

**ALCOHOL – RELATED PROBLEMS IN
OLDER PEOPLE: CLINICAL FEATURES,
PRESENTATIONS AND VULNERABILITY**

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A Quick reference guide to
1 UNIT

The following measures of drink all contain one unit of pure alcohol

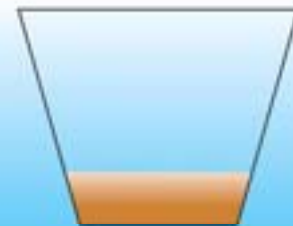


half pint of ordinary strength
lager/beer/cider (3.5% ABV) = **1 UNIT**



A small glass of wine (9% ABV) = **1 UNIT**

A 25ml pub measure
of spirit (40%ABV) = **1 UNIT**



% ABV = Percentage of Alcohol By Volume

Prevalence

Alcohol Problems in Older People

- A & E Departments..... 14%
- Medical inpatients..... 6-11%
- Psychiatric inpatients... 20%
- Nursing home patients.. Up to 49%

Early v. Late Onset Alcoholism

Early onset:

- Describes those who have a lifelong pattern of drinking, have probably been alcoholic all their life, and are now elderly.
- More likely to have chronic alcohol-related medical problems such as cirrhosis, organic brain syndrome, and co-morbid psychiatric disorders.

Late onset:

- Describes those who have become alcoholic in their drinking pattern for the first time late in life.
- Often triggered by a stressful life event.
- Generally represented by milder cases with fewer accompanying medical problems.
- More amenable to treatment, more likely to have spontaneous recovery, but also more likely to be overlooked by health care professionals (Liberto&Oslin, 1995).

Risk Factors

- Alcohol use disorders may arise in elderly people in the context of bereavement, changing role, or illness (O'Connell, Chin, Cunningham, & Lawlor, 2003)
- Alcohol may be used to relieve the boredom or depression stemming from unfulfilled expectations.
- Losses such as a decline in economic status, the death of a spouse or close friends, and deterioration of health with worsening medical problems, are all risk factors for drinking in the elderly; alcohol may be used to reduce psychological, emotional, or physical stress (Menninger, 2002).

Risk Factors (cont.)

- Male
- Socially isolated
- Single
- Separated or Divorced
- Substance abuse earlier in life
- Co-morbid psychiatric disorders (especially mood disorders)
- Family history of alcoholism
- Concomitant substance abuse of nicotine and psychoactive prescription medicines

Signs & Symptoms

- Anxiety
- Blackouts, dizziness
- Depression
- Disorientation
- Mood swings
- Falls, bruises, burns
- Family problems
- Financial problems
- Headaches
- Incontinence
- Increased tolerance
- Legal difficulties
- Memory loss
- New problems in decision making
- Poor hygiene
- Seizures, idiopathic
- Sleep problems
- Social isolation
- Unusual response to medications

Diagnosis Issues

Practitioner Barriers to Identification

- Ageist assumptions
- Failure to recognize symptoms
- Lack of knowledge about screening
- Physician discomfort with substance abuse topic
 - 46.6% of primary care physicians found it difficult to discuss prescription drug abuse with their patients

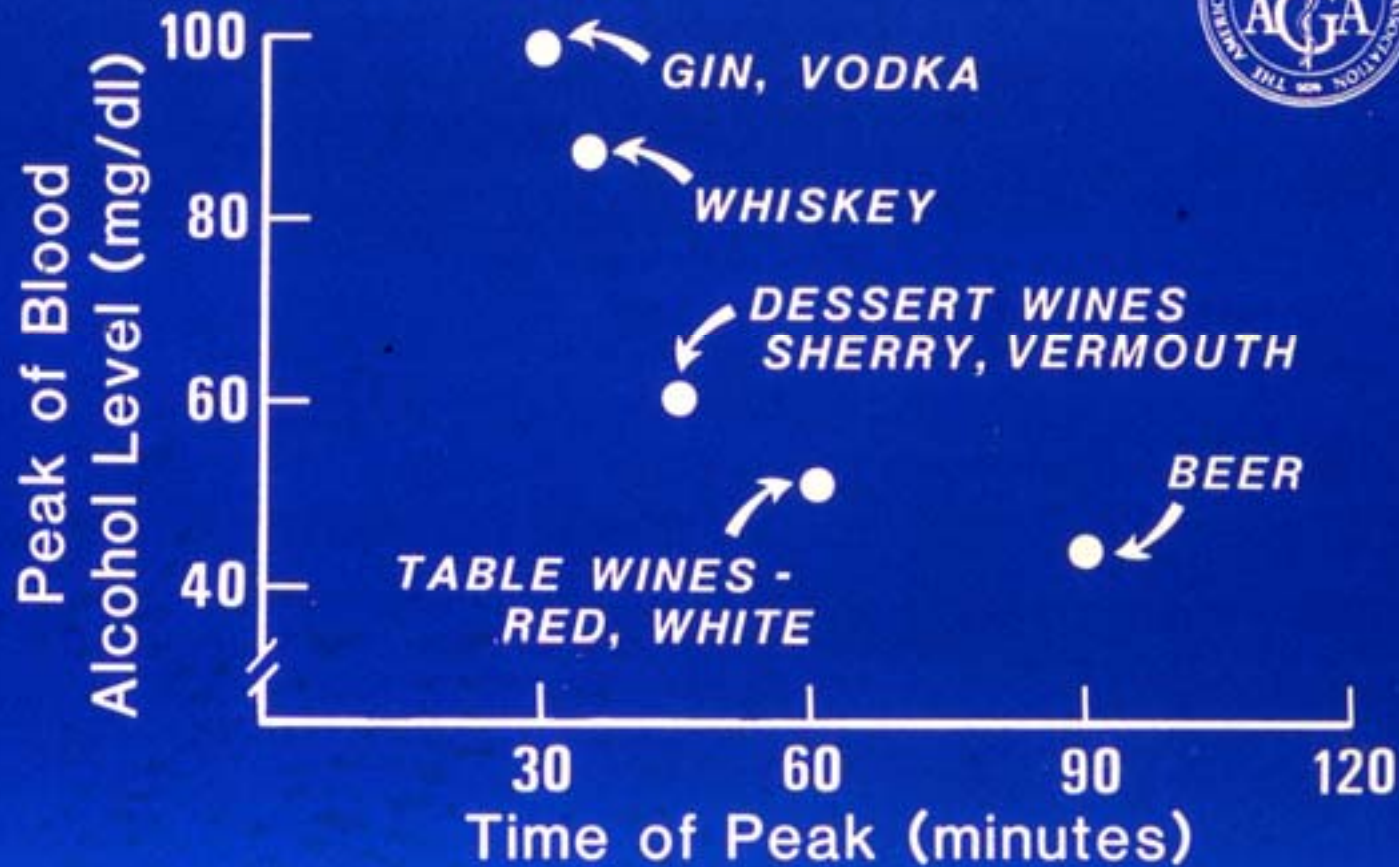
(CASA, 2000)

