Reverse Epidemiology: Alcohol

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- Nell'anno 2011, il 78,8% degli uomini e il 52,1% delle donne **di età superiore ad 11 anni** ha consumato almeno una bevanda alcolica, con una marcata differenza di genere.
- Rispetto al 2003, si **registra una diminuzione di 1,6 punti percentuali che risulta significativa anche nella classe di età 19-64 anni (-2,5 punti percentuali); tra le donne di età superiore a 11 anni non si registrano** variazioni statisticamente significative rispetto agli ultimi anni sebbene, **nella popolazione ultra 65enne, si registra una diminuzione delle consumatrici di vino di 3,3 punti percentuali rispetto al 2003 e di 4,4 punti percentuali rispetto al 2009 .**

Tipologia del bere

- **Consumatori di amari:**

  incremento nella popolazione di età ultra 65enne (+3,2 e +2,8 M/F rispettivamente)

- **Consumatori di vino o alcolici fuori pasto**:

  *per entrambi i sessi, diminuzione progressiva con l'età fino a raggiungere i valori più bassi tra gli/le ultra 75enni (M: 19,2%; F:4,6**%).***

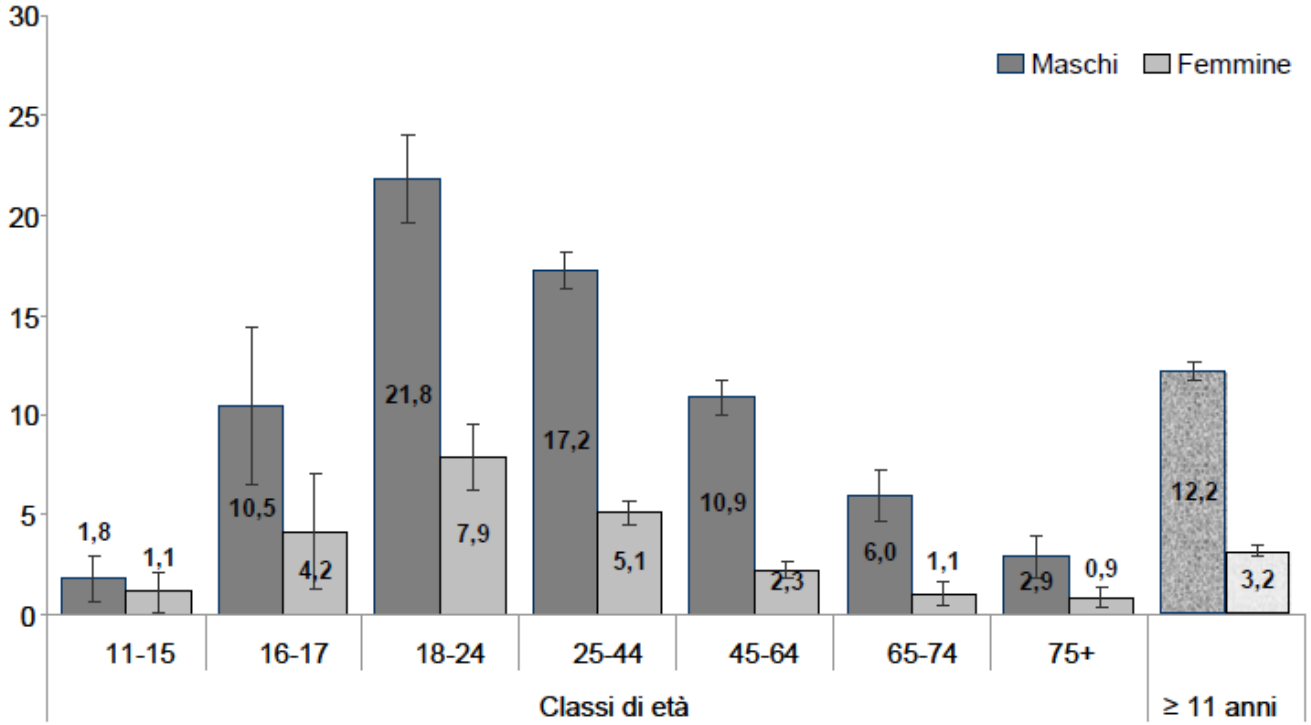


Figura 9. Prevalenza (%) di consumatori *binge drinking* per genere e classe di età (2011)
Fonte: Elaborazioni ONA-CNESPS e *WHO CC Research on Alcohol*
su dati dell'Indagine ISTAT Multiscopo sulle famiglie

CONSUMO RISCHIOSO ("hazardous") : un livello di consumo o una modalità del bere che possono determinare un rischio nel caso di persistenza di tali abitudini.

CONSUMO DANNOSO ("harmful"): una modalità di consumo alcolico che causa danno alla salute, a livello fisico o mentale. A differenza del consumo a rischio, la diagnosi di consumo dannoso può essere posta solo in presenza di un danno alla salute del soggetto.

ALCOLDIPENDENZA: insieme di fenomeni fisiologici,comportamentali e cognitivi in cui l'uso di alcol riveste per l'individuo una priorità sempre maggiore rispetto ad abitudini che in precedenza avevano ruoli più importanti.La caratteristica predominante è il continuo desiderio di bere. Ricominciare a bere dopo un periodo di astinenza si associa spesso alla rapida ricomparsa delle caratteristiche della sindrome.

IL CONSUMO A RISCHIO

WHO, NIH, SIA, Min. Salute, Min. Polit. Agr. e Forest. , INRAN,

Se il numero di unità o bicchieri è
zero non si corre alcun rischio

Se il numero di unità o bicchieri è superiore a:
2 - 3 unità o bicchieri al giorno per gli uomini
1 - 2 unità o bicchieri al giorno per le donne
Salute e benessere sono esposti ad un maggior rischio.

"Anche quantità moderate di alcol sono coinvolte nell'aumento del rischio di insorgenza di vari tipi di tumori in diversi organi (sopratutto mammella,cavo orale, faringe e prime vie aeree, stomaco".

Alcol & Sicurezza

Un bicchiere di una qualunque bevanda alcolica contiene circa 12 gr di alcol

12 grammi di alcol = 1 unità

È da considerare a basso rischio una quantità di alcol giornaliera da assumersi durante i pasti principali (non fuori pasto) che non deve superare i 20-40 grammi per gli uomini e i 10-20 grammi per le donne.

Queste quantità devono essere ulteriormente ridotte negli anziani e nei giovani. Per quanto riguarda questi ultimi, bisogna ricordare che al di sotto dei 16 anni la legge vieta la vendita e la somministrazione di bevande alcoliche.

Le unità alcoliche considerate a rischio sono superiori alle 4 per i maschi e superiori alle 2 per le femmine fino a 64 anni, e si abbassano a più di 1 dai 65 anni in poi.

