cause endothelial damage, disorganisation, and dysfunction.²⁰

Should fibringen concentration be included in a person's cardiovascular risk profile and should attempts be made to lower it if it exceeds the limit suggested by epidemiological studies?¹⁻⁷ Before doing this we need a reliable cut off point. Currently it differs widely among laboratories, mainly (although not exclusively) because of different techniques of measurement. Also needed is a compound that lowers fibrinogen concentration safely and selectively. Several drugs have been reported to lower fibringen concentrations, including ticlopidine, stanozolol, oxpentifylline, calcium dobesilate, propranolol, and nisoldipine, and the fibrates. But because they all have prominent pharmacological effects other than lowering fibringen concentration they are not ideally suited to elucidate further the relation between fibrinogen and cardiovascular events in intervention studies.

At present we can use the knowledge that a raised concentration of fibringen identifies people at risk of cardiovascular disease to strengthen our recommendations for adequate treatment for hypertension, lipid disorders, and diabetes and for relevant changes in lifestyle.

E ERNST

Professor of Medicine, University Clinic for Physical Medicine and Rehabilitation, Allgemeines Krankenhaus, 1090 Vienna

1 Meade TW, North WRS, Chakrabarti T, Stirling Y, Haines AP, Thompson SG. Haemostatic function and cardiovascular death: early results of a prospective study. Lancet 1980;i:1050-4

- 2 Meade TW, Mellows S, Brozovic M, Miller GJ, Chakrabarti RA, North WR, et al. Haemostatic function and ischaemic heart disease: principal results of the Northwick Park heart study. Lancet 1986:ii:533-7
- Wilhelmsen L, Svärdsudd K, Korsan-Bengsten K, Larsson B, Tibblin G. Fibrinogen as a cardiovascular risk factor for stroke and myocardial infarction. N Engl J Med 1984;311:501-5.
- 4 Stone MC, Thorp JM. Plasma fibrinogen a major cardiovascular risk factor. J R Coll Gen Pract 1985:35:565-9
- 5 Kannel WB, D'Agostino RB, Belanger AJ. Fibrinogen, and risk of cardiovascular disease. JAMA
- 1987;258:1183-6 6 Balleisen L, Schulte H, Assmann G, Epping PH, Van De Loo J. Coagulation factors and the progress of coronary heart disease. *Lancet* 1987;i:462.
- 7 Yarnell IWG, Baker IA, Sweetnam PM, Bainton D, O'Brien IR, Whitehead PI, et al. Fibringen, viscosity, and white blood cell count are major risk factors for ischemic heart disease. Circulation
- 8 Eisenberg S. Blood viscosity and fibringen concentration following cerebral infarction. Circulation 1966;33/34(suppl 2):10-4.

1991:83:836-44.

- 9 Dormandy J, Ernst E, Matrai A, Flute PT. Hemorheological changes following acute myocardial
- infarction. Am Heart J 1982;104:1364-7.

 10 Qizilbash N, Jones L, Warlow C, Mann J. Fibrinogen and lipid concentrations as risk factors for
- transient ischaemic attacks and minor ischaemic strokes. *BMJ* 1991;303:605-9.

 11 Coull BM, Beamer N, De Garmo P, Sexton G, North F, Knox R, *et al.* Chronic blood hyperviscosity in subjects with acute stroke, transient ischemic attack, and risk factors for stroke.
- 12 Rainer Ch. Kawaniski DT. Chandraratna N. Bauersachs RM. Reid CL. Rahimtoola SH. et al. Changes in blood rheology in patients with stable angina pectoris as a result of coronary artery disease. Circulation 1987;76:15-20.
- Dormandy JA, Hoare E, Colley J, Arrowsmith DE, Dormandy TL. Clinical, haemodynamic, rheological and biochemical findings in 126 patients with intermittent claudication. BMJ 1973;iv:576-81
- 14 Ernst E, Resch KL, Matrai A, Buhl M, Schlosser P, Paulsen HF. Impaired blood rheology as a risk factor for stroke. 7 Intern Med 1991;229:457-62
- 15 Grotta JC, Yatsu FM, Pettigrew LC, Rhoades H, Bratina P, Vital D, et al. Prediction of carotid
- stenosis progression by lipid and hematologic measurements. Neurology 1989;39:1325-31.