Individual Barriers to Identification

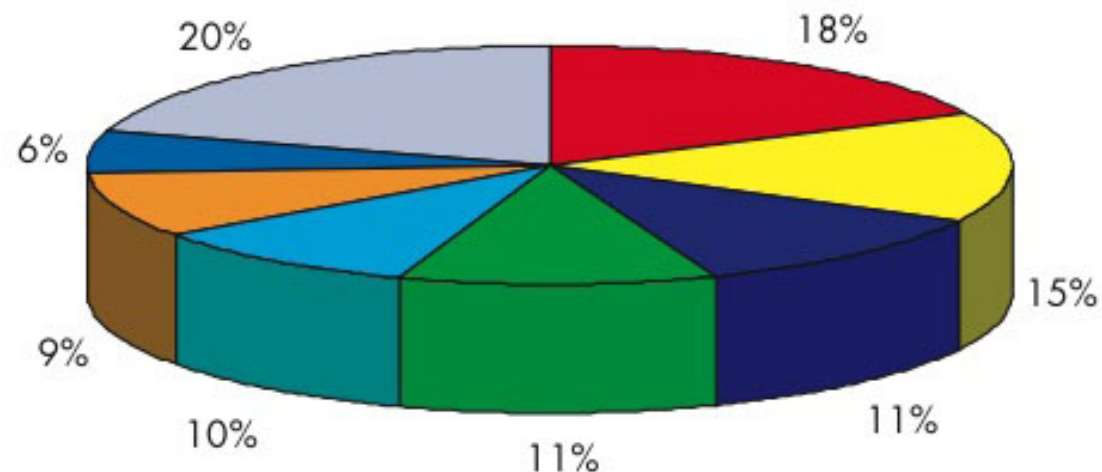
- Attempts at self-diagnosis
- Description of symptoms attributed to ageing process or disease
- Many do not self-refer or seek treatment
 - Although most older adults (87 percent) see physicians regularly, an estimated 40 percent of those who are at risk do not self-identify or seek services for substance abuse

(Raschko, 1990)

PEAK BLOOD ALCOHOL VARIES WITH BEVERAGE



ALCOHOL ADMISSIONS-PRIMARY REASONS (> 60 YEARS OLD)



- Acute intoxication
- Falls/collapse/syncope
- Circulatory system
- Alcoholic liver disease
- Mental + behavioural disorders
- Other digestive system problems
- Respiratory system
- Other (musculoskeletal, haematological, endocrine, neurological, genitourinary, ear and skin problems, injury, neoplasm, neglect and malnutrition)

Alcohol - the physical ravages

Alcohol damage - main systems affected

- Heart and blood vessels
- Liver
- Pancreas
- Gut
- Brain and peripheral nerves
- Muscle and bone
- Endocrine and reproductive
- Blood