Consumatori a rischio (criterio ISS)

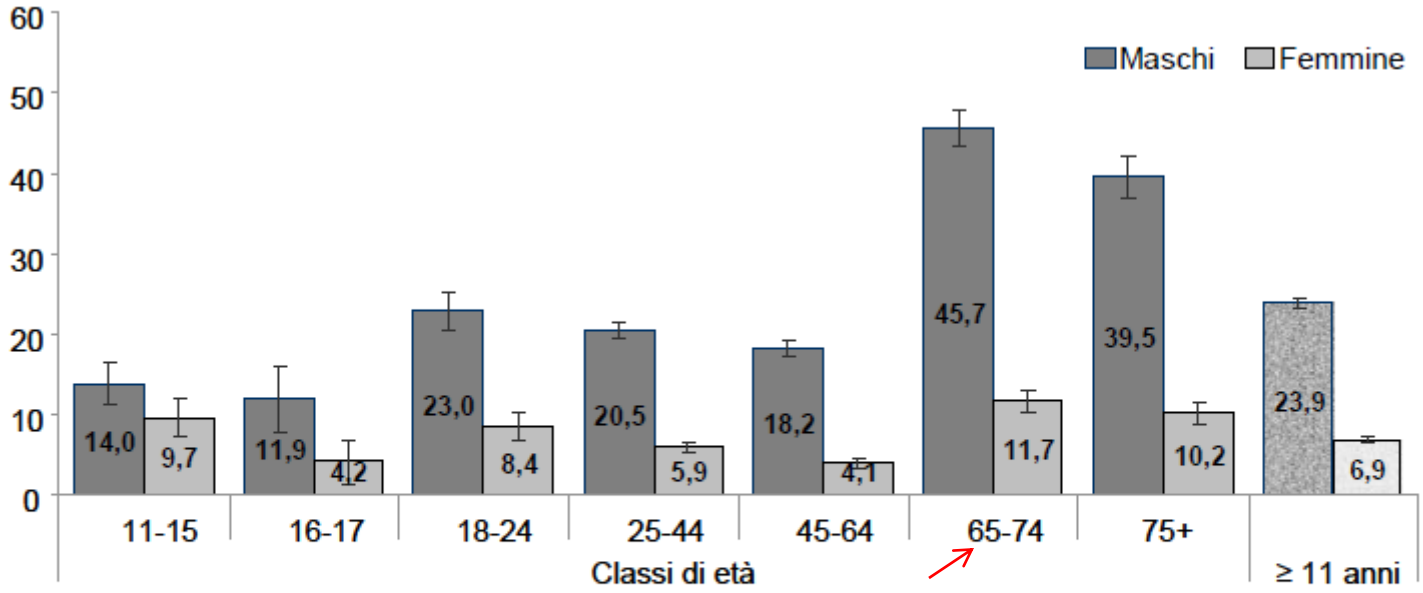


Figura 11. Prevalenza (%) di consumatori a rischio (criterio ISS) per genere e classi di età (2011)

Fonte: Elaborazioni ONA-CNESPS e *WHO CC Research on Alcohol* su dati dell'Indagine ISTAT Multiscopo sulle famiglie

CONSUMO DI ALCOL TRA GLI ANZIANI

Consumatori anziani "giovani" (65-74 anni)

1- incremento della prevalenza dei consumatori di sesso maschile di super alcolici e incremento della prevalenza dei consumatori di amari (maschi + femmine).

2- uso lontano dai pasti: 16,9% (M: 27,8%; F: 7,5%)

3- episodi di ubriachezza in un anno: 3,3% (M: 6,0%; F: 1,1%).

Consumatori anziani "intermedi" (75-84 anni)

In totale si stima che nell'anno 2011 sono stati oltre 1.020.000 gli anziani che hanno adottato un comportamento a rischio per la loro salute sulla base dei criteri ISS, pari al 42,0% degli uomini e il 10,7% delle donne appartenenti alla classe di età 75-84 anni

Consumatori ultra 85enni

In totale si stima che nell'anno 2011 sono stati circa 220.000 i "grandi vecchi" che hanno adottato un comportamento a rischio per la loro salute sulla base dei criteri stabiliti dall'ISS (criterio ISS) pari al 29,3% degli uomini e il 8,9% delle donne

Tipologie di bevitori

- **Gli alcolisti anziani vengono suddivisi in due categorie sulla base dell'epoca in cui si presume sia iniziato l'abuso alcolico:**

- ***Alcolisti precoci ("Earlyonset drinkers")*** sono detti coloro che hanno iniziato a bere in modo inadeguato nell'età giovanile e adulta.

- ***Alcolisti tardivi ("Lateonset drinkers")*** sono definiti quegli anziani che non provengono da precedenti abusi e che iniziano a bere in modo inadeguato quando sono già in età avanzata.

- *Circa i 2/3 degli alcolisti anziani appartengono al primo sottogruppo.* ***Gli appartenenti alla categoria alcolisti tardivi chiedono all'alcol un "aiuto" contro i quotidiani e numerosi problemi della vecchiaia*** *e, in particolare, cercano di utilizzarne gli effetti sedativi, antidepressivi e disinibenti. Esiste una significativa correlazione statistica tra depressione psichica ed alcolismo, quando l'anziano è portato a sperimentare tipiche sensazioni di perdita quali la morte del coniuge, la mancanza di salute, la diminuzione del vigore fisico, la carenza del supporto familiare e la privazione del ruolo sociale e produttivo.*
- *Gli alcolisti tardivi sono quindi anziani che non hanno alterazioni significative della personalità, ma soffrono per lo più di un notevole disagio psicosociale e riconoscono uno o più eventi esistenziali che hanno preceduto e scatenato l'inizio dell'abuso alcolico.* ***Forte è il rischio d'abuso alcolico nel periodo del post-pensionamento, l'anziano avverte smarrimento di fronte al dilatarsi delle giornate e alla perdita di un ruolo sociale, spesso determinante e non commutabile dell'esistenza****. Altri fattori correlati alla perdita del lavoro sono il trasferimento dell'ambiente di vita, con perdita dei punti di riferimento abituali, l'eventuale istituzionalizzazione in case di ricovero, la solitudine affettiva.*
- *In linea generale questi soggetti non sono mai grandi etilisti, non bevono cioè in maniera smodata ed esorbitante, ma bevono in modo continuo e con una certa regolarità, quasi ingerissero un farmaco in dosi refratte.*
- *Gli alcolisti tardivi, i cui bisogni sono primariamente sociali, tendono a mascherare e a nascondere la loro consuetudine per una sorta di pudore che impedisce loro di rivolgersi ad altri (medico compreso) per chiedere un aiuto diverso da quello che hanno trovato nell'alcol.*

Psychiatric Correlates of Alcohol and Tobacco Use Disorders in U.S. Adults Aged 65 Years and Older: Results From the 2001–2002 National Epidemiologic Survey of Alcohol and Related Conditions

(James C. Lin et al., American J Geriatric Psychiatry 2013, In Press, Corrected Proof)

- N = 8,205 individual aged at least 65 years who participated in the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions.

  Measurements : alcohol use disorders (AUDs), tobacco use disorders (TUDs), and psychiatric conditions.

