Alcohol

Understanding units, recognising hidden risks, and navigating practical harm reduction.

TD consultancy

Not All Alcohols Are Equal

Methanol

CH_3OH

Blindness & death

Isopropyl

$(CH_3)_2CHOH$

Disinfectant — toxic if ingested

Ethanol

CH_3CH_2OH

Only safe drinking alcohol

How Alcohol Is Produced

Fermentation

Up to ~15% ABV — beer, wine, cider

→

Distillation

40%+ ABV — whisky, gin, vodka, rum, brandy

→

Fortification

17–22% ABV — port, sherry, vermouth

Who Is Drinking Problematically?

UK Epidemiology 2024–2025

Scale of the Problem

24%

adults drink above 14 units/week

1.7 million

drinking at higher-risk levels

600,000

alcohol dependent — only 18% in treatment

NHS & Public Safety Impact

76,000

admissions/year

primary alcohol cause

1 in 4

A&E attendances

alcohol a factor

40%

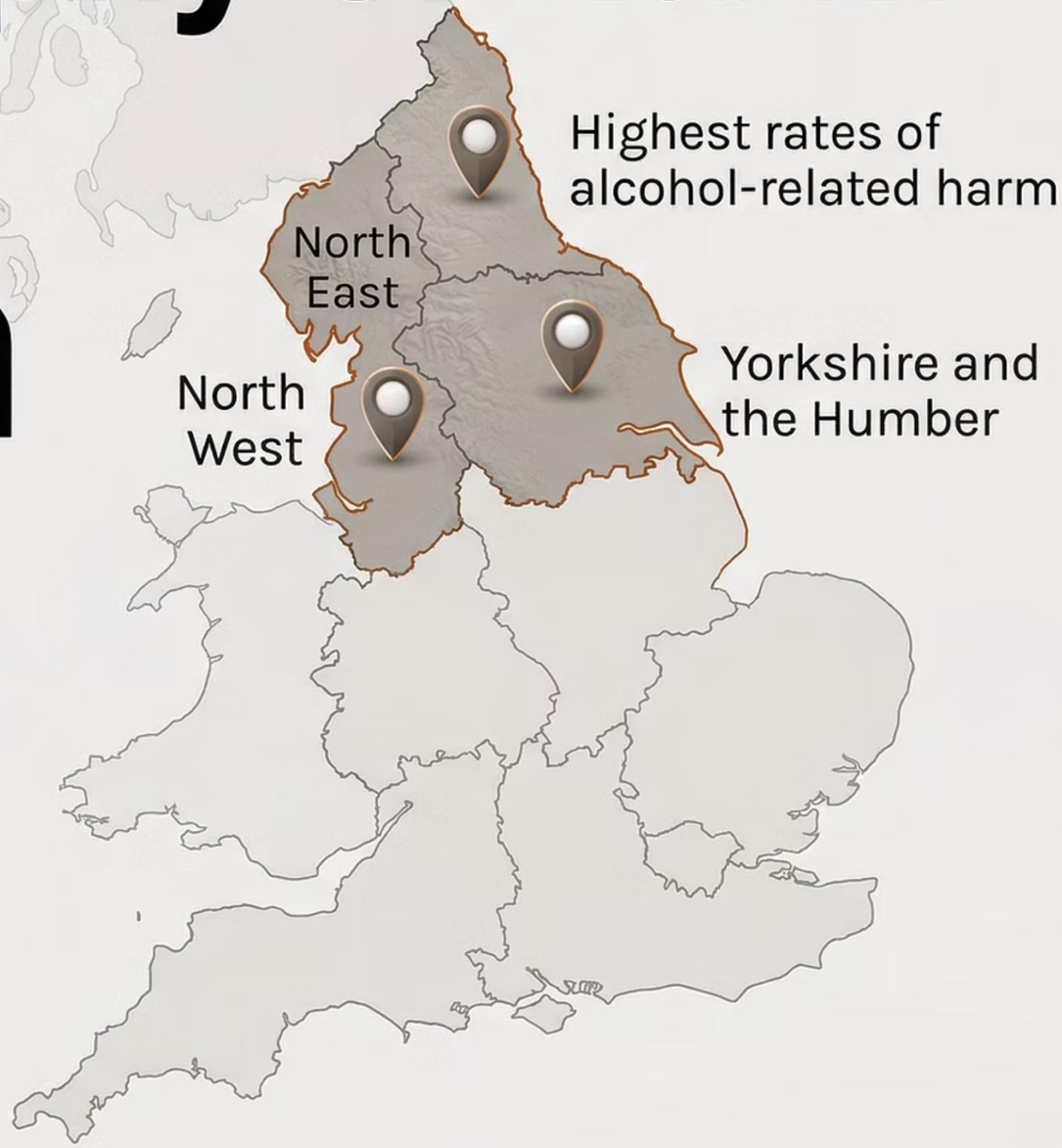
of violent crime

alcohol a factor

Cost & Geography of Harm

£21 billion

annual cost to England — NHS, crime, lost productivity



The Unit Calculator Interface

$$\frac{[\text{Strength (ABV)} \times \text{Volume (ml)}]}{1000} = \text{Number of Units}$$

Example 1: Pint of Stella

5.2% ABV x 568ml ÷ 1000 =

