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Henri Nestlé 1869.

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SINGAPORE NUTRITION AND  
DIETETICS ASSOCIATION

The Singapore Journal of

# NUTRITION and DIETETICS

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Vol. 3 No. 2 December 1993

## Nutrition in the Nineties – The Singapore Experience



- *National Healthy Lifestyle Campaign '93*
- *Obesity in Primary School Children*
- *Nutrition and the Media*
- *Dietary Treatment of Adrenoleukodystrophy*

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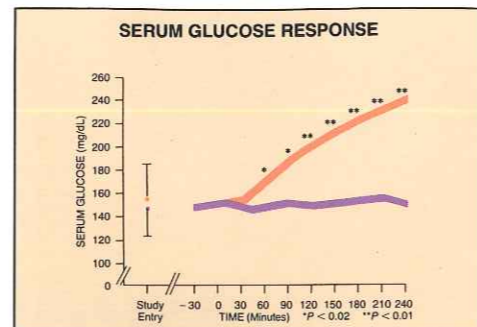
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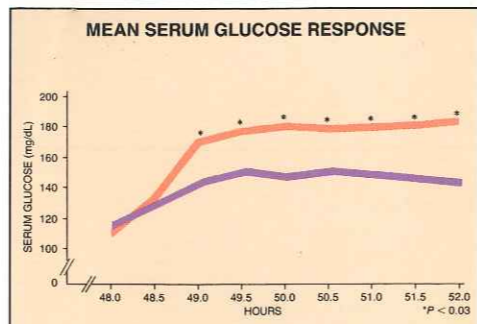


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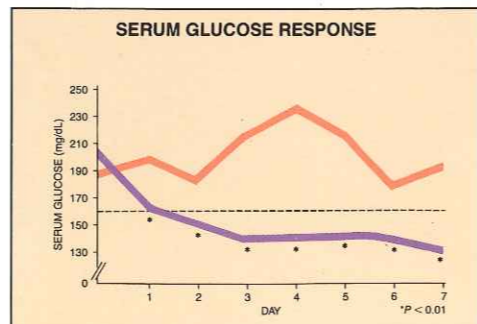
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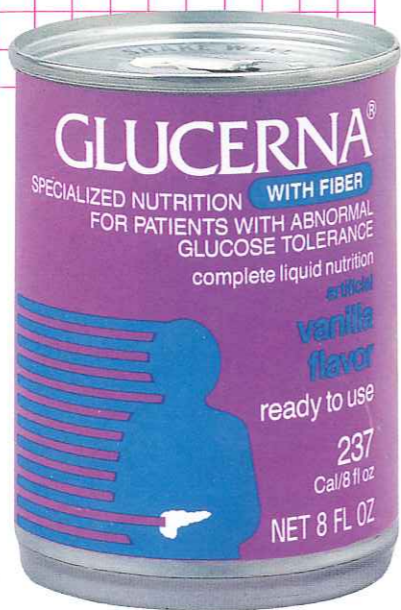
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The Singapore Journal of

*Inye*

# NUTRITION and DIETETICS

Vol. 3 No. 2 December 1993

## EDITORIAL

This past year has been a memorable one for the professions of Nutritionists and Dietitians in Singapore. With the governmental campaign to promote healthy lifestyles in full swing — nutrition messages have got to every household and to almost every worksite in Singapore, focusing an interest as never before on — healthy eating! In one way or another, many of us, nutritionists and dietitians, have been involved in planning programmes and educating individuals.

This issue has been aptly devoted to the "local nutrition scene". We are delighted to have an enlightening commentary on "Nutrition in Singapore in the Nineties" by Lynn Alexander and "Snippets from the National Healthy Lifestyle Campaign '93 — Promoting Healthy Eating" from Annie Ling. Kath Walsh's regular interview features Ms Lee Geok Boi who gives us tips on the best way to deal with the media. Carolyn Begin reviews a local publication that hit the newsstand just a few months ago "Diet for the Asian Diabetic".

The *Journal* has also launched two new features — "Spotlight" and "Product Update". "Spotlight" will highlight the career and job of one of our members and provide a chronicle of nutrition history in Singapore. Mrs Tan Wei Ling has graciously agreed to be our very first "Spotlight" member. "Product Update" will detail important features of nutritional products marketed in Singapore for your information.

The Editorial Committee would appreciate your feedback and comments on the *Journal* as well as, your contributions.

We would also like to take the opportunity to wish every one of our members and readers "A Merry Christmas and a Prosperous, Challenging and Rewarding New Year."