- ***There is a strong association between AUD and TUD among older U.S. adults as well as associations between AUD and TUD with mood, anxiety, and personality disorders.***

The Relation Between Frequency of Binge Drinking and Psychological Distress Among Older Adult Drinkers

(Ami N. Bryant et al., J Aging and Health, 2013)

Table 3. Multiple Regression Analysis of Psychological Distress- Frequency of Binge Drinking Dummy Coded (n = 13,265).

Independent variables	β	t	p
Background variables			
Age	−.13	−13.43**	<.001
Male	−.05	−5.84**	<.001
Married	−.04	−5.00**	<.001
Employed	.02	1.84	.07
Annual income	−.06	−6.50**	<.001
Educational attainment	.01	.87	.38
Race/ethnicity (referent: White)			
AIAN	−.01	−0.94	.35
Asian	−.01	−1.39	.17
Black	.03	−3.81**	<.001
Latino	.01	.98	.33
Physical health variables			
Disability present	.16	17.84**	<.001
No. of chronic conditions	−.01	−1.05	.29
Self-rated health (1-5)	.28	30.12*	.001
Frequency of past year binge drinking (Referent: No past year binge drinking)			
Once a year	.00	.21	.90
> Once a year, <monthly	.02	2.72*	.01
Monthly	.04	4.42**	<.001
>Monthly, <weekly	.01	1.36	.17
Daily or Weekly	.03	3.69*	.001

Note. AIAN = American Indian/Alaska Native.
*$p \leq .01$. **$p \leq .001$.

***binge drinking frequently may be related to increased experiences of psychological distress among older drinkers*.**

La situazione è drammatica?

BEVANDA ALCOLICA

Abbiamo dimenticato la differenza uso-abuso?

The “hormesis” concept

(Gomez Cabreara et al., Free Rad Biol Med 2008)

Alcohol intake and brain structure in a multiethnic elderly cohort

(Yian Gua, et al., Clinical Nutrition 2013In Press, Corrected Proof)

- Studied 589 multi-ethnic community residents of New York aged ≥65 with available alcohol intake
- A high-resolution structural MRI evaluated Total brain volume (TBV), white matter hyperintensity volume (WMHV), and presence of infarcts
- The association of alcohol intake with these imaging markers using regression models adjusted for demographic, clinical, and vascular risk factors was examined.
- Compared to non-drinking, light-to-moderate total alcohol (b = 0.007, p = 0.04) or wine (b = 0.008, p = 0.05) intake, but not beer or liquor intake, was associated with larger TBV. Further analysis showed a dose–response association between alcohol (p-trend = 0.03) or wine (p-trend = 0.006) and TBV. Overall, alcohol intake was not associated with WMHV or brain infarcts.
- ***Among older adults, light-to-moderate alcohol intake, in particular wine, is associated with larger TBV. These findings suggest that light to moderate alcohol consumption is potentially beneficial for brain aging, but replication is needed.***

Moderate alcohol use and health: A consensus document

(A. Poli et al., Nutrition, Metabolism and Cardiovascular Diseases Volume 23, Issue 6, June 2013, Pages 487–504)

Aim : to review the available evidence on the association between moderate alcohol use, health and disease.

Coronary heart disease and fatal arrhythmia

…..moderate alcohol use by apparently healthy individuals is associated with significant reduction of cardiovascular risk and sudden death due to ventricular arrhythmias.

Patients with pre-existing CVD could get similar benefits from moderate alcohol consumption but should pay attention to the possible interaction of alcohol with their pharmacological regimen.

Excessive alcohol consumption is specifically dangerous for patients with cardiomyopathy or supraventricular arrhythmias, being able to worsen their arrhythmic risk.

Stroke

…..moderate consumption is associated with reduced risk of total stroke and notably of ischaemic events; conversely, consumption of elevated quantities of alcohol is an important risk factor for any type of stroke.

Peripheral artery disease

….. Epidemiological studies confirm that PAD risk is reduced by moderate alcohol intake

However, larger prospective studies are necessary to more precisely define the association between alcohol use and peripheral vascular disorders and to formulate recommendations.

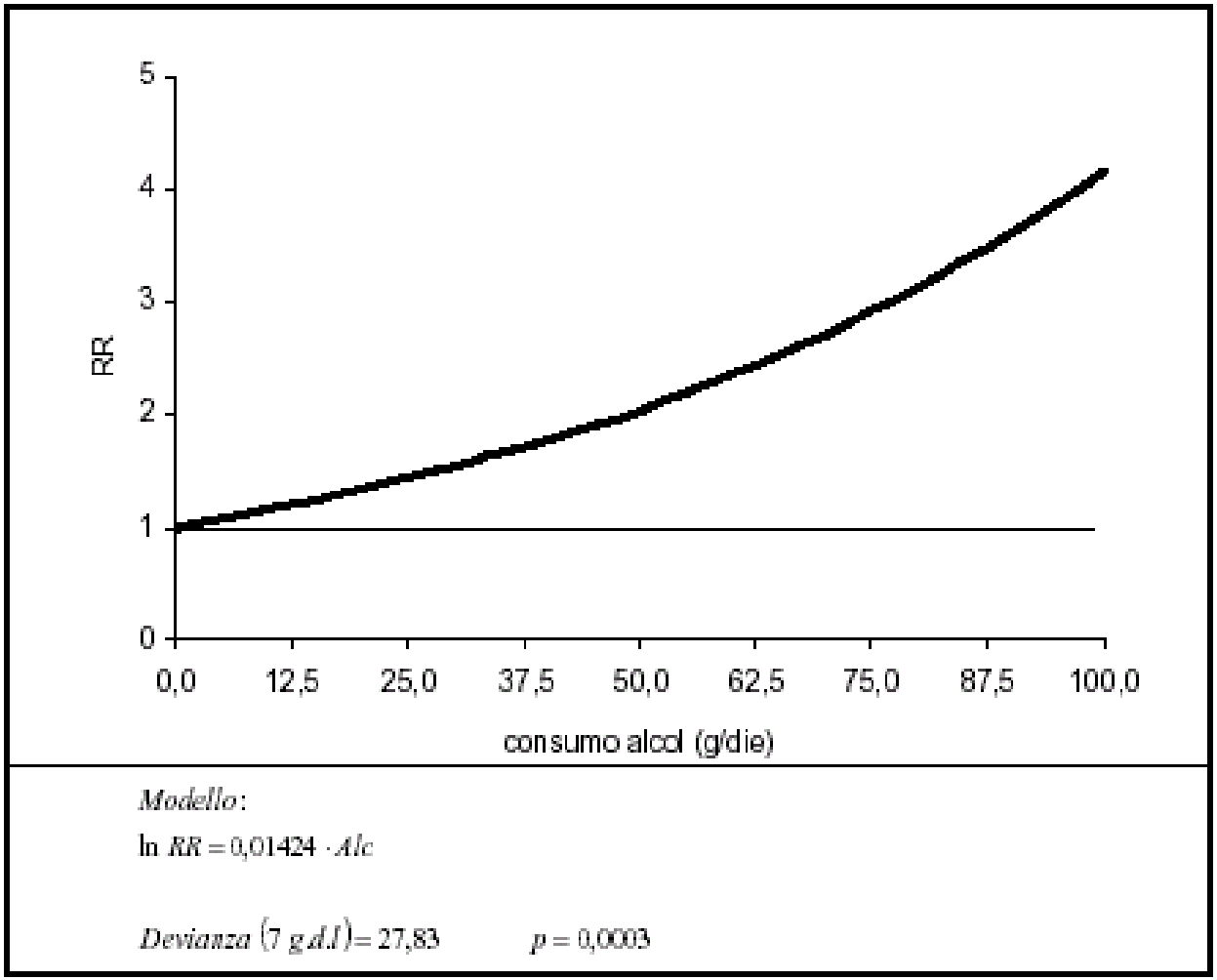
Alcohol and cardiovascular risk factors
Lipid profile

….moderate alcohol use dose-dependently increases HDL-c and Apo-AI. Conversely, no significant alterations of total and LDL-c are observed.

