



WHL · NEWSLETTER

News from the World Hypertension League (WHL).
A division of the International Society of Hypertension, and in official relations with the
World Health Organization.

No. 83, June 2002

An Important Hot Topic

Salt and High Blood Pressure

There is a variety of scientific information that relates an increase in salt consumption with a rise in blood pressure (BP). In animal studies, the addition or restriction of salt has been shown to cause a rise or fall in BP¹. Studies which observed populations have found that the more salt a population consumes, the higher the average blood pressure²⁻³. Several large long-term randomized clinical trials have shown a moderate reduction in sodium consumption reduces average BP⁴⁻⁶. In a recent study named the Dietary Approaches to Stop Hypertension (DASH) participants were fed meals with various salt levels for more than four weeks. The meals were rich in fresh fruits and vegetables and low-fat dairy products. In this study, for both the DASH and traditional diet, the lower the salt intake the lower the BP⁷. This was true for those with and without high BP. Reducing salt consumption can contribute to the prevention and treatment of BP⁸.

Why was there controversy in reducing salt in the diet?

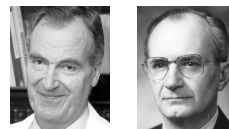
Some studies have shown only small or marginal reductions in BP lowering with a lower salt intake. If the BP reduction is small, why bother going to the trouble of changing one's diet? The issue here is that small BP reductions in large populations can have a substantial impact in reducing strokes, heart attacks and other cardiovascular diseases. One follow up study suggested a possible harm, in hypertensive men withdrawn from medications, who consumed a very low sodium diet⁹. However, the study was never duplicated and the results could not be seen in women. So suffice it to say, the controversy was focused on the benefit of small changes or one study which showed

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Message from the Editor

Reducing salt intake has been shown to reduce blood pressure. However, it is difficult to achieve in populations with high consumption of processed foods, because salt is ubiquitous in the food supply. Most of the daily sodium intake in these populations comes from processed food rather than from added salt during cooking or eating.

Establishing partnerships between public health officials and the food industry is important in the efforts to reduce salt in manufactured foods. To help us understand such a partnership, the WHL Newsletter asked Dr. Claude Lenfant, President of the WHL, to interview Professor Graham MacGregor, former President of the British Hypertension Society, from the St. George's Hospital, Medical School University of London.



By focusing in this edition of the WHL Newsletter on Salt and Hypertension, we hope to have both selected an interesting topic as well as provided you with useful information. Presumably, there is need for further discussion on this issue. I would therefore like to encourage to comment on this, to share your views and knowledge.

Letters to the editor are very welcome!

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Interview

with **Professor MacGregor, Past President of the British Hypertension Society**
by the WHL President, **Dr. Claude Lenfant**

Dr. Lenfant: *We have heard that it is difficult for the food industry to make small reductions in the salt content of processed food. What has been your experience?*

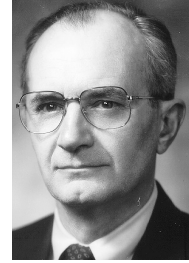
Professor MacGregor: On the contrary, in the UK most of the major supermarkets have made small reductions in the concentration of their own brand processed foods. More recently, the Department of Health and the Food Standards Agency have requested the Food and Drink Federation, the main umbrella organization for the food and soft drink industry, to produce a report looking at the scope for reducing the salt concentrations of processed foods to levels that would not interfere with safety. The report revealed that, in general, the food industry would be able to make small reductions, in the range of 10 to 25 percent, in the salt concentration of their processed foods without sacrificing safety or palatability.

The attraction of this strategy of small but sustained reductions in salt intake, which are not noticed by the public, is that if carried out uniformly across all processed foods and repeated in say five years this would reduce salt intake by 30%. This is now the current UK strategy.

Dr. Lenfant: *What has been done to reduce salt in the United Kingdom's food supply?*

Professor MacGregor: Some years ago, the Committee on Diet and Cardiovascular Disease (COMA) recommended a reduction in salt intake in the whole population to 6 grams or less per day. We estimate that the current salt intake in the UK currently is approximately 12 grams per day. This policy was not originally backed by the then Conservative government, but is now supported by the department of Health and the Food Standards Agency, who have strongly reinforced the need to reduce salt intake in Government statements, as well as promoting increased intake of fruit and vegetables and decreased intake of saturated fat. This is part of an overall dietary strategy to reduce both cardiovascular disease and cancer. Our own main effort in the last few years has been towards

explaining the relationship of excess salt to deleterious health, and we have managed to work with some of the leading UK supermarkets and suggested ways to implement salt reduction programs. In particular, UK supermarket chains, including ASDA, Sainsburys and Co-op, have now been followed by others and are reducing the salt content of their own store brand products by telling their suppliers



