

Trent Occupational Medicine Symposium

October 2016

“Why don’t they just stop drinking?”

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Scope of this talk

- When I grow up I'm going to be an alcoholic
- What works (and why AA is so useful)
- I want to help (screening tools, brief interventions and more)

Alcohol is a rich drug.

- Role of medication
 - Primary prevention
 - As substitute
 - For detox
 - To prevent consequences eg brain damage
 - To maintain abstinence or change in drinking behaviour
- Effects many neurotransmitter systems in the brain.
 - Many adapt with chronic drinking
 - Role in mediating different physical and psychological effects

Why drink?

Pleasure
Escapism
Euphoria
Rush



positive reward
or reinforcement

'feel normal'
Anxiolytic
Overcome withdrawal



negative
reinforcement

Loss of control



'urge', compulsion

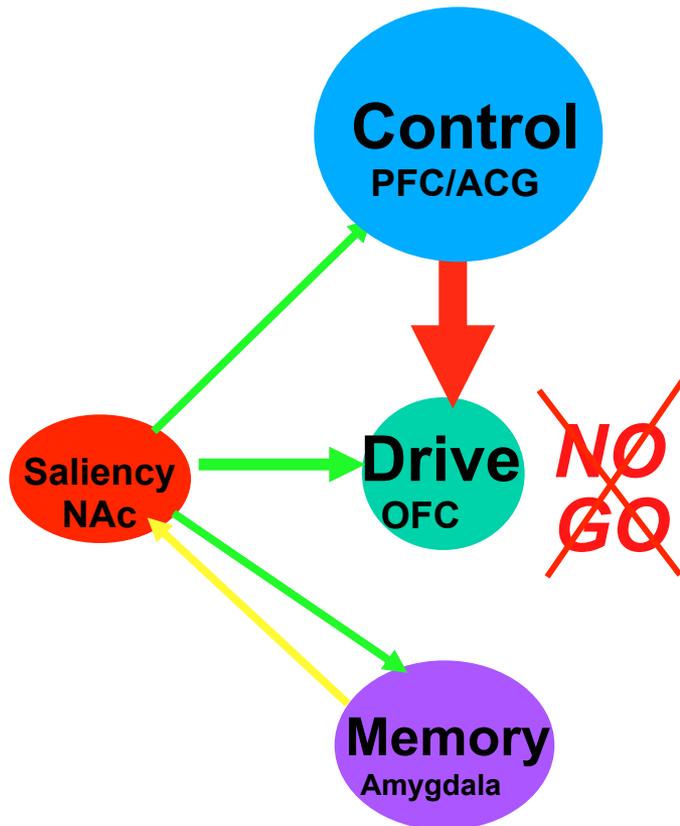
Alcohol addiction syndrome

(remarkably similar with drugs of abuse)