Blood pressure

….alcohol in very moderate amounts appears to exert neutral or beneficial effects on blood pressure and that red wine might be superior to other alcoholic beverages . Because moderate alcohol use is being associated with better cardiovascular prognosis in hypertensive patients, consumption levels of <30 g/d, though hypertensive, might be advantageous over abstention

Alcol e Ipertensione



Modello:

$\ln RR = 0{,}01424 \cdot Alc$

$Devianza\ (7\ g.d.l.) = 27{,}83 \qquad p = 0{,}0003$

Inflammation and circulating surrogate markers of CVD

Table 1 Effects of moderate alcohol consumption on the main markers of inflammation and on hemostasis factors in epidemiological and intervention studies.

	Epidemiological studies	Intervention studies
C-reactive protein (CRP)	+++	+/−
Interleukin-6 (IL-6)	+	+/−
Tumour necrosis factor-α (TNF-α)	+/−	+/−
Fibrinogen	++	+++
Plasminogen activator inhibitor-1 (PAI-1)	+/−	+/−
Tissue plasminogen activator (TPA)	+/−	+/−
Adiponectin	+	++

Effects: +/− uncertain; + modest; ++ strong; +++ very strong.

Alcohol and insulin sensitivity

….epidemiological data support a reduction of MS risk associated with low-to-moderate alcohol consumption.

This effect is particularly evident for some of the MS components such as HDL-c and fasting insulin levels.

However, the few intervention studies do not allow ascertaining the role of ethanol intake on insulin sensitivity.

Alcohol, overweight and obesity

…. while elevated alcohol intake is associated with increased risk of obesity or overweight, moderate consumption appears to have neutral or favourable effects

Metabolic effects of alcohol
Metabolic syndrome

Table 2 Relative risk of metabolic syndrome as related to the habitual alcohol consumption of men and women: a meta-analysis of seven observational studies.

Alcohol consumption	Category 1 0–39.9 g/d	Category 2 40–59.9 g/d	Category 3 >60 g/d
Men	RR (95% CI): 0.84 (0.75, 0.94) $P = 0.004$	RR (95% CI): 0.95 (0.83, 1.09) $P = 0.49$	OR (95% CI): 0.99 (0.71, 1.38) $P = 0.94$
Women	Category 1 0–19.9 g/d RR (95% CI): 0.75 (0.64, 0.89) $P = 0.0007$	Category 2 20–39.9 g/d RR (95% CI): 0.81 (0.57, 1.14) $P = 0.22$	—

RR, Relative Risk; CI, Confidence Interval. Modified from Alkerwi A et al. [80]. Note that consumption levels used for computation are different between men and women.

Alcohol and diabetes

Current guidelines addressed to diabetic patients are rather cautious because of the calories and body-weight issues. In brief, such guidelines indicate that if a diabetic adult chooses to drink alcohol, his/her daily intake should be kept constantly modest (10–13 g, i.e., one drink or less for women and 20–25 g, i.e., two drinks/d or less for men). To reduce the risk of nocturnal hypoglycaemia in patients on insulin or insulin secretagogues, alcohol should be ingested with food

Moderate alcohol use and liver disease

As moderate alcohol use not only is associated with reduced CHD morbidity and mortality risk, but also improves metabolic risk factors related to both CVD and NAFLD and and seems to partially protect from NASH and NAFLD and , patients with NAFLD who drink no more than two-three drinks per day could perhaps be allowed to continue their drinking habits.

This issue is, however, still unresolved

	Red wine	Beer	Spirits
Cardiovascular mortality	++	+	+
Cardiovascular events	+	+	+
Insulin sensitivity	++	+	+
Antihypertensive effects	+/-	+/-	+/-
HDL-cholesterol	++	++	++
LDL-cholesterol	+/-	+/-	+/-
Triglycerides	+/-	+/-	+/-
Platelet aggregation	+	+	+
Coagulation	+	+	+
Endothelial function	++	+	+
Mechanisms			
Oxidative stress	++	+	+
Inflammation	++	+	+

(Chiva-Blanc, Alcohol Alcohol 2013)

wine = antioxidant, anti-inflammatory, hypotensive and anti-aggregant effects

(Bhatt et al., Eur J Pharmacol 2011)

Sed…

In clinical trials these effects are not always reached and polyphenol concentrations are very low

(Chiva-Blanc, Alcohol Alcohol 2013)

Differential health effects of the various alcoholic beverages

- Meta-analysis that involved over 280,000 subjects :
  …the effects of wine and beer do not differ significantly….

- No comparative data on wine vs. beer and spirits are available on total mortality, nor do we have enough evidence to say that red wine exerts effects different from that of white wine. Concerning other pathological conditions, epidemiological data comparing wine and beer are scant and inconclusive.

- The hypothesis that the antioxidant and anti-inflammatory properties of non-alcoholic components might determine health effects different from that of ethanol is intriguing, but – at present – only suggested by laboratory data but not by conclusive epidemiological evidence

Resveratrol improves health and survival of mice on a high-calorie diet

Joseph A. Baur[1*], Kevin J. Pearson[2*], Nathan L. Price[2], Hamish A. Jamieson[7], Carles Lerin[8], Avash Kalra[2], Vinayakumar V. Prabhu[3], Joanne S. Allard[2], Guillermo Lopez-Lluch[9], Kaitlyn Lewis[2], Paul J. Pistell[2], Suresh Poosala[4], Kevin G. Becker[3], Olivier Boss[10], Dana Gwinn[11], Mingyi Wang[5], Sharan Ramaswamy[6], Kenneth W. Fishbein[6], Richard G. Spencer[6], Edward G. Lakatta[5], David Le Couteur[7], Reuben J. Shaw[11], Placido Navas[9], Pere Puigserver[8], Donald K. Ingram[2,12], Rafael de Cabo[2] & David A. Sinclair[1]

