

## Social aspects and communication regarding alcohol and health via national drinking guidelines

This paper looks at definitions of 'drinks' and 'low risk' or responsible drinking guidelines from different countries and how to balance a message - based on the Canadian, UK, WHO and US guidelines - that accepts that drinking in moderation can form part of a healthy diet and lifestyle. It should be noted that commercial communications regarding the benefits of moderate consumption are banned by advertising and marketing codes across the globe.

The discussion looks at themes common to guidelines, where they exist, as well as at the importance of incorporating messages regarding pattern of drinking, drinking with food, messages for older populations, the family setting, and the role of parents as regards their responsibilities towards their children.

### Standard drinks and definitions

Definitions of 'drinks' or 'units of alcohol' vary from country to country, from 8g in the UK, 10g in Australia, 14g in the US and 19.75g in Japan. National guidelines for drinking are standardised for reasons beyond consumers measuring how much they drink themselves. Governments use defined drinks to track how much alcohol people are drinking and trends year to year. Drinks are generally served in well-defined amounts at restaurants and bars, allowing servers and retailers to monitor how much alcohol is being dispensed and ensuring that drink sizes do not vary significantly across venues. For licensing authorities, standard measures are a useful tool for tracking sales. Finally, the strengths of different types of beverage alcohol vary significantly, and using standard measures allows for uniformity.

However, as you will note from table 1, many countries have a maximum recommended gram intake per day without defining unit size.

Based on grams of intake or standard drinks, recommendations on drinking levels for men and women exist in many countries globally. Official guidelines on alcohol consumption are usually produced by a government department, public health bodies, medical associations or NGO's such as the World Health Organisation (WHO). These drinking guidelines advise on levels of alcohol consumption considered "safe," "responsible," or "low-risk" and vary

from 14g – 24 g a day for women and 20 – 32 g a day for men.

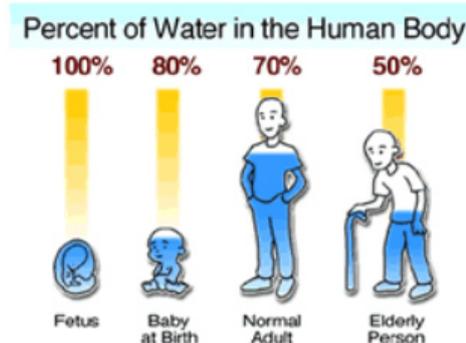
For the many countries where there are no official Government guidelines, such as Belgium, China, Germany, Hungary, India or Russia, it is recommended that the WHO low risk responsible drinking guidelines are followed, which are:

- Women should not drink more than two drinks (10 g) a day on average;
- For men, not more than three drinks (10 g) a day on average;
- Try not to exceed four drinks on any one occasion; and
- Don't drink alcohol in some situations, such as when driving, if pregnant or in certain work situations and abstain from drinking at least once a week.
- Men or women who consistently drink more than these recommended levels may increase risks to their health.

### Issues common to different guidelines

#### Guidelines for older populations

Increasingly we are seeing recommendations submitted to guideline reviews that suggest that the elderly should reduce their alcohol consumption to below daily drinking guidelines for other adults. This is based partially on the fact that they have less body water than younger adults.



On the other side of the coin, moderate, regular consumption, within the guidelines helps protect against cardiovascular disease, cognitive decline and all cause mortality, hence the recent Chapter on Alcohol for the US Dietary Guidelines 2010 states the following:

*'In most Western countries where chronic diseases such as CHD, cancer, stroke and diabetes are*

