinks and commercial baked goods.

Hazard ratio for Mediterranean diets combined vs. control (95% CI)	
Primary end point	
Unadjusted	0.70 (0.55–0.89)
Multivariable-adjusted 1§	0.71 (0.56–0.90)
Multivariable-adjusted 2¶	0.71 (0.56–0.90)
Secondary end points ‡	
Stroke	0.61 (0.44–0.86)
Myocardial infarction	0.77 (0.52–1.15)
Death from cardiovascular causes	0.83 (0.54–1.29)
Death from any cause	0.89 (0.71–1.12)

The study assessed the rate of major cardiovascular events (myocardial infarction, stroke, or death from cardiovascular causes). A major cardiovascular event occurred in 288 participants. The multivariable-adjusted hazard ratios were 0.70 (95% confidence interval [CI], 0.54 to 0.92) and 0.72 (95% CI, 0.54 to 0.96) for the group assigned to a Mediterranean diet with extra-virgin olive oil (96 events) and the group assigned to a Mediterranean diet with nuts (83 events), respectively, versus the control group (109 events). No diet-related adverse effects were reported. On the basis of the results of an interim analysis, the trial was stopped after a median follow-up of 4.8 years as the results were so conclusive.

The authors conclude that among persons at high cardiovascular risk, a Mediterranean diet supplemented with extra-virgin olive oil or nuts reduced the incidence of major cardiovascular events. The diet helped those following it even though they did not lose weight and most of them were already taking statins, or blood pressure or diabetes drugs to lower their heart disease risk.

(The study is) **“Really impressive,”** said Rachel Johnson, a professor of nutrition at the University of Vermont and a spokeswoman for the American Heart Association. **“And the really important thing is that they used very meaningful endpoints. They did not look at risk factors like cholesterol or hypertension or weight. They looked at heart attacks and strokes and death.”** Heart disease experts said the study was impressive because it showed that a diet was powerful in reducing heart disease risk, and it did so using the most rigorous methods.



Dr Ramon Estruch said he thought the effect of the Mediterranean diet was due to the entire package, not just the olive oil or nuts. He did not expect, though, to see such a big effect so soon. **“This is actually really surprising to us,”** he said.

The researchers were careful to say in their paper that while the diet clearly reduced heart disease for those at high risk for it, more research was needed to establish its benefits for people at low risk. But Dr Estruch said he expected it would also help people at both high and low risk, and suggested that the best way to use it for protection would be to start in childhood.

Source: Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Ramón Estruch, et al. *New England Journal of Medicine*, February 25, 2013

www.nejm.org/doi/full/10.1056/NEJMoa1200303

We have long known that following the 5 heart healthy steps of not smoking, exercising moderately, maintaining a healthy BMI, eating a Mediterranean style diet and drinking in moderation improves heart health and longevity... yet only about 6% of Western populations manage to adhere to these factors. What is interesting about this study is that for those who struggle with their weight and are not healthy, following an appetising diet with white meat, fish, nuts and olive oil as well as wine reduced their risk of heart attack considerably when compared with those put on a low fat or typical modern day diet.

Helena Conibear, Executive Director, AIM

Moderate alcohol consumption is associated with a lower risk of diabetes

Rasouli B, Ahlbom A, Andersson T, Grill V, Midthjell K, Olsson L, Carlsson S. Alcohol consumption is associated with reduced risk of Type 2 diabetes and autoimmune diabetes in adults: results from the Nord-Trøndelag health study. *Diabet Med* 2013;30:56–64.

Authors' Abstract

Aims We investigated the influence of different aspects of alcohol consumption on the risk of Type 2 diabetes and autoimmune diabetes in adults.

Methods We used data from the Nord-Trøndelag Health Survey (HUNT) study, in which all adults aged ≥ 20 years from Nord-Trøndelag County were invited to participate in three surveys in 1984–1986, 1995–1997 and 2006–2008. Patients with diabetes were identified using self-reports, and participants with onset age ≥ 35 years were classified as having Type 2 diabetes if they were negative for anti-glutamic acid decarboxylase ($n = 1841$) and as having autoimmune diabetes if they were positive for anti-glutamic acid decarboxylase ($n = 140$). Hazard ratios of amount and frequency of alcohol use, alcoholic beverage choice, and binge drinking and alcohol use disorders were estimated.

Results Moderate alcohol consumption (adjusted for confounders) was associated with a reduced risk of Type 2 diabetes in men, but not in women (hazard ratio for men 10–15 g/day 0.48, 95% CI 0.28–0.77; hazard ratio for women ≥ 10 g/day 0.81, 95% CI 0.33–1.96). The reduced risk was primarily linked to consumption of wine [hazard ratio 0.93, 95% CI 0.87–0.99 (per g/day)]. No increased risk was seen in participants reporting binge drinking or in problem drinkers. The results were also compatible with a reduced risk of autoimmune diabetes associated with alcohol consumption [hazard ratio 0.70, 95% CI 0.45–1.08 (frequent consumption) and hazard ratio 0.36, 95% CI 0.13–0.97 (2–7 g/day)].

Conclusions Moderate alcohol consumption associates with reduced risk of both Type 2 diabetes and autoimmune diabetes. A protective effect of alcohol intake may be limited to men. High alcohol consumption does not seem to carry an increased risk of diabetes.

Forum Comments

Background: The scientific literature has consistently shown that moderate alcohol consumption is associated with a lower risk of type II diabetes mellitus (DM). In data from prospective studies, the risk of diabetes has generally been found to be about 30% lower for moderate drinkers than for abstainers (Howard et al, Effect of alcohol consumption on diabetes mellitus: a systematic review. *Ann Intern Med* 2004;140:211-219; Koppes et al, Moderate alcohol consumption lowers the risk of type 2 diabetes: a meta-analysis of prospective observational studies, *Diabetes Care* 2005;28:719-725). Some studies have shown that this reduction in risk is no longer seen among people reporting binge drinking or drinking excessively (Pietraszek et al. Alcohol and type 2 diabetes. A review. *Nutr Metab Cardiovasc Dis* 2010;20:366-375).

Comments on the present study: The present study was based on very large population surveys in Norway, with the first examination in 1984-86 having a very high response rate. The development of diabetes was ascertained at two later examinations, about 10 and 20 years later. While there were few baseline differences between subjects developing Type II DM ($n=1,841$) and those developing auto-immune DM ($n=140$), overall subjects developing DM were much more likely to be obese and have a positive family history than subjects not developing DM.

Subjects consuming some alcohol but on < 1 occasion over the preceding 2 weeks were taken as the referent group. When assessing the effects of the frequency of alcohol consumption, alcohol consumption on 5-10 occasions in the preceding 2 weeks was associated with a lower risk of Type II DM of 29% (HR 0.71, CI 0.51, 0.99), with no significant effect of more frequent consumption or of reported episodes of intoxication. For men, consumption of 5-10 drinks over two weeks gave a HR of 0.69 (CI 0.47, 1.02); for women, the HR was very similar, at 0.73, but with wider CIs (0.34, 1.54). There were many fewer subjects with autoimmune DM, but the adjusted HR for 1-4 drinks/two weeks was 0.70 (CI 0.45, 1.08) and for 5-10 times the HR was 0.72 (0.28, 1.83). Reported intoxication was associated with a trend towards a lower risk for this type of DM, not a higher risk.

When the average amount of alcohol consumed per occasion was assessed, the lowest risk of Type II DM was among subjects reporting an average of 10-14 grams/day (approximately 1 typical drink), with an adjusted HR of 0.56 (CI 0.36, 0.86). This association gave a HR of 0.48 (0.28, 0.77) for men; for women, the lowest risk was among those reporting ≥ 10 grams/day, with HR 0.81 (0.33, 1.96). When alcohol intake was considered as quartiles of intake, in comparison with subjects in the lowest quartile (0.01-2 grams/day), subjects reporting 2-7 grams per day had the lowest HR, 0.38 (0.15, 0.98). In beverage-specific analyses, only wine intake showed a significant effect, with each gram/day of alcohol from wine associated with a HR of 0.93 (0.87, 0.99).

Reviewer Djoussé had some concerns about the precision with which alcohol intake was estimated, given that the investigators calculated the mean alcohol intake by having to make a number of estimations based on the reported number of drinks consumed over a two-week period; also, reported episodes of "intoxication" may have been under-reported. "I wonder how many people that drank alcohol to 'intoxication' level were able to recall that event. An under-reporting could bias the results of heavy drinking towards the null. I agree with others that residual confounding by other healthful lifestyle factors among wine drinkers cannot be excluded as potential explanation for the better effects attributed to wine."

Forum member Skovenborg commented: "In the first examination in this prospective study the participants drinking >10 times during the last 14 days reported high rates of low education, physical inactivity and smoking, which may be characteristic of regular drinkers in the Norwegian population. However, we have reason

to suspect unmeasured confounding here, and the authors did not have information about the typical diets in the different categories of alcohol intake. That might explain why wine is the only beverage associated with significant risk reduction. In Scandinavia, wine drinking is typically associated with a Mediterranean type of diet (Johansen D et al. Food buying habits of people who buy wine or beer: cross sectional study. *BMJ* 2006;332:519. doi.org/10.1136/bmj.38694.568981.80). Thus, it is possible that some of the protection of wine drinkers seen in this study may have related to a Mediterranean type diet, that has been shown to reduce the risk of diabetes and other cardiovascular diseases (Estruch et al, Primary prevention of cardiovascular disease with a Mediterranean Diet. *N Engl J Med* 2013. DOI: 10.1056/NEJMoa1200303; published 25 February 2013)."

Skovenborg continued: "The study upon which this report is based is an interesting study that included a large community-based sample with a long follow up. The authors note that the participation rate dropped from 90.3% in the first wave of examinations to 54% in the third wave. In the first examination, the questions regarding alcohol consumption were rather broad, leaving room for inaccurate consumption categories. In the second examination, the participants reported the number of drinks during the previous two weeks, and the calculated intake of alcohol in grams was then divided by 14 to reach an estimate of the alcohol consumption per day. However, there is always difficulty in knowing exactly the number of drinking days and the number of drinks per drinking days, a fact that casts doubt on the categories of alcohol consumption and drinking pattern. The claim that the majority of the participants were light drinkers (with a median reported intake of 2.3 g/day) may not be a valid estimate without knowledge regarding the drinking patterns of the participants."

Differences in effects by gender and by type of beverage: The apparently greater effect among men than among women is not consistent with results from many other studies. The reasons for this finding are not known, although the authors stated: "Gender differences could be related to women being more sensitive to the toxic effects of alcohol, experiencing toxicity at half of the dose giving negative symptoms in men. Alternatively, if women were less likely than men to accurately report their alcohol consumption attributable to social desirability, then this would dilute an association between alcohol consumption and diabetes in women." Said reviewer Skovenborg, "Women in this study who reported a moderate consumption of alcohol showed a non-significant reduction of the risk of type 2 diabetes;

however, the lack of significance may be a type 1 error due to a small number of diabetes cases among women.”

Said reviewer Finkel: “Alcohol’s apparent protection from diabetes, a decrease in risk of 30 percent, at least in men, is impressive. It is said that we have 26 million diabetics in the US alone, mostly Type 2: the magnitude of benefit would, therefore, be enormous. The sex difference is also of great interest, and still puzzling.”

