



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. 101, June 2005

Editorial

Dietary advice to lower blood pressure – an intervention study in a community setting



Prof. Caryl Anne Nowson

The results of the landmark DASH dietary intervention study clearly demonstrated greater falls in blood pressure than had previously been seen with single dietary intervention strategies (Appel et al. 1997). This study utilised a combined dietary approach that included more fruits and vegetables, less saturated fat, increased polyunsaturated fats and increased low fat dairy products. In those with hypertension there was a fall in blood pressure of 11/6 mmHg and in normotensives a fall of 5/3mmHg. As this was a controlled dietary study, all food was provided to participants and the effect may differ in those who select and prepare their own food. In our study (Nowson et al. 2004) we compared the effect on home blood pressure of a “DASH” type diet to two other diets: a low sodium high potassium diet and a high calcium diet in free living individuals who prepare and cook their own food. Subjects had high/normal blood pressure and included some on hypertensive therapy. Subjects followed a control diet, which was a diet low in fruits, vegetables and dairy products for 2 weeks prior to each different dietary intervention. All 94 subjects followed a “DASH” type diet for 4 weeks and half were randomly allocated to follow the low sodium, high potassium diet for 4 weeks or a high calcium diet for 4 weeks. Our low sodium high potassium diet differed from our “DASH” type diet as it had approximately half the amount of dietary sodium (~7g salt/day), had one additional serving of fruit and did not include any recommendations for the inclusion of low fat dairy products.

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WHL News

Report from the Philippine Society of Hypertension



The **Philippine Society of Hypertension (PSH)** has developed a wide range of activities for the years 2004 – 2005. They are briefly described below. For further

details, please contact the PSH directly. Currently, the PSH has 1,425 members. In addition to the official newsmagazine **HYPERLINK**, the PSH website (www.psh.org.ph) serves its members by providing concurrent information about ongoing and planned activities. Also, a lay information guide can be obtained here. Annual conventions are held to stimulate research in hypertension and related disease areas. To further improve hypertension management, an elaborate training program was developed:

PSH Fellowship Program in Hypertension

This program enhances the training fellow’s expertise in evaluating and managing this prevalent cardiovascular problem. It also trains doctors on how to initiate, carry out and complete a meaningful clinical research study in hypertension.

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In this community setting we found that a “DASH” type diet did result in a 2mmHg fall in systolic pressure compared to the control diet, but the greatest reduction in blood pressure was seen on the low sodium, high potassium diet with a fall of 4mmHg systolic and 2mmHg compared to our “DASH” type diet. In contrast dietary advice to increase calcium intake only without increased fruit and vegetables, resulted in a mean gain in weight of almost 1 kg and no reduction in blood pressure. Our results indicated that although a DASH type diet did result in a small fall in blood pressure, the large falls in blood pressure seen in the DASH study were not reproduced. We did find, however, that the low sodium, high potassium diet did reduce blood pressure to a greater degree than the DASH type diet in agreement with other dietary studies, where reductions in the dietary sodium potassium ratio diet result in significant falls in blood pressure.

Our study highlights the problems with compliance to any dietary advice for the general population. Participants reported difficulty in consuming the amount of food. Subjects could not consume the amount of bread/cereals/grains recommended, whilst meeting the fruit, vegetables and low fat dairy products targets. Many subjects were in the overweight range (the mean body mass index kg/m² was 29), and with over 50% of adults in the developed world being overweight or obese, dietary strategies that facilitate weight loss, prevent weight gain, whilst reducing blood pressure need to be developed and promoted. In our DASH type diet period, multiple regression analysis (including baseline blood pressure) indicated that the difference in urinary sodium to potassium ratio explained 40% of the variance of the fall in systolic pressure, indicating the importance of reducing dietary sodium and increasing potassium. A DASH type diet is useful in reducing blood pressure, but a greater blood pressure lowering effect was seen by reducing dietary sodium and increasing dietary potassium. Our results support those seen in the DASH sodium study where a reduction of dietary sodium resulted in a further fall in blood pressure on the high potassium DASH diet, indicating the additive effect of sodium restriction (Sacks et al. 2001).

In our “DASH” type diet, subjects were asked to avoid added salt and salty foods and this resulted in approximately a 20% reduction in dietary sodium to 6.8g salt/day (24-hour urine excretion), whereas providing salt free bread and margarine resulted in a 60% reduction in dietary sodium (3.5g salt/day) in our low sodium high potassium diet. As more than 70% of dietary sodium is already added to our food supply in the manufacturing process prior to purchasing, a reduction in the amount of salt added to manufactured food is needed to allow the general population to reduce their dietary sodium. For most people it requires a concerted effort to maintain a diet including 8 servings of fruit and vegetables a day together with 3 servings of low fat dairy products. Whilst a “DASH” dietary pattern can assist in blood pressure reduction, and is likely to have other beneficial effects on health e.g. prevention of osteoporosis and possibly some cancers, a greater health benefit will be seen if combined with a reduction in dietary sodium.



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References:

Appel LJ et al. A clinical trial of the effects of dietary patterns on blood pressure. DASH Collaborative Research Group; *N Engl J Med*, 1997;**336**:1117-24.

Nowson CA, et al. (2004) Blood pressure response to dietary modifications in free-living individuals; *J Nutr*, 2004;**134**:2322-9.