2.95 Units

Example 2: Large Glass of Wine

12% ABV x 250ml ÷ 1000 =

3.00 Units

UK Drinks: Units at a Glance

Type	ABV Range	Serving	Units
Regular beer/lager pint	4–5%	568ml	2.3–2.8
Strong beer/lager pint	7–9%	568ml	4.0–5.1
Craft beer pint	5–10%	568ml	2.8–5.7
Wine 175ml	175ml 12–14%	175ml	2.1–2.5
Wine large 250ml	13%	250ml	3.25
Spirits	25ml 37.5–40%	25ml	~1.0
Prosecco	125ml 12%	125ml	1.5
Alcopops	275ml 4–5%	275ml	1.1–1.4
Cider pint	pint 4–8.5%	568ml	2.3–4.8
Fortified wine	50ml 20%	50ml	1.0

The Craft Alcohol Market

- UK craft market expanded since 2010

- ABVs often 6–10% vs traditional 3.5–4%
- Packaging emphasises quality, not strength

Practitioner Take drinking histories carefully — units are frequently underestimated

No/Low Alcohol Options

Market grown substantially 2020–2025

Widely available across all categories / Below 0.5% ABV

Use clinical judgement

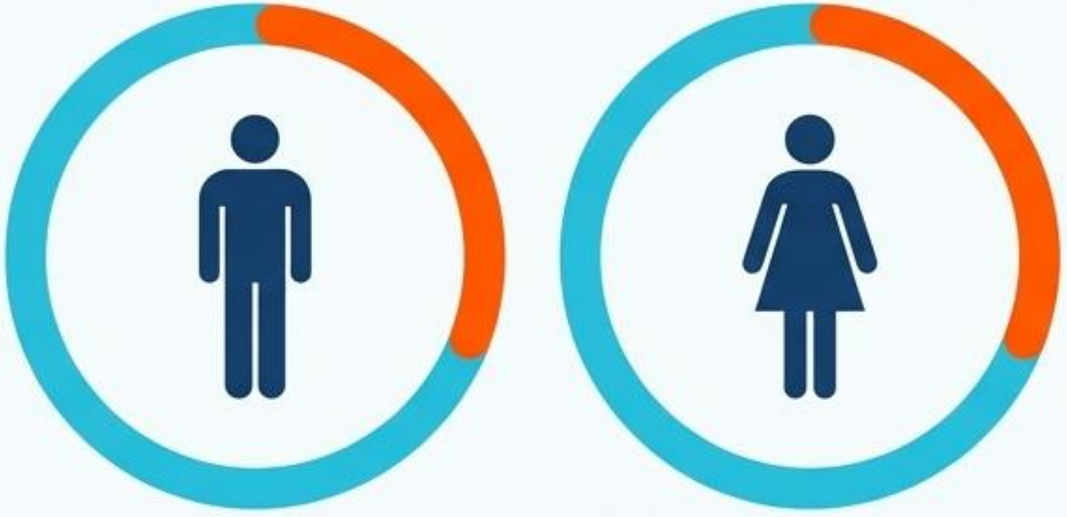
May not suit AA/12-step recovery — replicate sensory drinking experience

Individual goals guide recommendations

Government Guidelines: Establishing the Baseline

A critical shift from weekly allowances (14 units) to daily limits to prevent dependency.