Table 1- Responsible/ low risk drinking guidelines

Country	Unit/ standard drink	Recommended guidelines for adult 'low risk' consumption – maximum levels in grams of alcohol
Australia	10g	Australian Guidelines to Reduce Health Risks from Drinking Alcohol (National Health and Medical Research Council Guidelines) For healthy men and women: Drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury. Drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion.
Canada	13.6g	Centre for Addiction and Mental Health For men and women: Maximum of 2 units/day (27.2g) Men to not exceed 14 units (190.4g) per week Women to not exceed 9 units (122.4g) per week
France	10g	Based on WHO international guidelines cited by the Health Ministry Men: Maximum of 3 units/day (30g). Women: Maximum of 2 units/day (20g).
Germany	12g	BzGA, Federal Center for Health Education Men: Maximum of 24g/day. Women: Maximum of 16g per day. Two alcohol free days per week are recommended for both men and women.
Ireland	10g	Department of Health and Children Men: Maximum of 21 standard drinks/week (210g). Women: Maximum of 14 standard drinks/week (140g). For both men and women, it is important that they are spread out over the week and not saved for one session or big night out. This equates to a daily low risk limit of 2 or 3 standards drinks for women, or 3 or 4 standard drinks for men, with some alcohol free days over the course of the week. It is advised that plenty of water or non-alcoholic beverages are consumed between alcoholic drinks.
Portugal	14g	National Council on Food and Nutrition Men: maximum of 2-3 units/day (28-42g). Women: Maximum of 1-2 units/day (14-28g).
Slovenia	N/A	Institute of Public Health Men: Maximum of 20g/day, 50g on a special occasion. Women: Maximum of 10g/day, 30g on a special occasion.
Sweden	N/A	Swedish Research Council Men: Maximum 20g/day. Women: Maximum 20g/day.
United Kingdom	8g	UK Department of Health The Chief Medical Officers recommend that you do not regularly exceed Men: 3-4 units/day (24-32g) Women: 2-3 units/day (16-24g)
USA	14g	Dietary Guidelines for Americans 2010 Men: an average daily consumption of up to two drinks per day, but no more than four drinks in any single day. For women: and average daily consumption of up to one drink per day for women, but no more than three drinks in any single day.

*the primary causes of death, results from large epidemiological studies consistently show that alcohol has a favorable association with total mortality especially among middle age and older men and women... Moderate evidence suggests that compared to non-drinkers, individuals who drink moderately have a slower cognitive decline with age. Although limited, evidence suggests that heavy or binge drinking is detrimental to age-related cognitive decline.'*

The guidelines for the UK are similar - *'The health benefits are more evident from regular daily drinking.'* Specifically, men over age 40 and postmenopausal women are emphasised as recipients of a *'significant health benefit in terms of reduced coronary heart disease mortality and morbidity.'* Middle aged or elderly non-drinkers or infrequent drinkers and especially those at risk for heart disease *'may wish to consider the possibility that light drinking may be of benefit to their overall health and life expectancy.'* Some guidelines suggest one or two alcohol free days a week.

### **Alcohol free days? Is there a case for a 'liver holiday'?**

The Canadian proposals (currently under review) contain a recommendation saying *'Always have some non-drinking days per week to minimise tolerance and habit formation.'* The WHO guidelines suggest one alcohol free day per week. There is very little scientific evidence supporting a guideline to refrain from drinking on one or more days per week, if consumers adhere to the low risk guidelines. The basic science evidence indicates that many of the beneficial effects of moderate drinking on cardiovascular disease or on inflammation last for 24 - 36 hours – such as decrease in platelet adhesion, other coagulation factors, and the activation of certain genes affecting fibrinolysis – and they return to the usual level thereafter. As in many cases, it is matter of dose, hence a more appropriate guideline may be *'if you have drunk to excess, then abstain from drinking for 24 - 48 hours, giving the liver a chance to recover.'*

### **Increasing moves to stating a maximum number of drinks a day**

Reflecting an acknowledgement that people celebrate and party from time to time and so as not to worry them unduly, several guidelines now have

an 'upper limit'.

US guidelines recommend no more than three drinks in any single day for women (42g) and for men no more than four drinks (56g) in any single day for men.

WHO guidelines recommend no more than 4 drinks on one occasion (40g).

Australia's 2008 guidelines recommend average consumption of 20g of ethanol for both men and women and up to 40g of ethanol on occasional days.

