

to poorer perception and judgement. Reduced channel capacity (limiting the amount of information which can be handled at one time) makes it increasingly difficult to perform complex manoeuvres such as efficient judging of entry into a busy roundabout and, at the same time, needing to be aware of warning and direction signs.

O'Neil *et al.*, in this issue (p 199), draw attention to the special problem of patients with signs of dementia continuing to drive in spite of getting lost, and having accidents. Concerned carers reported examples of impaired driving ability like driving the wrong way round roundabouts, up the wrong lane of a dual carriage-way and through neighbour's front gardens.

The effects of an accident in terms of the injury caused also change with age. For a given impact an older person will more commonly suffer a fracture or other serious trauma and a given injury is more likely to cause death; the curves for injuries and for fatalities thus rise with age even more steeply than for accident involvement.

The Automobile Association (AA) recently sponsored a questionnaire study of the views of current elderly drivers. Many of them recognized increasing difficulty with coping with traffic. They were not, however, commonly aware of difficulty at junctions though this is a more frequent site for their accidents than for younger drivers. Many had made sensible modifications to driving habits - reducing night driving, for instance and planning journeys to avoid heavy traffic. Many recognized that at some time they would have to give up driving and to a large extent would rely on their family doctor to advise them when the time had come. The occasion of the routine health assessment of older patients could be a good opportunity for doctors to give such advice. *Medical Aspects of Fitness*

*to Drive*, published by the Medical Commission on Accident Prevention (MCAP)<sup>1</sup>, contains useful advice in dealing with potentially difficult doctor/patient relationships which may arise. There remains, however, scope for advice from relatives and friends, as well as the family doctor, as described in the booklet *Helping the Older Driver*<sup>2</sup> produced by the MCAP and the AA.

It would be helpful to know more about the circumstances and reasons which cause people to give up driving. Drivers may recognize that they have lost their confidence, relatives may be concerned about safety, the doctor may give advice or the licence may be withdrawn following an accident. The loss of mobility may be felt as a severe blow to personal liberty but hired transport may be quite a valid alternative. Calculations in *Helping the Older Driver* show that the cost of taking taxis can break even with the costs of running a car at about 4000 miles per annum - a distance commonly not exceeded by elderly drivers. Often, once the decision is made, there is relief at no longer owning and maintaining a car, having to drive it because it is depreciating and, by using a taxi, no longer having to find somewhere to park on the shopping trip.

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#### References

- 1 Raffle PAB, ed. *Medical aspects of fitness to drive*. London: Medical Commission on Accident Prevention, 1985
- 2 Medical Commission on Accident Prevention and Automobile Association. *Helping the older driver*. Basingstoke: Automobile Association, 1991

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## The measurement of fatigue and chronic fatigue syndrome

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Fatigue remains as elusive a human experience as ever. At the turn of the century fatigue was almost an obsession of doctors, scientists, writers and even politicians. The scientists believed they could measure it, the doctors they could treat it, the writers describe it, and the politicians prevent it<sup>1</sup>. Many confidently expected that fatigue could be eliminated from schools, factories, armies, and even society. That it had to be dealt with was not in doubt, since many authorities believed that if not checked, fatigue, the inevitable consequence of modern life in all its forms, would somehow destroy the nation's health and its future. Perhaps only the writers achieved their objective<sup>2</sup> - certainly, the descriptions of fatigue and exhaustion in the turn of the century literature, and even in the medical journals, are far richer and detailed than the leaden descriptions which we now encounter.

The inevitable result of this extraordinary interest in all things fatiguing was a reaction, as a sense of

disillusionment set in. Scientists couldn't measure it<sup>3</sup>, doctors couldn't cure it<sup>4</sup> and politicians couldn't prevent it<sup>1</sup>. Fatigue illnesses, once the backbone of any self-respecting medical text, disappeared from the indexes<sup>5</sup>. Fatigue laboratories closed<sup>6</sup>, and interest dwindled.

Now, of course, fatigue and fatigue syndromes are undergoing a renaissance<sup>5</sup>. Stimulated by the rediscovery of fatigue syndromes, especially those arising after infective episodes, a rapidly growing literature is emerging on all aspects of these 'new' diseases. One welcome result has been a revival of interest in the symptom at the heart of these conditions, fatigue itself. In this issue two papers (p 191 and p 195) are presented describing new work on the measurement of this elusive symptom. Both start from the premise that although many might agree that 'one advance that would clarify this issue would be the ability to document weakness in patients objectively'<sup>7</sup>, this is an unattainable Holy Grail. Instead, researchers should be concentrating on reliable ways of measuring subjective fatigue, which is what the patient complains of. Both papers use visual analogues to measure the individual's sense of fatigue throughout the day.