Mechanisms of alcohol’s effects on diabetes: The investigators of this study stated that improvement in insulin sensitivity, immune mechanisms, and inflammation might explain the lower risk of diabetes among moderate drinkers. Commenting on their finding of greater protection from wine, they also pointed out that wine drinking may also be related to healthier behaviours compared with drinking of spirits, particularly with regard to diet and socio-economic factors.

Reviewer Van Velden noted that in their own studies of the influence of both red and white wine on health, “fasting glucose decreased and insulin increased in ‘normal’ people, but such findings were not found in people with the metabolic syndrome. This suggests that while alcohol does seem to play a protective role in diabetes, it may not be present in overweight people and people with genetic risk factors for cardiovascular disease such as APO E4 polymorphism, and familial dyslipidemias.”

Added reviewer Orgogozo: “The present paper confirms the higher risk of diabetes associated with increased weight, and many papers have shown that moderate alcohol consumption may be associated with a modest decrease in weight. This could also explain part of the inverse correlation between alcohol and diabetes. (It would be interesting to know if there was a difference between this association for wine drinkers, often found to have a healthier life style, and for consumers of other types of alcoholic beverages.)”

Forum Summary

A population-based longitudinal study in Norway showed a lower risk of developing type II diabetes, and a tendency for less auto-immune diabetes, among subjects reporting moderate alcohol consumption. The lowest risk was among subjects reporting that they consumed alcohol 5-10 times during the previous two weeks or reporting a daily consumption of 10-15 grams of alcohol per day (slightly less than one to a little over one drink per day, using 12 g of alcohol per day as a “typical drink”).

The overall results from this study support most previous research showing a rather large (approximately 30% or more) reduction in the risk of Type II diabetes mellitus to be associated with moderate drinking. In this study, the strongest protective effect related to the consumption of wine, rather than beer or spirits. Unlike some previous research, the present study did not show an increased risk of diabetes among binge drinkers, heavier drinkers, those reporting episodes of intoxication, or those giving positive responses on a CAGE questionnaire (a measure of an alcohol use disorder). As it is likely that alcoholics were under-represented in the cohort, the ability to show the effects of very heavy drinking may have been limited.

While the numbers of subjects with auto-immune diabetes were small, there was a tendency seen for a similar reduction in risk with moderate drinking as with the much more common Type II diabetes. Overall, this study strongly supports much previous research showing that moderate alcohol consumption is associated with a lower risk of developing diabetes.

Contributions to this critique by the International Scientific Forum on Alcohol Research were provided by the following members:

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Binge drinking may increase Type II diabetes risk by causing insulin resistance

Results of an animal study led by researchers at the Diabetes Obesity and Metabolism Institute at the Icahn School of Medicine at Mount Sinai indicate that binge drinking causes insulin resistance, which can lead to an increased risk of Type II diabetes. The authors also identified that alcohol disrupts insulin-receptor signaling by causing inflammation in the hypothalamus area of the brain.

In the study, researchers treated rats with alcohol for three consecutive days to simulate human binge drinking. A control group received the same amount of calories. Once alcohol was no longer detectable in blood, glucose metabolism was studied through either glucose-tolerance tests or through controlled-insulin infusions. The rats treated with alcohol were found to have higher concentrations of plasma insulin than the control group, suggesting that insulin resistance may have been the cause of the impaired glucose tolerance.

High plasma insulin levels are a major component of the metabolic syndrome, a group of risk factors that occur together and increase the risk for Type II diabetes, coronary artery disease, and stroke.

Christoph Buettner, MD, PhD, senior author of the study and Associate Professor of Medicine stated that “insulin resistance has emerged as a key metabolic defect leading to Type II diabetes and coronary artery disease (CAD)”. He added that “Someone who regularly binge drinks even once a week, over many years, may remain in an insulin resistant state for an extended period of time, potentially years”.

Claudia Lindtner, MD, first author of the study and an Associate Researcher of Medicine, Endocrinology, Diabetes and Bone Disease at the Icahn School of Medicine said that previously it had been unclear as to whether binge drinking was associated with an increased risk for diabetes, since a person who binge drinks may also tend to binge eat, or at least eat too much. The study data show for the first time that binge drinking induces insulin resistance directly and can occur independent of differences in caloric intake.

Source: Binge Drinking Induces Whole-Body Insulin Resistance by Impairing Hypothalamic Insulin Action. 2013 C. Lindtner, T. Scherer, E. Zielinski, N. Filatova, M. Fasshauer, N. K. Tonks, M. Puchowicz, C. Buettner. *Science Translational Medicine*.

Dual association between polyphenol intake and breast cancer risk according to alcohol consumption level: a prospective cohort study

Authors of a study published in *Breast Cancer, Research and Treatment*, state that the association between polyphenol dietary intake and breast cancer risk has been limited due to the lack of detailed food composition tables. In addition, no studies have examined this association according to alcohol intake, despite the facts that alcohol is an established risk factor for breast cancer and that the contribution of alcoholic beverages to polyphenol intake varies according to the level of alcohol consumption.

The authors' objectives were to estimate the associations between breast cancer risk and a wide range of dietary polyphenols using the recently published Phenol-Explorer database; and to evaluate if/how alcohol intake modulates these relationships.

4,141 women from the SU.VI.MAX prospective cohort were followed from 1994 to 2007 (median followup: 12.6 years); 152 developed a first incident invasive primary breast cancer. Dietary intakes were assessed by repeated 24-h records and polyphenol intake was estimated. Multivariable Cox proportional hazards models were used to calculate hazard ratios (HRs) and 95 % confidence intervals (CIs) for quartiles of

polyphenol intake. Analyses were stratified by median alcohol intake (< vs. \geq 6.5 g/d).

In non-to-low alcohol drinkers, intakes of some classes of polyphenols were associated with decreased breast cancer risk: hydroxybenzoic acids (HRQ4vsQ1 = 0.38, 95 % CI: 0.17-0.86), flavonoids (0.35, 0.17-0.75), flavonols (0.36, 0.18-0.742), catechins (0.48, 0.22-1.05), theaflavins (0.42, 0.19-0.93), and proanthocyanidins (0.39, 0.18-0.84). In contrast, in women with higher alcohol use, intakes of hydroxybenzoic acids (2.28, 1.16-4.49), flavonoids (2.46, 1.23-4.92), anthocyanins (2.94, 1.32-6.53), catechins (2.28, 1.19-4.36), and proanthocyanidins (2.98, 1.40-6.33) were associated with increased breast cancer risk.

The authors conclude that there are several classes of polyphenols that could potentially contribute to breast cancer prevention among non-to-low alcohol drinkers, but some may increase breast cancer risk among women with higher alcohol intake.

Source: “Dual association between polyphenol intake and breast cancer risk according to alcohol consumption level: a prospective cohort study”, Touvier M; et al., *Breast Cancer Research and Treatment*, Vol 137, No 1, 2013, pp225-236

Possible prevention of myocardial infarction from alcohol's effects on periodontal disease: An hypothesis

Håheim LL, Olsen I, Rønningen KS. Oral infection, regular alcohol drinking pattern, and myocardial infarction. *Medical Hypotheses* 2012;79:725–730.

Authors' Abstract

Oral infections have been associated with an increased risk for myocardial infarction (MI) and other cardiovascular diseases (CVD). Conversely, low, regular alcohol consumption is associated with a lower association of CVD. The objective was to test the novel hypothesis that oral infections are modified by regular alcohol drinking which has the effect of lowering the incidence of MI's.

The effect has been observed where tooth extractions were carried out due to infections and compared with extractions unconnected to infections. Oral infections and in particular periodontal infections impose an infectious load on the health in many people. In its advanced forms (periodontal pockets ≥ 6 mm), periodontitis affects $\sim 10\text{--}15\%$ of adults. The infection runs a chronic course with exacerbations. The bacteria cause local infection destructive to the supporting tissues of the teeth and have been detected in systemic diseases through bacterial products and bacteria entering the circulation. The often persistent, long term history of chronic periodontal infection in individuals is a challenge to the immune system. Over 700 oral bacteria and other microorganisms have been identified, many of which are virulent. Control of the level of oral microbiota is through well known oral hygiene measures.

Alcohol by being bactericidal is a factor that may reduce the bacterial level in the oral cavity. If this effect truly exists, it should be observed through reduction of infections in the mouth. Tooth extraction is the ultimate consequence of periodontal and dental infections and a reduction of tooth extraction due to infections should therefore be observed. The hypothesis was tested using the screening data of the Oslo II-study in a cross sectional analysis. The Oslo-study included men aged 48–67 years.

The main finding was that the effect of a drinking pattern of 2–7 times per week reduced the risk of MI among men who had a history of tooth extractions due to infections versus tooth extraction for other causes or no extractions. This hypothesis supports an explanation as to why oral infection is a weaker independent risk factor for CVD in some studies. It also gives an indication of the reason for an added benefit by a regular drinking pattern as part of the Mediterranean diet. The important consequence of this hypothesis is the added importance of optimal oral hygiene for the prevention of CVD as well as for the benefit of good oral health.

Forum Comments

Background: For decades, almost all prospective studies have shown a lower risk of coronary heart

disease among moderate drinkers of alcohol, and alcohol is generally considered to be cardioprotective. On the other hand, many studies have shown a positive association between the presence of periodontitis, which is estimated to affect 10-15% of the adult population, and the risk of coronary disease. The most adverse sequel of periodontal infection is the extraction of teeth.

This cross-sectional analysis among Norwegian men was designed to determine if the frequency of alcohol consumption related to tooth extraction due to infectious disease. The authors hypothesized that because it is bactericidal, frequent alcohol consumption would decrease periodontal infection and lower the risk of tooth extraction related to infection, whereas the effect on the risk of no tooth extraction or extraction related to other causes (e.g., trauma) would be less.

Comments on study: The study was based on data from 5,900 subjects in the Oslo-Study cohort who attended an examination in 2000 and provided self-reported data on alcohol consumption, tooth extraction, and a history of myocardial infarction (MI). The investigators did not have specific data on periodontal disease from oral examinations (the authors used tooth extractions in subjects with infections as a surrogate), and did not have validation of self-reported MI.

There were 2,229 subjects with no tooth extraction or extraction due to non-infectious causes (combined into one comparison group due to limited numbers). A total of 3,671 subjects had extractions related, at least partly, to infection (included in this group were those with extraction due to infectious causes and those whose extraction was due to both infectious and non-infectious causes). There were more than 600 cases of MI reported.

As previous research has indicated that the largest reduction in risk of MI is associated with frequent drinking, the authors compared the occurrence of MI according to whether the subjects reported that they consumed alcohol 2-7 days per week versus < 2 days/week. In logistic regression analysis the investigators adjusted for common cardiovascular risk factors (age, smoking, lipids, blood pressure, level of education, and BMI).

The authors report that subjects with tooth extraction due to infectious oral disease alone had 35% greater risk of MI (OR 1.35) than other subjects. Conversely, when alcohol was considered alone, more frequent drinkers

(2-7 days/week) had 18% lower risk (OR 0.82) of having a MI than those not drinking or drinking less frequently. With both infections disease and alcohol in the model, the more frequent alcohol consumers were 19% less likely to have a MI (OR 0.81, 95% CI 0.67 – 0.98) than those drinking less frequently. Subjects with infectious extractions were 36% more likely than others to have a MI (OR 1.36, CI 1.12 – 1.65).

