

## How does your drinking compare?

The Drinkulator has been set up by the liver team at Southampton University Hospitals Trust (SUHT) for the many heavy drinkers that have no idea about the risks they are running themselves. In our liver department, we see many heavy drinkers who have silently developed end-stage liver disease and have suffered no symptoms from it until it is too late. The Drinkulator uses real life data to calculate your risk of liver disease and indicate whether or not you may be dependent on alcohol. It then suggests some positive things you can do to reduce the risks to your health.

This report is also being used as part of a research project at the University of Southampton and we would value your input by providing us with some feedback about the Drinkulator if you have completed it in the past (Details are at the end of this report).

For now, you may be interested to read that the results from over 15,000 Drinkulator entries have been collated and analysed and here is what we found!

### How to determine where you fit in our analysis

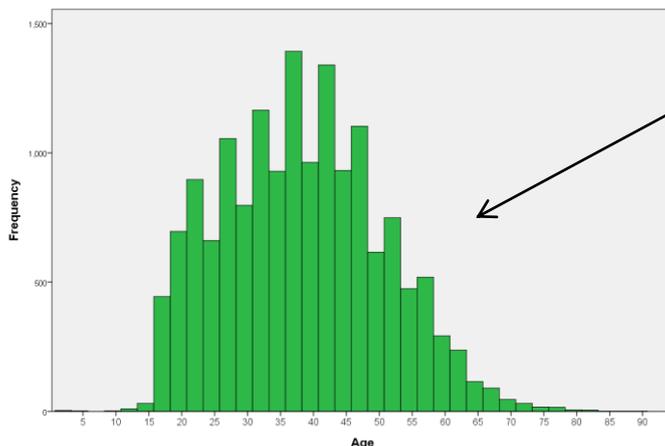
Unfortunately, we are unable to show you exactly where your responses lay in comparison to other people as all data was anonymous. However, we have written this report in a way that allows you to read off your own risks/ see how you compare to others of the same age and gender.

To help you with this, here's a rough guide on how many units are in different drinks:

- Small bottle of lager or alcopop = 1.5 units
- Can of lager or cider = 2.2 units
- Pint of 5% lager = 3 units
- Pint of very strong (8%) lager or cider = 5 units
- Small glass of wine (175ml) = 2.5 units
- Large glass of wine (250ml) = 3.5 units
- Bottle of wine = 9 units
- Pub measure of spirits = 1-1.5 units
- Bottle of spirits = 30 units

**1 unit = 10mls of  
pure alcohol**

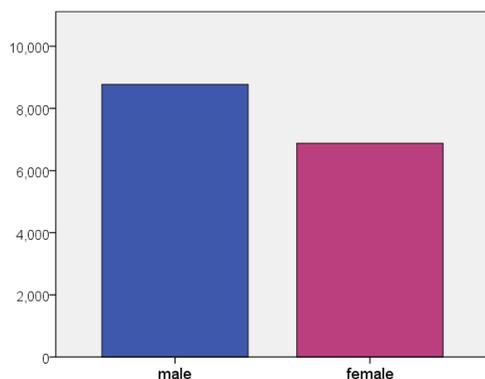
### Who completed the Drinkulator?



Most people were aged between 29 and 47.

This histogram demonstrates how many entries there were for each age group.

56% (8768) people were male



44% (6880) people were female

How many units do you drink per week?