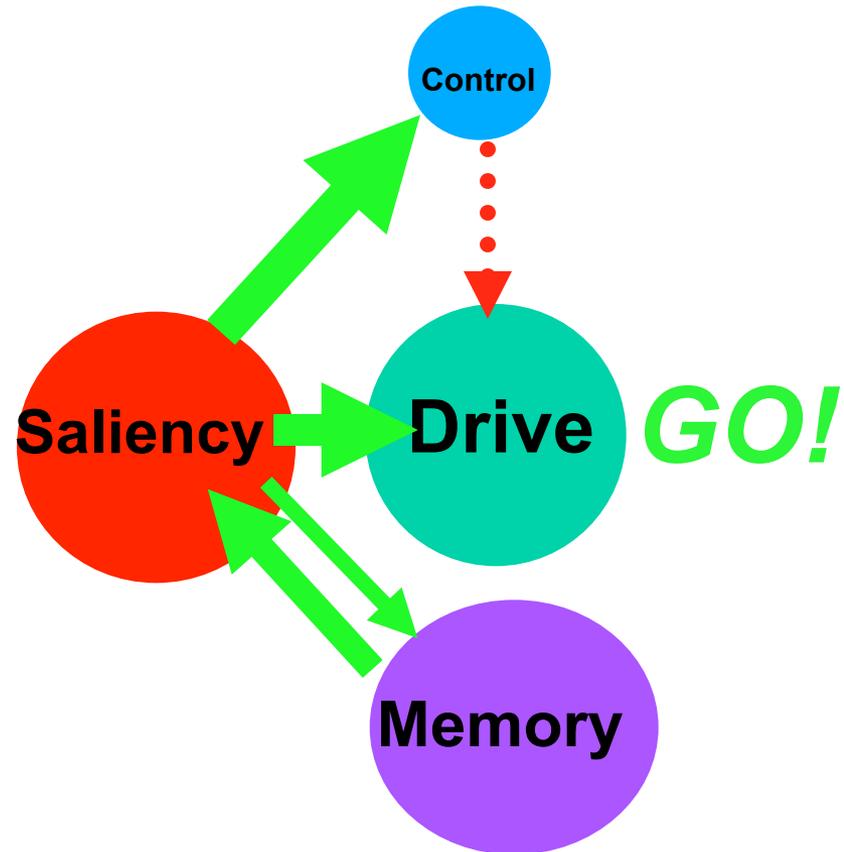
- Salience
- Mood modification
- Tolerance
- Withdrawal
- Conflict
- Relapse
- Similarity of relapse rates between alcohol / drugs
- Refining of mode of delivery to increase rate of drug/alcohol delivery to the brain

“Why don’t they just stop drinking?”

Non-Addicted Brain



Addicted Brain



Because Addiction Changes Brain Circuits

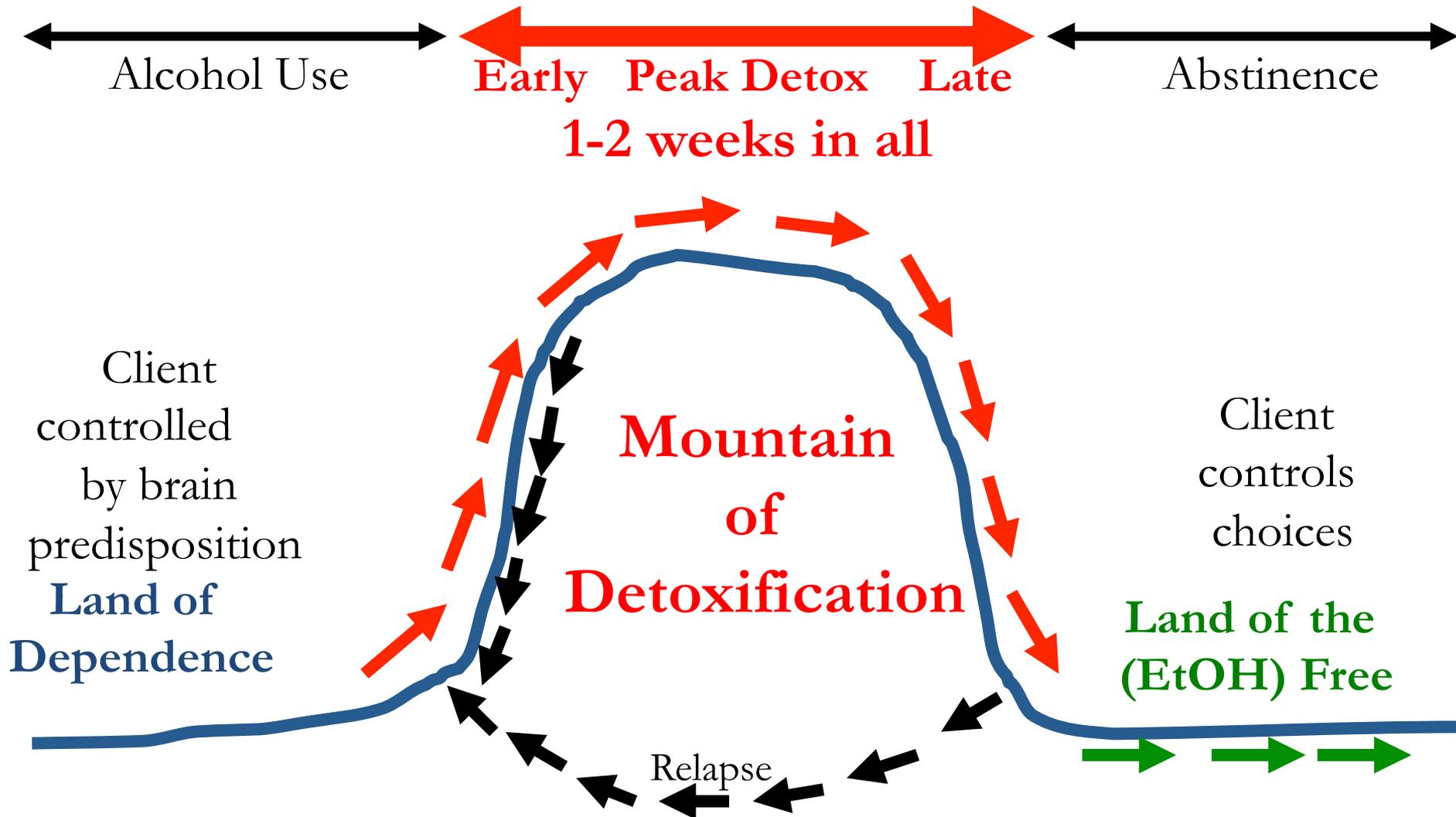
Adapted from Volkow et al., Neuropharmacology, 2004.