The results confirm previous observations that in normal subjects fatigue and energy are not constant, and fluctuate throughout the day. Of course, this is something that we all know from our personal experience - the 'post lunch dip' is familiar to all those with regular 2 o'clock clinics. Indeed, research from another group interested in tiredness has recently confirmed another intuitive observation—that such a dip can be alleviated by a cup of coffee<sup>8</sup>. Wood and Magnello also confirm another piece of folklore - students, at least those in Oxford, are essentially night people.

In their second paper Wood *et al.* turn to the controversial topic of chronic fatigue syndrome (CFS). Our views of this elusive, but disabling, condition, are currently in flux. From an early preoccupation with possible disorders of the neuromuscular apparatus attention has now shifted to the role of central factors, including affective disorder and central nervous system disorder (although the two are by no means mutually exclusive). At least seven studies have now confirmed that high rates of operationally defined mood disorders exist in hospital samples of CFS patients<sup>9</sup>, although the significance of such observations remains unclear<sup>10</sup>. We know that diurnal variation is a prominent, albeit not pathognomic, feature of mood disorder<sup>11</sup>, and thus one might predict a similar finding in CFS. However, this is not the case. Interestingly, evidence from other sources is also showing that although CFS does resemble major depression in many ways, and symptomatically may be indistinguishable<sup>12,13</sup>, there are also biological differences, including neuroendocrine function<sup>14</sup> and event-related potentials<sup>15</sup>. Previous views that CFS is simply a form of somatized depression are no longer tenable.

Most studies of CFS show differences between cases of CFS and normals. However, Wood *et al.* are reporting something rather more unusual. They show that although diurnal variation on mood and energy occurs in CFS, it is similar to that occurring in normal controls. Thus, when designing interventions of any sort to increase the activity of patients, which must be the goal of any treatment, it would seem plausible to arrange these at the most propitious time to maximize the chance of success.

Of course, some will not believe these findings, or this editorial. History teaches us that one of

the few facts about which there can be little disagreement is that doctors have always disagreed about chronic fatigue, and show few signs of ceasing to do so<sup>5</sup>.

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#### References

- 1 Rabinbach A. *The human motor: energy, fatigue and the origins of modernity*. New York: Basic Books, 1991
- 2 Lutz T. *American nervousness*. Brunswick, New Jersey: Rutgers University Press, 1991
- 3 Muscio B. Is a fatigue test possible? *Br J Psychol* 1921;12:31-46
- 4 Buzzard E. The dumping ground of neurasthenia. *Lancet* 1930;i:1-4
- 5 Wessely S. The history of the postviral fatigue syndrome. *Br Med Bull* 1991;47:919-41
- 6 Forbes W. Problems arising in the study of fatigue. *Psychosom Med* 1943;4:155-7
- 7 Kennedy P. Postviral fatigue syndrome: current neurobiological perspective. *Br Med Bull* 1991;47:809-14
- 8 Smith A, Rusted J, Savory M, Eaton-Williams P, Hall S. The effects of caffeine, impulsivity and time of day on performance, mood and cardiovascular function. *J Psychopharmacol* 1991;5:120-8
- 9 David A. Postviral fatigue syndrome and psychiatry. *Br Med Bull* 1991;47:966-88
- 10 Ray C. Chronic fatigue syndrome and depression: conceptual and methodological ambiguities. *Psychol Med* 1991;21:1-9
- 11 Carpenter L, Kupfer D, Frank E. Is diurnal variation a meaningful symptom in unipolar depression? *J Affective Disord* 1986;11:255-64
- 12 Levine P, Kreuger G, Straus S. A postviral chronic fatigue syndrome: a round table. *J Infect Dis* 1989; 160:722-4
- 13 Wessely S, Powell R. Fatigue syndromes: a comparison of chronic "postviral" fatigue with neuromuscular and affective disorders. *J Neurol Neurosurg Psychiatry* 1989;42:940-8
- 14 Demitrack M, Dale J, Straus S, *et al.* Evidence for impaired activation of the hypothalamic-pituitary adrenal axis in patients with chronic fatigue syndrome. *J Clin Endocrinol Metab* (in press)
- 15 Prasher D, Smith A, Findley L. Sensory and cognitive event-related potentials in myalgic encephalomyelitis. *J Neurol Neurosurg Psychiatry* 1990;53:247-53