Dr. Claude Lenfant

to add less salt in their products. In general, these supermarkets have reduced the salt content by 10 to 15 percent without affecting quality or safety, and very importantly there have been no complaints from customers. Indeed, the opposite has been true. So far several thousand tons of salt per year have been removed across a broad range of processed food products, including ready made meals, crisps, sausages, bread, etc.

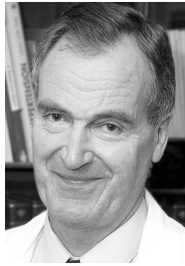
Dr. Lenfant: *What factors make your program succeed?*

Professor MacGregor: I think our success in the UK has been due to a combination of active campaigning in the media and importantly the support of the leading retailers. Clearly, there are huge commercial interests in using salt in processed food. Most of the cheapest processed foods have had any flavour removed and the cheapest way of making it palatable is to add a large amount of salt. In the processed meat industry salt concentration increases the water binding capacity of the processed meat, e.g. it is possible to bring the weight of sausage up by 20% at no cost.

Salt is a major ingredient for the multi-national companies who market soft drinks and mineral waters, who clearly have a huge vested interest in maintaining salt intake in order not to lose sales. Not surprisingly, therefore, there have been high profile attempts to try to discredit the important impact that high salt intake has on our health. However, in the UK at least we now have the strong support of the Department of Health and the Food Standards Agency. In 1996 we established a consensus action on salt and hypertension (CASH) group (www.hyp.ac.uk/cash/). This group of specialists, all of whom have worked on the relationship of salt and

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Interview continued



Graham MacGregor

blood pressure, are trying to work with the food industry to reduce the amount of salt in processed foods and get the public to cut back on their own salt consumption, as well as ensuring clear and comprehensive nutritional labelling of the salt content of all processed foods; for example, one serving of a product (320 grams) contains 2.5 grams of salt (recommended intake for the day 6 grams). Clearly, our work has been reinforced by the recent publication of the Dash Sodium Study in the NEJM and the Mortality Study from Finland in *The Lancet*, which both make the case for reduction in salt intake very powerful, particularly in people with normal blood pressure.

Dr. Lenfant: *Is this action applicable to other parts of the world?*

Professor MacGregor: Clearly in those countries where the majority of salt comes from processed food, the same strategy should be adopted. However, in other countries for instance, the majority of salt comes from salt added whilst cooking or at the table. Here, a direct publicity campaign to the general public about the dangers of adding so much salt to cooking could have a huge impact on improving health.

In view of our success in the UK, we now plan to set up a World Action Group on salt and health to try and work together to develop successful action plans. This is going to be important in overcoming opposition from large multinational food companies, particularly those with soft drink and processed meat interests, who will oppose any change unless considerable pressure is applied.

Dr. Lenfant: *Thank you Professor MacGregor.* ■

People

The **Peruvian Society of Hypertension** elected a new board. Dr. Fausto López is president, Dr. Armando Vidalón is vice president and Dr. Carlos Cruz is secretary general.

The address is: José del Llano Zapata 331-704, Miraflores, Lima, Peru. *continued on page 4*

Salt and High Blood Pressure continued

adverse effects. This should be balanced against the preponderance of solid studies showing the clear relation of sodium reduction in BP lowering.

Why is salt used so much?

Salt improves the taste of food without additional calories. In larger amounts it will slow or stop the growth of microorganisms that spoil foods. It is also used to change food texture and control the rate of fermentation processing. In Western nations, about 75 percent of salt consumed comes from processed food.

Who benefits from reducing salt in their diets?

BP response to salt varies. Regardless, salt will increase the risk of death as much as high BP alone, even for those with normal BP¹⁰. As people get older, the chance of being hypertensive increases with increasing salt intake. Besides hypertension, increasing salt intake increases the likelihood of various forms of heart disease and of kidney failure¹⁰. Unfortunately, there is no easy way to test for salt sensitivity and who specifically benefits from reducing salt in their diet.

What are recommended levels?

Many professional societies and scientific organizations recommend a daily goal of no more than 2400 milligrams, which is approximately six grams of table salt, slightly more than a teaspoon, as a safe and wise dietary practice¹¹.