Anna Jacob  
Editor

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# Nutrition in Singapore in the Nineties

by Lynn Alexander, B.Sc. (Hons) SRD, RDS.

*Singaporeans are well-known for their love of food. Food is always a favourite topic of conversation, and local newspapers and magazines abound with reviews on the latest restaurants and recipes. Not only do we have the indigenous ethnic cuisines of the Chinese, Malay and Indian races but practically every other international cuisine you can think of. Indeed, it is not surprising that in Singapore eating has been said to be a "national pastime." However, while all this may conjure up a picture of over-indulgence, with Singaporeans only "living to eat", the last decade or so has seen a tremendous increase in awareness here of the important link between food and health.*

This increasing interest in nutrition is timely, coinciding with growing concern about changing trends in diet-related diseases. Singapore appears to be catching up with the West in incidence of the so-called "diseases of affluence" — obesity, heart disease, hypertension, stroke, diabetes and certain diet-related cancers.

There is real concern now that Singapore is becoming a nation of fatties. In adults, obesity incidence is 5% (defined as 20% or more above the ideal weight), with 25% of the population being overweight (defined as 10% more than ideal weight).

In school children obesity incidence is rising dramatically. The prevalence among 6 — 16 year olds increased from 5.4% in 1980 to 13.2% in 1990. Pre-school children surveyed in 1990 had an incidence of 6.8% obesity compared to 2.6% in 1986.

Increasing incidence of diabetes in Singapore was reported recently. Diabetes is now present in 8.6% of the population compared with 4.7% in 1984 and 2% in 1975. Diabetes is associated with overweight and so it is probable that eating habits have been partly to blame for the surge in incidence of the disorder.

Heart disease is currently the second highest cause of death in the nation. Heart disease is due to a number of different risk factors. Several of these are diet-related, including a high blood cholesterol level of greater than 240 mg/dl. A high fat diet, particularly saturated fat, pre-disposes to high levels of blood cholesterol. Overweight increases incidence of high cholesterol and also high blood pressure, which in turn is another independent risk factor for heart disease.

Cancer is the nation's number one killer and it is suspected that changes in diet in the last 20 years could have been partly responsible for rising incidences of two diet-related cancers, breast cancer and colorectal cancer.

A high fat diet has been implicated in studies overseas as contributing to the aetiology of these cancers, with a low fibre diet being suggested as an additional risk factor for colorectal cancer.

In a study on diet and colorectal cancer in Singapore, published in 1989, it was found that the risk of colorectal cancer rose with increased meat to vegetable consumption ratio. Interestingly, cruciferous vegetables appeared to be protective against colorectal cancer. These include vegetables from the cabbage family like chye sim, kai lan and broccoli.

*Lynn Alexander is the Vice-President of the SNDA and an active member of the Editorial Committee. She is currently the Clinical Dietitian at Gleneagles Hospital.*

A study published in 1991 on breast cancer in Singapore, did not find a clear association with high fat intake, but showed increased risk of breast cancer with high animal protein and red meat consumption. It also demonstrated a possible protective effect of soya products.

It is usually the case that with increasing rise in standard of living, as has taken place in Singapore over the last 2-3 decades, diet changes accordingly. Data from National Food Balance Sheets prepared by the Food and Agricultural Organisation indeed suggest this is the case in Singapore.

In the period from 1961 — 1988 there were increases in the per capita supply of all the major food groups with the exception of cereals and pulses. The most marked changes were in the supply of meat and offal which more than doubled. Other substantial increases were seen for eggs, animal fats, oils and fruits.

The per capita calorie supply increased by about 25%. Calories from protein increased from 9.7% in 1960 — 63 to 11.3% in 1986 — 88. Fat's contribution to calories was up from 16.3% to 25.3% over the same period. That from carbohydrate on the other hand was down from 74% to 63.3%.

The effect of increasing income on diet is further evident from results of a small household survey on food purchases in Singapore, published in 1988, in which it was found that with increased affluence, as measured by housing type, purchase of meat and other foods increased.

Noting the disturbing disease and diet trends, a National Advisory Committee on Food and Nutrition was formed in Singapore in 1986, to set the ball rolling for a national food and nutrition policy. The Committee's subsequent report included a set of 12 dietary guidelines for the nation, which were widely circulated. These included recommendations to maintain desirable body weight, restrict total fat intake to 20 — 30% of total energy and reduce cholesterol intake to less than 300 mg per day.

The public was encouraged to maintain carbohydrate intake at about 50% of total energy intake and to increase intake of fruit, vegetables and wholegrain cereal products thereby increasing vitamin A, C and fibre intakes.