Statistical concerns about study design and results: This was a rather complex design, as because of limited numbers the authors were able to compare only two groups of drinkers: (1) they combined those reporting no alcohol and those reporting the consumption on < 2 days/week, versus (2) those reporting drinking on 2-7 days/week. Further, they combined subjects with no tooth extractions or extractions due to non-infectious periodontal disease and compared them with those who had extractions due to infectious disease or a combination of infectious disease and other causes.

Unfortunately, the authors do not report the calculation of interaction terms, nor do they provide a statistical evaluation of the differences between MI risks for infectious tooth extractions among frequent drinkers and among others. There was no significant effect on whether the drinking subjects consumed ≤ 1 drink, 2-3, or ≥ 4 drinks/day.

Forum reviewer Zhang commented: "The authors stated that 'there is little evidence that explains the risk of MI from oral infections being modified by alcohol;' however, the current study did not directly test this hypothesis. The authors state that the association between infectious and combined infectious and non-infectious extraction and MI was assessed according to alcohol drinking pattern, but no formal statistical testing was done to assess the effect measure of modification, i.e., if OR=1.27 (for frequent drinkers with infectious extractions) was significantly different from 1.42 (for less frequent drinkers with infectious extractions)."

Does the paper adequately test the hypothesis?

Forum reviewers were uniform in believing that this paper does not really help test the hypothesis that the effects of alcohol reduce the risk of MI among subjects with periodontal disease. Several were concerned that drinking may not be an effective oral antiseptic agent, and that poor oral hygiene must be associated with many confounding factors. Stated reviewer Orgogozo: "The pro-inflammatory pro-atherogenic effect of periodontal chronic infection is mostly at the teeth roots and adjacent mandibular bone, totally inaccessible to mouth antiseptics." Stated another reviewer: "The authors talk about alcohol and oral antiseptics, but then

switch to discuss alcohol as a part of the Mediterranean diet. The argumentation in the Discussion part is somewhat weak."

Oral health and cardiovascular disease: Forum reviewer Goldfinger was happy that this topic was being discussed. "I believe it is a very plausible hypothesis in the prevention of cardiovascular disease. Others have suggested that the Mediterranean diet may affect coronary disease through alcohol antiseptics in the mouth and also the process of mastication by more bulky foods that help to clean the mouth. 'An apple a day keeps the doctor away' may be related to chewing and cleaning periodontal spaces, as much as the biologic benefits of the apple itself."

He continued, "However, this is far from a novel hypothesis, which is what the tone of the paper suggests. Others have shown association of periodontal disease with increased carotid medial thickening, a known marker for coronary disease, and there is increased risk of hypertension among patients with dental disease. In an excellent study by Tonetti et al (Tonetti MS et al. Treatment of periodontitis and endothelial function. *New Engl J Med* 2007;356:911-920), periodontal disease was shown to be associated with endothelial dysfunction, and this could be reversed with intensive cleaning and dental care. Thus, the association between endothelial dysfunction and cardiovascular disease is solid."

Goldfinger added: "While there is a large sample size, the paper relies wholly on self reporting of alcohol intake, history of MI, as well as the pathologic cause for need for dental extraction. In addition to problems with self reporting of alcohol, I am concerned that many people who are admitted to the hospital with non-cardiac chest pain syndromes, or who have non-ischemic arrhythmias, or misdiagnosed GI disorders, perpetuate the falsehood that they have had an MI. Thus, I do not believe that this paper adds much to our knowledge about this topic."

Stated Forum reviewer Skovenborg: "I agree with Goldfinger that accumulating evidence has associated severe periodontal disease with increased odds of future cardiovascular disease events. An interesting, large population based survey from Scotland (Cesar de Oliveira et al. Toothbrushing, inflammation, and risk of cardiovascular disease: results from Scottish Health Survey. *BMJ* 2010;340:c2451) found a 70% increased risk (HR 1.70) of cardiovascular disease events associated with less frequent tooth brushing. However, that study also identified other independent predictors of disease events: smoking (HR 2.4), hypertension (HR

1.7), and diabetes (HR 1.9). Systemic inflammation could represent the underlying mechanism that links oral health and cardiovascular disease; however, future experimental studies will be needed to confirm whether the observed association between oral health behaviour and cardio-vascular disease is in fact causal or merely a risk marker.”

Skovenborg also had problems with the statement that “alcohol is a bactericidal agent.” He stated: “The bactericidal effect of alcohol depends on the alcohol-water-ratio. In general 10 and 20% solutions have little or no bactericidal effect in ten minutes or less at room temperature. Solutions of 30, 40 and 50% alcohol show progressively greater germicidal power, and 60 to 90% solutions by weight are all strongly and rapidly bactericidal. The antibacterial action of alcohol is neutralized by the presence of proteins. Thus, alcoholic drinks with less than 30% alcohol by weight are not bactericidal, and intake of alcohol with food (protein) eliminates the bactericidal effect of alcohol, as has been known for more than 60 years (Price PB. Reevaluation of ethyl alcohol as a germicide. Arch Surg 1950;60:492-502.)

“Thelackofbeverage-specificdataisalsoalargeproblem. White and red wines have a significant bactericidal effect due to the combination of alcohol, polyphenols, organic acids and pH (Draczynski M, über die bactericide Wirkung von Wein und Traubenmost, mit Bacterium coli als Test. Wein Rebe Jahrb Weinbauwiss Önologie Deut Wein-Ztg 1950-51:25-42). Enteric pathogens like Salmonella, Shigella and E. coli are killed by incubation in wine as opposed to beer and cola (Sheth NK, et al. Survival of enteric pathogens in common beverages: An in vitro study. Am J Gastroenterology 1988;83:658-60.)

“Besides the major flaws cited, the Norwegian paper is a catalogue of bias and confounding – especially confounding by social economic status (SES). A model with adjustment for education leaves plenty of room for residual SES confounding. It appears that what the authors have managed to find is a group of sensible drinking inhabitants of Oslo, who are probably wine drinkers, who eat healthy food and brush their teeth twice a day.”

Reviewer Kiel also had real concerns about the paper: “We deal with a cross sectional analysis in which the exposure variable alcohol, the mediating variable periodontaldiseaseororalinfections,andthedependent variable MI have all been obtained via questionnaire data. While most studies on alcohol consumption and CHD are based on questionnaire assessed alcohol intake

data [which once in a while are ‘validated’ with food frequency data obtained in the same subjects (showing good correlations)], the assessment of oral infections or oral health by questionnaire may not be accurate, and in my opinion the assessment of MI only by questionnaire is really outdated and hardly acceptable. I fully agree with Skovenborg that we most likely are observing confounding by socioeconomic status.”

Keil concluded: “The propagation of good oral health is something we should do in its own right. The poor data of this study do not justify the propagation of a causal pathway from alcohol intake via oral infections/ oral health to myocardial infarction.”

Forum Summary

A cross-sectional analysis among more than 5,000 Norwegian men was designed to determine if the frequency of alcohol consumption related to the risk of myocardial infarction associated with infectious periodontal disease. The authors hypothesized that because it is bactericidal, frequent alcohol consumption would decrease periodontal infection and lower the risk of tooth extraction related to periodontal infection. The authors state that their main finding was that frequent drinking lowers the risk of MI associated with periodontal disease.

Forum reviewers had real concern about the paper and the conclusions of the authors. Some stressed that the per cent of alcohol in most “drinks” is too low to be really bactericidal, that the key exposures (alcohol and oral infections) were based exclusively on self report and did not have information on type of beverage or pattern of drinking, that many confounders (especially related to socio-economic status) were not adequately taken into consideration, and that the authors did not really test the results of their study with appropriate statistical testing.

Current scientific data show an increase in the risk of cardiovascular disease to be associated with periodontitis. Further, data consistently show a decrease in the risk of cardiovascular disease from moderate drinking, and a very large number of mechanisms have been identified. However, the present study does not confirm that alcohol consumption plays an important role in preventing heart disease through its effect on periodontitis.

Comments on this critique by the International Scientific Forum on Alcohol Consumption were provided by the following members:

Tedd Goldfinger, DO, FACC, Desert Cardiology of Tucson Heart Center, Dept. of Cardiology, University of Arizona School of Medicine, Tucson, Arizona, USA

Ulrich Keil, MD, PhD, Institute of Epidemiology and Social Medicine, University of Münster, Münster, Germany

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Alcohol drinking and non-Hodgkin lymphoma risk: a systematic review and a meta-analysis

A meta-analysis sought to identify whether an association between alcohol drinking and non-Hodgkin lymphoma (NHL) risk exists. Researchers identified 21 case-control and 8 cohort studies, including a total of 18,759 NHL cases. Meta-analytic estimates were derived using random-effects models, taking into account correlation between estimates.

The overall relative risk (RR) of NHL for drinkers versus non-drinkers was 0.85 [95% confidence interval (CI) 0.79-0.91]. Compared with non-drinkers, the pooled RRs were 0.88 for light (< 1 drink per day), 0.87 for moderate (1 to < 4 drinks per day), and 0.84 for heavy (\geq 4 drinks per day) alcohol drinking. There was no association for light drinkers in cohort studies, whereas for moderate and heavy drinkers, the RRs were similar in case-control (0.85 for moderate, 0.92 for heavy) and cohort (0.89 for moderate, 0.79 for heavy) studies. The inverse relation with alcohol consumption (drinkers versus non-drinkers) was similar in men (RR = 0.83) and women (RR = 0.86), but apparently stronger in studies from Asia (RR = 0.69) than other world areas (RR = 0.88).

The authors state that this meta-analysis provides quantitative evidence of a favourable role of alcohol drinking on NHL risk, though the lack of a biological explanation suggests caution in the interpretation of results.

Source: "Alcohol drinking and non-Hodgkin lymphoma risk: a systematic review and a meta-analysis". Tramacere I; Pelucchi C; Bonifazi M; Bagnardi V; Rota M; Bellocco R; Scotti L; Islami F; Corrao G; Boffetta P; La Vecchia C; Negri E, *Annals of Oncology*, Vol 23, No 11, 2012, pp2791-2798

Moderate alcohol consumption predicts long-term mortality in elderly subjects with chronic heart failure

Moderate alcohol consumption is related to a reduction of mortality. However, this phenomenon is not well established in the elderly, especially in the presence of chronic heart failure (CHF). The aim of this study was to verify the effect of moderate alcohol consumption on 12-year mortality in elderly subjects (\geq 65 years old) with and without CHF. The study cohort included 1332 community-dwelling subjects from 5 regions of Italy. Moderate alcohol consumption was considered \leq 250 ml/day (drinkers).

In the absence of CHF (n=947), mortality was 42.2% in drinkers vs. 53.7% in non-drinker elderly subjects. In contrast, in the presence of CHF (n=117), mortality was 86.5% in drinkers vs. 69.7% in non-drinker elderly subjects. Accordingly, Cox regression analysis shows that a moderate alcohol consumption is protective of mortality in the absence (HR=0.79; CI 95% 0.66–0.95; $p<0.01$) but it is predictive of mortality in the presence of CHF (HR=1.29; CI 95% 1.05–1.97; $p<0.05$).

The authors conclude that their data demonstrates that moderate alcohol consumption is associated with an increased long-term mortality risk in the elderly in the presence of Chronic Heart Failure, but is protective in it's absence.

