symptoms showing that their patient had moved into the atrium of death. At this threshold nature itself broke the healing contract, and the healer had to acknowledge his limits. At such a moment, withdrawal was the proper service a physician rendered to his patient's good death.

The white-garbed doctor struggling with death does not appear in graphic art until late in the 19th century. Instruction on how to discriminate between the curable and incurable did not disappear from American medical schools until after the Flexner Report of 1910.² While doctors concentrated on the fight against death, the patient became a residual object, then a technological construct. Today, one asks: is there still an autonomous self capable of the act of dying?

In 1995, I cannot blame medicalisation for this development. As with music television, new technologies change the nature of acting; in the medical system, they totally usurped the ancient Dance of Death. The constellation within which the mass of academic training, instruments, laboratories, and hospitals could be isolated as medicine has faded. Food, drugs, genes, stress, age, air, AIDS, or anomie are no longer medical but systemic issues. Aetiology no longer refers to a specific cause, but to a hierarchy of feedback loops. The patient is now a "life" that emerges from a gene pool into an ecology. Formerly, people asked for the diagnosis of a disease, and they expected treatment to relieve it; today, lives are managed, and optimisation rules. Biomanagement now includes industrial fluor emissions, domestic garbage collection, the war on drugs, and free distribution of needles.

In 1978 the term, immune system, was first used.³ That same year Microsoft launched its operating system, DOS. Five years later, even popular science writing spoke of health as the state of a biological system and of death as life's irretrievable breakdown. Since then, most of the resources that were added to health care in fact financed a takeover of medical components by global management systems. Systems analysis fostered new notions and practices in health care, but also surreptitiously affected people's perception of themselves. Increasingly people now speak of their health as "the state of my system." System analytical concepts have altered our self perception.

Medicalisation led people to see themselves as two legged bundles of diagnoses. It did not, however, disembody self perception; today, systems thinking does. People now watch the curve of their vital parameters. As they approach the end of their days, they have long experienced themselves as "lives"; they have been under professional management—some since well before birth.

Formerly, one spoke of the last hour in the active voice: "I hope to die a good death." One could also use the verb intransitively: "I know I shall die." One can prepare for dying, one can acquire a good stance. Late, but not too late, I

have seen people—even under intensive care—revive their memories of the art of dying, as it had been traditional in their families. After the second world war, law and the churches supported doctors in the medicalisation of death. Collaboration with the quixotic heroism of medical strategies was presented to both patient and family as a duty. On occasion, religious and moral authorities still spoke of a right to refuse extraordinary means. But this qualification only buttressed the general obligation to obey the dictates of the doctor. Agony came to be seen as the effort of a medical team, and death as the team's frustration by an ultimate act of consumer resistance. The medicalisation of social arrangements and cultural norms, however, did not achieve the intense disembodiment of self perception achieved by lifelong concern with self diagnosis, self regulation, and anxiously prognostic self treatment.

The ability to die one's own death depends on the depth of one's embodiment. Medicalisation spelled dependence, not disembodiment. Disembodied people are those who now think of themselves as lives in managed states—like the RAM drive on their personal computer. Lives do not die; they break down. You can prepare to die—as a Stoic, Epicurean, or Christian. But the breakdown of life cannot be imagined as a forthcoming intransitive action. The end of life can only be postponed. And for many, this managed postponement has been lifelong; at death, it is an uninterrupted memory. They know that life began when their mother observed a fetus on the ultrasound screen. A life, they were then an object of environmental, educational, and biomedical health policies. Today, it is not sophisticated terminal treatment but lifelong training in misplaced concreteness that is the major obstacle to a bittersweet acceptance of our precarious existence and subsequent readiness to prepare for our own death.