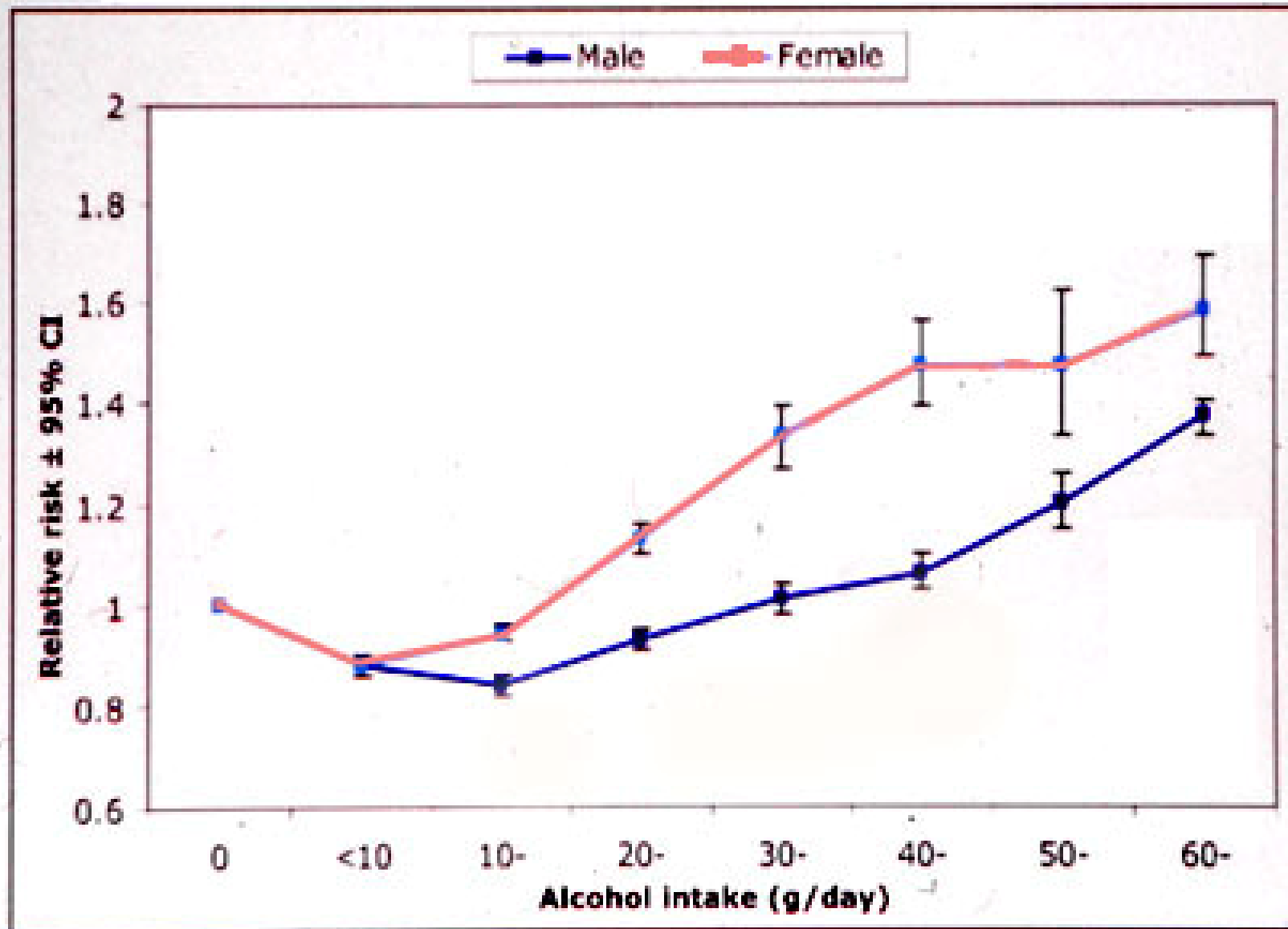
Alcohol and the Cardiovascular System

- Atherosclerosis
- Arrhythmias
- Hypertension
- Cardiac muscle
- Coronary artery tone
- Sudden death

The physician's friend - the 'J-shaped' curve

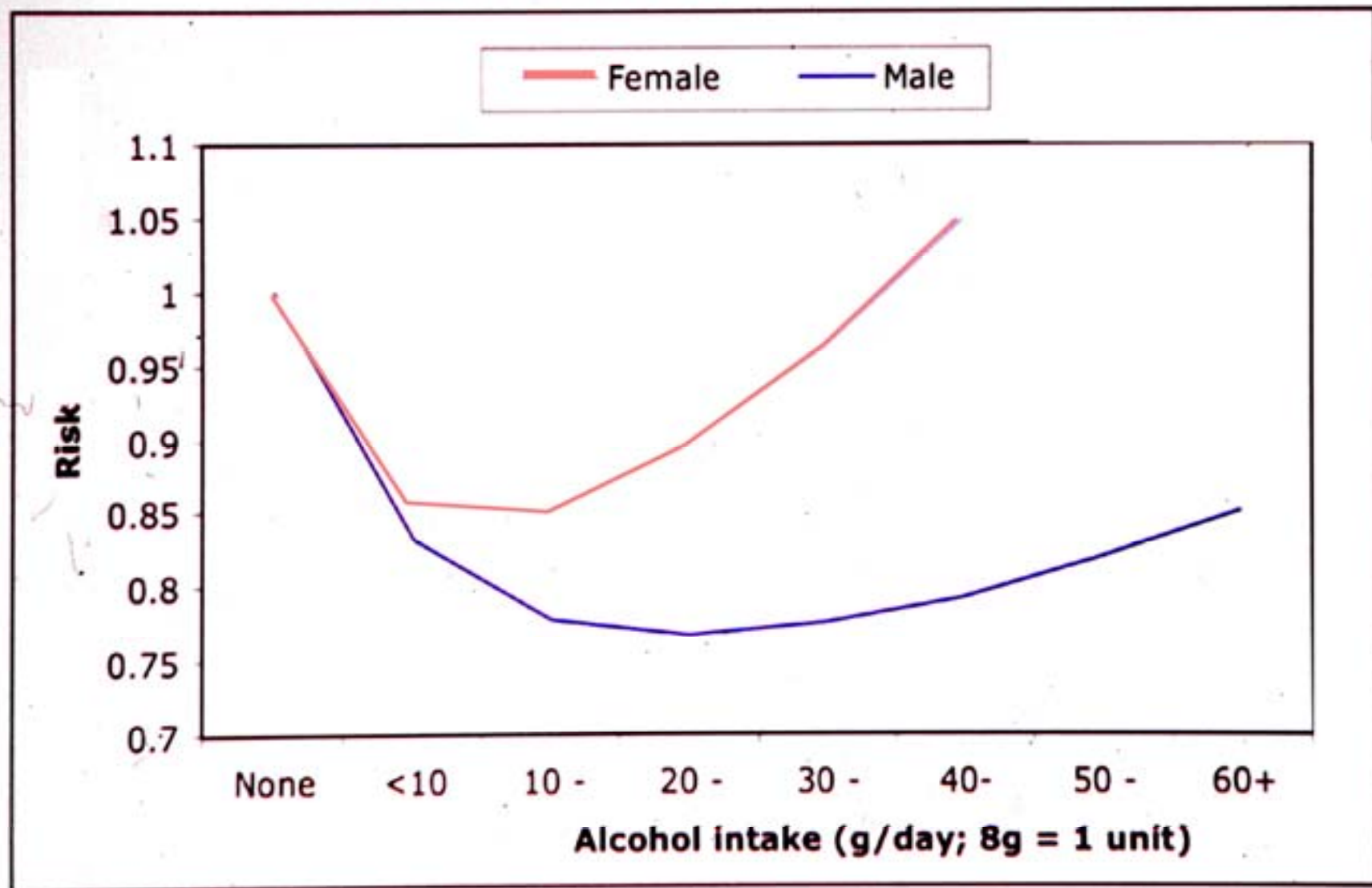
- Is it real?
 - Not solely explained by 'sick quitters' and 'ill abstainers.'
 - Evidence from epidemiological and pathological studies.
 - Probably true for all forms of drinks, but is red wine special?

RELATIVE RISKS OF ALL - CAUSE MORTALITY BY INTAKE



Source: C. Holman et al. (1996)

RELATIVE RISKS OF MORTALITY FROM CORONARY HEART DISEASE-BY LEVEL OF ALCOHOL INTAKE



Source: Britton, derived from meta-analysis by Corrao et al. (2000)

Alcohol and Stroke

- **ISCHAEMIC STROKE**

- Mild-mod consumption reduces risk
- Heavy consumption increases risk
(but cigarettes and blood pressure confound)