So what can be done?

In societies which have a salt abundant environment, it is advisable for people to take action and protect themselves. Some things can be done: select more fruits and vegetables; choose foods with less salt by reading labels; rinse or soak high salted fish, meat or salt cured foods and discard the water; use less salt and more herbs and spices in preparing foods at home; ask for more lower salt food products when buying groceries; and request less salt in meals when ordering foods in restaurants. By slowly and gradually reducing salt in the diet, and replacing it with herbs and spices one can reduce the taste for and consumption of salt.

A reference list is available upon request from the Newsletter editorial office in Berlin. ■

People continued

In November 2001 at the General Assembly of the **German Society of Hypertension**, Professor Walter Zidek was elected for a three-year term as chairman. The address of the Society is: Berliner Strasse 46, 69120 Heidelberg, Germany.

Phone: (+49) 6221-4117 74
 Fax: (+49) 6221-4022 74
 Website: www.hochdruckliga.info

Dr. John Floras was elected president of the **Canadian Hypertension Society**, 600 University Avenue, Suite 1614, Toronto, ON M5G 1X5, Canada.

Phone: (+1) 416 586 8704
 Fax: (+1) 416 586 8702
 E-mail: jfloras@mtsina.on.ca

Impressum

The objectives of the WHL are to promote the detection, control and prevention of arterial hypertension in populations. The World Hypertension League (WHL) is a federation of leagues, societies and other national bodies devoted to this goal. Individual membership is not possible. The WHL is a division of the International Society of Hypertension (ISH), and is in official relations with the World Health Organization (WHO).

Secretariat:

Medical College of Ohio, Department of Medicine
 3120 Glendale Avenue, Toledo, OH 43614-5809, USA
 Phone: (+1) 419 383-6016, Fax: (+1) 419 383 5360
 E-mail: gmonhollen@mco.edu
 Internet: <http://www.mco.edu/whl>

Board Officers:

Claude Lenfant (Bethesda), President
 Liu Lisheng (Beijing), Vice-President
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 Patrick J. Mulrow (Toledo), Secretary General

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Advisors to the Board:

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 M. Mohsen Ibrahim (Cairo), Developing Countries
 Jörg Pöttsch (Berlin-Buch), Communications

The WHL Newsletter is published bimonthly by the World Hypertension League
 Anja Kroke, Editor; Erika Pisch, Editorial Assistant

Editorial Office:

Max Delbrück Center for Molecular Medicine (MDC)
 Robert-Rössle-Strasse 10, 13125 Berlin-Buch, Germany
 Phone: (+49) 30 9406 2128, Fax: (+49) 30 9406-2123
 E-mail: whl@mdc-berlin.de

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Calendar

19th World Hypertension League Council Conference and Workshop on Hypertension & Obesity
 June 22, 2002
 Prague, Czech Republic
Information: Dr. Patrick J. Mulrow
 (for address see impressum)

Satellite Symposium on Epidemiology of Hypertension: Regional differences in control and treatment
 June 29, 2002
 Budapest, Hungary
Information: Prof. Dr. Sándor Sonkodi
 Nephrology and Hypertension Center
 Korányi fasor 10, H-6721 Szeged, Hungary
 Fax: (+36) 62 545-185
 E-mail: SONS@in1st.szote.u-szeged.hu

25th Annual Scientific Meeting of the Japan Society of Hypertension
 October 11–13, 2002
 Tokyo, Japan
Information: Dr. Tatsuo Shimomura
 University of Tokyo, Faculty of Medicine
 7-3-1 Hongo Bunkyo-ku, Tokyo, Japan
 Fax: (+81) 3 5689-0495
 E-mail: jsh25-acd@umin.c.jp

International Concurrent Scientific Events (ICSE 2002)
 December 1–3, 2002
 Buenos Aires, Argentina
Information: Congresos Internacionales S.A.
 Moreno 584 - 9° Piso
 (C1091AAL) Buenos Aires, Argentina
 Fax : (+54) 11 4331-0223
 E-mail : icse-2002@congresosint.com.ar

6th Annual Symposium of the Pakistan Hypertension League
 December 14–15, 2002
 Islamabad, Pakistan
Information: Dr. Shauket Malik
 Pakistan Hypertension League
 NICVD, Karachi, Pakistan
 Fax: (+92) 21 920 127
 E-mail: nicvdedo@khi.comsats.net.pk