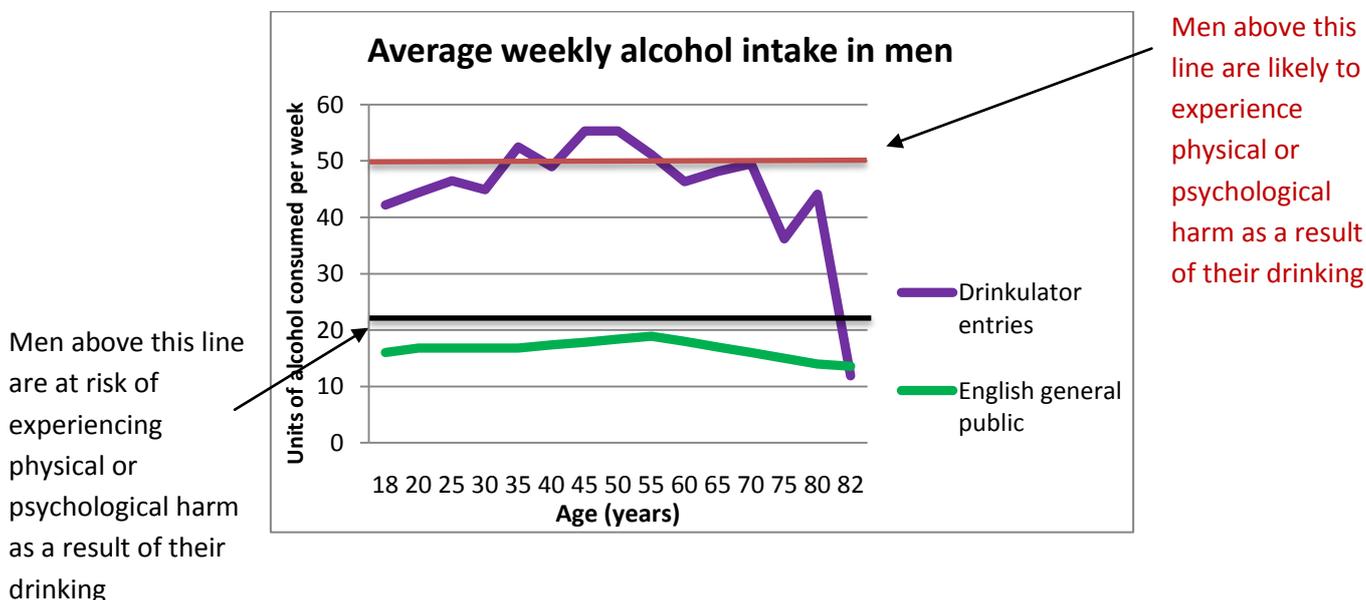
In order to minimise the risk of alcohol related harm to our physical or psychological health, it is recommended that **men** should drink up to **21 units per week** (with no more than 3-4 units per day) and **women** should drink up to **14 units per week** (with no more than 2-3 units per day). The types of problems that are more likely to occur with excess alcohol consumption include:

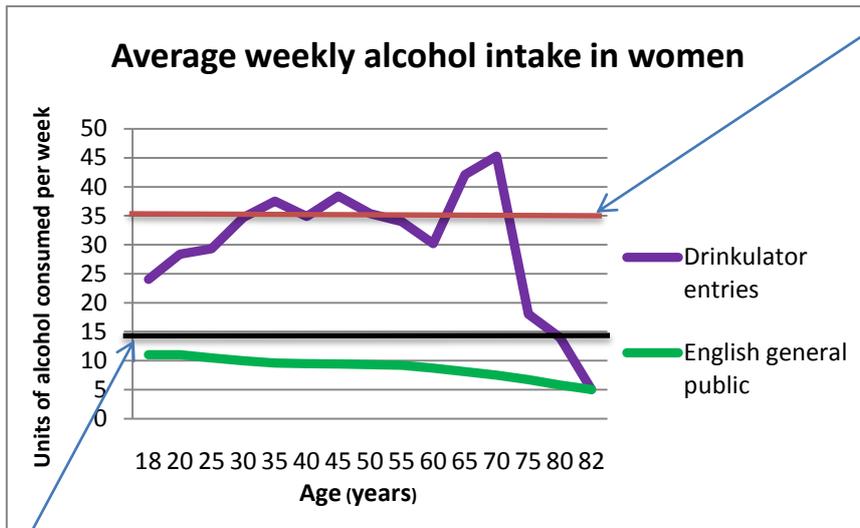
- **Scarring of the liver**
- **Cancer of the liver, breast and digestive tract**
- **Anxiety and depression**
- **Accidental injury**

Hazardous drinking (Black line)  
 = Drinking that puts you *at risk* of physical or psychological harm  
 (greater than 21 units per week for men or greater than 14 units per week for women)

Harmful drinking (Red line)  
 = Drinking that is *likely to result* in physical or psychological harm  
 (greater than 50 units per week for men, or greater than 35 units per week for women)

Of those that have completed the Drinkulator so far, virtually everyone was classified as a “hazardous drinker”. Furthermore, 36.6% of men and 37.2% of women were drinking “harmfully” and therefore were likely to experience some sort of alcohol-related harm in the future.