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Dieta Altamente Calorica

Resveratrolo 22.4 mg/kg/die

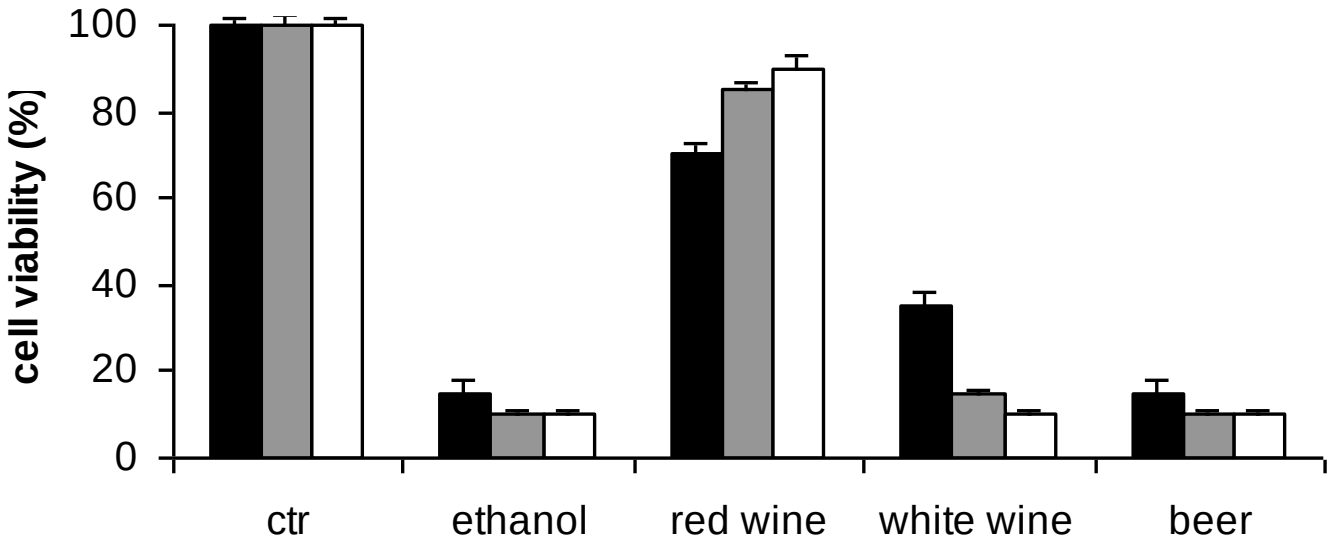
6 mesi

Considerando le fonti alimentari di resveratrolo ...

0.1-8.0 μg/mL

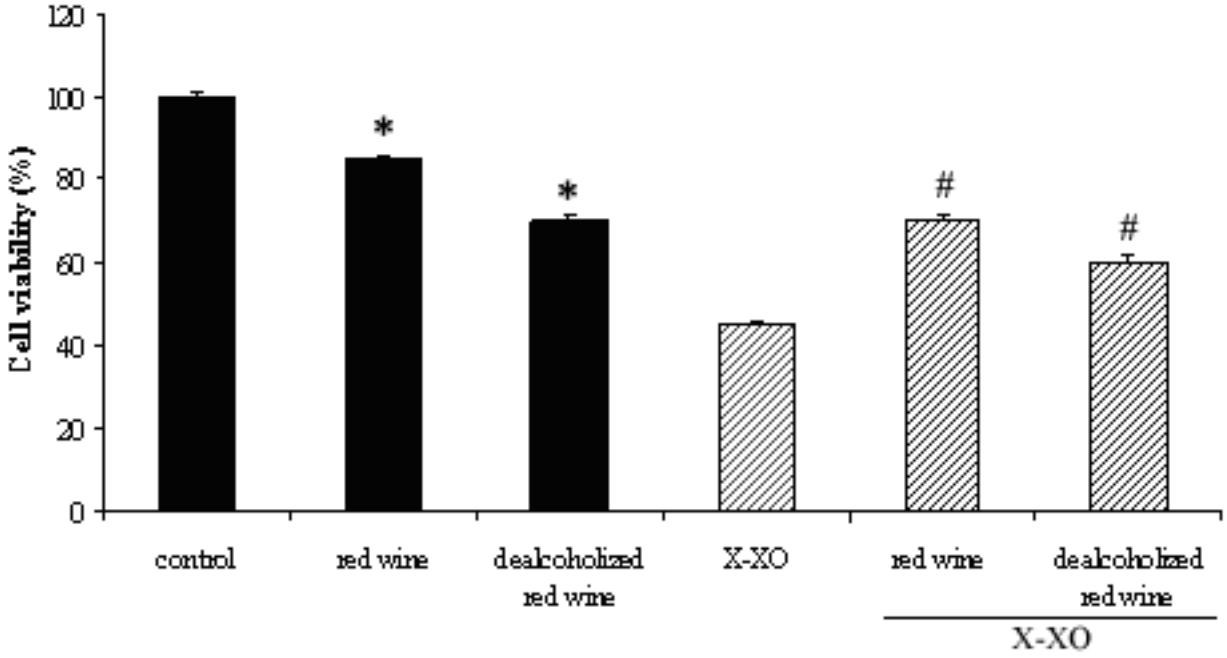
22.4 mg/kg/day

~320 L vino rosso



Cell viability was differently affected by ethanol and other alcoholic beverages in a time and dose-depending manner
Cells were incubated at the same doses (250 mg of and times of observation. **Black bars**: 30 minutes; **grey bars**: 60 minutes; **white bars**: 120 minutes

(Loguercio et al., J Physiol Pharmacol 2009; 60:87-92)


Cell viability (%)
120
100
80
60
40
20
0
*
*
#
#
control
red wine
dealcoholized red wine
X-XO
red wine
dealcoholized red wine
X-XO

Alcohol, cognitive impairment and dementia

Table 3 Original studies and meta-analyses of the associations between alcohol intake and dementia and/or cognitive decline.

Title	Characteristics and No. participants	Outcome (cases)	Alcohol consumption	Relative risk estimate (95% CI)
Alcohol consumption and risk of dementia: the Rotterdam Study [111].	Cohort population study on 7893 non-demented subjects	Dementia (197) AD (146)	1–3 drinks/d vs. nondrinkers	0·58 (0·38–0·90)
Alcohol consumption and cognitive function in late life: a longitudinal community study [113].	Cohort study on 1098 non-demented elderlies	Reduction cognitive test or neurocognitive tests	Minimal and moderate drinker vs. nondrinker	For any increase of one SD in the reduction of MMSE the risk of being minimal drinker vs. that of an abstainer was 0.3 (0.14–0.65) and 0.08 (0.02–0.28) that of moderate drinkers
Alcohol intake and risk of dementia [112]	Cohort study on 980 non-demented elderlies	Dementia (260) AD (199)	Three vs. zero servings of wine	0.55 (0.84–0.39)
Current alcohol consumption and its relationship to incident dementia [115]	Cohort study on 3202 non-demented elderlies (≥75 years)	Dementia (217) AD (111)	Any kind of alcohol intake vs. no intake	0.71 (0.53–0.96) dementia 0.58 (0.38–0.89) AD
Alcohol consumption, mild cognitive impairment, and progression to dementia [114]	Cohort study on 121 MCI subjects	Dementia (14)	<1 drink/d vs. no intake	0.15 (0.03–0.78)
Alcohol, dementia and cognitive decline in the elderly: a systematic review [116]	Meta-analysis of 26 cohort and case–control studies	Dementia and cognitive decline	Small amounts of alcohol intake	0.63 (0.53–0.75) dementia 0.57 (0.44–0.74) AD
Alcohol consumption as a risk factor for dementia and cognitive decline: meta-analysis of prospective studies [117]	Meta-analysis of 15 cohort studies	Dementia, VAD, AD	Light to moderate intake vs. no intake	0.74 (0.61–0.91) dementia 0.75 (0.57–0.98) VAD 0.72 (0.61–0.86) AD

AD, Alzheimer's disease; VAD, Vascular dementia; MCI, Mild cognitive impairment; MMSE, Mini Mental Status Examination; CI, Confidence Interval.