“Why don’t they just stop drinking?”

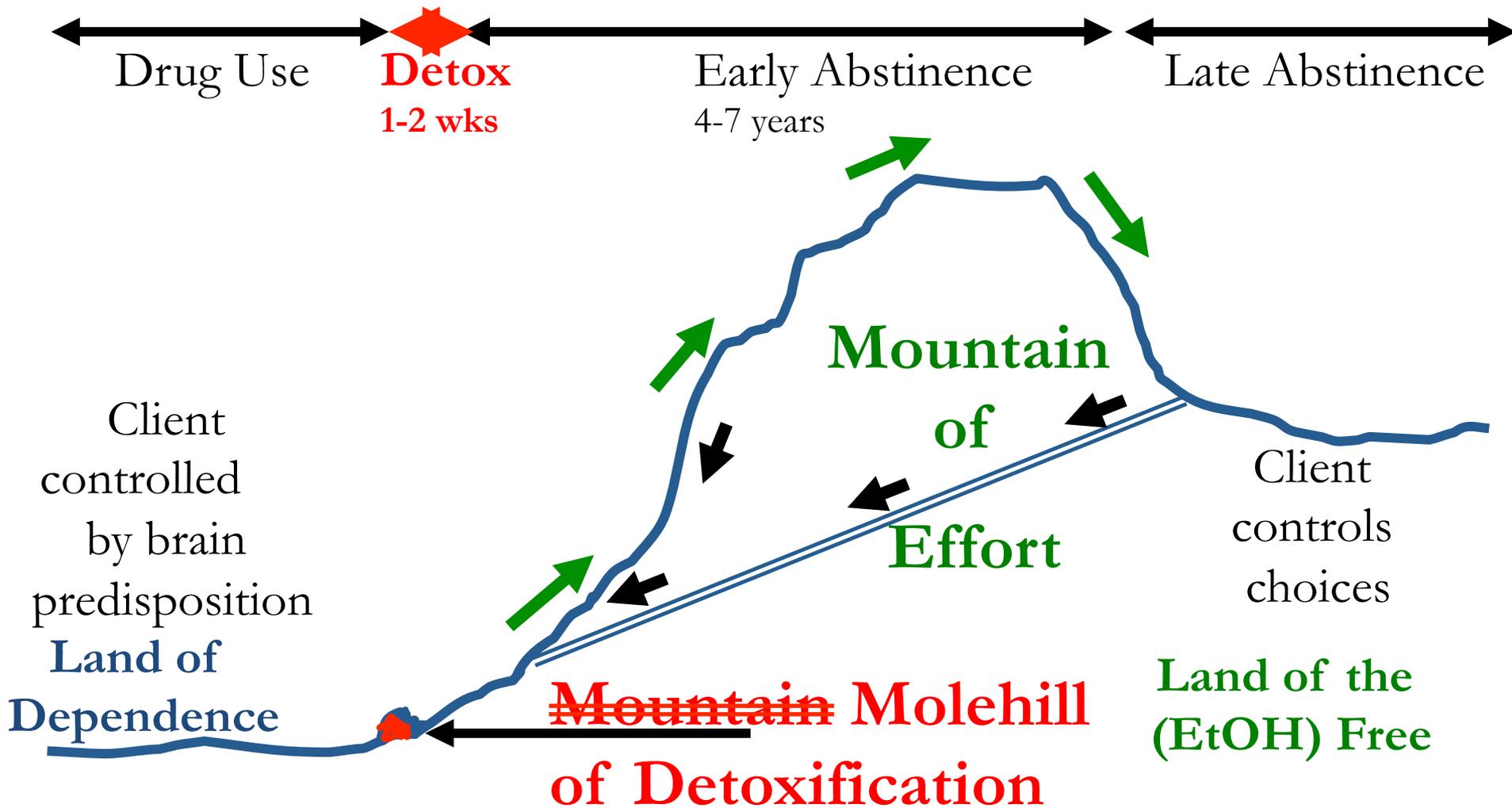
Biological adaptations +
environmental stimuli