Source: Moderate alcohol consumption predicts long-term mortality in elderly subjects with chronic heart failure. G. Gargiulo, G. Testa, F. Cacciato, F. Mazzella, G. Galizia, D. Della-Morte, A. Langellotto, G. Pirozzi, G. Ferro, N. Ferrara, F. Rengo, Pasquale Abete *The journal of Nutrition, Health & Aging*, February 2013.

Alcohol-attributable cancer deaths and years of potential life lost in the United States

By Professor R Curtis Ellison MD, Professor of Medicine & Public Health; Director, Institute on Lifestyle & Health, Boston University School of Medicine; Co-Director, International Scientific Forum on Alcohol Research

Am J Pub Health, released February 14, 2013

Alcohol-Attributable cancer deaths and years of potential life lost in the United States. Nelson DE, Jarman DW, Rehm J, Greenfield TK, Rey G, Kerr WC, Miller P, Sheild KD, Ye Y, Naimi TS.

We always welcome new scientific publications that help elucidate factors related to the development of cancer. The new paper by Nelson et al focuses on the role that alcohol consumption may play in the risk of a number of cancers.

Background: It has long been appreciated that there are a number of upper aero-digestive cancers, such as cancer of the mouth, throat, and esophagus, that occur much more frequently in heavy drinkers, especially alcoholics, than in abstainers. Physiologic studies suggest that these are not diseases of light to moderate drinkers, as a certain amount of alcohol is required to produce these diseases. Similarly, among people consuming enough alcohol to lead to liver cirrhosis, the risk of liver cancer is also markedly increased.

These "alcohol-related cancers" should be discussed separately from other more common cancers – especially colon cancer and female breast cancer – for which the risk may be only slightly increased by alcohol. In the case of breast cancer, there may be a slight increase in risk among some women consuming an average of only one drink/day (in some studies, such an increase in risk occurs primarily among women who binge drink, have an inadequate intake of folate, and/or are also on hormone replacement therapy.)

For these types of cancer, it is especially important to consider the net health effects of alcohol consumption. For example, it is estimated that if a woman at average risk of breast cancer (i.e., does not have such a cancer in a first-degree relative) decides to avoid drinking completely in hope of reducing her risk of breast cancer, her risk of breast cancer would be expected to be slightly decreased, on average, by perhaps 5-10%; however, her risk would be increased of dying from much more common diseases such as heart attack, stroke, or other conditions for which small amounts of alcohol have been shown to reduce risk. And, importantly, her risk of dying of any cause (total mortality) would actually be increased by her avoiding light alcohol consumption.

The pattern of drinking has often been shown to be even more important than the average amount of alcohol

consumed. A stronger association with beneficial effects is seen with the regular (up to daily) intake of small amounts of an alcoholic beverage; drinking larger amounts on fewer days (including binge drinking) is almost always associated with adverse health effects. For example, a man having up to 2 drinks each day would have an average of 14 drinks per week, generally considered to be within recommended guidelines. However, a man consuming 7 drinks on each of only two days each week, despite the same weekly average consumption, would not be considered to be a moderate drinker.

Comments on the present paper: There are a number of concerns about the analyses and conclusions of the authors of the present paper. These include the following:

(1) The authors have "corrected" the reported data on alcohol consumption to make up for presumed under-reporting, using a method not generally accepted by statisticians and other researchers. This means that even many "light" drinkers are listed as reporting greater amounts of alcohol.

(2) The authors do not clearly separate the effects of truly moderate drinking from heavier drinking in their conclusions. They use up to 20 grams of alcohol per day as their lowest drinking category; this is higher than the 14 g/day that is the current definition of responsible drinking for women in the US Guidelines. Further, as stated, if reported intakes are increased artificially, many more light drinkers would be bumped up into higher categories of drinking. The result of this mis-categorization is that bona fide moderate drinking, which has been shown by others to have no association with most types of cancer, is improperly associated in this study with increased cancer.

(3) The authors' implications that even regular, moderate drinking increases the risk of many cancers is not consistent with most previous research. Further, by not having data on the pattern of drinking, the authors include binge drinkers in the same category as regular drinkers, further exaggerating the association of cancer with moderate drinking. Others have clearly shown that there are large differences in effect between these two patterns. (It is troubling also that in the paper, the estimated percentage of alcohol-attributable cancer risk among subjects reporting > 0 to 20 grams of alcohol

per day is much higher than that of subjects reporting > 20 to 40 grams/day; while this partly relates to the large number of persons who drink only small amounts, such an association makes no sense biologically. It is difficult to understand who the subjects are in the lowest drinking group, but it may include a large percentage of ex-alcoholics or heavier drinkers underreporting their intake. However, this makes any conclusions in this paper regarding the risk of cancer among moderate drinkers highly suspect.)

(4) The authors do not point out the demonstrated effects of alcohol on total mortality; regular, light-to-moderate drinkers live longer. By focusing only on cancer risks, the authors fail to mention the effects on the risk of much more common conditions, such as coronary heart disease, stroke, dementia, other important health problems of ageing, and on total mortality. The study of the health benefits and problems of drinking is a very mature field — authors generally discuss their observations in the context of total mortality or other major diseases that would be affected by their experimental design. In nearly all cases, light drinking is shown to be beneficial; these studies are ignored here.

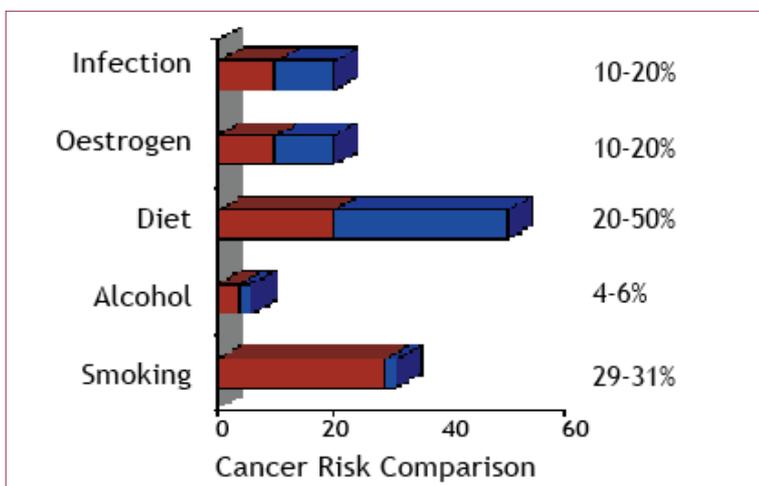
(5) Overall, a criticism of this paper relates to the failure of the authors to put their results into perspective. Statements such as “There is no safe threshold for alcohol and cancer risk” is more of a “scare” statement than a balanced discussion of their results. Given that almost all prospective studies show that regular moderate drinkers have better health as they age and live longer than lifetime abstainers, even papers focused on the effects of alcohol on any particular disease should present a balanced view on its net effects on health and disease.

(6) Finally, the authors of this paper have taken the results of their analyses (some of which are based on questionable assumptions) as “truth,” then expounding at length about the public health implications. There should always be a certain amount of doubt when presenting the results of an individual study, as no one analysis can possibly reveal everything about an association. (As stated by Voltaire: “Doubt is not a pleasant condition, but certainty is absurd!”)

As the authors acknowledge, observational epidemiologic data can never reveal the full “truth” about the causation of disease from exposures, and each new study’s results must be interpreted taking into consideration previous research. However, the overall implications presented by the authors of this paper suggest that their goal may have been to support a presumed conclusion to discourage alcohol consumption, not to carefully interpret the available data to best advance the public health.

Key points of these comments

- There are a number of assumptions taken by the authors in their analyses that raise questions about their results. The authors present only “adjusted” data for reported alcohol intake (based on national sales, not on individual intake), making the relation of alcohol intake to the occurrence of cancer in individuals unclear.
- There is poor differentiation between regular moderate drinking and periodic heavy drinking (binge drinking) or alcoholism, although there are marked differences in health effects between these groups. Regular, moderate drinking is associated with net health benefits, whereas binge drinking and alcoholism have almost exclusively adverse effects (including increases in many types of cancer).
- There has been a huge amount of previous research in this field, but the authors do not put their own results into perspective or discuss the overall health effects of alcohol consumption. Previous data have clearly shown that regular moderate drinkers tend to have lower risk of cardiovascular disease, stroke, diabetes, and many other diseases, and have a lower overall risk of all-cause mortality.



Alcohol intake just before bed-time may affect your sleep patterns

Ebrahim IO, Shapiro CM, Williams AJ, Fenwick PB. Alcohol and sleep I: Effects on normal sleep. *Alcohol Clin Exp Res* 2013;doi: 10.1111/acer.12006.

Authors' Abstract

This review provides a qualitative assessment of all known scientific studies on the impact of alcohol ingestion on nocturnal sleep in healthy volunteers. At all dosages, alcohol causes a reduction in sleep onset latency, a more consolidated first half sleep and an increase in sleep disruption in the second half of sleep. The effects on rapid eye movement (REM) sleep in the first half of sleep appear to be dose related with low and moderate doses showing no clear trend on REM sleep in the first half of the night whereas at high doses, REM sleep reduction in the first part of sleep is significant. Total night REM sleep percentage is decreased in the majority of studies at moderate and high doses with no clear trend apparent at low doses. The onset of the first REM sleep period is significantly delayed at all doses and appears to be the most recognizable effect of alcohol on REM sleep followed by the reduction in total night REM sleep.

The majority of studies, across dose, age and gender, confirm an increase in slow wave sleep (SWS) in the first half of the night relative to baseline values. The impact of alcohol on SWS in the first half of night appears to be more robust than the effect on REM sleep and does not appear to be an epiphenomenon REM sleep reduction. Total night SWS is increased at high alcohol doses across gender and age groups.

Forum Comments

Anything that affects sleep is of great interest to the public. As pointed out by the authors, the earliest scientific publication relating alcohol intake to sleep was in 1883, and there have been many reports since. The present paper summarizes data from 27 experiments in normal humans that have been published since the 1980s; subjects were not people being evaluated for sleep disorders.

The paper reviews studies on the administration of small (up to about two typical drinks), moderate (the equivalent of about 2-4 drinks), and large (more than about 4 drinks) amounts of alcohol in the evening, generally between 30 and 60 minutes before subjects retire into a laboratory chamber where the sleep pattern is monitored (time to get to sleep, degree of awakening, REM sleep, etc.). A few studies reviewed the effects when alcohol was administered in the afternoon, judging its effects on both an afternoon nap and sleep in the evening.

Specific comments on the paper: Forum members considered this to be a well-done report, and while not experts on alcohol and sleep, members thought this report was especially interesting and useful. Stated reviewer Orgogozo, "This is a good review in a somewhat neglected subject. Sleep specialists consider it important since sleep disturbances contribute to the risk of accidents (day somnolence) and to the cardiovascular risk associated with lack of sleep, through hypertension, fattening, metabolism, and a worsening of sleep apneas."