All studies revealed a reduction of dementias and Alzheimer's risk associated with moderate alcohol use, as compared with abstainers.

Alcohol, cognitive impairment and dementia

One should not forget however that alcohol in excess causes at least two well-known neurological diseases characterised by cognitive decline and dementia, that is Wernicke–Korsakoff's and Marchiafava–Bignami's syndromes, and that an alcohol-mediated form of dementia has been described, which is accompanied by cerebral atrophy and a typical alteration of white and grey matters.

Alcohol, skeletal frailty and osteoporosis

One note of caution concerns the deleterious effects of high alcohol intake. Indeed, excessive and prolonged alcohol consumption lowers bone density and is considered a major risk factor for bone fractures.

Unhealthy behaviours and disability in older adults: Three-City Dijon cohort study

(Artaud F. et al., BMJ 2013)

•In 3982 (2410 (60.5%) women) French community dwellers aged 65 or over disability-free at baseline when health behaviours were assessed a population based cohort study examined the individual and combined associations of unhealthy behaviours (low/intermediate physical activity, consuming fruit and vegetables less than once a day, current smoking/short term ex-smoking, never/former/heavy alcohol drinking with hazard of disability.

•Hierarchical indicator of disability (no, light, moderate, severe) combining data from three disability scales (mobility, instrumental activities of daily living, basic activities of daily living) assessed five times between 2001 and 2012.

•During the 12 year follow-up, 1236 participants (861 (69.7%) women) developed moderate or severe disability.

•Interval censored survival analyses (adjusted for age, sex, marital status, and education) showed low/intermediate physical activity (hazard ratio 1.72, 95% confidence interval 1.48 to 2.00), consuming fruit and vegetables less than once a day (1.24, 1.10 to 1.41), and current smoking/short term ex-smoking (1.26, 1.05 to 1.50) to be independently associated with an increased hazard of disability,

•No robust association with alcohol consumption was found

•The main contributors were chronic conditions and, to a lesser extent, depressive symptoms, trauma, and body mass index

Alcohol and cancer

- *…. moderate drinking of up to one drink/d leads to an increased risk of 20–30% of oral and pharyngeal cancer and of oesophageal squamous cell carcinoma.*
- *No significant association emerges with the risk of laryngeal, colorectal and pancreatic cancers.*
- *An increased risk of breast cancer appears at intakes of three to six drinks/week.*
- *A positive association between alcohol and liver cancer has been established, but no reliable quantification of the risks for low-to-moderate alcohol consumption is as yet possible.*

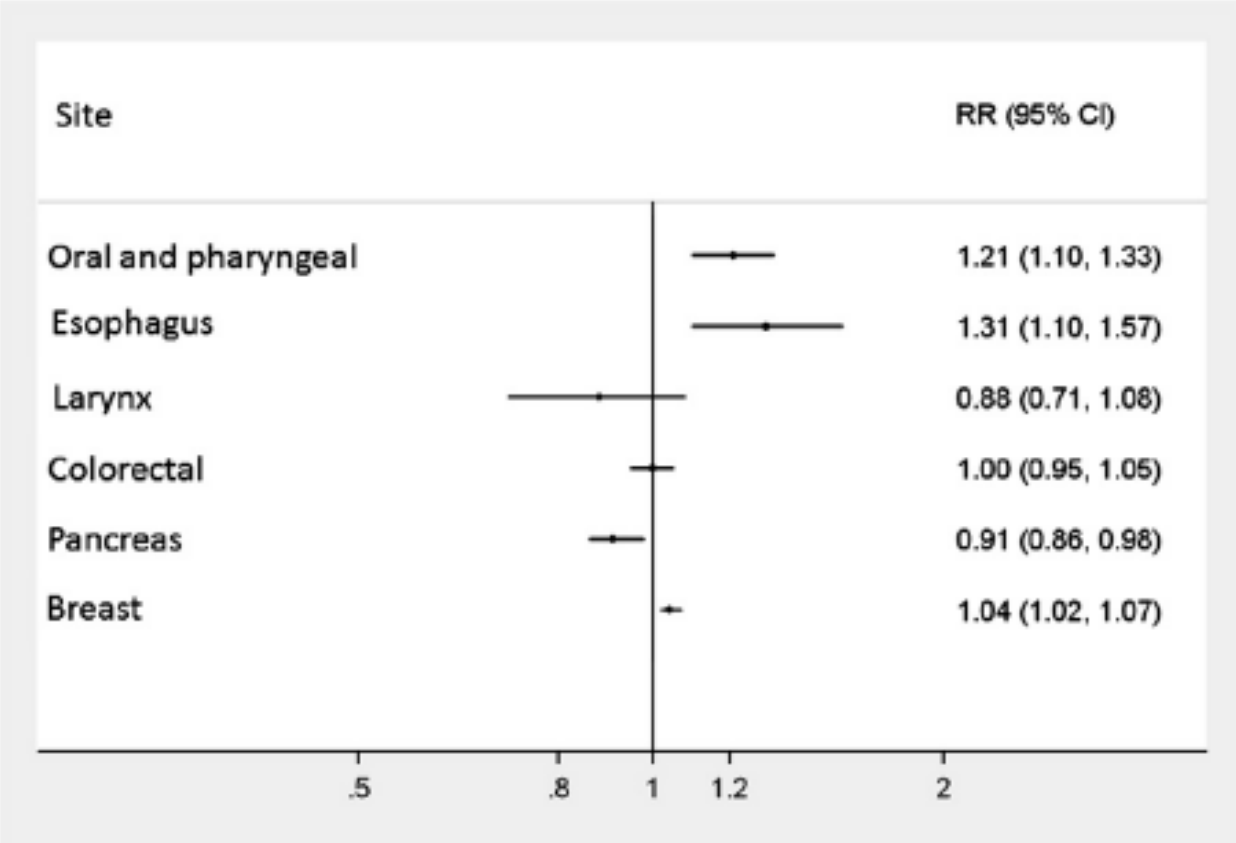


Figure 1 Moderate alcohol use and cancer risk in selected sites. RR, relative risk for alcohol intakes of $\leq$1 drink/d, as compared with abstainers and occasional drinkers.

