

Which drinker is most at risk of getting liver disease? The results of our scientific test will astonish you

By Angela Epstein

Liver disease is now the fifth biggest killer in the UK — with the number of people dying from it rising by 20 per cent over the past decade. However, there are often no warning signs until it is far advanced, so many of us could have the potentially fatal condition without even realising it.

Indeed, when the British Liver Trust recently offered members of the public on-the-spot screening, one in four people tested showed signs of early scarring.

'Most people die of liver disease after just their first or second admission to hospital for it, as they have not realised they were suffering with it — and their condition will be so far advanced. By the time they are seen, it is too late,' says Dr Martin Prince, consultant hepatologist at the Manchester Royal Infirmary.

These people took a test using FibroScan, a device that measures the stiffness of the liver. The technique is similar to ultrasound 'People think of cirrhosis — scarring of the liver — as a terminal condition. But if we address whatever causes the scarring at a reasonable stage, the progress can be halted, and in some cases might even be reversed.'

The British Liver Trust is now calling for early scanning for liver disease to be offered by the NHS.

To get a sense of what such screening might reveal, we asked a group of people to undergo testing using FibroScan, a device that measures the stiffness of the liver. It is this stiffness, explains Dr Prince, that suggests scarring.

The technique is similar to ultrasound. A probe is placed on the right side of the body, just underneath the ribcage, where the liver is located. The device uses soundwaves to measure the stiffness of the liver. A reading of between seven and 13 suggests some damage — more than 14 indicates cirrhosis.

We then asked Dr Prince to assess the test results — and there were some extraordinary findings...

OCCASIONAL DRINKER

Barry Radivan, 48, is a chiroprapist who lives in Prestwich, Manchester, with his wife and four children. His height is 5ft 3in and he weighs 15st (his BMI is 37, classified as 'obese')

Weekly alcohol intake: Two units

Liver stiffness reading: 10.9 —worrying, and there are signs of damage

Barry says: I'm shocked at how much damage being overweight has done to my liver — I thought alcohol was the real risk, and I'm only an occasional drinker, having just the odd drink at parties.

But I'm afraid when it comes to food, I've got no willpower. I have a sedentary job, sitting down all day. And when I come home from work I'm tired and hungry, so I fall on stodgy foods such as bread and potatoes to fill me up.

I also love biscuits and cakes and am always snacking. I know I'm overweight, and my wife, Sarah, has been on at me to start losing weight. I expected the screening results weren't going to be perfect as I know being overweight is unhealthy, but I seriously thought alcohol could do far more damage.

Hopefully this is going to be the trigger I need to get me to exercise more and to cut out all those fatty, sugary foods.

Expert comment: Barry's result was very worrying as it shows some scarring on the liver. The score isn't high enough to suggest cirrhosis yet, but he could be on his way unless he does something about it.

His BMI of 37 makes him scarily obese. It's a myth that liver disease is just about alcohol. Few people realise that lack of exercise and carrying too much weight is a serious issue, too, as it builds up fat in the liver.

Barry has a family history of diabetes, which also increases his risk of liver disease: diabetics are more likely to suffer with fatty liver relating to their weight.

He really needs to lose about 3st. Otherwise he is on course for some serious problems.

Barry hopes the test will be the trigger he needs to exercise more. Gilly was terrified of her result due to her weakness for alcohol

HEAVY DRINKER

Gilly Shaw, 46, is a personal assistant and lives in Wilmslow, Cheshire, with her son, Oliver, eight. She is 5ft 1in and weighs 9st 3lb (her BMI is 24, just within the 'healthy' band of 18.5 to 25).

Weekly alcohol intake: 40 units

Liver stiffness reading: 2.4 —surprisingly normal

Gilly says: I was absolutely astonished by this. I was really expecting the worst. In fact I did this test partly as some kind of wake-up call.

Although I try to exercise a few times a week at the gym, I have a major weakness for alcohol. I have a couple of glasses of wine every night, and more like a couple of bottles a night at the weekend. I'm afraid it's a culture I picked up when I worked as director of the London Boat Show. There was a lot of drinking, particularly at corporate events.

Alcohol is a big part of my life. My parents would enjoy a drink — it was just part of our family life — and I suppose in my 20s and 30s I didn't think of drink as seriously dangerous.

I'm also the heaviest weight I have ever been, which I suppose doesn't help. But I was terrified of doing this test, as I'd have to confront the results of my drinking at last.

While the results are surprisingly low, I've discovered I was drinking far more than I realised. I thought a glass of wine was one unit but Dr Prince explained that it depends on the size of the glass — and I drink large ones. I've probably been having nearly 40 units a week — almost three times the recommended 14 for women. Cutting back is going to be a struggle.

But I realise I've been lucky so far. And hopefully I'll be able to lose some weight, too.

Expert comment: Gilly's results are exceptionally low, which is very surprising. But every liver reacts differently to alcohol intake — and this might be genetic.

Gilly has been fortunate that hers hasn't been overly affected. Her liver appears to be in good health but that isn't to say things will stay this way and that her liver won't start suffering with scarring as time passes.

Liver cells have the capacity to regenerate quickly, though this slows as we get older. However, if the liver becomes severely damaged, there comes a point at which it's no longer able to repair itself.

If Gilly wants to ensure her liver stays healthy, she must cut back on her drinking and have at least three alcohol-free days a week.

Her BMI is also just within range, over 25 is considered overweight — and excess weight is another factor for liver damage.