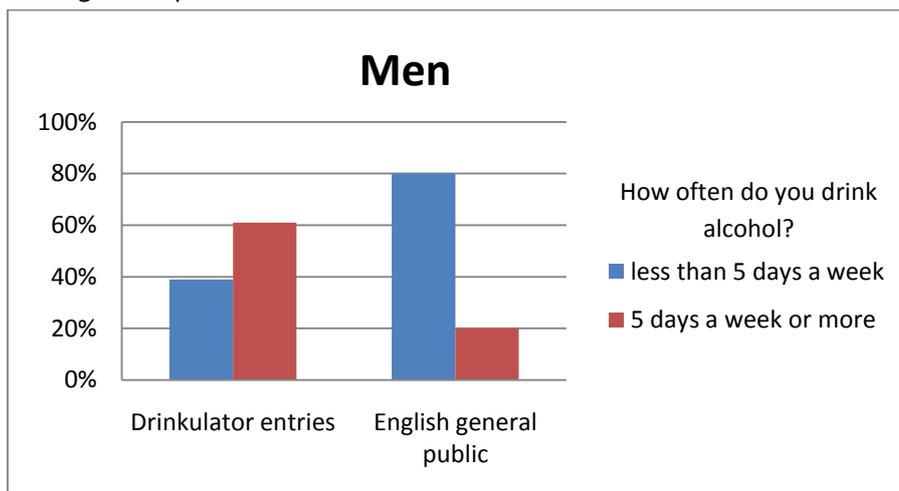
Women above this line are likely to experience physical or psychological harm as a result of their drinking

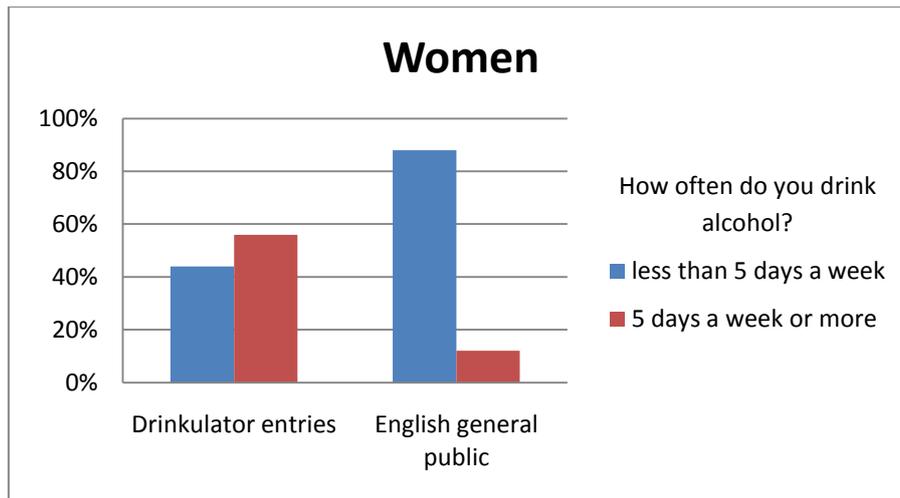
Women above this line are at risk of experiencing physical or psychological harm as a result of their drinking

NOTE: The curve showing alcohol consumption in the general public is an estimate based on data from the NHS Information centre document "Statistics on Alcohol: England 2010", which was published by the Health and Social Care Information Centre, London in 2010.

Do you drink alcohol on 5 days of the week or more?