- **HAEMORRHAGIC STROKE**

- More frequent for regular (>40g/d) and binge drinkers



ALCOHOL AS A TOXIN: EFFECTS OF ACUTE ABUSE

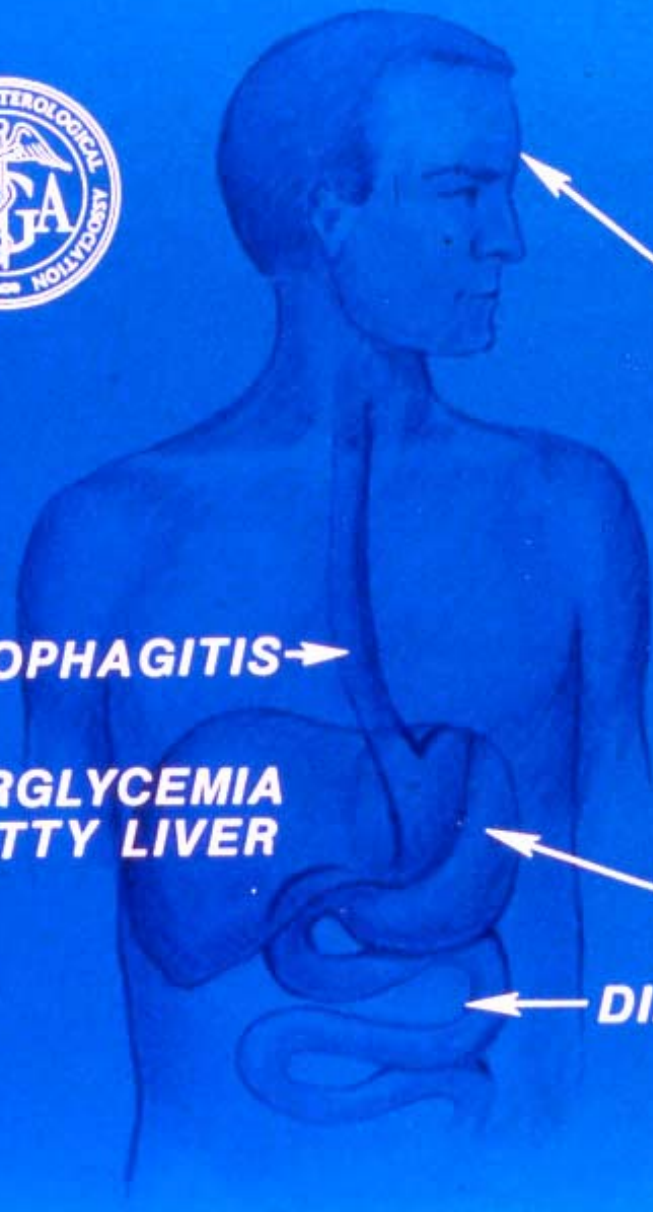
**BEHAVIORAL DISTURBANCE
INTOXICATION
INHIBITION OF
ANTI-DIURETIC HORMONE
BEER WATER INTOXICATION
IMPOTENCE**

ESOPHAGITIS →

**HYPERGLYCEMIA
FATTY LIVER**

← **GASTRITIS**

← **DIARRHEA**



ALCOHOL AS A TOXIN: EFFECTS OF CHRONIC ABUSE-I (GI)



