

Crawford and Clayton			Hamilton <i>et al.</i> ¹	
Water Type	No. of Rib Samples	Mean lead (p.p.m. Dried Ash)	No. of Rib Samples	Mean lead (p.p.m. Dried Ash)
Hard	27	23.63	22	29.0 ± 3.0 (S.E.) ± 18.4 (S.D.)
Soft	28	33.54	22	34.5 ± 2.9 (S.E.) ± 13.6 (S.D.)

histological examination of the samples is inadequate. Further, any reference to plumbosolvency is a "red herring" to the basic problem and should be treated as a separate issue, which is amenable to a solution (see Dr. Crawford and Mr. Clayton's reference to Glasgow water). Apart from invoking very unusual conditions relating to chemical elements in particular chemical forms which are supposed to be avidly taken up by the body from drinking water, the total daily intake of most, if not all, elements present in U.K. waters constitute a negligible contribution to total intake, which is overwhelmingly provided by diet.^{4,5} It is incorrect to consider the lead content of water simply in terms of hardness or softness; there are many types of hard and soft water, and under some conditions the lead content of hard water can exceed that of soft water supplied in lead pipes. The concentration of the chemical elements in water and also in relation to defined geographical regions is a function of the regional availability of the elements combined with changes brought about by various types of technological processing during purification of water.

The incidence of some forms of cardiovascular disease can be described in relation to regional environmental factors⁶ but at present our knowledge of the importance, if any, of the chemical elements as causative agents is almost non-existent. For the studies undertaken by Dr. Crawford and Mr. Clayton, ancillary studies describing the lead content of the individual's diet and the domestic plumbing system, together with the range of variability in lead content of drinking water are required in relation to the samples of rib taken for chemical assay. With a few exceptions, permissible levels for the concentration of the chemical elements in drinking waters will undoubtedly be based upon medical evidence. At present the necessary information is sadly lacking, though much effort is being directed to improve the quality of available information. A careful evaluation will have to be made between that provided by medical evidence and the practical considerations of supplying drinking water. Until the required information is available, great care must be exercised when correlating morbidity attributable to the elements present in drinking water.

The quality of drinking water in the U.K. is of a very high standard, but the presence of many elements in the water is inevitable. There appears to be no evidence that intake of drinking water is harmful to populations residing in the various natural geological regions of the U.K. The question of plumbosolvency is acknowledged and can be remedied. It would be most unfortunate if, with the increasing attention paid to chemical elements present in water, the known toxicity of some elements when ingested in large amounts is taken to indicate that they are harmful at low concentrations—that is, acceptance of a linear response between dosage and effect over all ranges of concentration.

The present dilemma, if it really exists, is the lack of medical evidence upon which permissible levels for the concentration of elements in water can be identified. At low concentrations interactions between elements and resulting synergistic effects may occur, but in terms of human health the elements present in the diet and the standard of dietary intake for individuals are more likely to find expression in morbidity related to the abundance of the chemical elements. With the exception of plumbosolvency for soft water supplied in lead pipes, many individuals in the U.K. who are supplied with water derived from wells or leats may be exposed to some elements that periodically, because of rainfall, may present intermittent hazards to health, though in many instances the presence of algae or bacteria may be the primary cause of illness.—I am, etc.,

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¹ Hamilton, E. I., Minski, M. J., and Cleary, J. J., *Science of the Total Environment*, 1972, 4, 1.

² Hamilton, E. I., *Nature*, 1971, 231, 524.

³ Hamilton, E. I., *Calcified Tissue Research*, 1971, 7, 150.

⁴ Ministry of Agriculture, Fisheries and Food, *Survey of Lead in Food*. London, H.M.S.O., 1973.

⁵ Hamilton, E. I., and Minski, M. J., *Science of the Total Environment*, 1972/73, 1, 341.

⁶ Hamilton, E. I., and Minski, M. J., *Environmental Letters*, 1972/73, 1, 375.

Pruritus Vulvae

SIR,—Only a man would suggest that women will give up wearing tights, however bad the itch (Mr. C. N. McFarlane, (2 June, p. 533). Only a man would suggest that stockings with "hold-up" tops really work, except in the most statuesque females. However plausible the explanation given for the recommendation not to wear tights (is it, by the way, supported by any factual evidence?) I suspect that most women would prefer to put up with their symptoms rather than give up the garment which has liberated them from the last vestiges of stays.

Perhaps Mr. McFarlane would have more success if he told his patients to wear cotton pants under their tights, and change them frequently.—I am, etc.,

SALLY FORD

Tayport, Fife

SIR,—Mr. C. N. McFarlane (2 June, p. 533) states that the wearing of tights is "one of the foremost causes of pruritus vulvae seen in gynaecological and general practice today." He omits from consideration two other possible factors which are equally "pushed" by advertisers in women's magazines—"biological" washing powders and "feminine" deodorants. These products are quite unnecessary refinements on soap and water; the washing powders have been shown to cause irritation of the hands and I contend that they are much more likely to cause vulval irritation than the wearing of tights.

Compared with conventional stockings, with suspenders, and even hold-up stockings, which are both uncomfortable, irritant, and restricting, tights are an immense improvement in female dress, and Mr. McFarlane should provide proof for his statement before he condemns them out of hand.—I am, etc.,

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"The No Touching Epidemic"

SIR,—Dr. P. N. K. Heyling's Personal View (14 April, p. 111) was a joy to read. Your correspondents so far have not commented on the special value of "touching" in psycho-geriatrics; it is quite indispensable in this field of medicine.

The primeval gesture of the hand-shake stretches back into pre-history, and is so deep-rooted that its function in the province of relationships dies hard; it is surely the last social grace to survive in the mentally confused. By the manner of the hand-shake a wealth of meaning can be conveyed. For a brief moment the patient knows that the doctor, to the exclusion of all else, is wholly giving and caring. In this sense it is a sacramental act. When the mental handicap is complicated by blindness, deafness, aphasia, or dysphasia—where the "sound of the voice and the look on one's face" may be of no avail—the daily hand-shake is mandatory.

The doctor with the no-touch technique, whose visit to the ward is confined to a brusque "sick parade" for those who are brought to his notice as "poorly," rejects a basic clinical approach to mental illness and remains out in the cold—as indeed do his patients.—I am, etc.,

C. F. J. CROPPER

Bath

Arrhythmias in the Guillain-Barré Syndrome

SIR,—Increasingly the cardiovascular complications of the Guillain-Barré syndrome are being stressed and it is possible that dysrhythmias may contribute to the mortality of this condition. In this context I wish to report a patient with intermittent atrial fibrillation.

A 59-year-old white man was admitted with one week's history of difficulty in walking, aching of his legs, and weakness of his arms. He had suffered four days of diarrhoea two weeks before admission. His general condition was unremarkable, with a regular pulse of 80/min and a blood pressure of 130/90 mm Hg. He had bilateral facial palsies and marked weakness of the limbs, especially of the legs, with diminished muscle tone and absent reflexes. Sensations were intact, though he described hyperaesthesia of the feet. Nerve conduction studies showed gross slowing in all limbs; the protein content of the cerebrospinal fluid was 50 mg/100 ml without cells. Vanilmandelic acid excretion and urinary steroids were all normal, but there was a loss of the normal diurnal variation of plasma cortisol.

Ten days after admission his weakness had advanced but there was no respiratory embarrassment. His pulse was 100/min and irregular, and an E.C.G. showed atrial fibrillation. He was not distressed and there were no signs of heart failure. The following day he spontaneously reverted to sinus rhythm, the whole attack lasting