= Very difficult to stop drinking
alcohol once you have a problem.

Perceived Progress in Alcohol Treatment



The Long Hard Road to Being Dry



Scope of this talk

- When I grow up I'm going to be an alcoholic
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No evidence of efficacy

- Anti anxiety medications
- Confrontational interventions
- Educational films/lectures
- General counseling
- Insight - orientated Psychotherapy

Good evidence of effectiveness psychological models

- Brief interventions
 - Minimal intervention
 - Brief motivational interviewing
- Self control training
- Stress management

Good evidence of effective pharmacological treatments

- Detoxification

Chlordiazepoxide

- Abstinence phase

Disulfiram (Antabuse)

Naltrexone (Nalorex)

Acamprosate (Campral EC)

Detox – what do I do?

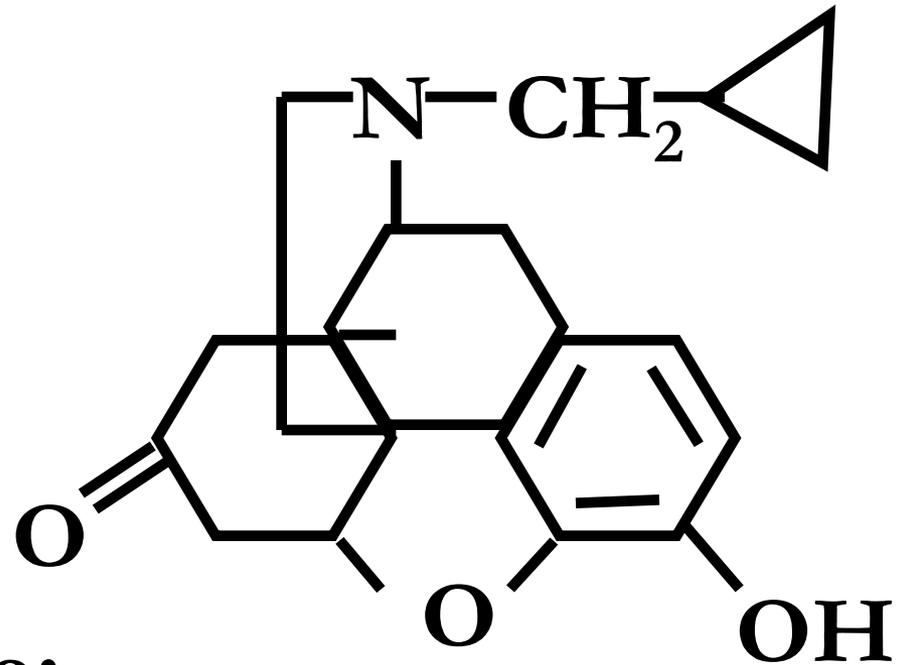
- They might die if ignored
- Give **Chlordiazepoxide**
 - lots then less over 4-8 days.
- **10mg /10 units every 4-6 hrs & PRN x2-3**
- Add **Acamprosate** to prevent Hippocampal cell death
- Add **Pabrinex** as WKS kills.