 16 Ernst E. Fibrinogen—an independent cardiovascular risk factor. J Intern Med 1990;227:365-72.

 17 Ernst E, Schmölzl C, Matrai A, Schramm W. Hemorheological effects of oral contraceptives.
- Contraception 1989;40:571-80.
- 18 Meade TW, Chakrabarti R, Haines AP, North WRS, Stirling Y. Characteristics affecting
- fibrinolytic activity and plasma fibrinogen concentrations. *BMT* 1979;i:153-6.

 19 Lee AJ, Smith WCS, Lowe GDO, Tunstall Pedoe H. Plasma fibrinogen and coronary risk factors: the Scottish heart health study. J Clin Epidemiol 1990;43:913-9.
- Cook NS, Ubben D. Fibrinogen as a major risk factor in cardiovascular disease. Trends Pharmacol Sci 1990;11:444-51.

Registers for occupational diseases

Helpful for surveillance, prevention, and research

Doctors and patients have become much more aware of occupational diseases. Diagnostic methods have improved, and doctors more readily consider an occupational cause for illness. Accurate registers of occupational diseases help this process by providing the data necessary for surveillance, prevention, and research. But they are rare: few countries collect sufficiently accurate statistics, most relying on employers' records and claims made for workers' compensation.

To remedy this in the United Kingdom the British Thoracic Society and the Society of Occupational Medicine (supported by the Health and Safety Executive) set up a scheme of their own: the surveillance of work related and occupational respiratory diseases (SWORD). Its aims were to monitor the frequency of respiratory diseases related to work; to promote the early recognition, investigation, and control of new problems; to provide rapid feedback and information to participants; and to undertake collaborative investigations where indicated. The members of the two societies were asked to report to the project any newly diagnosed respiratory illness that they believed was due to occupational or work related exposure, and all participants received monthly feedback.

The first results have recently been published. Doctors reported 554 cases of occupational asthma to SWORD in 1989, of which 282 were attributed to agents on the prescribed list for which disablement benefits are payable (compared with the official figure of 222). The main difference was that SWORD's figures for cases of asthma due to isocyanates was nearly double the official figure. According to SWORD's returns, other named agents not on the prescribed list had

induced 214 cases of asthma, and in 58 cases no agent was specified. More than twice as many cases of allergic alveolitis were reported to SWORD than there were people receiving disablement benefit for this condition. For some diseases, however-asbestosis, lung cancer, and byssinosis-the figures from the two sources of data were similar. The returns also provide annual incidences for various diagnostic groups and for occupational groups. The authors of this first report suspect that the true frequency of acute occupational respiratory diseases might be three times greater than has been reported.

In Finland the Institute of Occupational Health set up a register of occupational diseases nearly 30 years ago as a faster and more accurate alternative to the statistics of the Ministry of Social Affairs and Health.² The register is based on the law that requires physicians to report every case of occupational disease or disease related to work. Since 1974 the register has obtained data from three different sources: reports of occupational disease filed by provincial medical officers, accident reports and diagnoses sent in by insurance companies (regardless of whether compensation was paid), and cases diagnosed at the Institute of Occupational Health. These data are published annually according to diagnosis, age, sex, industry, and occupation, with more detailed data available for research. An English edition is published. Comparing Finnish and British returns for 1989 shows that in Finland the reported incidence of allergic alveolitis was nearly 30 times and asthma six times higher than that in the United Kingdom.

Already the first year of SWORD has provided valuable new information, and as doctors' participation increases so

should the yield. This may already be happening—the reported incidence of occupational asthma in the beginning of the second year of the scheme was more than 50% higher than that in the first year. Rapid feedback to the participants will help keep the possible occupational causes of respiratory diseases in mind. The collected data, however, derive only from cases of occupational respiratory diseases. To cover all of occupational medicine—not just respiratory diseases—much wider collection of data would be necessary.