These guidelines have been used as a basis of nutrition education in various target groups in the population, and have helped greatly in unifying the message on diet and health and decreasing the amount of confusion in the public's mind about various nutritional issues.

Increased attention given to nutrition is also evident in the larger numbers of nutrition professionals practising in Singapore — about twice as many

now as compared to ten years ago. These professionals have achieved a higher profile since the formation in 1984 of the Singapore Nutrition and Dietetics Association.

Recent national healthy lifestyle campaigns have increasingly focussed on nutrition as a major area. The obesity problem is also being tackled in various ways — including public education and active programmes in schools and other target groups.

Some companies are taking up the cause too, by introducing worker wellness programmes. Among other things, these educate employees on nutrition and offer advice on weight and cholesterol control.

In answer to the growing interest in diet and health, numerous health food shops have sprung up. Many food products on sale in regular supermarkets are advertised for their nutritional benefit — such as low calorie, low salt, low fat etc. Examples include low fat milk, skimmed milk, low fat cheese, low fat spreads, low fat yogurts and low salt margarine. An increasing number of sugar-free products using alternative sweeteners such as aspartame are available — for example, ice creams and frozen desserts. Fat substitutes have even found their way into some products in Singapore.

It can be observed that unhealthy dietary practices such as heavy use of foods high in saturated fat content like lard, ghee and coconut milk are on the decline as people switch to vegetable oils and alternative styles of cooking.

While some people are switching to lean meat, there are still a large number of Singaporeans who cannot give up their love of fatty meat. Seafood continues to be a hot favourite as do notorious dishes like oyster omelette and fried kuay teow with egg, cockles and fatty sausage, which serve to increase cholesterol intake.

Wholemeal bread is now known by many Singaporeans to be higher in fibre and more beneficial to health than white bread. On the other hand, while brown rice is catching on somewhat it is still largely unaccepted.

Among the suggestions made to point Singaporeans to a healthier way of eating, is inclusion of more traditional plant sources of protein such as soybeans and other pulses (peas, beans and lentils) as a partial replacement for meat. This would not only reduce the intake of saturated fat and cholesterol but at the same time raise intake of soluble fibre which is known to be beneficial in helping keep down blood cholesterol levels and in management of diabetes.

An encouraging sign that nutrition and health messages are getting through to the public is the recent finding from the 1992 National Health Survey that the incidence of hypertension and high blood cholesterol appears to be falling slightly. Hypertension sufferers number 13% of the population now compared to 15% in 1984, and the proportion of the population with a high total cholesterol level (greater than 240mg/dl) has fallen from 27% in 1984 to 19% last year.

So in the nineties in Singapore, nutrition is taking on more and more importance — both for consumers and those who serve them in the food business and the health care industry. The challenge for food manufacturers and restaurateurs is to provide customers with healthy food products and menus. Health professionals will continue to play a very important part in educating the public on sound nutrition habits, and helping ensure provision of accurate information in the media. In this way we can help consumers arm themselves with the necessary knowledge to actually put the principles of food nutrition into practice.

# Promoting Healthy Eating

## Snippets from the National Healthy Lifestyle Campaign '93

by Annie Ling, B.Sc., M.Sc.

*With the re-orientation of health policies towards disease prevention and health promotion, the challenge lies in translating scientific information into lifestyle practices. Health professionals should work towards more specific messages tailored to meet the needs of different target groups. This specificity is reflected in the series of activities to promote healthy eating organised in conjunction with this year's month-long National Healthy Lifestyle Campaign (3-31 October '93).*

### Prelude to the Campaign

Countdown to Campaign '93 was marked with the launch of two books — a guide to 'eating out' and a guide to 'eating in'.

#### **Eating Out — A Guide to Food Choice at Hawker Centres**

The book aims to familiarise readers with the average nutritional values of 200 foods commonly available in hawker centres, and to provide readers with tips on how to enjoy their favourite foods without having to feel guilty. The book was launched and became a best seller at 'The 25th Singapore International Festival of Books and BookFair 1993' (4-12 September '93). As a customer service, consultation was also available at an 'Eating Out Corner' by nutritionists on two weekend days at the Fair.

The book is unique in that the tabulated energy and nutrient values were derived by chemical analyses in the laboratory of samples bought from various parts of Singapore. Priced at \$2.90 per copy, the book is available in both English and Chinese at all leading bookstores.

#### **Public Forums Towards Healthy Family Meals**

The eve of the Campaign saw a massive crowd of 2000 people at the public forums held at the Pan Pacific Hotel. The response was overwhelming and more than 3000 people were disappointed at not being able to secure a place at one of the two forums — Mandarin in the morning and English in the afternoon.