### **Few guidelines mention drinking with meals or pattern of drinking:**

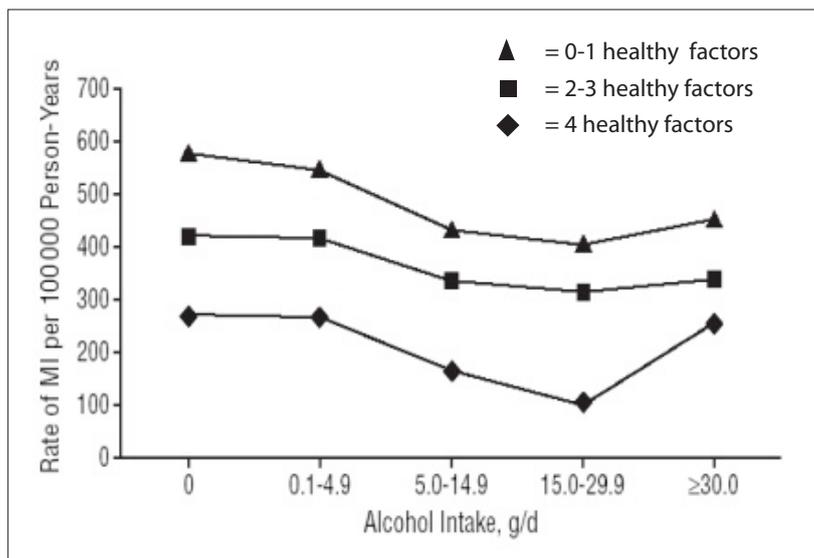
The US Dietary Guidelines 2010, justify this lack of daily recommendation in the following way:

*'Because most US citizens do not drink every day, the DGAC also recommends that the definition for moderation be based on this general "average" metric over the course of a week or month instead of an exact threshold of "1 drink per day for women or two drinks per day for men" each day. The Committee further explored whether there was compelling evidence to expand the definition of moderation to include a specific healthy pattern of consumption, but could not find one particular pattern of consumption that had a strong evidence base and could provide more clarity than the recommendation above.'*

The UK sensible drinking guidelines moved in 1995 from weekly recommendations of 14 units a week for women and 21 for men to daily guidelines to avoid the idea that it is OK to "save up" your units for one or two big nights a week. This reflects the importance of drinking pattern, although the National Health Service still use weekly limits of 14 units for women and 21 for men in many cases. Most guidelines, demonstrated by table 1 now suggest daily drinking limits.

### **Healthy Lifestyle a holistic approach**

Another important area of research rarely reflected in alcohol guidelines is that moderate consumption should be considered as one component of a healthy diet and lifestyle, and put in context with other factors such as not smoking, maintaining a low BMI, eating a diet rich in fruit and vegetables and low in red meat and saturated fats, exercising and drinking in moderation. Overall, probably only 5-6% (or fewer) of Western populations manage to adhere to these "heart healthy" lifestyle factors.



### Drinking at meal times and pacing should be highlighted

Research is increasingly showing the importance of drinking at meal times, as many adverse effects of a high-fat meal occur during what is known as the "post prandial state". Accompanying alcohol intake with food not only decreases the effect of alcohol (lowers the higher blood alcohol level associated with drinking on an empty stomach), but helps counter damaging free radicals. Rich foods increase the state of "oxidative stress" in the body. Dietary antioxidants, including those from red wine, can help reduce the oxidation of cholesterol and lipoprotein, both implicated in cardiovascular disease. Research shows that drinking outside of meal times increases the risk of high blood pressure; and, along with abstinence, is associated with greater all cause mortality.

### Continued recognition of moderate drinking being a protective factor for post menopausal women and men over 40

Scientific data now clearly show evidence in support of "low risk" guidelines, rather than a message of "don't drink." The medical evidence for such a position began with scientific publications in the 1970s, with many hundreds of studies since then confirming this association. What has generally been shown is a J-shaped curve, ie: lower risk of most diseases from light-to-moderate drinking, higher risk for heavy drinking. Guidelines from around the world generally reflect overwhelming data showing that drinking in moderation can form part of a healthy diet and lifestyle for adults.