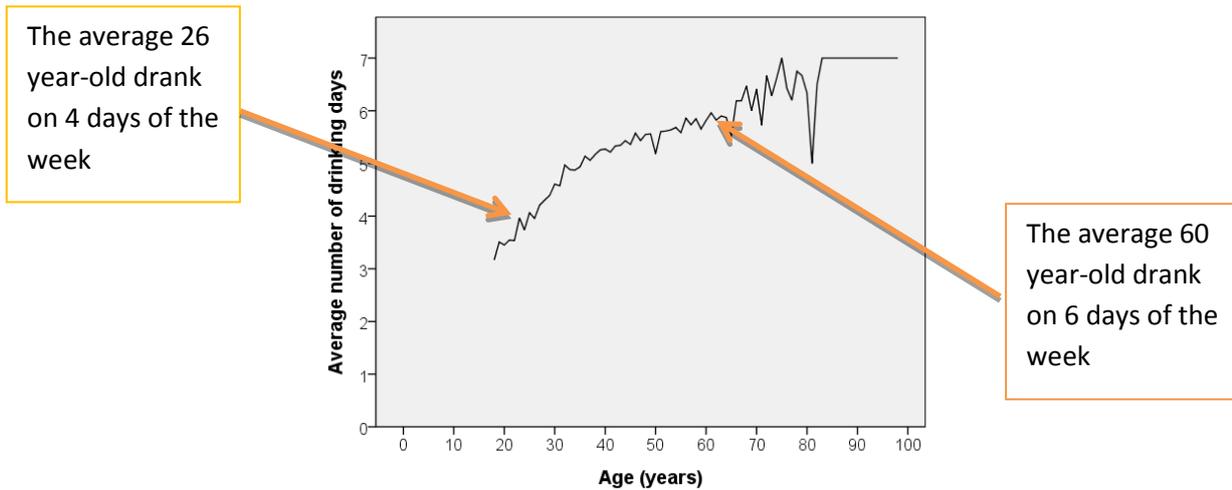
As you can see by the red bars in the graph below, Drinkulator participants drank alcohol much more regularly than the general public as a whole.





Our results also showed that as people **got older**, they tended to drink on **more days of the week**.

- The average 18-24 year old drank on 3 days of the week
- The average 25-44 year old drank on 5 days of the week
- The average 45-64 year old drank on 7 days of the week
- The average over 65 drank on 7 days of the week



*But is there any danger in this? Isn't it just the amount of alcohol I drink that matters?*

- Yes! It is a myth that binge drinkers are the group who are most at risk of liver disease. The drinker who consumes a lot of alcohol in a Friday or Saturday night but very little for the rest of the week, is giving their liver a chance to recover. Those that are drinking more than they should every day of the week are most at risk. **It is sustained consumption that causes serious liver damage.**

## Alcohol dependency

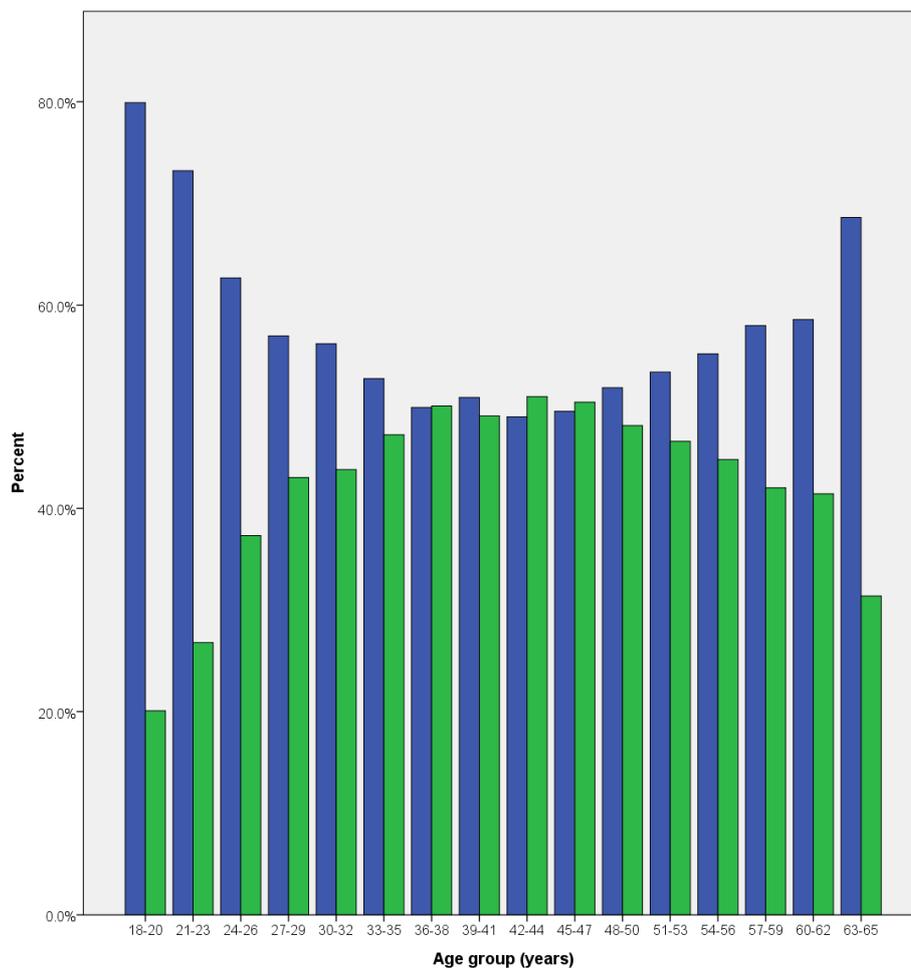
Alcohol dependence (addiction) is when your body becomes so used to drinking alcohol that you need to drink every day in order to prevent unpleasant withdrawal symptoms such as sickness, sweating, shaking and craving for alcohol.