Among the studies reviewed by this paper, the large majority were evaluating the effects of large amounts of alcohol, ≥ 75 mg/kg of body weight (for an 80 kg person, this would be 60 grams or more of alcohol; no data are presented on the speed with which the alcohol was administered, whether it was with any food, etc.). All of these studies showed a reduction in the time required to fall asleep and most showed less awakening after falling asleep. However, there was a longer period before REM sleep began and, over the entire night, all studies showed a reduction in REM sleep. While most scientists believe that REM sleep has favorable health effects, mechanisms for such an effect are poorly understood.

For subjects given moderate amounts of alcohol, effects were much less; the authors report that the most significant findings were a shorter latency period before falling asleep and less awakening from sleep. More non-REM sleep occurred later in the night. For subjects given the lowest amount of alcohol, the most consistent findings were faster falling asleep and less awakening in the first part of the sleep period. Later in the night, there were inconsistent results regarding non-REM sleep. Alcohol given in the afternoon had less effect on nocturnal sleep patterns.

Forum reviewer Lanzmann-Petithory considered this to be an interesting and worthwhile paper. "It is consistent with moderate intake recommendations, as there is no effect with low intake except on sleep onset latency (decreased, sleeping drug effect due to anxiolytic effect of alcohol); the wake after sleep onset is increased during the second part of the night, possibly due to diuretic effect of alcohol and decrease of its anxiolytic effects. However, their 'moderate' doses are quite high. In fact, their low level can go up to 0.49 g/kg, that is to say for a 80 kg men, 40 g of alcohol, that represents about 416 ml of 12° wine that is not exactly a low intake (a liter of 12% wine contains 96 g of alcohol).

"It has been shown in clinical studies that elderly patients may sleep better after a small amount of alcohol (Mishara BL, Kastenbaum R, Baker F, Patterson RD. Alcohol effects in old age: an experimental investigation. *Soc Sci Med* 1975; 9:535-547). In another trial with wine in mental institutions, the same authors reported dramatic reduction in chloral hydrate intake to induce sleep with about 160 ounces of wine/week (Mishara BL, Kastenbaum R. Wine in the treatment of long-term geriatric patients in mental institutions. *J Am Geriatr Soc* 1974;22:88-94.) A question remains: to sleep better, what kind of alcoholic beverage is best? The present study did not have data on specific beverages given. I have seen some patients who report palpitations and sleep disorders after white wine, but I have no explanation about this phenomena.

"The main message appears to be that light drinking has little overall effect on sleep but what the authors call 'moderate' dose alcohol (0.5 to 0.74 mg/kg, equivalent to between 2 and 4 standard drinks) and greater amounts of alcohol may interfere with sleep patterns."

Said reviewer Skovenborg: "I agree with other comments that this is a thorough and well-done review of the effects of alcohol on sleep. One thing I find hard to understand, and not in accordance with the personal experience of me (and my friends) is that a single drink at bedtime should disrupt the sleep and give frequent awakenings for the second half of the night."

Forum Summary

This paper provides an excellent review of intervention studies since the 1980s on the effects of alcohol consumption on sleep. The study finds that the time required to fall asleep, and sleep patterns in the first part of the night, tend to be improved by alcohol. However, the authors conclude that "The onset of the first REM sleep period is significantly delayed at all doses and appears to be the most recognizable effect of alcohol on REM sleep, followed by the reduction in total night REM sleep." Slow-wave sleep is more common and REM sleep less common after alcohol.

The studies reviewed in this report were intervention studies among mainly young normal subjects, not people with sleep disorders. Other studies have demonstrated that small amounts of alcohol given in the evening to the elderly may improve sleep, and reduce the need for sleep-inducing medications. Overall, the data reviewed in this paper suggest that small amounts of alcohol in the evening have few adverse effects on sleep, and relate to earlier onset of sleep and less awakening in the first part of the night. Larger amounts of alcohol tend to make the onset of sleep faster, but

may have adverse overall effects on sleep patterns. It appears that all levels of alcohol consumption just prior to retiring are associated with a shorter duration of REM sleep throughout the night.

Contributions to this critique were provided by the following members of the International Scientific Forum on Alcohol Research:

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Alcohol Research UK's 2013 conference

Alcohol and British Society

12th March 2013

Understanding the role of alcohol in contemporary British society is key to targeting the harms it can cause. This conference presents some of the latest developments in alcohol research. It will address issues such as:

- Why alcohol harms are unevenly spread across different social groups;
- How policy interventions impact on different communities;
- Methods for the identification and prevention of harmful drinking;
- The role of science in developing alcohol policy.

Speakers include Professor Sir Ian Gilmore, Professor Keith Humphreys and Baroness Finlay of Llandaff.

The event will take place at the Wellcome Collection Conference Centre, 183 Euston Road, London NW1

<http://alcoholresearch.org/2012/12/12/alcohol-and-british-society-conference/>

Alcohol related deaths in the UK

An annual bulletin from the Office of National Statistics presents alcohol-related death figures and age-standardised rates for the UK, England, Wales and regions of England for 2011. Figures for 2002-2010 are presented for comparison purposes.

The number of deaths in 2010 was 8,790 (12.9 per 100,000) falling slightly to 8,748 (12.6 per 100,000) in 2011. The current rate of alcohol-related deaths is the lowest it has been since 2002 while the number of deaths is the lowest since 2005. The decrease in the number of alcohol-related deaths in 2011 was driven by a decrease in the number of male deaths, which dropped from 5,865 (17.8 per 100,000) in 2010 to 5,792 (17.2 per 100,000) in 2011. The number of female deaths showed a small increase between 2010 and 2011 from 2,925 to 2,956. However, the rate of female alcohol-related deaths remained constant at 8.3 per 100,000 in both 2010 and 2011.

Despite the decrease in alcohol-related deaths among males, there continues to be more alcohol related deaths in males than in females. The majority (66%) of all alcohol-related deaths in the UK in 2011 were among males. Alcohol-related death rates in males increased between 2000 and 2006 but the trend has been inconsistent in the last five years, with rates falling from 18.7 per 100,000 in 2008 to 17.2 per 100,000 in 2011. For females, rates also increased between 2000 and 2006, but have shown a consistent decrease from 8.8 per 100,000 in 2006 to 8.3 per 100,000 in 2011.

Liver Disease is the most prevalent of all alcohol-related causes of death included in this bulletin and is responsible for approximately 66% of all alcohol-related deaths in 2011. This disease takes many years to develop.

Within each age group, the alcohol-related death rate for females has remained fairly constant over the last 10 years. The largest fluctuation was in women aged 55

to 74 where the rate increased from 18.8 per 100,000 in 2002 to 21.5 per 100,000 in 2008, before falling to 19.6 per 100,000 in 2011.

In contrast, for males, trends in death rates for each age group aged over 34 have fluctuated much more widely. Over the last three years there has been a reduction in alcohol-related deaths in males aged 35 to 54, decreasing significantly from 31.0 in 2008, to 27.2 per 100,000 in 2011, the lowest rate for this age group since 2000. This UK decrease was influenced in part by a decline in the rate for Welsh males aged 35 to 54 from 38.4 to 29.0 per 100,000 between 2008 and 2011.

The death rate for males aged 55 to 74 rose steadily until 2008 and has become more variable in the last three years. The current rate of 44.0 deaths per 100,000 is the lowest since 2005. Among males aged 75 and over the rate has fluctuated over the last four years, decreasing significantly between 2009 and 2010, but stabilising between 2010 and 2011, at 24.8 deaths per 100,000.

Among women, deaths caused by alcohol poisoning, liver disease, hepatitis or alcohol-related heart and pancreas failure reached 1,402 in 2011, the most recent figures available, compared to 1,177 a decade earlier – a 20 per cent rise. For women in ‘higher professional’ occupations, deaths rose from 42 to 52 per 100,000.

In ‘intermediate occupations’, such as secretarial or other skilled office work, it rose from 142 to 209 – 47 per cent – according to data for England and Wales from a Freedom of Information request to the Office for National Statistics. For women in low-skilled and technical jobs deaths from alcohol has remained the same since 2001. For ‘semi routine’ jobs such as shop assistants and hairdressers, it has risen 47 per cent, from 202 to 306.

<http://www.ons.gov.uk/ons/rel/subnational-health4/alcohol-related-deaths-in-the-united-kingdom/2011/index.html>

Beverage industry responds to paper on diet soft drinks and alcohol

In response to “Artificial Sweeteners Versus Regular Mixers Increase Breath Alcohol Concentrations in Male and Female Social Drinkers,” a paper appearing in the April issue of the journal *Alcoholism: Clinical & Experimental Research*, the American Beverage Association issued the following statement:

“This paper, which looks at only 16 people, does not show that mixing diet soft drinks with alcohol causes increased intoxication. Rather, it simply supports the

long known fact that consuming calories - from any food or beverage - along with alcohol slows down its impact. If the study participants consumed alcohol with any other non-caloric beverage, including water or even club soda, the results would be the same. Most importantly, consumers need to be aware of the effects of alcohol itself – regardless of whether or not they consume it together with anything else.”

The burden of liver disease in Europe: a review of available epidemiological data

A review of liver disease in Europe states that the past 30 years have witnessed major progress in the knowledge and management of liver disease, yet approximately 29 million people in the European Union still suffer from a chronic liver condition.

According to the report, difficulties in accessing data from individual countries hinder global evaluation of liver disease in Europe. This report reviews 260 epidemiological studies published in the last five years to survey the current state of evidence on the burden of liver disease in Europe and its causes.

The incidence and prevalence of two conditions, cirrhosis and primary liver cancer, are key to understanding the burden of liver disease. They represent the end-stage of liver pathology and thus are indicative of the associated mortality. Literature on the prevalence and incidence of cirrhosis is scarce, but available data suggest this disease is responsible for an estimated 170,000 deaths per year in Europe. There are, however, large intra-European variations. About 0.1% of Hungarian males will die of cirrhosis every year compared with 0.001% of Greek females. Hepatocellular carcinoma (constituting 70-90% of cases of primary liver cancer) is the fifth most common cause of cancer in Europe and one of the most serious outcomes of cirrhosis.

European epidemiological data show that there are 1-13 new cases of hepatocellular carcinoma and 1-10 deaths per 100,000 inhabitants per year. WHO estimate that liver cancer is responsible for around 47,000 deaths per year in the EU.

Alcohol consumption, viral hepatitis B and C and metabolic syndromes related to overweight and obesity are the leading causes of cirrhosis and primary liver cancer in Europe. Alcohol is the main cause of liver disease, including liver cirrhosis. Alcohol consumption in Europe decreased during the 1990s, but increased and stabilized at a higher level between 2004 and 2006, with huge variations among European countries.

Chronic viral hepatitis B is the second major cause of both cirrhosis and liver cancer. Between 0.5% and 0.7% of the European population is affected by chronic hepatitis B, with the highest prevalence being recorded in Romania (5.6%) and Greece (3.4%). Throughout Europe, an average of only 23% of patients knew of hepatitis B at the time of their diagnosis. Data suggest there has been a reduction in the yearly incidence of HBV, accompanied by a decline in prevalence related to the vaccination campaigns that have been mounted throughout Europe.

Chronic hepatitis C is an important risk factor for hepatocellular carcinoma, which develops several

decades after infection. Since the discovery of the virus in the late eighties, the number of new cases of infection has dropped substantially. Prevalence rates of hepatitis C virus (HCV) infection in the last decade in the European population were between 0.13 and 3.26%, the highest rates being found in Italy and Romania. These HCV-infected populations will develop complications in the years to come, leading to a substantial increase in the burden of disease. 90% of people in Europe infected by viral hepatitis are unaware of their status, which the authors highlight as a great concern.