Acamprosate

- NMDA receptor partial agonist
 - In LOW glutamatergic activity: AGONIST
 - In HIGH glutamatergic activity: ANTAGONIST
(e.g. in alcohol withdrawal)
- Increases abstinence rates
 - ? ‘Anti-craving’
 - ? Neuroprotective

Naltrexone

Opiate antagonist



Alcohol dependence:

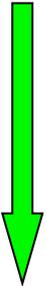
- Reduces 'pleasure' from drinking
- Reduces relapse rate
- Anxiolytic in some after 3-4 weeks

Opiate dependence:

- Directly blocks opiate drugs

Disulfiram

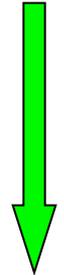
Alcohol



Alcohol dehydrogenase

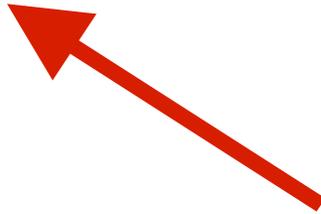
Acetaldehyde

(vomiting, flushing, palpitations, headache)



Aldehyde dehydrogenase

Acetate



DISULFIRAM

AA and SMART

- Free Social Replacement
- Empathic but hard-nosed support
- There for the long-term
- Different cafes
- You don't know till you've tried

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- I want to help (screening tools, brief interventions and more)

What does the patient actually think or believe is going on?

And the doctor?

What generally happens now?

Avoidance – don't mention alcohol

Evasion – talk around it

Dictation – tell people what to do

How to diagnose alcohol problems

Screening tools

Calculating alcohol units

Brief Intervention

Alcohol Screening...

...is a method of identifying alcohol consumption at a level sufficiently high to cause concern.

Screening tools

- AUDIT
- AUDIT-C
- FAST
- SASQ
- AUDIT - PC

Coulton S, Drummond DC, James D, Godfrey C, Bland JM, Parrott S, Peters T: Opportunistic screening for alcohol use disorders in primary care: comparative study. *British Medical Journal* 2006 , 332:511-7.

NICE public health guidance 24: Alcohol-use disorders: preventing harmful drinking, Evidence statement e5.1

AUDIT

- Developed by the WHO specifically for use in primary care, validated in more than 22 countries
- Gold standard in screening tools
- Sensitivity 92% and specificity 94% to identify increased, higher risk and possible dependent drinking

AUDIT

Questions	Scoring system					Your score
	0	1	2	3	4	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many units of alcohol do you drink on a typical day when you are drinking?	1 -2	3 - 4	5 - 6	7 - 8	10+	
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you failed to do what was normally expected from you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or somebody else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested that you cut down?	No		Yes, but not in the last year		Yes, during the last year	

Scoring: 0 – 7 Lower risk, 8 – 15 Increasing risk, 16 – 19 Higher risk, 20+ Possible dependence



AUDIT – C

Questions	Scoring system					Your score
	0	1	2	3	4	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many units of alcohol do you drink on a typical day when you are drinking?	1 - 2	3 - 4	5 - 6	7 - 8	10+	
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	

Scoring:

A total of 5+ indicates increasing or higher risk drinking.
 An overall total score of 5 or above is AUDIT-C positive.



Calculating units of alcohol

$$\text{Litres} \times \text{ABV} = \text{Units}$$

Examples:

1 Litre of 4% lager = 4 units

0.75 Litres of 12% wine = 9 units

Who is Brief Intervention for?

AUDIT	Definition	Intervention
0 - 7	Lower risk	Positive reinforcement
8 - 15	Hazardous	Brief Intervention
16 - 19	Harmful	Extended Brief Intervention
20 - 40	Possible dependence	Further Assessment

- Brief intervention is for hazardous and harmful drinking
- Usefulness is limited for dependent drinking

What is an Alcohol Brief Intervention?