While in the Army, Paul used to drink heavily, up to 20 pints a night. Maxine barely drinks during the week, but binges at the weekend

REFORMED DRINKER

Paul Wilcox, 33, lives in Manchester with his wife Jennifer, 36, and their son Eamonn, 18 months. Paul runs the We Are Adventurers forest school for children, and is 6ft 1in and weighs 15st 2lb (BMI 20).

Weekly alcohol intake: 35 units

Liver stiffness reading: 3.1 — surprisingly normal

Paul says: I used to be in the Army, serving in logistics in Cyprus, and there was a huge drinking culture on our days off. We would go out at 7pm, not get back until 6am and be drinking all night, pint after pint. However, since leaving the Army and settling down, I look after myself a lot more. I run five or six times a week and eat a healthy, low-fat diet, though I still drink a bit. I'm trying to cut back because my wife is pregnant and she doesn't drink now.

I was still scared of the damage those nights drinking 20-odd pints or so in Cyprus might have stored up. But now I have my results, I'm really glad I did this test.

And while I'm thrilled that they don't suggest any liver damage, Dr Prince says it's just a matter of time. I have a young family, and have just set up a new business, so I'd be mad to carry on putting myself at risk.

Expert comment: Paul says he used to be a heavy drinker but surprisingly there's no current sign of damage. This may be down to genetics and the fact that the liver can recover given time. He is also mitigating his risk with regular exercise, which keeps his weight down, and eating a healthy diet — two of the key elements to keeping your liver healthy.

But his current alcohol intake is way over the recommended weekly intake of 21 units for men, and if he continues like this as he ages, there could be significant issues in years to come.

BINGE DRINKER

Maxine Riley, 30, is single and a marketing executive from Chorlton, Manchester. She is 5ft 8in tall and weighs 10st 5lb (BMI 22).

Weekly alcohol intake: 30 units

Liver stiffness reading: 4.6 — normal, for the moment

Maxine says: I was a lot sportier in my teens and 20s. Now I get very little exercise, mainly because I have a busy job, I don't have the time and I'm not that motivated.

I barely drink at all during the week — maybe the odd glass — but I'm afraid I make up for it at the weekend, with a couple of bottles of wine and a few vodka and tonics (sometimes as much as 15 units in one day). I feel I deserve it after a long, alcohol-free week. But my diet is healthy. Aside from the drinking, what worried me before the test was the fact my mum suffers from an auto-immune condition linked to her liver.

It's not hereditary but I was scared the scan would discover some problem. So it was a huge relief to find out that my results are still in the safe range. I honestly expected the worst. I'm just going to have to try really hard not to give in to over-indulgence at the weekends.

Expert comment: Maxine is a binge-drinker but the reason her score is below seven is down to the fact she is still young and, as a weekend drinker, her liver has five days to rid itself of the fat it accumulates during her drinking days.

If you have several alcohol-free days, the effect of the drinks you do have can be removed without serious effect on the liver.

But if Maxine continues to drink this way she will eventually cause serious damage. While her BMI is healthy, drinking can also cause weight gain, and as she doesn't appear to exercise much, that could be a problem.

Steve's weak spot is homemade wine and Suzie has never been a drinker but still wanted to do the test

HOME BREW DRINKER

Steve Landin, 53, is single and a consultant in community research projects. He lives in Whalley Range, Manchester, and is 5ft 6in and weighs 8st 7lb (BMI 19).

Weekly alcohol intake: 35 units

Liver stiffness reading: 5.8 — cause for concern

Steve says: I thought my score would be lower. I'd like to think I'm pretty healthy — I take great care about my diet, eating only home-cooked dishes using fresh produce (I'd never dream of having junk food or takeaways). And though I don't exercise, I've always been slim.

My real weak spot is homemade wine — I love to make wine and have up to three-quarters of a bottle a night. But because it's only ten per cent alcohol (commercially sold varieties are usually around 13 to 14 per cent) I thought it was better for me.

The problem is that once you've made wine, the temptation is to drink it. But Dr Prince said my age means my risk of a heart attack increases anyway, and alcohol adds to that risk, so that's a good motivation to cut back on drinking.

Expert comment: Steve is nudging towards the critical seven mark.

Though his wine is relatively low in alcohol, it is still an alcoholic drink. And the amount of wine he's drinking means he's also storing up problems for heart disease, since alcohol is a risk factor for high blood pressure and raised cholesterol as well as having some direct effect on the heart muscle.

If he wants to carry on drinking, he must have three alcohol-free days a week to give his liver a chance to recover — or switch to alcohol-free wine.

NEAR-TEETOTAL

Suzie Cohen, 57, is a legal secretary and married with four children. She lives in Whitefield, Manchester, and is 5ft 4in and weighs 8st 7lb (BMI 20)

Weekly alcohol intake: 0 units

Liver stiffness reading: 3.8 — normal

Suzie says: I've never been a drinker — if I have just one glass of wine, it goes to my head, so it's better to avoid it altogether. I'm also not a big eater.

I don't do any formal exercise but I am always on the go. I am, however, getting older and there's always a worry that things in your body could start going wrong, which is why I wanted to do this test. So it was encouraging to see that despite being the oldest tested here, I still have a healthy result.

Expert comment: Suzie is the perfect candidate. Ageing may be a risk factor with liver disease but thanks to her healthy lifestyle, her score is very good — better than Maxine's, who is almost half her age. A healthy older liver is similar to a healthy younger liver!