has allowed safe and easy access to the upper gastrointestinal tract for feeding. These systems have almost entirely replaced surgical gastrostomy procedures.³ A double channel valve allows separate ports for feeding and stomach drainage. Various kits are now available. Short term follow up studies have shown reduced mortality and morbidity in patients who have had an endoscopic gastrostomy compared with those who have had a surgical gastrostomy, but long term follow up data are limited.⁴

Severe gastroparesis diabetorum has a high mortality.⁵ This treatment allowed our patient to go home for considerably longer than he had managed previously, and we consider that percutaneous endoscopic gastrojejunostomy feeding is a useful therapeutic option in gastroparesis diabetorum that has not responded to standard medical management.

M J DAVIES

Senior registrar

B J RATHBONE

Consultant physician and gastroenterologist

P G McNALLY

Consultant physician

Leicester Royal Infirmary,
Leicester LE1 5WW

Department of Geriatric Medicine,
Glenfield General Hospital,
Leicester LE3 9QP

W P GODDARD

Research registrar

Department of Gastroenterology,
City Hospital,
Nottingham NG5 1PB

- 1 Dowling CJ, Kumar S, Boulton AJM, Edmonds E, Fielding P, Jenkins DJA, *et al.* Severe gastroparesis diabetorum in a young patient with insulin dependent diabetes. *BMJ* 1995;310:308-11. (4 February.)
- 2 Reardon TM, Schell GA, Smith OJ, Schubert TT. Surgical therapy of diabetic gastroparesis. *J Clin Gastroenterol* 1989;11:204-7.
- 3 Gauderer MWL, Ponsky JL, Izant RJ Jr. Gastrostomy without laparotomy: a percutaneous endoscopic technique. *J Pediatr Surg* 1980;15:872-5.
- 4 Wolfen HC, Kozarek RA, Ball TJ, Patterson DJ, Botoman VA, Ryan JA. Long-term survival in patients undergoing percutaneous endoscopic gastrostomy and jejunostomy. *Am J Gastroenterol* 1990;85:1120-2.
- 5 Jacober SJ, Narayan A, Strodel WE, Vinik AI. Jejunostomy feeding in the management of gastroparesis diabetorum. *Diabetes Care* 1986;9:217-9.

Exercise and diverticular disease

EDITOR,—Minerva's puzzlement¹ at Aldoori *et al*'s paper in *Gut* purporting to show that exercise protects against diverticular disease of the colon² is well justified. The paper shows no such thing. What it does show is that people who take more exercise are less likely to be diagnosed as having "symptomatic diverticular disease." This diagnosis is dubious, and most of Aldoori *et al*'s patients were probably people with the irritable bowel syndrome who happened to have diverticula in their colon on a barium enema examination. There is no evidence that diverticula cause symptoms except when they rupture or bleed. In the clinic setting the abdominal pains and bowel disturbances of people with diverticula are no different from those of people without them, who get diagnosed as having the irritable bowel syndrome.^{3,4} There is no evidence that people with diverticula are any more or less prone to develop this syndrome than the general population. Since at any time at least 11% of the United States population have irritable bowel syndrome⁵ and diverticular disease affects half of us by the age of 70⁶ it is obvious that the two will often coexist, in which case two diagnoses should be made.

What Aldoori *et al* may have shown is that exercise protects against functional bowel symptoms (or makes people less prone to complain

about them). Alternatively, bowel symptoms may deter people from taking exercise. These are ideas that deserve further investigation.

K W HEATON

Reader in medicine

W G THOMPSON

Visiting professor

Department of Medicine,
Bristol Royal Infirmary,
Bristol BS2 8HW

- 1 Minerva. *BMJ* 1995;310:476. (18 February.)
- 2 Aldoori WH, Giovannucci EL, Rimm EB, Ascherio A, Stempfer MJ, Colditz GA, *et al.* Prospective study of physical activity and the risk of symptomatic diverticular disease in men. *Gut* 1995;36:276-82.
- 3 Thompson WG, Patel DG, Tao H, Nair RC. Does uncomplicated diverticular disease produce symptoms? *Dig Dis Sci* 1982;27:605-8.
- 4 Otte JJ, Larsen L, Andersen JR. Irritable bowel syndrome and symptomatic diverticular disease—different diseases. *Am J Gastroenterol* 1986;81:529-31.
- 5 Drossman DA, Li Z, Andruzzi E, Temple RD, Talley NG, Thompson WG, *et al.* US householder survey of functional gastrointestinal disorders. *Dig Dis Sci* 1993;38:1569-80.
- 6 Eide TJ, Stalsberg H. Diverticular disease of the large intestine in northern Norway. *Gut* 1979;20:609-15.