Other warning signs that you may be dependent include

- Difficulty **cutting down** alcohol use
- Having a drink **first thing in the morning** to get you going
- **Neglect** of things you used to enjoy because of drinking

In addition to the health consequences of drinking heavily, becoming dependent on alcohol can be very destructive to your work life and relationships with other people.

The green bars in the graph below show the percentage of Drinkulator participants who are likely to be alcohol dependent (according to our screening test). The majority of people who were dependent on alcohol were between ages 33-36 and many of these people will sadly be developing serious liver disease and other problems already.



### Key

- Unlikely to be dependent on alcohol
- Likely to be dependent on alcohol

### Who was at most risk of developing liver disease in the next 10 years?

The liver is a vital organ in the production of proteins and energy for the food we eat. It is also responsible for neutralising the toxins that circulate in our blood. It has a lot of spare capacity which means that when things start to go wrong, you won't be able to notice until things are really bad.

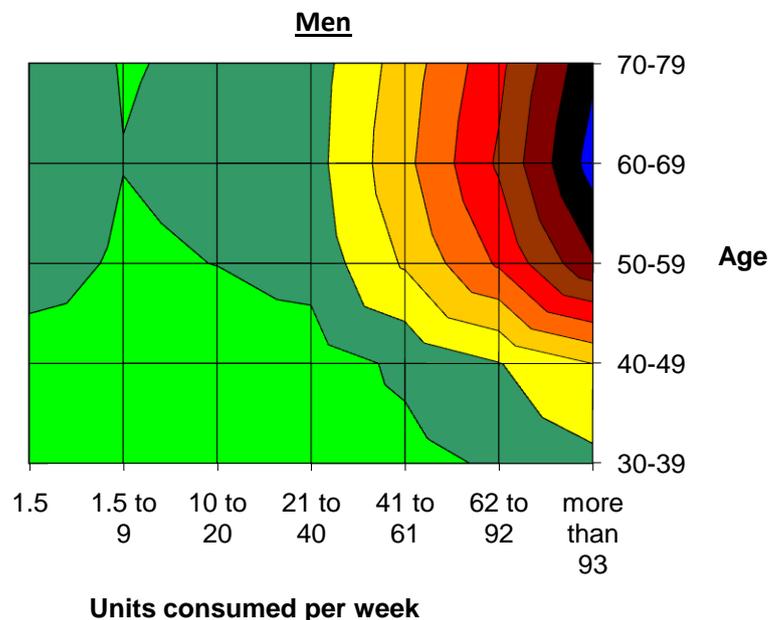
One thing many doctors worry about in heavy drinkers is scarring inside the liver, which prevents the liver cells from working properly. Initially, this scarring is reversible if the person stops drinking. However, if drinking is not stopped, the scarring becomes permanent (cirrhosis) and the only chance of cure is a liver replacement.

Not everyone who drinks too much will develop cirrhosis (just like not everyone who smokes will develop lung cancer) but...

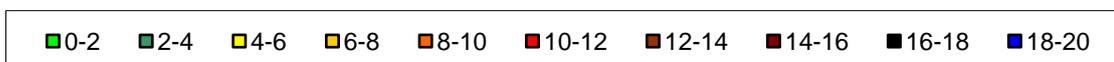
- If you drink about 5 or 6 units of alcohol (2/3 pints lager) each day for about 10 years, your chances of developing cirrhosis double.
- If you drink about 8 units every day (1 bottle wine or 3 pints of Stella), your chances of developing cirrhosis are increased ten times

In fact, it is currently estimated that there are 20-30,000 social drinkers who are currently developing alcohol-related liver disease without any knowledge of it.