Daily Limits



Men: No more than 3-4 units on a regular basis.

Women: No more than 2-3 units on a regular basis.

Weekly Requirement

At least two alcohol-free days per week to allow hepatic recovery and reduce dependency risk.

The Equation of Harm: Defining Binge Drinking

Larger Pours
Home drinking & unmeasured glasses

+

Higher Strength
Increased average ABV & cheap availability

=

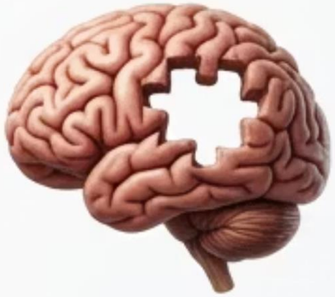
Unintentional Binge Drinking

Binge Drinking is clinically defined as consuming double your recommended daily allowance in a single sitting.

Short-Term Harms

~40% of violent crime

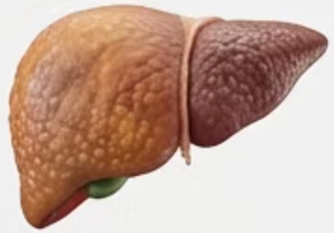
Acute Alcohol Poisoning



Blackouts — memory loss

Self-harm & Suicide: 20–30% of cases

Alcohol-Related Liver Disease



Stage 1

Fatty Liver — reversible

Stage 2

Alcoholic Hepatitis — up to 50% mortality (severe)

Stage 3

Cirrhosis — irreversible

60% of liver disease in England is alcohol-related. Deaths up 400%+ since 1970s.

Cardiovascular Effects

Cardiomyopathy — heart failure risk

Atrial Fibrillation — 5× stroke risk

Hypertension — dose-dependent

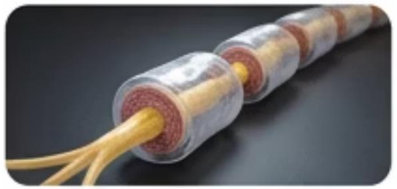
Ischaemic & haemorrhagic stroke

No cardiovascular protective effect — UK CMO: no safe level

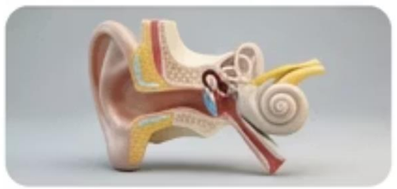
Neurological Complications

Wernicke's Encephalopathy — MEDICAL EMERGENCY: High-dose IV **Pabrinex urgently.** Full triad seen in fewer than 20% — treat on suspicion.

Korsakoff's — permanent amnesia, confabulation



Peripheral Neuropathy — numbness, pain, weakness



Cerebellar Degeneration — progressive ataxia

Pregnancy & FASD.

No safe level of alcohol in pregnancy — UK CMO

Leading preventable cause of neurodevelopmental disability in the UK

Est. 6,000–7,000 affected births per year in England

FASD is lifelong — early diagnosis improves outcomes

Mental Health — Bidirectional Relationship

Depression — improves within 4–6 weeks abstinence

Anxiety — self-medication then rebound worsening

PTSD — integrated treatment produces better outcomes

Psychosis — withdrawal, Korsakoff's, alcohol-induced disorder

Explore whether mental health preceded or followed problematic drinking.

