around 6.5 mmol/l (30 mg/100 ml), the risk of unintentional injury is higher than in the absence of alcohol, although individual experience and complexity of task have to be taken into account. In a simulated driving test, for example, bus drivers with a blood alcohol concentration of 10.9 mmol/l (50 mg/100 ml) thought they could drive through obstacles that were too narrow for their vehicles. At 17.4 mmol/l (80 mg/100 ml)—the current legal limit for driving in the United Kingdom—the risk of a road traffic incident more than doubles, and at 34.7 mmol/l (160 mg/100 ml), it increases more than 10-fold.

People become garrulous, elated, and aggressive at concentrations above 21.7 mmol/l (100 mg/100 ml) and then may stop drinking as drowsiness supervenes. After effects (“hangover”) include insomnia, nocturia, tiredness, nausea, and headache.

If drinking continues, slurred speech and unsteadiness are likely at around 43.4 mmol/l (200 mg/100 ml), and loss of consciousness may result. Concentrations above 86.8 mmol/l (400 mg/100 ml) commonly are fatal as a result of ventricular fibrillation, respiratory failure, or inhalation of vomit (this is particularly likely when drugs have been taken in addition to alcohol).

The figure showing the metabolism of ethanol is adapted from C S Lieber et al. *N Engl J Med* 1978;298:356. The figure showing the effect of alcohol on behaviour is adapted from Transport and Road Research Laboratory. *The facts about drinking and driving*. Crowthorne: Berkshire, 1983. The figure showing concentrations of alcohol in the blood in heavy, social, and naïve drinkers is constructed from figures supplied by K Lewis *BMJ* 1987;295:800–1.

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Risks associated with concentrations of alcohol in the blood

Further reading

- Lewis KO. Back calculation of blood alcohol concentration. *BMJ* 1987;295:800–1
- Lieber CS, Salaspuro MP. Alcoholic liver disease. In: Millward-Sadler CHM, Wright R, Arthur MJP, eds. *Wright's liver and biliary disease*, 3rd ed. London: Saunders, 1992:899–964
- Paton A. The body and its health. In: Cooper DB, ed. *Alcohol use*. Oxford: Radcliffe, 2000:25–38.

When I use a word

Medical emoticons

On 19 September 1982 a computer scientist at the Carnegie Mellon University in Pittsburgh, Scott E Fahlman, sent an email message to his colleagues, who had been discussing how to mark jokes in an email text:

“I propose the following character sequence for joke markers: :-). Read it sideways. Actually, it's probably more economical to mark things that are NOT jokes, given current trends. For this, use :-(”

This is generally agreed to be the first example of what are now called emoticons, or smileys, the little sets of symbols that are used as markers in email messages. In fact, there is a pre-history of such symbols. According to the *Official Smiley Dictionary* (www.smileydictionary.com), in 1972 a French journalist called Franklin Loufrani invented a picture consisting of a bubble with two dots for eyes and a curve for a smiling mouth, thus ☺; he called it a smiley and used it and derivatives to mark articles in *France soir* and other newspapers.

Whatever their origin, emoticons are popular and have spawned explanatory dictionaries and websites. Here are my suggestions for some medical emoticons. Remember to hold the page sideways.

♂:-	Male pattern baldness	:-(#)	Tonsillitis
@:-	Alopecia areata	:-)	Mania
8-)	Myopia	:-((	Depression
%-)	Strabismus	:-\$	Bipolar disorder
!-)	Ptosis	:-(#	Torticollis
::- -)	Diplopia	€:-)X	Harley Street doctor
8-)) 8	Graves' disease	€:-) :-	Man
¶ -(	Migraine	#:-)3	Woman
:-●(	Coryza	€:-(3	Gynaecomastia
:-#(	Broken nose	#:-) O	Pregnancy
:o(	Rhinophyma	€:-(O	Ascites
:-	Scleroderma	€:-(O	Hydrocele
:- = = =	Marfan's syndrome	€:-(↗	Impotence
:-£	Congenital syphilis	€:-)) \	Viagra
:-/	Bell's palsy	€:-((\	Priapism

There was a time when doctors would write abbreviations and acronyms, such as GOK (God only knows) or TALOIA (there's a lot of it about), in patients' notes. Now instead we can draw emoticons. I expect to see this happen before too long.

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