



Téléphone Central/Exchange: 791.21.11

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3459/3422

In reply please refer to :

Prétre de rappeler la référence :

CVD-C3/372/3(A)

Dr Roger Hallin
Director
Desinca España, S.L.
C/. Lopez de Hoyos, 120
28002 Madrid
Espagne

31 August 1992

Dear Dr Hallin,

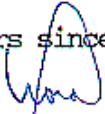
Thank you for your letter of 29 June 1992, addressed to Dr I. Gyarfás, Chief of Cardiovascular Diseases Unit.

The question of water hardness and its relationship to cardiovascular diseases has been studied in several WHO official meetings, and a list of their reports plus other references, is attached for your information. The following conclusions emerged:

1. amongst communities there is a consistent association between hard water and low coronary heart disease rates, although studies have failed to find any association with individual risk;
2. there is some evidence of an association between high blood pressure and the use of soft, demineralized water. It has been suggested that not only the high sodium content, but also the proportions of sodium to potassium, sodium to calcium and sodium to magnesium may be important pathogenically;
3. the experts attending our meetings have acknowledged that the water-cardiovascular disease association is real, but do not know whether it is causal;
4. more information and extensive research are still needed.

I regret this somewhat inconclusive response, but the relationship between disease and water hardness is an issue which requires more exploration. I am, however, forwarding your letter to the Cancer and Palliative Care Unit for their comments.

Yours sincerely,


Dr P. Nordet
Medical Officer
Cardiovascular Diseases