Alcohol consumption and PSA-detected prostate cancer risk: ProtecT study

(Intern J Cancer, 132,9, 2176–85,2013)

	1st third (0.1–9.8 units/ week)	2nd third (9.9–19.7 units/ week)	3rd third (19.8–112 units/ week)	Dose-response[1]	p_{trend}	P^2
PSA levels–controls only[3] (11,086 controls)	1	0.97 (0.94; 1.01)	0.92 (0.89; 0.95)	0.98 (0.98, 0.99)	<0.001	–
Total prostate cancer[4] (2,083 cases)	1	0.94 (0.84; 1.06)	0.92 (0.82; 1.04)	0.99 (0.96; 1.01)	0.347	–
Localized stage prostate cancer[5] (1,676 cases)	1	0.97 (0.85; 1.09)	0.93 (0.81; 1.05)	0.99 (0.96; 1.02)	0.573	–
Advanced stage prostate cancer[5] (178 cases)	1	0.87 (0.61; 1.25)	0.86 (0.59; 1.23)	0.95 (0.87; 1.04)	0.238	0.338
Low-grade prostate cancer[5] (1,400 cases)	1	0.97 (0.85; 1.11)	0.84 (0.73; 0.96)	0.96 (0.93; 0.99)	0.017	–
High-grade prostate cancer[5] (675 cases)	1	0.86 (0.71; 1.05)	1.11 (0.92; 1.34)	1.04 (0.99; 1.08)	0.094	0.004

Analysis of 2,083 cases and 11,086 controls who were drinking alcohol at the time of assessment.
[1]Per 10 units/week increase. [2]Test for difference in the effect-estimates for localized *versus* advanced and low-grade *versus* high-grade prostate cancer. [3]Ratios of geometric means and 95% confidence intervals from linear regression, adjusted for the design variables on which controls and cases were matched–additionally adjusted for age as continuous variable. [4]Odds ratios and 95% confidence intervals from conditional logistic regression models, additionally adjusted for age as a continuous variable. [5]Relative risk ratios and 95% confidence intervals from logistic regression, adjusted for the design variables on which controls and cases were matched—additionally adjusted for age as continuous variable. For definitions of localized/advanced stage and low/high-grade, see methods section.
Abbreviations PSA, prostate-specific antigen.

Alcohol drinking and all cancer mortality: a meta-analysis.

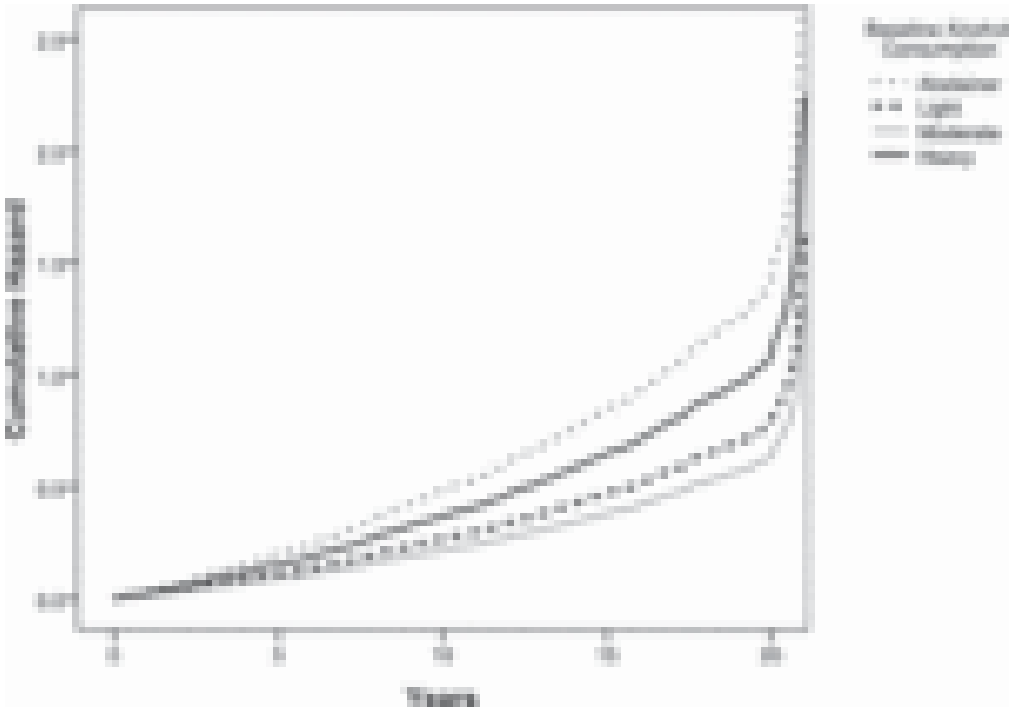
(Jin M, et al., Ann Oncol. 2012)

There was a J-shaped relationship between all cancer mortality and alcohol consumption in males but not in females.

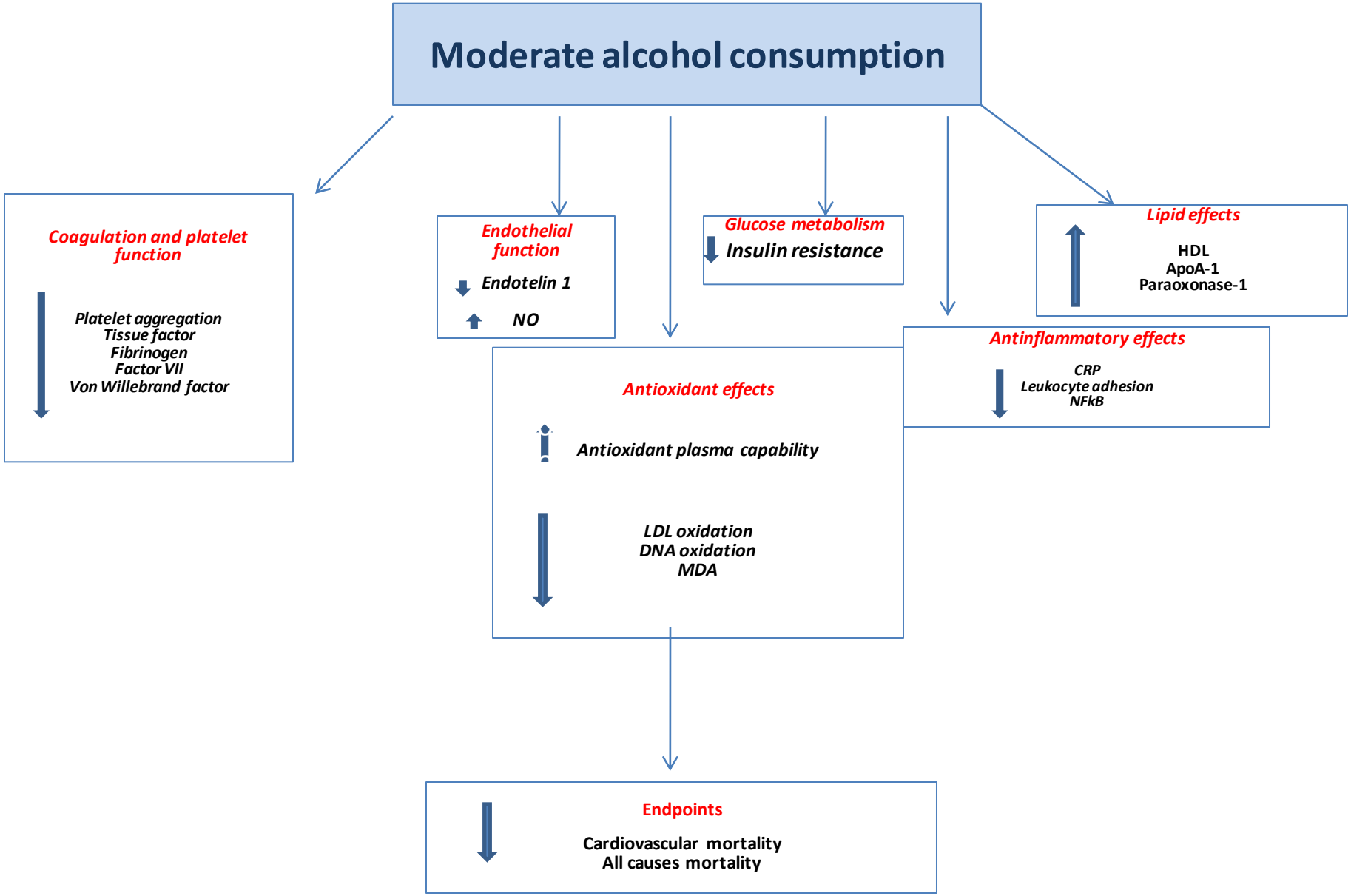
This meta-analysis confirms the health hazards of heavy drinking (≥50 g/day) and benefits of light drinking (≤12.5 g/day).