Entitled 'Towards Health Family Meals', the forums had an exciting mix of discussions by a panel of nutritionists and dietitians, screening of video programme 'Supermarketing for health' which featured tips on meal planning and food shopping such as learning to read food labels, and a cooking demonstration by the culinary expert Martin Yan. Amidst his jokes and antics, Martin Yan was able to bring across, in an extremely entertaining manner, that traditional recipes can be modified and made healthier without compromising on taste.

*Annie Ling is a member of the Main Committee and Editorial Committee of the SNDA. She is currently Head of Department at the Food and Nutrition Department of the Ministry of Health.*

As an incentive to put into practice what was learnt, each participant walked away with the book 'Towards Healthy Family Meals' which features 48 recipes accompanied by nutritional analyses.

### During the Campaign

The momentum of the pre-campaign activities culminated in the Great Singapore Workout (GSW) on the Healthy Lifestyle Day which marked the official launching of the National Healthy Lifestyle Campaign on 3 October '93. At least 50,000 Singaporeans led by the Prime Minister participated in the GSW at the Padang and four other stadiums around Singapore. Those at home or at work were encouraged to join in the workout shown on TV.

The awareness to adopt healthy dietary practices as part of a healthy lifestyle was followed up through a series of activities targeted at specific groups.

#### **Seminar 'Healthy Lifestyle For Employers'**

The seminar aimed to motivate employers to be more committed to investing in the health and well-being of their employees.

A total of about 150 employers attended the seminar which was jointly organised by the Training and Health Education Department and the Singapore National Employers Federation. In view of the many requests received from workplaces for assistance in promoting healthy eating in their canteens, the Food and Nutrition Department participated to promote the use of the handbook **Providing Healthier Menu Choices — A Handbook for Management and Workplace Canteen Operators**. The handbook was developed as part of a series of guidelines to promote healthy eating. Employers were not only introduced to 'Healthy Eating — Easy Choices', they were also advised on how they could work with their caterers/canteen operators to promote healthy eating for their employees.

#### **Seminar 'An Early Start To A Healthy Lifestyle' for Child Care Centre Supervisors**

Jointly organised by the Food and Nutrition Department of the Ministry of Health and the Child Care Branch of the Ministry of the Community Development, the half-day seminar saw the active participation of about 250 supervisors and teachers. The seminar was intended to guide participants through the use of the handbook 'Towards Healthy Eating in Child Care Centres'. The principle of

healthier meal planning was further demonstrated through a 'teaching' tea which provided a variety of sandwiches, mini muffins and biscuits — actual finger foods which pre-schoolers normally enjoy.

The morning was fun-filled with sessions interspersed with playing of jingles and screening of videos. Highlight of the seminar included a live fitness demonstration by Ronald McDonald with twelve pre-schoolers. The demonstration was captured on video which formed part of the resource package handed out to participants for use as part of their classroom teaching.

#### **Seminar on 'Healthy Eating — What Hawkers Can Do To Help'**

Conducted in Mandarin with translations for Malay speaking groups, the seminar was well attended by about 180 hawker centre co-ordinators.

The seminar reassured hawkers that there was no need for major changes to the existing food preparation methods. It highlighted that seemingly insignificant actions such as allowing customers to make special requests like removing the skin from chicken and duck, and leaving out the meat fat or gravy can reap considerable health benefits, especially for those who eat almost daily at hawker centres. A recent food consumption survey conducted by the Food and Nutrition Department of the Ministry of Health observed that almost half, (about 43%) of adult Singaporeans ate at hawker centres more than seven times a week.

Equipped with background information that related food intake to health, the Health Ministry hoped hawkers would not only understand the reasons for customers' special requests, but also make a conscious effort to accede to their requests.

#### **UOB Life Family and Health Day**

Not forgetting the general public, the Food and

Nutrition Department organised a health fair with UOB Life. About 2,000 people participated in the cooking demonstrations of healthy recipes by chefs from Shangri-la Hotel, assessment of body weight and body fat, talks by doctors and nutritionists, nutrition counselling, written and oral quizzes and lucky draws. Children also enjoyed themselves at the talk cum video sessions.

### Mass Media Nutrition Promotions

The period of the Campaign also saw a series of press advertisements and radio and cinema commercials which focus on simple nutrition tips, like "Your family runs better on 'steam'". "To keep your family healthy, just add water".