“A **short, evidence-based, structured conversation** about alcohol consumption with a client to motivate and support the individual to think about and/or plan a change in their drinking behaviour in order to **reduce** their consumption”

NHS Scotland (2009)

Evidence of effectiveness

- Over 56 controlled trials of effectiveness, most in primary care
- At least 13 meta-analyses and/or systematic reviews, including 5 specifically focused on primary care and reaching favourable conclusions
- In the best meta-analysis so far (Moyer et al., 2002), small to medium aggregate effect sizes in favour of brief interventions emerged across different follow-up points
- At follow-up of 3-6 months or more, the effect for brief interventions compared to control conditions was significantly larger when individuals showing more severe alcohol problems were excluded from the analysis

Evidence of effectiveness cont...

- Estimates of NNT range from 8 to 12
- This compared favourably smoking cessation advice (NNT = 20)
- Some recent evidence of a reduction in mortality following SBI
- Also evidence of reductions in number of alcohol-related problems
- Effects of intervention still present after 4 years in one US study and after 10-16 years in a Swedish study, though an Australian study did not find an effect after 10 years

Why do brief interventions?

- Very brief or minimal (5-10 minute) interventions are as effective as longer ones.
- “The benefits of brief interventions in normal clinical settings are similar to those in research studies with greater resources.”

Cochrane Review of Brief Interventions in Primary Care;

What is an Alcohol Brief Intervention?

IT IS:

- Opportunistic
- Based on advice
- An Intervention lasting between 5 and 15 minutes
- Flexible –with or without formal follow-up

IT ISN' T

- Specialist Counselling
- Confrontational
- A route to abstinence
- A way to treat service users who are alcohol dependent

Essential Elements To Brief Intervention (FRAMES)

- **FEEDBACK** of personal risk or impairment
- Emphasis is on personal **RESPONSIBILITY**
- Clear **ADVICE** to change
- A **MENU** of alternative change options
- Therapeutic **EMPATHY** as a counselling style
- Enhancement of **SELF EFFICACY** or optimism

Miller & Sanchez (1993)

Listening Skills

A good listener:

- **Focuses and makes eye contact**
- **Nods and smiles**
- Asks open questions
- Reflects on what's been said
- Helps the individual explore issues
- Emphasises that responsibility lies with the individual
- **Allows silences**
- Uses a clear voice
- Summarises
- Concentrates
- Provides structure
- Avoids physical barriers
- **Checks and clarifies understanding**

A poor listener:

- Interrupts or talks too much
- Tells their own stories
- Gives their own opinion
- **Rushes in with solutions/ tries to 'fix'**
- Gives unsolicited advice or orders
- **Doesn't admit not knowing all the answers**
- Thinks of next question without listening
- **Concentrates on the problem and not the person**
- Fidgets or fiddles
- Looks away/looks bored/clock watches
- Is condescending or patronising
- Jumps to conclusions

Empathy

- IT IS'NT
 - Sympathy
 - Curing or telling
 - Rescuing
 - Constant
 - Questioning
- IT IS:
 - Active
 - Uninterrupted listening
 - Accepting the person
 - Challenging behaviour
 - About strengthening relationships

This is one unit...

For more detailed information on calculating units see - www.units.nhs.uk/



Half pint of regular beer, lager or cider



1 very small glass of wine (9%)



1 single measure of spirits



1 small glass of sherry



1 single measure of aperitifs

How many units did you drink today?