Medical profession in US speaks out over abortion

EDITOR,—John Roberts's article on the fact that the medical profession is at last speaking out over abortion in the United States gives an excellent account of the political war over Dr Henry Foster, President Clinton's nominee for surgeon general.¹ The reluctance of American medical organisations to take a stand on the abortion issue is understandable in the light of what President Clinton has called "domestic terrorism."

The gender aspect of the attacks on a medical procedure that is constitutionally legal should also be emphasised. Thus to my knowledge Dr Jocelyn Elders was the first female surgeon general to be forced to resign. The two victims in the latest shootings at abortion clinics were both women, while the assailants on workers at women's reproductive clinics, and clinic bombers and arsonists, have invariably been men.

FRED B CHARATAN

Freelance journalist

6613 NW 24th Terrace,
Roca Raton,
FL 33496, USA

- 1 Roberts J. Medical profession at last speaks out over abortion. *BMJ* 1995;310:422. (18 February.)

Fitness programme for chronic low back pain

Details of the exercises are not given

EDITOR,—Back pain is a major cause of disability, accounting for the loss of an estimated 52 million working days each year.^{1,2} Active management of acute back pain in primary care has been recommended recently.^{1,2} H Frost and colleagues recommend a similar active approach.³ In their clinical trial standard management consisted of backschool intervention and attendance on two occasions, at which patients were taught exercises for home use. The study arm added a fitness programme consisting of 15 progressive exercises undertaken over four weeks, with eight sessions each lasting an hour. The results show a significant reduction in pain scores and disability index, which continued to six months. Two year follow up is awaited.

On the face of it, as the authors suggest, this fitness programme could be established in any physiotherapy department with access to a gymnasium. Indeed, as fitness centres are now common

one might imagine that such a programme could even be initiated in primary care. However, none of this will be possible—nor will others be able to confirm the findings—because the paper does not give specific details of the exercises used in either the treatment or the control arm. Eleven references to different treatment regimens are given in the introduction, but the regimen used in this study is not specified. Perhaps the authors could tell us what they did.

M WILLIAMS

Consultant clinical oncologist

Clinical Oncology Centre,
Box No 193,
Addenbrooke's NHS Trust,
Cambridge CB2 2QQ

- 1 McKenzie K. Back treatment needs revolution, says report. *BMJ* 1994;309:1602.
- 2 Clinical Standards Advisory Group. *Back pain*. London: HMSO, 1994.
- 3 Frost H, Klaber Moffett JA, Moser JS, Fairbank JCT. Randomised controlled trial for evaluation of fitness programme for patients with chronic low back pain. *BMJ* 1995;310:151-4. (21 January.)

Authors' reply

EDITOR,—Because we were limited to 2000 words it was not possible to describe all the exercises used in the programme. Details of these are available from HF on request. The overall aim of the fitness class was to encourage normal movement without unduly stressing the spine and thereby progressively to increase the patients' confidence in their back. The class followed a general exercise programme, which aimed at including all the main muscle groups with the use of minimal gym equipment. As we stated, stretching exercises and light aerobic exercises were also included.

There is little evidence for the effectiveness of any specific exercise programme for back pain.¹ This could be because of the problems of classifying back pain syndromes,² since most studies have been carried out on heterogeneous samples of people with back pain with varying needs, for which one specific exercise programme is unlikely to be suitable. For this reason physiotherapists are reluctant to provide specific exercise leaflets for patients with back pain without prior assessment.

The two year follow up data are now available, and we plan to publish details of all the exercises used in the programme and these follow up data at the same time.

HELEN FROST

Director of physiotherapy research

JANE MOSER

Superintendent physiotherapist

JEREMY FAIRBANK

Consultant orthopaedic surgeon

Nuffield Orthopaedic Centre,
Oxford OX3 7LD

JENNIFER MOFFETT

Research fellow

Centre for Health Economics,
University of York,
York YO1 5DD

- 1 Koes BW, Boulter LM, Beckerman H, Van Der Heijden GJMG, Knipschild PG. Physiotherapy exercise and back pain: a blinded review. *BMJ* 1991;302:1572-6.
- 2 Fairbank JCT, Pynsent B. Classification of syndromes. In: Fairbank JCT, Pynsent B, eds. *Back pain. Classification of syndromes*. Manchester: Manchester University Press, 1990.

Biological influences on criminal behaviour

EDITOR,—In his editorial on biological influences on criminal behaviour Joseph S Alper lists some examples of simply inherited metabolic defects that may be associated with criminal behaviour. He also casts doubt on the genetic interpretation of family studies of criminality (and does not point out that this is clearly an insensitive approach in