Despite the Finnish data being collected from three different sources some cases probably still go undiagnosed and unreported because not all doctors have been trained in occupational medicine. The basis of the data to be collected is, however, the crucial question "What is your work?," which doctors still too often leave unasked.

H KESKINEN

Consultant Physician, Institute of Occupational Health, SF-00250 Helsinki,

- 1 Meredith SK, Taylor VM, McDonald JC. Occupational respiratory disease in the United Kingdom 9: a report to the British Thoracic Society and the Society of Occupational Medicine by the SWORD project group. Br J Ind Med 1991;48:292-8. Vaaranen V, Vasama M, Toikkanen J. Occupational diseases in Finland in 1989. Helsinki: Institute of
- Occupational Health, 1990.

Preventing unwanted pregnancies

Start in schools

In 1972 a working party of the Royal College of Obstetricians and Gynaecologists published Unplanned Pregnancy, which urged the provision of freely available contraceptive services by the NHS. Soon afterwards, its recommendation was met, but since then abortion rates in England and Wales have continued to rise. Last year some 174 000 legal abortions were performed in women resident in England and Wales one third of them in women under 20. Because of the continuing high rate of unplanned and unwanted pregnancy the college set up another working party, this time to review education and services related to contraception. Last week it published its report (p 604).2

The working party was particularly concerned about unplanned pregnancies in teenagers, which it attributed to the lack of education in schools of the importance of family planning and related matters. Its report proposes a flexible curriculum for sexual education, necessary as most parents are very keen to transfer their responsibility for this to the educational system.3 All schools should have at least one teacher specially trained to provide sex education, and a formal curriculum should be drawn up in accordance with the national guidelines.4 Communication between home and school would be improved if seminars on sex education were organised for parents and school governors. Such a programme, however, would have to compete with other pressing problems, such as GCSEs, for the little time that parents and teachers have to spend together. The media have particular responsibilities to this age group, regaling the delights of sexual intercourse while rarely mentioning contraception, except to highlight its adverse effects.

Knowledge about emergency contraception is poor, although it is very effective. 56 A survey by the Family Planning Association found that only one in two pharmacists had ever received inquiries about it. Of 1000 women undergoing legal abortion, half were not using any method of contraception at the time of conception (unpublished study for the Family Planning Association). The working party's report emphasises the need for funds to be made available not only to inform health professionals and consumers about emergency contraception but also to provide appropriate clinic facilities.

In 1974 the Family Planning Association handed over its network of clinics to the NHS. As general practitioners are paid from an unrestricted budget and community services are met from a restricted district health authority budget an incentive exists for district health authorities to close clinics. This they are now doing, which the report rightly deplores. Contraceptive services given by the two agencies differ considerably: general practitioners favour oral contraception whereas community family planning clinics, which see younger women, offer a wider range of methods. The inadequacies in family planning services within the NHS-for contraception, sterilisation, and abortion—clearly need to be put right.

The report makes the innovative suggestion that health authorities should appoint senior specialists to oversee the provision of contraception and related services by community clinics and general practices and to coordinate the provision of legal abortion. Such a "community gynaecologist" might serve as a focus of skill and professionalism, which is more necessary than ever in this world of rapidly changing social values and medical techniques.

JAMES F PEARSON

Reader,

Department of Obstetrics and Gynaecology, University of Wales College of Medicine, Cardiff CF4 4XN

- 1 Working Party of the Royal College of Obstetricians and Gynaecologists. Unplanned pregnancy. London: RCOG, 1972.

 Working Party of the Royal College of Obstetricians and Gynaecologists. Report on unplanned
- pregnancy. London: RCOG, 1991.

 3 Allen I. Education in sex and personal relations. London: Policy Studies Institute, 1987. (Research
- report No 665.)
- 4 National Curriculum Council. Health education in schools. London: National Curriculum Council, 1990. (Curriculum Guidance No 5.)
- 5 Friedman EHI, Rowley DEM. Post-coital contraception—a two year evaluation of a service. British Journal of Family Planning 1987:13:139-44
- 6 Reader FC. Emergency contraception. BMJ 1991;302:801.