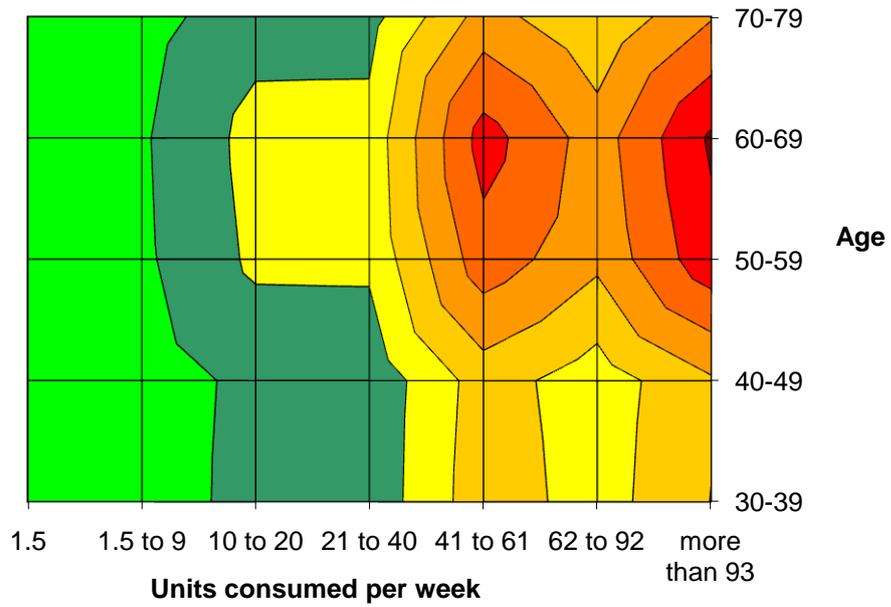
The following two graphs are for you to use your age and weekly alcohol consumption to estimate your risk of developing liver disease in the next 10 years.