...and each of these is more than one unit



A pint of regular beer, lager or cider



A pint of "strong"/"premium" beer, lager or cider



Alcopop or a 275ml bottle of regular lager



440ml can of "regular" lager or cider



440ml can of "super strength" lager



250ml glass of wine (12%)



Bottle of wine (12%)

Risk	Men	Women	Common Effects
Lower Risk	No more than 3-4 units per day on a regular basis	No more than 2-3 units per day on a regular basis	<ul style="list-style-type: none"> •Increased relaxation •Sociability •Reduced risk of heart disease (for men over 40 and post menopausal women)
Increasing Risk	More than 3-4 units per day on a regular basis	More than 2-3 units per day on a regular basis	<p>Progressively increasing risk of:</p> <ul style="list-style-type: none"> •Low energy •Memory loss •Relationship problems •Depression •Insomnia •Impotence •Injury •Alcohol dependence •High blood pressure •Liver disease •Cancer
Higher Risk	More than 8 units per day on a regular basis or more than 50 units per week	More than 6 units per day on a regular basis or more than 35 units per week	

There are times when you will be at risk even after one or two units. For example, with strenuous exercise, operating heavy machinery, driving or if you are on certain medication.

If you are pregnant or trying to conceive, it is recommended that you avoid drinking alcohol. But if you do drink, it should be no more than 1-2 units once or twice a week and avoid getting drunk.

Your screening score suggests you are drinking at a rate that increases your risk of harm and you might be at risk of problems in the future.

What do you think?



The benefits of cutting down

Psychological/Social/Financial

- Improved mood
- Improved relationships
- Reduced risks of drink driving
- Save money

Physical

- Sleep better
- More energy
- Lose weight
- No hangovers
- Reduced risk of injury
- Improved memory
- Better physical shape
- Reduced risk of high blood pressure
- Reduced risk of cancer
- Reduced risks of liver disease
- Reduced risks of brain damage

Making your plan

- When bored or stressed have a workout instead of drinking
- Avoid going to the pub after work
- Plan activities and tasks at those times you would usually drink
- When you do drink, set yourself a limit and stick to it
- Have your first drink after starting to eat
- Quench your thirst with non-alcohol drinks before and in-between alcoholic drinks
- Avoid drinking in rounds or in large groups
- Switch to low alcohol beer/lager
- Avoid or limit the time spent with “heavy” drinking friends

What is your personal target?

What targets should you aim for?

Men

Should not regularly drink more than 3–4 units of alcohol a day.

Women

Should not regularly drink more than 2–3 units a day

‘Regularly’ means drinking every day or most days of the week.

You should also take a break for 48 hours after a heavy session to let your body recover.

This brief advice is based on the “**How Much Is Too Much?**” Simple Structured Advice Intervention Tool, developed by Newcastle University and the Drink Less materials originally developed at the University of Sydney as part of a W.H.O. collaborative study.

Does more intervention help more?

Brief Intervention:

- is often as effective as more extensive treatments
- should not substitute for specialist treatment
- Might serve as an initial treatment for severely dependent

Bien, T, Miller, W.R. and Tonigan, J.S. Brief interventions for alcohol problems: A review. *Addiction* 88: 315-336, 1993.

Moyer, A., Finney, J., Swearingen, C. and Vergun, P. Brief interventions for alcohol problems: A meta-analytic review of controlled investigations in treatment-seeking and non-treatment seeking populations. *Addiction* 2002 Mar;97(3):279-92.

When to refer, if there is a service...

- **High Level of Alcohol Related harm**
- Where the individual is an increasing or higher risk drinker, who has not responded to previous brief intervention and advice, and who wishes to receive further help with their alcohol problems.
- score of 20 or more on the full AUDIT questionnaire
- **Severe alcohol-related problems** or risk of such problems, for example:
 - Violence
 - Possible loss of job or family
 - **Obvious signs of physical dependence**, for example:
 - Withdrawal symptoms
 - Withdrawal relief or avoidance drinking
 - Very high tolerance
 - Memory blackouts

Conclusion

- 20% of adults in UK consume 80% of the alcohol
- 4.7% of the UK population over 16 maybe dependent on alcohol
- There are effective treatments but it is the individual's responsibility

Useful Links

- <http://www.nhs.uk/livewell/alcohol/Pages/Alcoholhome.aspx>
- www.alcoholconcern.co.uk
- www.drinkaware.co.uk
- www.alcoholics-anonymous.org.uk
- www.al-anonuk.org.uk
- www.bap.org.uk

**“The good physician
treats the disease,
but the great physician
treats the person.”**

William Osler