When this situation is widespread, one can justifiably speak of an amortal society. There are no dead around; only the memory of lives that are not there. The ordinary person suffers from the inability to die. In an amortal society, the ability to die—that is, the ability to live—no longer depends on culture but on friendship. The old Mediterranean norm—that a wise person needs to acquire and treasure an *amicus mortis*, one who tells you the bitter truth and stays with you to the inexorable end—calls for revival. And I see no compelling reason why one who practises medicine could not also be a friend—even today.

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1 Illich I. *Medical nemesis*. London: Calder and Bryers, 1975.

2 Flexner A. *Medical education in the United States and Canada*. New York: Carnegie Foundation for the Advancement of Teaching, 1910.

3 Moulin AM. *Le dernier langage de la médecine*. Paris: PUF, 1991.

Penalties of shifting weight

A small, transient gain over Christmas is no threat to health

The general view seems to be that most adults maintain a more or less steady weight. This belief is based on epidemiological data from large population groups. In reality people fluctuate in their weight, but the average of the group is constant because the gainers and losers tend to cancel out. For example, in a study in Finland the average weight gain over five years among 6504 men was 600 g, and among 6165 women (excluding those who were pregnant during the study) it was

even less—only 60 g.¹ However, a sixth of the men and slightly fewer of the women had gained more than 5 kg between examinations, while a tenth of the men and an eighth of the women had had similar losses of weight. Rapid gains and losses were not confined to the obese; they occurred in thin people, too.

Many studies in Britain² and the United States³ have shown that, compared with those of stable weight, people with a very

variable weight have a higher mortality, especially from cardiovascular disease. These observations present a problem to health educators who have been trying, without much success, to persuade people of the dangers to health of obesity. Should they continue to encourage people who are overweight to try to lose weight if they are only going to gain it again? Should advice on slimming be confined to people who are so severely obese that the complications of obesity⁴ outweigh the dangers of weight variation? Perhaps, on balance, the modest increase in average weight that is seen during adult life might be beneficial.

Four recent publications have clarified the picture. The nurses' health study recruited 121 700 registered women nurses (almost all white) aged 30-55 in 1976.⁵ Of these, 115 818 were initially free from diagnosed cardiovascular disease or cancer, but there were 991 non-fatal and 389 fatal myocardial infarcts during 14 years of follow up. After controlling for age, smoking, menopausal status, use of hormone replacement therapy, and parental history of heart disease, the study's authors found that the risk of myocardial infarction increased with increasing obesity—as measured by body mass index (kg/m²)¹—and the increase began in what has been regarded as the “desirable” range. Compared with women with a body mass index below 21, the relative risks (95% confidence interval) for women with indexes of 21-23, 23-25, 25-29, and > 29 were 1.19 (0.98 to 1.44), 1.46 (1.2 to 1.77), 2.06 (1.72 to 2.48), and 3.56 (2.96 to 4.29) respectively. After adjustment for reported weight at age 18 years and the other risk factors, there was a clear increase in risk of myocardial infarction in women who gained more than 5 kg in weight after the age of 18 compared with those who did not: for weight gains of 5-8 kg, 8-11 kg, 11-19 kg, and ≥ 20 kg, the relative risks were 1.25 (1.01 to 1.55), 1.65 (1.33 to 2.05), 1.92 (1.61 to 2.29), and 2.65 (2.17 to 3.22) respectively.⁵

In another report from the same study Manson *et al* analysed the relation of the body mass index to the mortality from all causes (4726 deaths).⁶ There was a familiar J shaped curve, with increased mortality above and below a body mass index of 20-27, which agrees with data from insurance societies and the American Cancer Society.⁷ However, when deaths in the first four years of the study and in women who smoked were removed from the analysis the number of deaths decreased to 1168 and the shape of the curve altered: the minimum mortality was found to be in the thinnest women,

and multivariate relative risk increased with increasing weight. This strongly suggests that the J shaped curve with a nadir about an index of 25 is caused by deaths among smokers or those with pre-existing disease.