Sensible Drinking Strategies — For Those Not Ready to Stop

Keep a drinking diary — use MyDrinkaware or NHS unit calculator

Avoid rounds culture — feel empowered to decline

Alternate alcoholic and non-alcoholic drinks

Switch to lower ABV alternatives (e.g. session beers 3–4% vs premium lager 5–6%)

Eat before and during drinking

Have a spacer, not a chaser

Set a weekly alcohol spend budget

Hydrate alongside and after drinking

Plan alcohol-free days

Avoid drinking when distressed — use HALT check (Hungry, Angry, Lonely, Tired)

⚠ CLINICAL WARNING: Do Not Advise Abrupt Cessation Without Assessment

Risk

Sudden cessation in physically dependent drinkers can cause withdrawal seizures and **delirium tremens** — both potentially fatal.

Always

Assess physical dependence before any reduction or cessation advice. **If client reports** morning drinking, drinking to stop shaking, or history of withdrawal — **urgent medical assessment** is required.

Community harm reduction is NOT for physically dependent drinkers without medical oversight.

Harm Reduction for Dependent Drinkers — Medical-Led Approach

- **Supervised reduction** — medically supervised tapering using chlordiazepoxide or diazepam reduces withdrawal risk.
- **Nalmefene (Selincro)** — taken as needed before anticipated drinking for those not aiming for immediate abstinence.
- **Thiamine supplementation** — oral thiamine 100mg three times daily; IV Pabrinex for acute or malnourished presentations.
- **Wet housing and managed alcohol programmes** — reduce chaotic use, associated with improved health and social outcomes.

⚠ CRITICAL ALERT: THIAMINE (Vitamin B1) — Prescribe Proactively

All alcohol-dependent patients: oral thiamine 100mg three times daily.

Anyone presenting acutely, malnourished, or admitted for detox: IV Pabrinex (parenteral thiamine) – oral thiamine is insufficient as absorption is severely impaired in heavy drinkers.

Do NOT wait for signs of Wernicke's encephalopathy before prescribing parenteral thiamine — by that point irreversible brain damage may already have occurred.

NICE CG141

Alcohol and Driving

England and Wales: 80mg per 100ml blood (0.08g/100ml)

Scotland: 50mg per 100ml blood (0.05g/100ml) — introduced December 2014

- Approximately 2 units in one hour raises most people in England/Wales to approximately the legal limit — individual variation is significant
- There is NO reliable way to calculate when you are below the limit after drinking — the only safe choice is not to drive
- The morning after problem: alcohol consumed the previous evening may still be present the following morning, particularly after heavy sessions.

Alcohol and Medications: Dangerous Interactions

Medication	Interaction with Alcohol	Risk Level
Benzodiazepines (diazepam etc.)	Synergistic CNS/respiratory depression	VERY HIGH
Opioids (codeine, morphine, tramadol, heroin)	Synergistic respiratory depression; risk of **fatal overdose**	VERY HIGH
Disulfiram (Antabuse)	Severe **acetaldehyde accumulation** — nausea, flushing, collapse	VERY HIGH
Metronidazole	Disulfiram-like reaction — severe nausea, vomiting	HIGH
Warfarin	Increased bleeding risk; erratic anticoagulant effect	HIGH
Paracetamol (heavy drinking)	**Hepatotoxicity**; lower toxic dose threshold	HIGH
Antidepressants (SSRIs, TCAs)	Enhanced CNS depression; impaired efficacy	MODERATE-HIGH
Antipsychotics	Enhanced sedation; hypotension; **QT prolongation**	MODERATE-HIGH
Pregabalin/gabapentin	Enhanced CNS/respiratory depression	MODERATE-HIGH
NSAIDs (ibuprofen, naproxen)	Increased GI bleeding; gastric ulceration	MODERATE

Alcohol and Sexual Health — Routine, Non-Judgemental Assessment

- Heavy drinking is associated with reduced condom use, increased sexual partners, and higher STI and HIV transmission risk.
- Alcohol is involved in a high proportion of sexual assaults in the UK — address sensitively without victim-blaming language; refer to RASASC guidance.
- Signpost to local GUM clinics, BASHH (British Association for Sexual Health and HIV), and HIV testing.

Use a **trauma-informed approach** in all conversations about **alcohol** and sexual health.

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