PAROTID HYPERTROPHY

HEAD and NECK CANCER

**PROTEIN-CALORIE
MALNUTRITION**

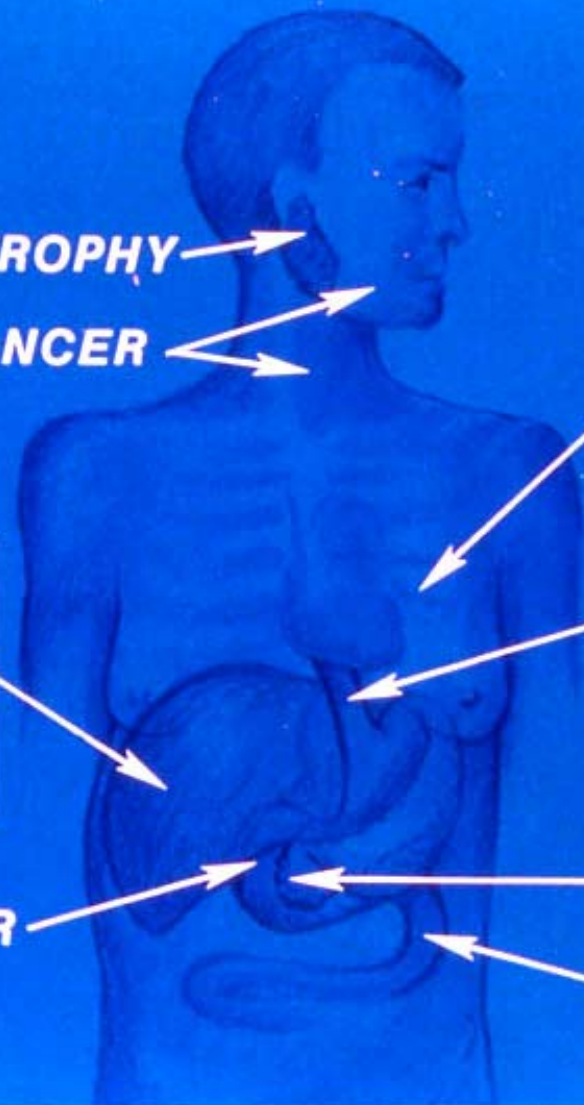
**HYPOGLYCEMIA
HEPATITIS
CIRRHOSIS
HEPATOMA
↑ IRON**

**ESOPHAGEAL
CARCINOMA**

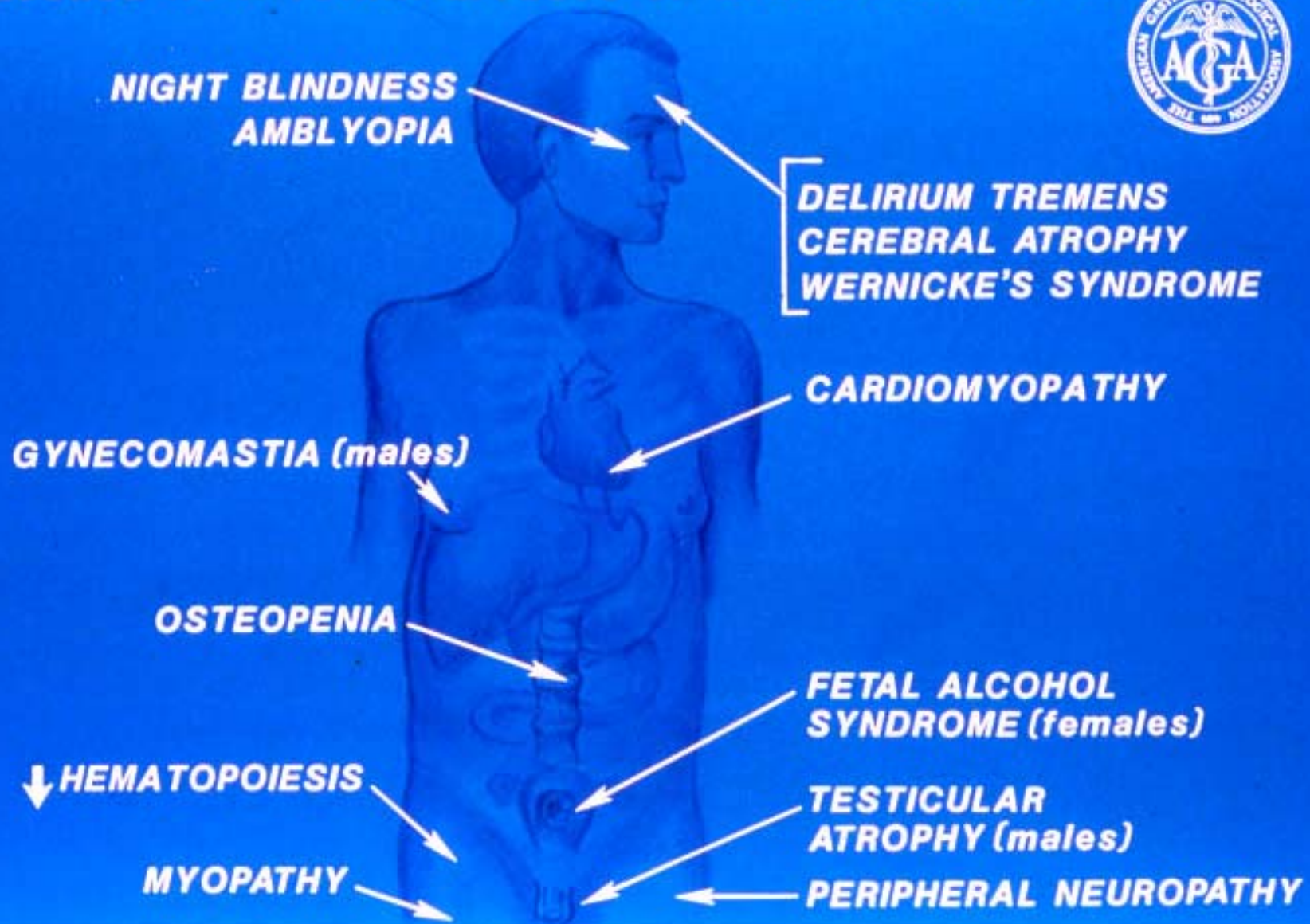
PEPTIC ULCER

PANCREATITIS

MALABSORPTION



ALCOHOL AS A TOXIN: EFFECTS OF CHRONIC ABUSE - II



Alcohol and Musculoskeletal System

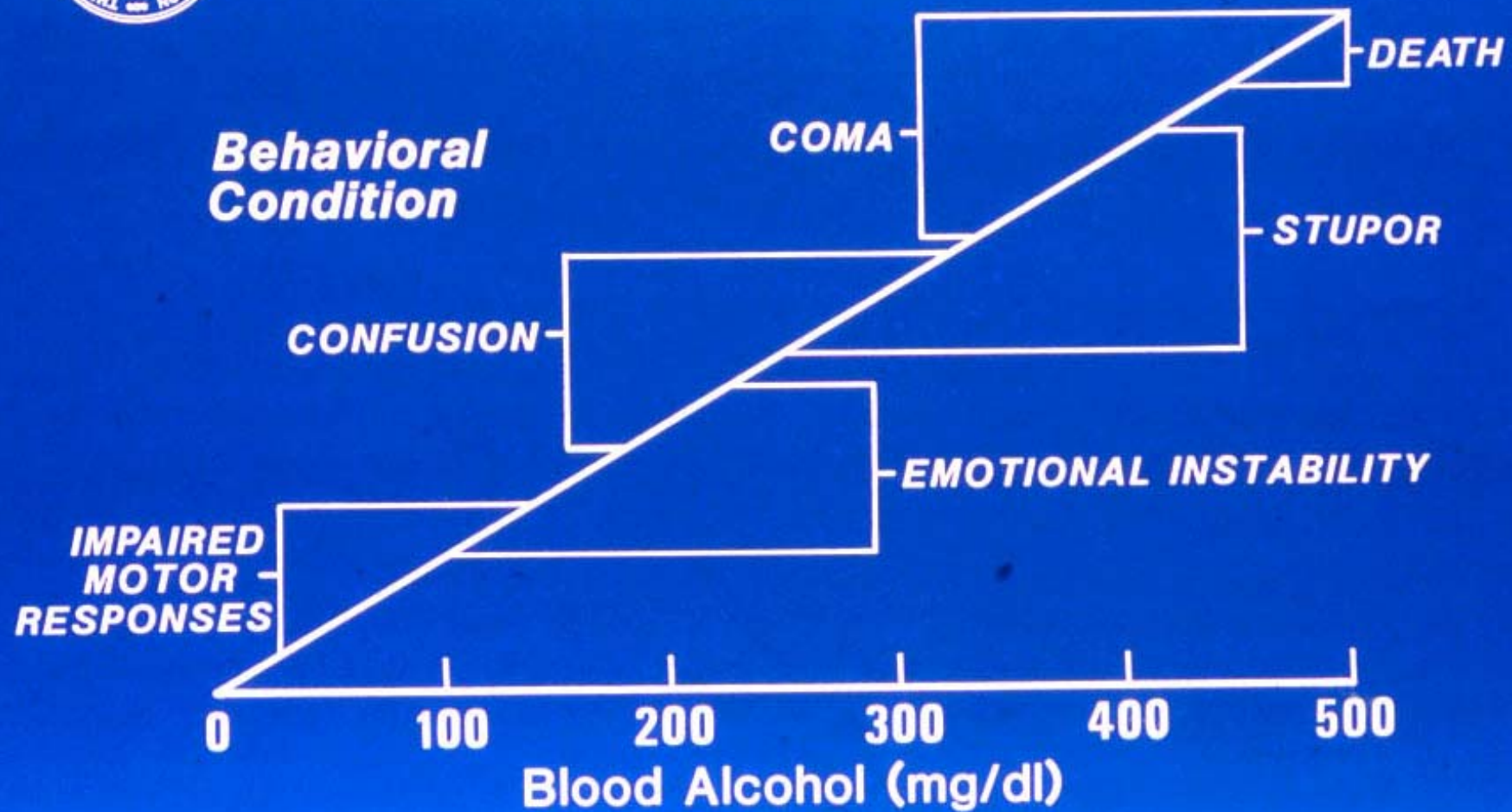
- Most important effect is through violence and falls
- Chronic alcohol misuse leads to:
 - Osteoporosis
 - Reduced calcium and magnesium
 - Depressed 25-hydroxyvitamin D
 - Myopathy