Late-life alcohol consumption and 20-year mortality.

(Holahan CJ Alcohol Clin Exp Res. 2010)



Findings are consistent with an interpretation that the survival effect for moderate drinking compared to abstention among older adults reflects 2 processes. First, the effect of confounding factors associated with alcohol abstention is considerable. **However, even after taking account of traditional and nontraditional covariates, moderate alcohol consumption continued to show a beneficial effect in predicting mortality risk.**


Moderate alcohol consumption
Coagulation and platelet function
Platelet aggregation
Tissue factor
Fibrinogen
Factor VII
Von Willebrand factor
Endothelial function
Endotelin 1
NO
Glucose metabolism
Insulin resistance
Lipid effects
HDL
ApoA-1
Paraoxonase-1
Antioxidant effects
Antioxidant plasma capability
LDL oxidation
DNA oxidation
MDA
Antinflammatory effects
CRP
Leukocyte adhesion
NFkB
Endpoints
Cardiovascular mortality
All causes mortality

Divergent associations of drinking frequency and binge consumption of alcohol with mortality within the same cohort.

(Graff-Iversen S, et al., J Epidemiol Community Health. 2012)

Two opposite trends appeared: a higher all-cause mortality in both sexes, and higher CVD mortality in men, with increasing frequency of binge drinking, compared with non-bingers. Second, in both sexes low-frequent use of any alcohol was associated with lower all-cause and CVD mortality, compared with abstention.

Alcohol and all-cause mortality

All the 'J'-shaped curves indicate a 'window' of consumption that might be incorporated into healthy lifestyles.

Likewise, heavy drinking should be firmly discouraged.

ALCOL E ANZIANI: I RISCHI

1. Con l'età, la quantità d'acqua corporea totale diminuisce e quindi, a parità di alcol ingerito, il tasso alcolemico risulta più elevato e gli effetti sono più marcati. Inoltre si riduce il funzionamento di alcuni organi come fegato e rene.

2. Negli anziani il consumo dannoso di alcol può non essere riconosciuto facilmente perché si tende a confondere i segni di un'assunzione dannosa con i sintomi generici dell'invecchiamento.

3. Le persone anziane soffrono spesso di problemi di equilibrio, dovuti all'indebolimento della muscolatura, nonché a una ridotta mobilità. Il consumo di alcol può quindi aggravare la situazione, facilitando le cadute e le fratture.

4. L'alcol interferisce con l'uso dei farmaci che le persone anziane nella maggioranza dei casi assumono quotidianamente.

5. Area di rischio importante per l'alcolista tardivo è la malnutrizione.

Lifestyle intervention in general practice for physical activity, smoking, alcohol consumption and diet in elderly: A randomized controlled trial

(Davorka Vrdoljaka et al., Archives of Gerontology and Geriatrics In Press, Corrected Proof)

- In a multicenter randomized controlled trial, 738 patients aged ≥65 (mean age 72.3 ± 5.2 yrs) were randomly assigned to receive intensified intervention (*N* = 371) or usual care (*N* = 367) of a GP for lifestyle changes, including physical activity, cigarette smoking, alcohol consumption and diet, with 18-month follow-up.

- Results: There was no significant difference between the groups in physical activity, tobacco smoking and alcohol consumption or diet after the intervention.

- Elderly population is very resistant regarding lifestyle habit changes.

The bulk of available data allows proposing some suggestions and guidelines, addressed to physicians and health professionals

- 1) In adults and in the elderly (regardless of sex), spontaneous consumption of alcoholic beverages within 30 g ethanol/d, that is ~two drinks/d for men and 15 g/d, that is ~one drink/d for women are to be considered acceptable and do not deserve intervention by the primary care physician or the health professional in charge. In fact, there is no evidence to suggest complete abstention from alcohol drinking by moderate users.
- 2) Patients with increased risk for specific diseases, for example women with familiar history of breast cancer, or subjects with familiar history of early CVD or cardiovascular patients should discuss their drinking habits with their physician.
- 3) No abstainer should be advised to drink for health reasons.
- 4) Alcohol use must be discouraged in specific physiological or personal situations or in selected age classes. Moreover, the possible interactions between alcohol and acute or chronic drug use must be discussed with the primary care physician.

Le Linee Guida dell'INRAN (Istituto Nazionale per la Ricerca sugli Alimenti e la Nutrizione), in accordo con le indicazioni dell'OMS, consigliano agli anziani di non superare il limite di **12 g di alcol al giorno**, pari ad **1 Unità Alcolica** (330 ml di birra, 125 ml di vino o 40 ml di un superalcolico) senza distinzioni tra uomini e donne.

Alcol: rapporti dose/effetto

Dioniso (Ateneo,I sofisti a banchetto) (III -II sec. A.C.)

Solo tre tazze io mescolo per i saggi: una per la salute, quella che essi bevono per prima, la seconda dell'amore e del piacere, la terza del sonno.

Bevuta questa, quelli che si chiamano saggi se ne vanno a casa.

La quarta non è più nostra, ma della petulanza, la quinta delle grida, la sesta dell'orgia, la settima degli occhi pesti, l'ottava dell'ufficiale giudiziario, la nona della bile, la decima della follia, così da far cadere a terra poiché molto vino versato in un piccolo otre assai facilmente dà lo sgambetto ai bevitori.