Non-alcohol fatty liver disease (NAFLD) is becoming a major concern with the increasing incidence of obesity in Europe. In this condition, accumulation of fat in the liver leads to chronic liver disease. Available data suggest the prevalence rate of NAFLD is 2-44% in the general European population (including obese children) and 42.6-69.5% in people with type 2 diabetes.

The report stresses that each of these four major causes of liver disease is amenable to prevention and treatment, reducing the burden of liver disease in Europe and saving lives. However, epidemiological data are scarce. Additional surveys are urgently needed to provide reliable information, without which it will not be possible to implement cost-effective prevention programmes and novel treatments to tackle liver disease and avoidable deaths in Europe.

http://www.easl.eu/_eu

Mortality from alcohol-related liver diseases among men in European countries in 2005; WHO 2010 (standardised mortality ratio per 100,000)

Uzbekistan	0.0
Israel	2.2
Norway	2.5
Netherlands	3.9
Kyrgyzstan	4.0
Spain	4.8
Sweden	5.5
Republic of Moldova	6.0
Poland	8.1
Romania	8.1
Serbia	9.5
Switzerland	9.7
Croatia	11.2
UK	12.5
France	12.7
Czech Republic	16.0
Germany	16.2
Austria	17.4
Slovakia	18.6
Estonia	21.2
Slovenia	23.0
Finland	26.5
Lithuania	28.1
Hungary	48.4

Alcohol consumption and the risk of hypertension in men and women: a systematic review and meta-analysis

The association between heavy alcohol intake and an increased risk of hypertension is well known, but the relationship between light to moderate alcohol consumption and incident hypertension remains controversial. The authors of a recent study sought to analyse the dose-response relationship between average daily alcohol consumption and the risk of hypertension via systematic review and meta-analysis.

A total of 16 prospective studies (33,904 men and 193,752 women) were included in the analysis. Compared with nondrinkers, men with alcohol consumption < 10 g/d and 11 to 20 g/d had a trend toward increased risk of hypertension (relative risk [RR], 1.03; 95% confidence interval [CI], 0.941.13; P=.51) and (RR, 1.15; 95% CI, 0.991.33; P=.06), respectively, whereas a significantly increased risk of hypertension was found with heavy alcohol consumption of 31 to 40 g/d (RR, 1.77; 95% CI, 1.392.26; P < .001) and > 50 g/d (RR, 1.61; 95% CI, 1.381.87; P < .001).

Among women, the meta-analysis indicated protective effects at < 10 g/d (RR, 0.87; 95% CI, 0.820.92; P < .001) and a trend toward decreased risk of hypertension with alcohol consumption 11 to 20 g/d (RR, 0.9; 95% CI, 0.871.04; P=.17), whereas a significantly increased risk of hypertension was indicated with heavy alcohol consumption of 21 to 30 g/d (RR, 1.16; 95% CI, 0.911.46; P=.23) and 31 to 40 g/d (RR, 1.19; 95% CI, 1.071.32; P=.002).

The authors conclude that in men, heavy, but not light to moderate alcohol consumption is associated with increased risk of hypertension. The relationship between alcohol consumption and hypertension is J-shaped in women.

Source: Briasoulis A; Agarwal V; Messerli FH, "Alcohol consumption and the risk of hypertension in men and women: a systematic review and meta-analysis", *Journal of Clinical Hypertension*, Vol 14, No 11, 2012, pp792-798

Birth cohort effects on adolescent alcohol use: the influence of social norms from 1976 to 2007

Authors of a report published in the *Archives of General Psychiatry* state that the substantial changes in adolescent alcohol use prevalence over time suggest that population-level environmental factors are important determinants of use, yet the potential influence of such environmental factors is inadequately understood.

Their study investigated whether adolescents in birth cohorts and/or time periods characterised by restrictive social norms toward alcohol were at decreased risk for alcohol use and binge drinking, controlling for individual attitudes (disapproval) toward use.

In 32 annual national surveys of US high school students, a total of 967,562 students contributed outcome data from 1976 through 2007. Frequency of past-year alcohol use and any instance of binge drinking (\geq 5 drinks) in the past 2 weeks were analysed using multilevel models clustering individuals within periods and birth cohorts. Period-and cohort-specific social norm scores (indicating the proportion disapproving of weekend binge drinking) were modeled as predictors, controlling for individual attitudes and demographic characteristics.

The results showed that individuals who matured in birth cohorts with more restrictive social norms were less likely to use alcohol compared with individuals who matured in cohorts with more permissive norms; each 5% increase in the cohort-specific disapproval was associated with a 12% decrease in the odds of past-year alcohol use (odds ratio=0.88; 99% CI, 0.87-0.89). The effects of cohort-specific disapproval were notably stronger among white adolescents than nonwhite adolescents.

This study documents the importance of considering time-varying population-level risk factors in the study of adolescent alcohol use and indicates that, even after an individual's personal attitudes are accounted for, risk is shaped by cohort effects whereby the norms within the cohort contribute to the risk of adolescent alcohol use.

Source: Keyes KM; Schulenberg JE; O'Malley PM; Johnston LD; Bachman JG; Li GH; Hasin D, "Birth cohort effects on adolescent alcohol use: the influence of social norms from 1976 to 2007", *Archives of General Psychiatry*, Vol 69, No 12, 2012, pp1304-1313

Smoking bans may help reduce alcohol-use disorders

Recently implemented smoking bans throughout bars and restaurants may also promote lower rates of alcohol-use disorders (AUD), according to new research led by Dr. Sherry McKee, professor of psychiatry at Yale University. This research demonstrates an additional public health benefit of smoking bans in drinking venues.

To determine the impact of the smoking ban on alcohol behaviors, investigators analysed data from nearly 20,000 people who completed the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) from Wave I in 2001-2002 and Wave II in 2004-5. From Wave I, data was collected on the AUD status of current drinkers and participants who drank in public at least once per month. Participants who lived in eight states that enacted smoke-free drinking venues from 2001-2005 were compared to NESARC participants living in states without the smoking ban, along with comparisons from before and

after the ban.

The study's results suggest that in those states with smoking bans, there was a higher likelihood of AUD remission as compared to states without the smoking ban. Data showed that 61% of participants in states with the smoking ban reduced their drinking, versus 50% of the participants in states without the ban. The smoking ban was also associated with a greater likelihood of AUD remission and a lower likelihood of AUD onset among public drinkers. Only 7% of the participants with the smoking ban began misusing alcohol, while 11% of participants without the ban began misusing. The added benefit for the smoking ban was especially strong for smokers, men and younger demographics.

Source: *Smoke-free policies in drinking venues predict transitions in alcohol use disorders in a longitudinal U.S. sample.* Young-Wolff KC, Hyland AJ, Desai R, Sindelar J, Pilver CE, McKee SA. *Drug and Alcohol Dependence* Vol 128 Issue 3, March 2013

Physician advice to adolescents about drinking and other health behaviours

A report assessed the proportion of US 10th graders (average age, 16) who saw a physician in the past year and were asked and given advice about their drinking. Researchers hypothesised that advice would vary by whether students were asked about drinking and their drinking, bingeing, and drunkenness frequency.

A nationally representative sample of 10th graders in 2010 (N = 2519) were asked their past 30-day frequency of drinking, bingeing, and intoxication and whether, during their last medical examination, their drinking was explored and they received advice about alcohol's risks and reducing or stopping.

In the past month, 36% reported drinking, 28% reported bingeing, and 23% reported drunkenness (11%, 5%, and 7%, respectively, 6 or more times). In the past year, 82% saw a doctor. Of that group, 54% were asked about drinking, 40% were advised about related harms, and 17% were advised to reduce or stop. Proportions seeing a doctor and asked about drinking were similar across drinking patterns. Respondents asked about drinking were more often advised to reduce or stop. Frequent drinkers, bingers, and those drunk were more often advised to reduce or stop. Nonetheless, only 25% of them received that advice from physicians. In comparison, 36% of frequent smokers, 27% of frequent marijuana users, and 42% of frequent other drug users were advised to reduce or quit those behaviors.

The authors argue that efforts are warranted to increase the proportion of physicians who follow professional

guidelines to screen and counsel adolescents about unhealthy alcohol use and other behaviours that pose health risks.

Source: *Physician advice to adolescents about drinking and other health behaviors.* Hingson RW, Zha W, Iannotti RJ, Simons-Morton B. *Pediatrics*. 2013 Feb;131(2):249-57. doi: 10.1542/peds.2012-1496. Epub 2013 Jan 28.

pediatrics.aappublications.org/content/131/2/249.full.pdf+html

50% of visitors to Drinkaware website intend to reduce their alcohol consumption

Independent research suggests over half (64%) of visitors to the Drinkaware website who were surveyed, said they were motivated to reduce their drinking and 67% would adopt at least one of the site's tips to cut down. The website for the alcohol education charity received over four million unique visitors in 2012.

Nursery Research and Planning evaluated drinkaware.co.uk to help the charity better understand who is visiting its website, why they are visiting and how it can better support them to change their drinking behaviour. The findings highlight that 79% visitors surveyed agree drinkaware.co.uk is the 'go to' place for facts about alcohol and 79% say they would recommend the site to someone else.

www.drinkaware.co.uk

Alcohol use in the US during the Recession of 2008–2009

Drinking participation, drinking frequency, drinking intensity, total alcohol consumption and frequency of binge drinking were assessed in a nationally representative sample of 2,050,431 US women and men aged 18 and older, interviewed between 2006 and 2010.

Researchers found that the prevalence of any alcohol use significantly declined during the economic recession, from 52.0% in 2006–2007 to 51.6% in 2008–2009 ($P < 0.05$), corresponding to 880,000

fewer drinkers (95% confidence interval [CI] 140,000 to 1.6 million). There was an increase, however, in the prevalence of frequent bingeing, from 4.8% in 2006–2007 to 5.1% in 2008–2009, corresponding to 770,000 more frequent bingers (95% CI 390,000 to 1.1 million). Non-Black, unmarried men under 30 years, who recently became unemployed, were at highest risk for frequent bingeing.

Source: Alcohol use during the Great Recession of 2008–2009 Jacob Bor, Sanjay Basu, Adam Coutts, Martin McKee and David Stuckler Alcohol and Alcoholism (2013) doi: 10.1093/alcalc/agt002 First pub online: Jan 29, 2013

Italy youth survey

The Italian survey “Teens and Alcohol”, was organised by the Permanent Observatory on Youth and Alcohol (OPGA) in collaboration with the Italian Society for Adolescent Medicine (SIMA). The survey was carried out on a nationally representative sample of 2,012 eighth-grade students (12- 14 years) and results were presented in Rome on December 12 as part of the conference “Youth, alcohol and risky behavior- promoting a culture of health”.

The survey captured in a scientifically relevant way the experience, attitudes, perceptions and behaviors of young adolescents relating the consumption of alcoholic beverages. The underlying objective was to obtain information useful for the definition and development of possible intervention strategies aimed at preventing and combating the abuse of alcohol.

The areas investigated by a questionnaire designed specifically for the self-administration in the class concerned in particular: The experience of the first intake of alcoholic beverage, the frequency of contact with alcoholic beverages, experience of the abuse of alcoholic beverages, attitudes and opinions on the consumption of alcoholic beverages.