Canadian current Low Risk Drinking Guidelines state that 'men and women consuming up to 14 and 9

standard drinks per week respectively, have a lower risk of early death than abstainers.

UK guidance: *'The health benefits are more evident from regular daily drinking.'* Specifically, men over age 40 and postmenopausal women are emphasised as recipients of a *'significant health benefit in terms of reduced coronary heart disease mortality and morbidity.'* Middle aged or elderly non-drinkers or infrequent drinkers and especially those at risk for heart disease *'may wish to consider the possibility that light drinking may be of benefit to their overall health and life expectancy.'*

US revised guidelines 2010 - *'Total Mortality - In most Western countries where chronic diseases such as CHD, cancer, stroke and diabetes are the primary causes of death, results from large epidemiological studies consistently show that alcohol has a favourable association with total mortality especially among middle age and older men and women.'*

### Balance between harms and benefits

These are reflected well in the US guideline alcohol chapter conclusions:

*'The hazards of heavy alcohol (ethanol) intake have been known for centuries. Heavy drinking increases the risk of liver cirrhosis, hypertension, cancers of the upper gastrointestinal tract, injury, and violence (USDA, 2000). An average daily intake of one to two alcoholic beverages is associated with the lowest all-cause mortality and a low risk of diabetes and CHD among middle-aged and older adults. Despite this overall benefit of moderate alcohol consumption, the evidence for a positive association between alcohol consumption and risk of unintentional injuries and breast and colon cancer should be taken into consideration. The DGAC recommends that if alcohol is consumed, it should be consumed in moderation, and only by adults.'*

### The family setting and the role of parents as regards their responsibilities towards their children

The US guidelines state categorically that those under the legal drinking age should not drink.

In the UK Chief Medical Officer, based on the fact that 54% of 15 year olds currently drink, issued guidance for parents in 2009:

*'(1) Children and their parents and carers are advised that an alcohol-free childhood is the healthiest and*

*best option. However, if children drink alcohol, it should not be until at least the age of 15 years*

*(2) If young people aged 15 to 17 years consume alcohol it should always be with the guidance of a parent or carer or in a supervised environment.(3) Parent and young people should be aware that drinking, even at age 15 or older, can be hazardous to health and that not drinking is the healthiest option for young people. If 15 to 17 year olds do consume alcohol they should do so infrequently and certainly on no more than one day a week.*

*Young people aged 15 to 17 years should never exceed recommended adult daily limits and on days when they drink, consumption should usually be below such levels'*

Source: Donaldson L (2009) Guidance on the consumption of alcohol by children and young people. DH, London

### **To conclude:**

Each year our understanding of the biological, physiological, psychological and social effects of drinking alcohol at different doses grows. In general, national guidelines reflect the medical findings of the j-shaped curve, that is, that approximately 20g a day consumption for women and 30g consumption a day for men is considered as 'safe' or 'low risk' for most healthy adults.

It should be remembered that guidelines are for healthy adults who chose to drink and do not apply to those under the legal drinking age or to pregnant women, or to those with a history of addiction or mental illness or certain other diseases.

Helena Conibear is Director of Alcohol in Moderation a journal with a Council of 20 specialist professors and medics that reports on the social, scientific and medical research regarding alcohol. Visit [www.alcoholinmoderation.com](http://www.alcoholinmoderation.com) for a free database of research from the last ten years.

Helena is Co-Director of The International Scientific Forum on Alcohol Research, a forum of 40 Professors and medics who comment on emerging research in context with other papers via [www.alcoholforum4profs.org](http://www.alcoholforum4profs.org) She is also the founder of The Alcohol Education Trust, which provides resources and material on responsible consumption to 11- 16 year olds and their parents in the UK via schools via [www.talkaboutalcohol.com](http://www.talkaboutalcohol.com) and [www.alcoholeducationtrust.org](http://www.alcoholeducationtrust.org)

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