Alcohol and the Nervous System

- Behavioural changes of intoxication
- Acute alcohol withdrawal syndromes
- Wernicke's encephalopathy/Korsakoff's syndrome
- Peripheral neuropathy
- Dementia



BEHAVIOR DISTURBANCES INCREASE WITH BLOOD ALCOHOL LEVEL



Alcohol and Cancer

- Ethanol is not directly carcinogenic
- Probably acts through modulation of chemical carcinogenesis
- Effects stronger in upper GI tract
 - Oropharynx and larynx
 - Oesophagus and stomach
- Weaker effect for breast, colon

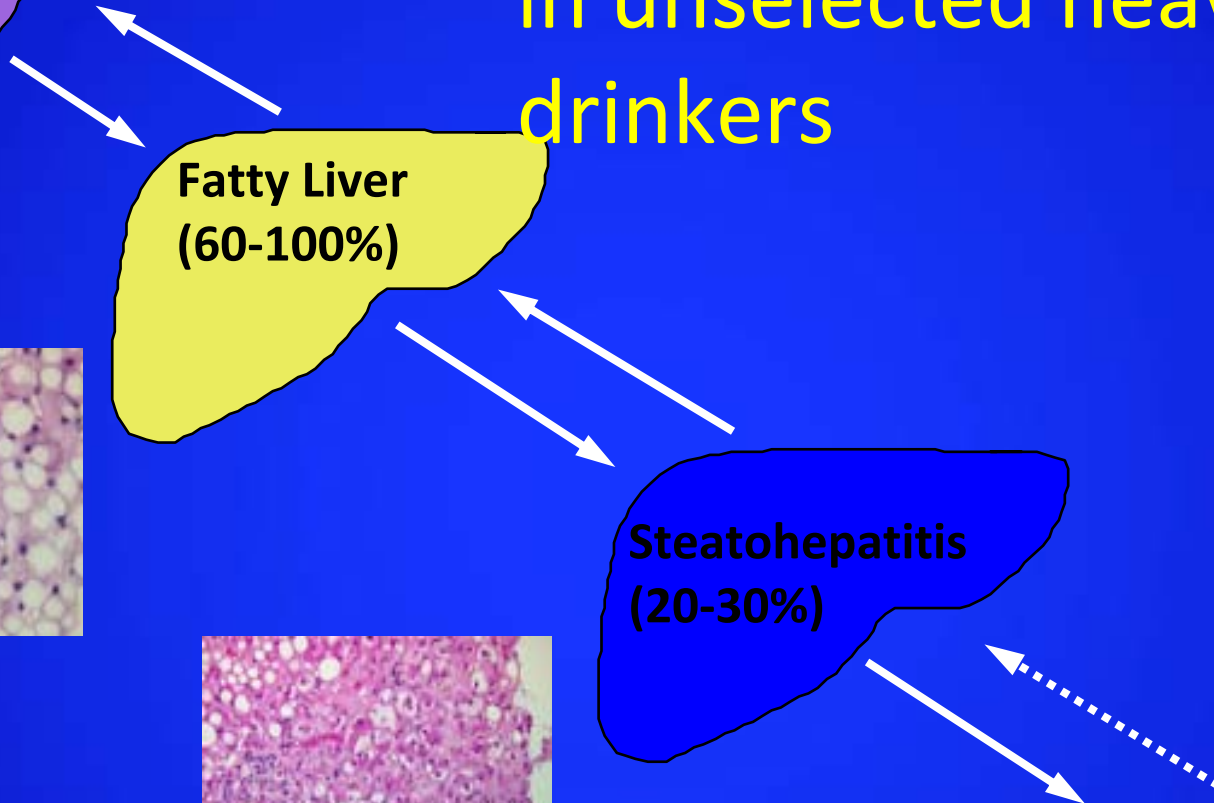
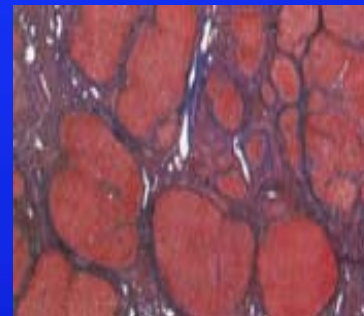
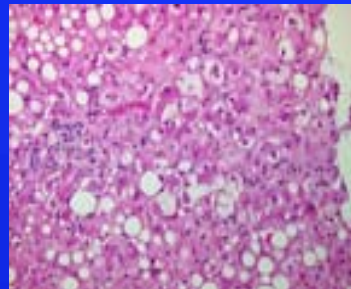
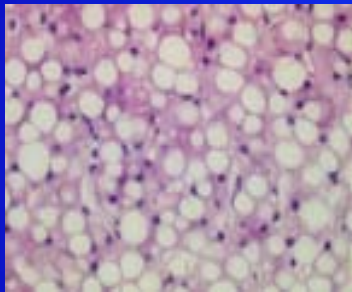
Prevalence of ALD stages in unselected heavy drinkers

Normal
(0-30%)

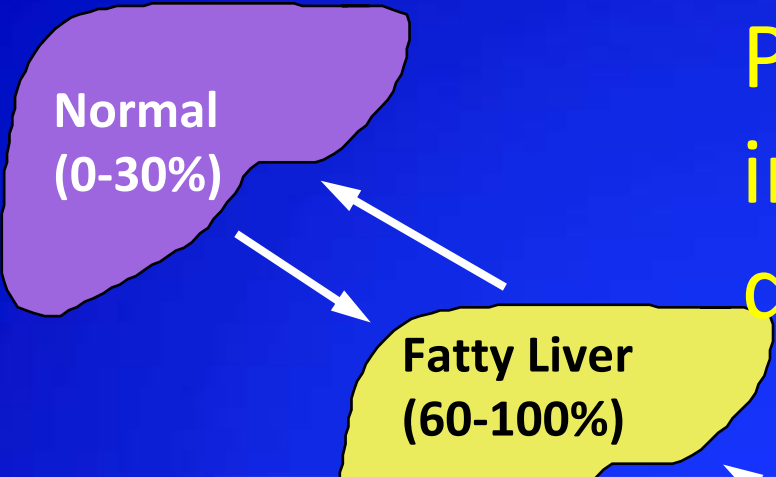
Fatty Liver
(60-100%)