The study did not find significant variation between different geographical areas although there was a

slight increased predisposition to alcohol consumption among young people in south-central and in large metropolitan cities. The differences between males and females behaviours and attitudes were very small regarding.

In a majority of cases, the first taste of an alcoholic beverages took place in the family, sometimes even at a very early age (Over 8% had their first drink before the age of 6). The majority of young people had their first drink in the presence of their parents (73%) and for 63% of those it was with a meal at home or in a restaurant.

Roughly a quarter of Italian teens aged 12-14 do not ever drink, 50% drink occasionally and the other quarter consume alcohol regularly. They drink at mealtimes, and tend to drink many different types of alcohol

Heavy alcohol use appears to be very limited, since the debut takes place in the normal range of the family.

The study states that those who drink for the first time with parents are less likely to become habitual drinkers. Habitual drinkers are more likely to have begun to drink with friends; and between them that alcohol abuse becomes more likely.

www.alcol.net/images/rapporti_ricerca/rapporto%20alcol%20finale.pdf

	Total	Sex		Geographical area		
		Male	Female	North	Center	South
Without the presence of adults	19.9	18.7	21.0	15.8	24.5	21.9
With the presence of adults	73.0	74.3	71.7	76.1	69.0	71.7
Doesn't remember	7.1	7.0	7.3	8.1	6.5	6.5

Who was the child with for their First Drink? (Only of those who had already tried alcohol: 90.6%)

Just a Few Drinks - BBC commission alcohol education films for UK teenagers

Evans Woolfe Media has produced a series of films for BBC Learning in which four young people, whose lives have been dramatically affected by drinking too much alcohol, tell their stories.

Emily, 17, Alan 16, Anna 17 and Jordan now 18, give highly personal accounts of how an evening of drinking alcohol led to a sequence of events that changed their lives. At the time, they all set out just wanting to have a good time. But after their experience with alcohol their attitude to drinking has changed significantly.

At 14, Alan's drinking boosted his self-confidence, giving him the 'dutch' courage to challenge a group of lads who were insulting his friend. They threw Alan into a bus shelter, shattering his collar-bone, and putting an abrupt end to all hopes of making it as goalkeeper. Two years after the incident, Alan's sleep is still disrupted by the pain.

Anna, now 17, fell out with her friends after drunkenly kissing her best friend's ex boyfriend at a party, and they haven't spoken since.

18 year old Jordan drank over half a bottle of neat brandy, just to look cool – and nearly killed himself as a consequence. "You don't think about any of the medical effects. You just think about how fun it's going to be when you get drunk. ... It sounds a bit extreme but I could have died that night".

Finally, Emily, now 17, was so drunk after leaving a bar that she agreed to the offer of help to find a taxi from a guy she barely knew, with devastating consequences. Everyone tells you about the good times, she says, but "... you never actually hear how ill they were the next day. No one ever discusses the worse stuff."

Each story is interspersed with graphics, which explain in detail the chemical and biological processes that were taking place in the four youngsters' bodies as they were drinking. The films traces how and why alcohol causes behaviour to change, sometimes dramatically. Statistics used in the programme make it clear just how many young people in the UK suffer as a result of excessive drinking - nearly 50% of 15 year-olds who've been drunk recently have suffered some negative consequences. And while the number of young people who drink alcohol regularly has fallen by half over

the last ten years, those that do drink, drink more. (NHS Information Centre)

Evans Woolfe Media is an award winning documentary film production company producing high quality documentaries for and about the education sector. Tristan Anderson directed the films.

Dominic Sant, Producer, says "The programme aims to reveal to young people the risks they face by drinking alcohol. The films blend powerful oral testimonies delivered by four engaging young people with a scientific analysis of how alcohol affected their bodies and behaviours. The films will ultimately help our audience make more informed decisions about drinking alcohol."

The films were produced in consultation with PSHE teachers and The Alcohol Education Trust (<http://www.alcoholeducationtrust.org>) one of the country's leading charities supporting classroom teaching of alcohol education.

Helena Conibear, Director of The Trust, comments "The films show dramatically how too much alcohol has a devastating effect on the immature body and how things can easily get out of hand with long term consequences. The films are a great addition for both science and PSHE KS3 and KS4 topics".

Just a Few Drinks was commissioned by Katy Jones for BBC Learning Zone and will provide a valuable resource for schools across the UK. The series will broadcast at 4.30am on 5th March and will also be available online for use in schools from the BBC and Alcohol Education Trust websites.

UK Health authorities work with drinks industry to add new information to labels

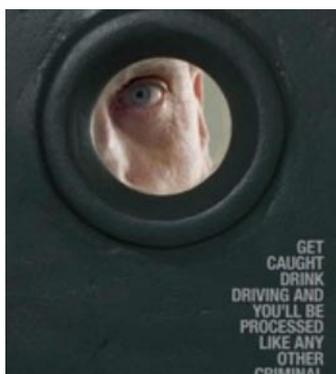
The health minister, Anna Soubry, confirmed that discussions about including calorie content on labels have been held with the alcohol industry. She said the government was committed to improving labelling so drinkers, particularly pregnant women, were better informed about the health risks associated with alcohol and guidance on consumption.

Soubry, responding to a parliamentary question, said:

“The government is committed to improving the labelling of alcoholic drinks, which would help make people more aware of how much alcohol they are drinking, what the guidelines are and what the risks are, including for those who are pregnant.

“The department has discussed the possible inclusion of calorie content on labels with representatives of the alcohol industry on a number of occasions.”

£50,000 pint of beer UK government drink drive campaign



A £50,000 pint of beer was unveiled in London on March 1 as part of the government’s latest THINK! campaign highlighting the consequences of a drink-drive conviction. The Institute of Advanced Motorists has calculated the personal financial cost of drink-driving for the

first time, pricing it between £20,000 and £50,000. The calculation reflects the fines, legal costs, rise in insurance premiums and possible job losses faced by those who are convicted.

The latest £1.68 million THINK! campaign will see the ‘Consequences’ drink drive television and radio adverts being aired over the Spring as well as online activity. The television advert features a barman morphing into a range of characters, including a policeman, a magistrate, an employer and a car dealer, to show the potential consequences of drink driving.

Drinkers can underestimate alcohol habits

Department of Health (DoH) research into drinking habits in the UK found that 80% of those drinking in excess of the national guidelines regard themselves as moderate drinkers. Research carried out among lower-paid households indicates that regular drinkers are under-estimating how much alcohol they consume by as much as 40%, while two thirds have no plans to drink less. Although this level of underestimation may be supported by differences in reported consumption in national surveys versus recorded sales, the recent Health Survey for England 2011 showed lower levels of under-reporting in both the amount and frequency that people drink, raising major concerns about the nation’s knowledge of alcohol.

The survey comes as this year’s Change4life TV ad campaign is launched to raise awareness of the health harms caused by regularly drinking over the guidelines. The advert is a similar version of the ‘Don’t let the drink sneak up on you’ campaign launched last year. A supporting leaflet is available. The campaign, which calls on people to check their intake using an online Drinks Checker tool, shows how simple changes can save both money and reduce calories.

To get a picture of drinking habits, the Change4Life team asked 19 individuals to keep a detailed drinks diary for two weeks. The findings show those that took

part were drinking on average the equivalent of an extra large glass of wine each day, or 40 per cent more than they thought.

After keeping a drinks diary for a week, people were offered simple tips on cutting down and as a result, they:

- cut their alcohol consumption by over a third;
- saved around £33.35 a week – or over £1,730 a year; and
- consumed 1,658 fewer calories a week an average of 236 calories a day. Participants also said that cutting down improved their physical and emotional wellbeing. And those involved also reported that adding more mixer to drinks and substituting

alcoholic drinks with soft drinks were the most popular tips to include in their lifestyle.

Other tips include having alcohol-free days, not drinking at home before going out, swapping to low-alcohol or alcohol-free drinks and simply using smaller glasses.



Drinkaware.ie campaign to promote responsible drinking pace gets strong public endorsement

Research undertaken by Millward Browne Lansdowne (MBL) in Ireland in January, 2013 amongst a nationally representative sample of adults aged 18+ found a very positive response to drinkaware.ie's Pacing campaign and a very strong endorsement for the work of drinkaware.ie.

The 'Pacing' campaign is communicated through a variety of media. Through use of TV, video on demand, cinema and radio advertising, along with extensive use of outdoor advertising and innovative use of social media. The research found that 76% of 18+ year olds who drink alcohol said they have become more aware of the benefits of pacing their drinking, 67% said they think about the pace of their drinking more often than they used to, and 64% said they think about how much they drink more than they used to.

CEO of drinkaware.ie, Fionnuala Sheehan said: "These are very strong results from a campaign that was so recently launched and that challenges such an ingrained aspect of our Irish drinking culture - the rounds system and the peer pressure associated with it to drink more and drink quickly."

'Pacing', the campaign launched in April, 2012 by drinkaware.ie empowers consumers to take control of the pace of their drinking; communicates the benefits of a moderate pattern of consumption; provides information on the quantity of alcohol in popular products and official drinking guidelines, and suggests strategies to help adoption of a more moderate approach to drinking.

Ms. Sheehan added: "I am particularly encouraged by the strong levels of responsibility for one's personal drinking coming through in the research findings. They clearly indicate a re-evaluation of personal drinking patterns and styles by many individual consumers."

The MBL research also found strong public endorsement for the work of drinkaware.ie;

- drinkaware.ie is perceived as the leading organisation promoting 'drinking in moderation' and is significantly ahead of the HSE and drugs.ie.
- 85% of all adults aged 18+ were aware of drinkaware.ie; the awareness level increased to 91% amongst 18 – 29 year olds, drinkaware.ie's key target audience.
- More than 9 out of 10 of those aware of drinkaware.ie said the brand should be used more widely, while 81% said 'it is effective without pointing the finger'.

www.drinkaware.ie/index.php?sid=7&pid=25



WHO release 'European action plan to reduce the harmful use of alcohol 2012–2020

The World Health Organization (WHO) have released the European action plan to reduce alcohol problems across the continent.

WHO summary:

The European action plan to reduce the harmful use of alcohol 2012–2020 was endorsed by all 53 Member States in the WHO European Region in September 2011. It includes a range of evidence-based policy options to reduce the harmful use of alcohol. This publication also includes WHO Regional Committee for Europe resolution EUR/RC61/R4, a list of indicators (with definitions) linked to the indicators used in the European Information System on Alcohol and Health, and a checklist or set of questions for Member States.

The action plan is closely linked to the 10 action areas of the global strategy to reduce the harmful use of alcohol adopted by the World Health Assembly in May 2010.

The primary audience for the action plan is the national authorities in the WHO European Region responsible for alcohol policy, mainly the health and other ministries (including finance, education, social welfare, transportation and criminal justice), nongovernmental and civil-society organizations, researchers, the private sector and international partners.

www.euro.who.int/en/what-we-publish/abstracts/european-action-plan-to-reduce-the-harmful-use-of-alcohol-20122021

Timeline for review of UK Alcohol Guidelines - CMO clarifies path

Dame Sally Davies, the Chief Medical Officer for England, is currently commissioning the evidence on the risks of drinking and how this applies to the current responsible drinking guidelines. A Department of Health spokesman said: "The health risks from alcohol rise as you drink more and there is some evidence that small amounts of alcohol can reduce some health risks... To look at whether the system is still helpful to people, the Chief Medical Officer is set to review the alcohol consumption guidelines." Dame Davies envisages that the process will take until 2014.