**Percentage risk of developing liver disease in the next 10 years**



**Women**

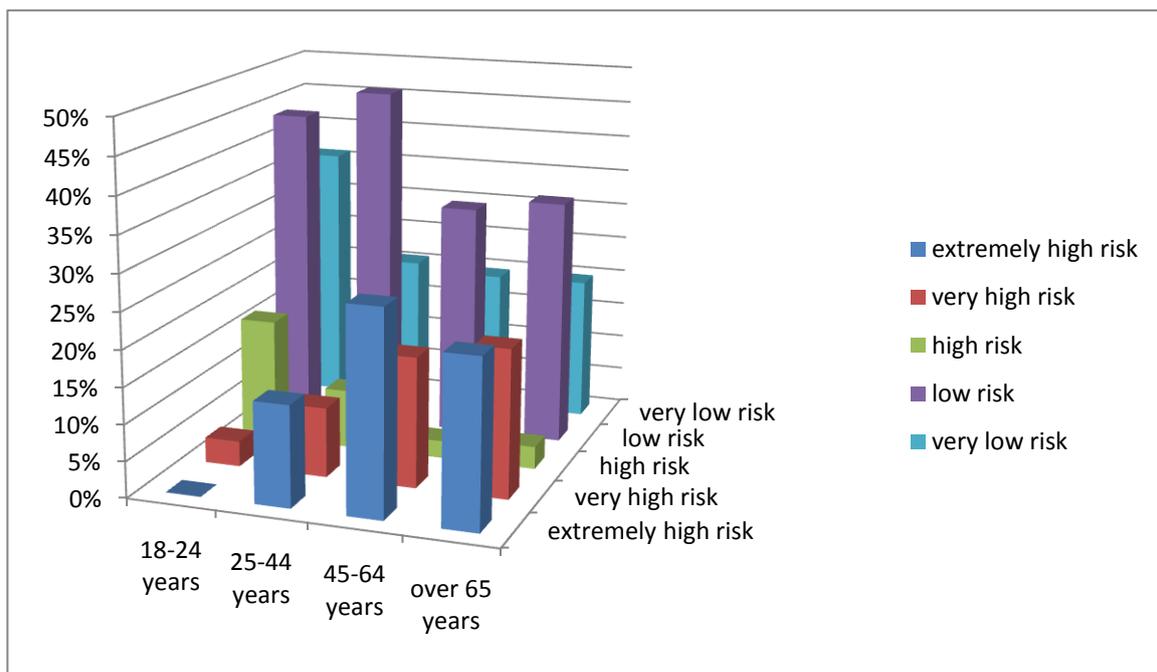


**Percentage risk of developing liver disease in the next 10 years**

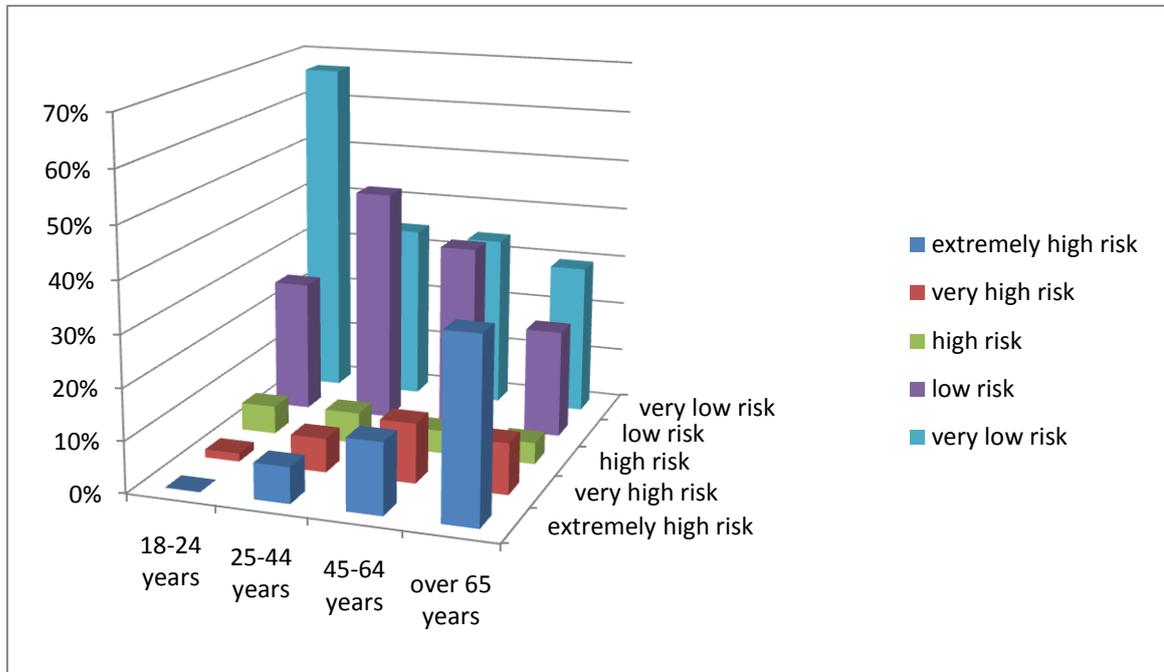


The graphs below show the percentage of Drinkulator participants who are at risk of developing liver disease in the next 10 years.

**10 year risk of developing liver disease in men of different ages who completed the Drinkulator**



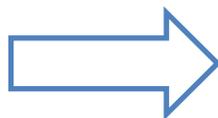
**10 year risk of developing liver disease in women of different ages who completed the Drinkulator**



And finally....What sort of people do we become when we get drunk?

As a result of drinking, *18-24 year olds* are more likely to

- have **unprotected sex**
- **regret** saying or doing something and
- have **problems remembering** what they did the night before
- **hit someone**



As *people get older* they are more likely to

- **Drive** a car while **over the limit**
- Drink **6 drinks or more** on a **daily basis**

We hope you've found this report interesting and insightful!

As part of a research project being carried out by a 4<sup>th</sup> year medical student at the University of Southampton we would be extremely grateful for your participation in an anonymous short survey regarding the Drinkulator. This can be found at <https://www.som.soton.ac.uk/quest/TakeSurvey.aspx?EID=981B4I8B038BLGmB419B6642B2KM>.

It should only take 2-3 minutes of your time.

We will be writing a public version of our report, which will be submitted to an academic journal for publication, and your feedback will be a very important part of this publication. Many thanks.