Steatohepatitis
(20-30%)

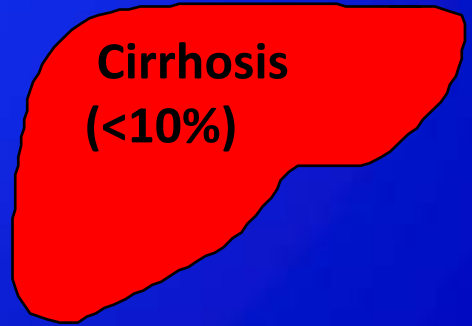
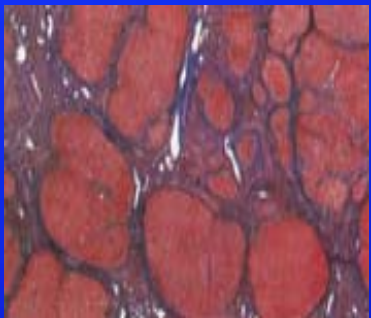
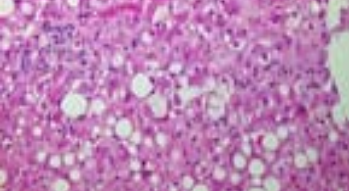
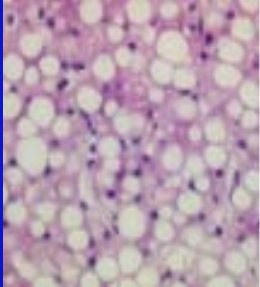
Cirrhosis
(<10%)



Prevalence of ALD stages in unselected heavy drinkers



WHY?



Why don't all heavy drinkers get liver damage?

- Genetic influences are likely to be the most important variable
 - Dehydrogenase polymorphisms
 - Cyp 2E1 polymorphisms
 - Cytokine polymorphisms
- Gender

Threshold doses and damage

- Studies bedevilled by difficulty in getting good population data on consumption
- For the liver there is a probable threshold of 40-50g/d
- For the development of chronic pancreatitis, probably no threshold, ie. no 'safe' dose

Risk of ALD and pattern of drinking

Risk of ALD increased by:

- Drinking outside meal-times

Risk↑: 3.4[1.7-6.6] *Bellentani 1997*

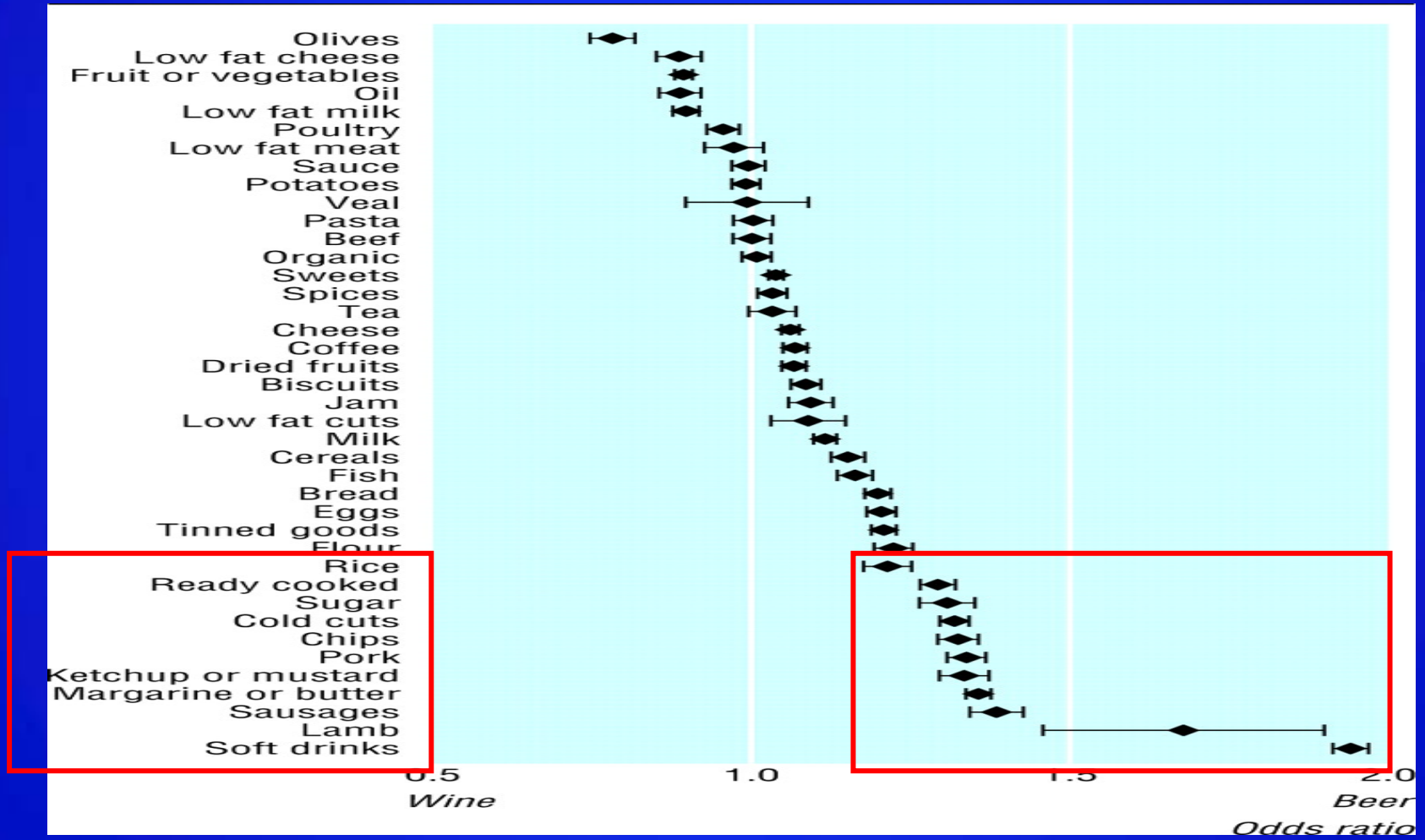
- Drinking beer/spirits rather than wine