The conclusion to be drawn is that the relation of obesity to mortality (especially from heart disease) is probably one of increasing risk with increasing weight—or with increasing weight gain in adult life. The change in risk is small at first, but it becomes too great to be explained by chance above a body mass index of 27 or with a weight gain of more than 8 kg after the age of 18.

The confounding effect of cigarette smoking and pre-existing disease on the effect of weight loss was also shown in a report from the Honolulu heart program.⁸ During a six year follow up of 6537 Japanese American men aged 45-68, no association was found between mortality and loss of more than 4.5 kg weight, or weight fluctuation, among healthy men who had never smoked. Similarly, intentional weight loss among overweight white women who had never smoked and who had obesity related diseases was associated with decreased premature mortality.⁹

What advice flows from this research for those of us contemplating the feasting over the Christmas period? Most of us will probably gain a little weight, but this is not an important health risk if we do not smoke and are not obese—and if, when spring comes, we manage to drift back down to our pre-Christmas weight.

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- 1 Rissanen AM, Heliövaara M, Knekt P, Reunanen A, Aromaa A. Determinants of weight gain and overweight in adult Finns. *Eur J Clin Nutr* 1991;45:419-30.
- 2 Wannamethee G, Shaper AG. Weight change in middle-aged British men: implications for health. *Eur J Clin Nutr* 1990;44:133-42.
- 3 Higgins M, D'Agostino R, Kannel W, Cobb J. Benefits and adverse effects of weight loss. *Ann Intern Med* 1993;119:758-63.
- 4 Garrow JS. Importance of obesity. *BMJ* 1991;303:704-6.
- 5 Willett WC, Manson JE, Stampfer MJ, Colditz GA, Rosner B, Speizer FE, *et al*. Weight, weight change and coronary heart disease in women. *JAMA* 1995;273:461-5.
- 6 Manson JE, Willett WC, Stampfer MJ, Colditz GA, Hunter DJ, Hankinson SE, *et al*. Body weight and mortality among women. *N Engl J Med* 1995;333:677-85.
- 7 Lew EA. Mortality and weight: insured lives and the American Cancer Society study. *Ann Intern Med* 1985;103:1024-9.
- 8 Iribarren C, Sharp DS, Burchfiel CM, Petrovitch H. Association of weight loss and weight fluctuation with mortality among Japanese American men. *N Engl J Med* 1995;333:686-92.
- 9 Williamson DF, Pamuk E, Thun M, Flanders D, Byers T, Heath C. Prospective study of intentional weight loss and mortality in never-smoking overweight US white women aged 40-64 years. *Am J Epidemiol* 1995;141:1128-41.

Doctors and commitment

Nice work—shame about the job

Doctors' working lives are changing radically. Out of hours cover by general practitioners, the new deal on hours of work for junior hospital doctors, and the changing roles and responsibilities of hospital specialists all raise important questions about commitment. How should we, as people with careers to follow and home lives to lead, balance patients' expectations and the demands of reorganised health care with the need for a satisfying and creative job? The patient, the service, the profession, or some higher ideal—to whom or what should doctors be committed, and to what extent?

The doctor-patient relationship is still central to our work. The recent document from the General Medical Council in Britain underlines that doctors must make the care of their patients their first concern.¹ This encapsulates a principle of practice that has remained unchanged for over 2000 years and

underpins the idea of what a doctor is. However, the context in which this relationship exists is changing so fast that a gap seems to have opened between the ideals of medicine and the realities of doctors' work experience. The “good enough” doctor can somehow never be good enough. Heath highlights the dilemma: “Time and trust are fundamental to our endeavours and both are being undermined in the current crisis.”²

Superficially, the answer may seem to lie in the contracts that clarify what a doctor should give or a patient may expect to receive. According to one registrar in general practice, the origin of our current difficulties is that “doctors offered everything on the basis that patients wouldn't ask too much” (J Thallon, personal communication). Contractual agreements may suit people who have a clear idea of what they need, or