Chief Medical Officer Professor Sally Davies recently gave evidence to the House of Commons Science and Technology Committee. She explained the review of current UK alcohol guidelines is being done in collaboration with her colleague CMOs.

For the review of the alcohol consumption guidelines there are two groups gathering 12 months of evidence; Mark Petticrew, a Professor at the London School, is doing the physiology-the pathology-of what does alcohol do to the body with a group. Dame Sally Macintyre, from Glasgow, is leading the behavioural group. The two are sitting in on each others' workgroups. Davies will then bring that together and it will be published in transparency with a group of experts to shape what that means for the guidelines. A third group will convene to use the information, and consider how best to utilise it to change behaviour. Professor Mark Bellis is also commissioned to bring the evidence base into public Health England.

Ireland - Minister to push on minimum pricing policy

Minimum drink prices are being backed by the junior minister in charge of the national alcohol strategy, despite legal challenges being mounted against such measures in Scotland.

The much-delayed national alcohol strategy will finally go before the Cabinet at the start of next month. It includes minimum pricing, alcohol advertising and curbs on sponsorship of sporting events by drinks companies.

The Ministry of State for Primary Care Deputy, Alex White (Labour), who has responsibility for the strategy, confirmed that the final plans would be put before the Government in the first week of March.

Beer in moderation compatible with diet

The report called "Beer & Calories; a scientific review" was written by nutritionist Dr Kathryn O'Sullivan.

Dr O'Sullivan claims that because beer has fewer calories per 100ml than wine, spirits and orange juice, swapping certain beverages for beer could be a sensible way to diet.

Although she does add that beer should still be drunk in moderation and if you consume large amounts of beer you will gain weight.

Dr O'Sullivan said: "Unfortunately beer has this image as a high-calorie, high-fat drink. It is very unfair... If you are a massive consumer of beer you will of course put on weight," She added that beer drinking in Britain has become regarded by many as a vice and not a component of a healthy balanced lifestyle. But this is contrary to the latest scientific evidence.

"Enjoyed in moderation, beer, like wine, can provide many essential vitamins and minerals and moderate consumption may also protect against many conditions such as heart disease, osteoporosis and diabetes".

s3.amazonaws.com/bbpa-prod/attachments/documents/uploads/21792/original/Beer%20Story%202013.pdf?1359980886

Campaign in Finland challenges parents buying alcohol for underage drinkers

A new campaign by the Finnish Parents' League calls attention to the practice of parents purchasing alcohol for teens.

The street campaign across Finnish cities asks parents whether they're pushing alcohol on their children.

Tuomas Kurttila, who heads the organization commented that while parents may be committed to their kids' abstinence, this resolve may begin to waver when they're challenged by headstrong teenagers.

It's a crime in Finland to buy alcoholic beverages for children under 18. However, many parents do so, according to the Finnish Parents' League. The group reminds parents that kids are experts at getting their way, but that parents are the adults in the relationship.

"We have to take responsibility as parents," said Kurttila.

Record-low number of college freshmen partying in the US

UCLA's Cooperative Institutional Research Program (CIRP) annual survey revealed that 33.4 percent of college freshmen reported drinking beer in 2012, an all-time low. That total was down six percent from 2011 (35.4%), and 55% from its peak in 1982 (73.7%).

The CIRP, which began in 1966, is the longest-running study of behaviour among college freshmen in the country. Drawn from a national survey of full-time, first-year students entering four-year colleges and universities, the study provides insight into the mind of the American college freshman on everything from emotional well-being to post-graduate priorities and drinking habits.

The 2012 survey also reflected a record low in the number of college freshmen who spend six or more hours partying in a typical week during their senior year of high school. 13.7% (an 8% decrease from 2011) reported "partying," a dramatic change from the 63% reported in 1987, when the question was first asked.

heri.ucla.edu/monographs/TheAmericanFreshman2012.pdf

The Science Inside Alcohol Project E-Book

An interactive e-book has been produced by the AAAS Science Inside Alcohol Project. The e-book demonstrates the effects of alcohol on the body and some of the physical and social consequences of underage drinking.

Sections within the e-book include: Alcohol and the Human Body, Impacts of Underage Drinking, and FAQs about Underage Drinking.



In addition to these sections, there is a special section on stories about young people who have been impacted by alcohol abuse in some way.

sciencenetlinks.com/interactives/alcohol/ebook/pages/human-body.htm

Analysis by academics on alcohol and associated issues in Australia

An interesting website called 'The Conversation' carries a series of papers and analysis by Australian academics on alcohol and associated issues.

Michael Livingstone, Post-Doctoral Research Fellow at The University of New South Wales at University of New South Wales writes on the issue common to some European countries and Australia: Why as consumption of alcohol falls, are alcohol attributable hospital admissions rising and in Australia alcohol related violence?

According to Livingstone, one of the core assumptions of public health-focused alcohol research has been the overarching link between levels of alcohol consumption in a population and rates of harm. This has been demonstrated repeatedly, across a range of settings – when per-capita alcohol consumption goes up, rates of alcohol problems (mortality, morbidity and violence, for instance) go up with them.

Recently, however these trends have begun to uncouple in a number of places. In Sweden, per-capita consumption of alcohol has fallen in the last five years; while harm rates have remained fairly stable. In England, harm rates have increased sharply since 2004 despite a steady decline in per-capita consumption levels. And a similar pattern is emerging in Australia.

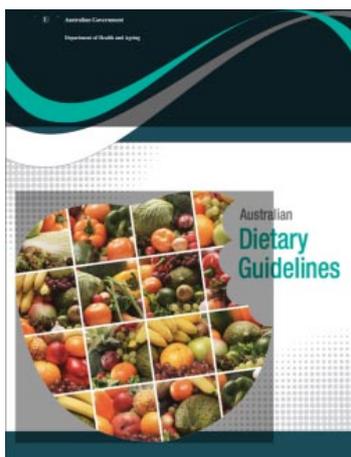
Livingstone explores possible reasons for these diverging trends? First, there's the possibility that our data systems or coding practices have changed. Secondly, alcohol consumption patterns may actually be fragmenting, with a large number of light or moderate drinkers having slightly reduced their alcohol consumption, while a smaller group of heavy drinkers increased theirs.

Livingstone argues that whereas in the past Public-health oriented alcohol policy has focused on shifting population consumption, through measures such as taxation or physical availability, maybe the important question is not what effect taxation or earlier closing hours have on consumption levels, but rather what effect they have directly on rates of harm. He suggests that there are still a lot of questions that research needs to address: whose drinking is shifting and why? Are particular policy changes likely to improve or exacerbate the recent harm increases? Are there particular demographic or sub-cultural groups of the population that research and policy should be targeting?

theconversation.edu.au/alcohol-fuelled-violence-on-the-rise-despite-falling-consumption-9892

Australian dietary guidelines

The newly released guidelines include a section on alcohol and include the guidance set out in 2009. The report looks at the evidence for 'limiting intake of alcohol', How limiting intake may improve health outcomes and practical considerations as to how to limit alcohol intake.



www.nhmrc.gov.au/_files_nhmrc/publications/attachments/n55_australian_dietary_guidelines_0.pdf

Scotland – less pregnant women consuming alcohol

A growing number of Scottish women are avoiding alcohol completely during pregnancy, according to the Growing Up in Scotland (GUS) study, published in February. It looked at life as a 10-month-old child in Scotland in 2011.

Almost all respondents said they knew the alcohol guidelines for pregnancy (93%). There was a slight reduction in frequency of alcohol consumption in pregnancy between the the current cohort compared to the one studied 6 years previously. 80% of women in 2011 did not drink alcohol during pregnancy compared to 74% in the earlier cohort. Amongst those who had drunk some alcohol, the majority (78%) said they had done so less than once a month, 14% said 2-3 times a month and 7% 1-2 times a week.

Typically, on any occasion where they had some alcohol during their pregnancy, the vast majority of mothers said they consumed around 1-2 units (96%), 3% said 3-4 units with the remaining 1% saying 5 to 10 units. Mothers who are degree-educated and those in higher income households were more likely than those with lower qualifications and in lower income households to have had some alcohol during their pregnancy. For example, 31% of mothers with a degree-level qualification reported having some alcohol compared with 12% of those with no qualifications.

www.cfr.ac.uk/gus/index.html

Russia to consider reinstating higher BAC limit for drivers

State Duma lawmaker Anton Belyakov has submitted a draft law aiming to reinstate an allowance of a 0.02% Blood Alcohol Content (BAC) level for drivers. Belyakov argues that current legislation could result in innocent people being punished.

A federal law abolishing the maximum 0.3 per mille (0.03 % BAC) level for drivers entered into force in August 2010. Prior to the law's enactment, drivers were considered sober if ethyl-alcohol content in their bloodstream did not exceed 0.3 grams, and if there was less than 0.15 milligrams in their breath.

Under the current law, Russian drivers can lose their licenses for a period of up to two years if their bloodstream contains even trace amounts of alcohol. Motorists have been highly critical of provision and Belyakov claims that drivers may suffer as a result of inaccurate breathalyzer readings or differences in metabolism.

Sports stars say 'enough' to binge drinking

Some of Australia's best athletes are leading the push to address Australia's harmful binge drinking culture, especially among young people. 'Be the Influence – Tackling Binge Drinking' is the message being delivered by leading sportspeople as part of a Australian National Preventative Health Agency (ANPHA) initiative.

A new video features Australian Netball Diamond Natalie Medhurst, Swim star and Olympic silver medallist Christian Sprenger, Olympic cyclist Shane Perkins, and Commonwealth Games hockey gold medallist Anna Flanagan. The 'Be the Influence' clip is now being seen on the stadium screens at sporting events around the country.

www.youtube.com/watch?v=NxAwGrIX_9I&feature=youtu.be



AIM – Alcohol in Moderation was founded in 1991 as an independent not for profit organisation whose role is to communicate “The Responsible Drinking Message” and to summarise and log relevant research, legislation, policy and campaigns regarding alcohol, health, social and policy issues.

AIM Mission Statement

- To work internationally to disseminate accurate social, scientific and medical research concerning responsible and moderate drinking
- To strive to ensure that alcohol is consumed responsibly and in moderation
- To encourage informed and balanced debate on alcohol, health and social issues
- To communicate and publicise relevant medical and scientific research in a clear and concise format, contributed to by AIM's Council of 20 Professors and Specialists
- To publish information via www.alcoholinmoderation.com on moderate drinking and health, social and policy issues – comprehensively indexed and fully searchable without charge
- To educate consumers on responsible drinking and related health issues via www.drinkingandyou.com and publications, based on national government guidelines enabling consumers to make informed choices regarding drinking
- To inform and educate those working in the beverage alcohol industry regarding the responsible production, marketing, sale and promotion of alcohol
- To distribute AIM Digest Online without charge to policy makers, legislators and researchers involved in alcohol issues
- To direct enquiries towards full, peer reviewed or referenced sources of information and statistics where possible
- To work with organisations, charities, companies and associations to create programmes, materials and policies built around the responsible consumption of alcohol.

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