Sacks FM et al. Effects on blood pressure of reduced dietary sodium and the Dietary Approaches to Stop Hypertension (DASH) diet. DASH-Sodium Collaborative Research Group; *N Engl J Med*, 2001;**344**:3-10. ■

Report from PSH continued

► **Metabolic Clinics (Pro-Health Clinics) as a Strategic Step in Diagnosis and Treatment of CV Risk Factors**

In an effort to improve the way metabolic syndrome and its component risk factors are being diagnosed, evaluated and treated, the PSH, together with other national partners, is planning to accredit metabolic clinics which can provide information, education and special services for people who have obesity, hypertension, type 2 diabetes mellitus and other metabolic disorders.

► **The Philippine Hypertension Specialist Program**

This program started in 2004. A formal induction of the certified Hypertension Specialists is held during the national society conventions.

► **2nd Specialist Course for the Clinical Practice of Hypertension**

In 2004, 188 doctors finished the 2nd Specialist Course for the Clinical Practice of Hypertension.

► **2nd Certifying Examination for Hypertension**

There were 32 physicians who took the 2nd Certifying Examination for Hypertension Specialists in 2004.

► **1st Hypertension Course for Nurses**

Pursuant to our Society's mission of providing training to allied health professionals such as nurses, midwives, physical therapists, etc. in appropriate hypertension care, PSH conducted the 1st Hypertension Course for Nurses in November 2004. The 2nd Hypertension Course for Nurses will be scheduled sometime early this year.

► **BP Certification Class**

PSH continues to conduct BP Certification Classes which is one of the importance projects of the Society. Taking the BP properly is of utmost importance for an accurate assessment of the hypertensive patient and educating as many Filipinos as possible regarding the proper procedure in taking the BP is essential.

In order to enhance national research activities, studies are sponsored and awards are posted:

► **2003–2005 National Nutrition and Health Survey (NNHeS)**

Nationwide survey to assess the prevalence of lifestyle and nutrition-related risk factors and diseases among Filipinos 20 years and above.

► **Survey on Family-oriented Treatment of Hypertension**

Study to determine the feasibility of inviting household members of the patient to his/her follow-up in order to facilitate dissemination of information and improve compliance and adherence to management of hypertension and of risk factors among hypertensive patients and their household members.

► **2005 Yolando Q.M. Sulit Young Investigator's Award**

The objective of this award is to stimulate local research on hypertension by giving due recognition to outstanding research on hypertension and related cardiovascular diseases by young physicians/scientists.

Finally, we are truly proud to say that for the past years, our Society has endeavored to improve the healthcare community with our researches, health advocacy and new programs. As we reflect on a great year past, we can only be inspired to do better for the years ahead. With your usual support, we will succeed!

The PSH Board of Trustees wishes you the best always!



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People

The **Philippine Society of Hypertension (PSH)** has elected new officers for the period April 2005 to March 2007. Dr. Nelson S. Abelardo is President, Dr. Rafael R. Castillo is Vice President and Dr. Abdias V. Aquino is Secretary General of the PSH. The address of the Society is: Unit 309 Amberland Plaza, Julia Vargas Avenue, Ortigas Complex, 1605 Pasig City, Philippines.

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 E-mail: phihyper@pworld.net.ph

Useful Links

The **French League against Hypertension** provides substantial information in French also to readers in Africa, Middle East or Canada. Please visit their website at <http://www.comiteHTA.org>.

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).

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 Peter Sleight (Oxford), Past President
 Patrick J. Mulrow (Toledo), Secretary General

Members:

J. George Fodor (Ottawa), Detlev Ganten (Berlin)
 Lawrie Beilin (Perth), Michael Alderman (New York)

Advisors to the Board:

Arun Chockalingam (Vancouver), Patient Education Project
 M. Mohsen Ibrahim (Cairo), Developing Countries
 Jörg Pötsch (Berlin), Communications

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Calendar

20th Annual International Interdisciplinary Conference on Hypertension and Related Cardiovascular Risk Factors in Ethnic Populations (ISHIB 2005)

July 15–19, 2005
 San Juan, Puerto Rico
Information: Wanda Scott, ISHIB
 Fax: (+1) 404-880-0347
 E-mail: wanda-scott@ishib.org

Update in Women & Cardiovascular Disease

September 22, 2005
 Rochester, MN, USA
Information: Continuing Professional Education
 601 Elmwood Avenue, Box 677
 Rochester, MN, USA
 Fax: (+1) 585-275-3721
 E-mail: office@cpe.rochester.edu

3rd Baltic–Nordic Meeting on Hypertension

October 20–22, 2005
 Vilnius, Lithuania
Information: Rima Drukteinienė
 Fax: (+370) 52-661-623
 E-mail: con-ex@delfi.lt

National Heart Foundation Conference on Cardiovascular Disease in the 21st Century: Shaping the Future

March 23–25, 2006
 Sydney NSW, Australia
Information: National Heart Foundation of Australia, Conference 2006 Secretariat
 GPO Box 2609
 Sydney NSW 2001, Australia
 Fax: (+61-2) 9251-3552
 E-mail:
conference@heartfoundation.com.au

21st Scientific Meeting of the International Society of Hypertension

October 15-19, 2006
 Fukuoka, Japan
Information: ISH2006 Secretariat
 3-6-13, Awajimachi, Chuo-ku
 Osaka 541-0047, Japan
 E-mail: ish2006@congre.co.jp