Risk↑: 2.5[1.7-3.3] *Becker 2002*

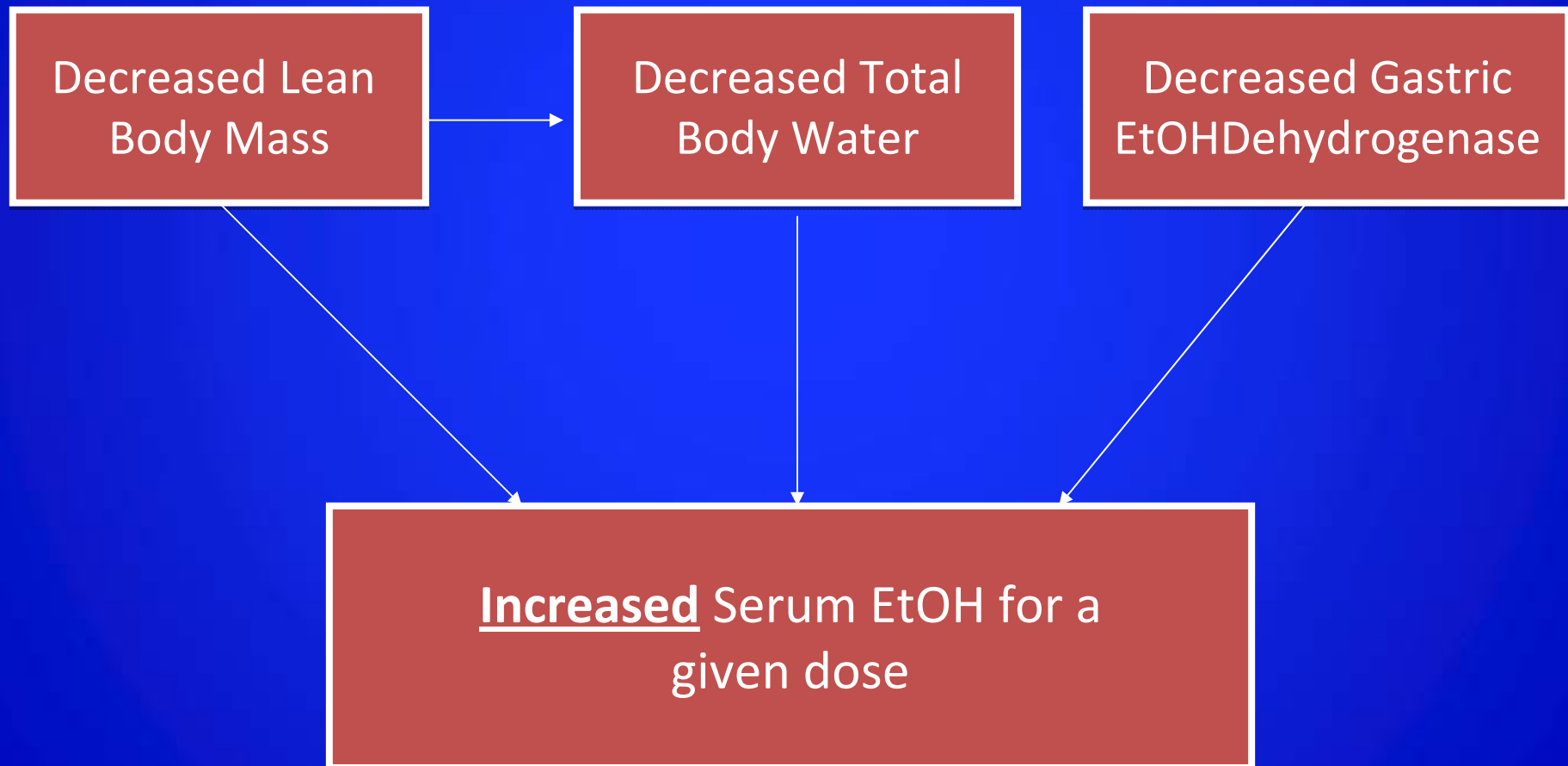
- Daily versus weekend drinking

Risk↑: 2.5 [1.8-4.6] *Corrao 2000*

Is Wine vs Beer effect due to “obesogenic” dietary factors?



Physiological Changes with Age



ALCOHOL – DRUG INTERACTION

- Prescribed
 - hypnotics, anxiolytics, opioids, antibiotics, anticoagulants, anti-depressants, epileptics, hypertensives
- Over the counter – painkillers
- Illicit

ALCOHOL AND CO-MORBIDITY

- Ageing – “silent epidemic”
- Smoking – Cancer, Pneumonia, TB
- Hypertension
- Malnutrition
- Obesity
- Dementia
- Psychiatric
- “Dual diagnosis”

Psychiatric Comorbidity

- 13% with a lifetime diagnosis of depression also met criteria for lifetime alcohol abuse (Grant et al 1995)
- Elderly with alcohol dependence 3x more likely to have depression than those without (Grant et al 1995)
- People >65 are 16x more likely to die of suicide (Grabbe et al 1997).
- Poorer response to treatment

Dementia Risk & Alcohol Use

- There is an inverse U shaped relationship between alcohol consumption and dementia risk
- 2 yr follow-up study of 2632 participants found that excessive drinking had a 45% increased risk of dementia (Deng et al 2006).
- Chronic alcoholism is associated with deficits in executive functioning and visuo-spatial ability (Crews et al 2005)
- Abstinence results in improvement within months in men, but after years in women (Dom et al 2005)

Older Persons Concerns about Treatment:

- Treatment takes too long
- It's embarrassing to tell people
- Treatment is just for kids
- Treatment is just for addicts
- Treatment is too expensive
- Being away from home

Withdrawal in the Elderly

- Onset of withdrawal delayed (days)
- May be prolonged
- Often presents with confusion
- Hallucinations (visual/tactile) may persist for months

MORIARTY'S BAR



MORIARTY'S BAR

- No special deals on drinks or “happy hours”
- Costs proportionate to ABV/ less margins on non-alcohol drinks
- Food available throughout licensed hours
- Complete ban on smoking
- Seating for all customers
- Live Irish music