#### **Eat Healthy Guide**

This booklet is a condensed version of dietary guidelines translated into simple, practical tips. It is available in four languages and is distributed through polyclinics at talks and other promotional activities conducted during the Campaign.

### Future trends

With the emphasis placed on preventive health care in the recently released 'White Paper on Affordable Health Care', nutritionists and dietitians can expect to play an increasingly important role in promoting healthy eating as part of a total healthy lifestyle. This calls for multi-sectorial collaboration between food industry and sectors dealing with health and nutrition promotion, the provision of care services, education, research, food control, food trade and economics.

## Factors Associated with Obesity in Primary School Children in Singapore

by Mabel A. Yap, MBBS (Sing.), M.Sc. (PH)  
Tan Wei Ling, Acad. Postg. Dip. Nutr.

The paper "Factors associated with obesity in primary school children in Singapore" will be appearing in full in the coming issue of the *Asia Pacific Journal of Clinical Nutrition*. This brief summary of the findings of the study conducted here will go a long way in helping nutrition professionals deal with the rising trends of obesity amongst school children in Singapore.

An upward trend in obesity had been observed in Singapore school children over the 15 years prior to the study. For boys the prevalence of obesity had increased from 9% in 1984 to 14.5% in 1989 and for girls, it had risen from 8% to 10.4% over the same period.

Obesity predisposes children to a multitude of chronic disorders later on in life. Recognizing the importance of this problem, the National Committee on the Prevention and Control of Obesity recommended that a study be conducted to determine the factors associated with obesity in Singaporean school children. The results would provide useful information for the planning and implementing of intervention programmes.

### Method

A case-controlled study of 200 randomly selected obese children matched for race and sex with another 200 normal weight control was conducted in 1990. The 400 children had a mean age of 10 years and were from ten primary schools. Interviews of the children were conducted by a team of nutrition professionals to elicit dietary history and exercise patterns. Their parents were also interviewed. Statistical analysis was performed on the computed data.

### Factors studied

#### Dietary Practices

Frequency of intake, preparation and source of meals and snacks were recorded, using a structured questionnaire. A 24 hour dietary recall was also obtained to compute the energy intake.

#### Activity Patterns

Energy expenditure was assessed according to activities done both in and out of school. Time spent on sedentary activities were also recorded.

#### Family History

Self reported height and weight measurements of

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Mrs Tan Wei Ling is the Director of the Food and Nutrition Department, Ministry of Health, Singapore and a full member of the SNDA.

both parents were obtained and the Body Mass Index computed from these.

#### Social History

Parents educational level, occupation and income were obtained from students' records or by direct questioning.

### Results

#### Dietary Practices

There was no significant difference between cases and controls regarding frequency of meals, preparation of meals, and source of food bought.

Though both cases and controls showed no significant difference in number or choice of snacks, cases had more frequent intake of deep-fried snacks, sweetened drinks, sweet drinks and candies. The mean energy intake for cases and controls however, was not significantly different.

#### Activity Patterns

Almost all students attended two physical education sessions per week. No significant difference was observed between cases and controls in energy expenditure or hours spent on sedentary activities per day.

#### Family History

A strong family history of obesity among parents and siblings was obtained. 23% of cases had at least one obese parent compared to 12% of controls. 26% of cases had at least one obese sibling compared to 15.6% of controls.

### Discussion

From this study it was found that the obese children were **not consuming more food energy** or spending **more time on sedentary activities** than controls. **However, obese children tended to consume energy-dense snacks, drinks and desserts** more frequently.

There is evidence that obesity tended to run in families and it may be hypothesized that children who are predisposed will become obese even if their intake is similar to those without such history.

## Nutrition and the Media — Lee Geok Boi

Health professionals, especially dietitians and nutritionists, want to promote a healthier lifestyle by increasing public awareness where food is concerned. One way to get such a message across is through the media. At a recent interactive workshop organised by the SNDA, Lee Geok Boi, writer and food columnist, focussed on nutrition and the media. During the informative presentation she included the importance of understanding the needs of different media and ways of handling the press.

Lee Geok Boi was a food columnist for many years with the *New Nation*, *The Straits Times*, *The Sunday Times*, *Her World* and many other magazines. A freelance writer since 1989 after more than 11 years with *The Straits Times*. She has had a long-standing interest in nutrition, discovered when she had to bring up two daughters.

### 1. How can the SNDA raise its media profile to promote the Association and nutrition?

First you need to decide that that is something you want to do. Then you need to identify members who can do one of these things well: write, speak or speak and look good. The next step is to be constantly alert to the opportunities to respond to any and every issue related to food and nutrition in the name of the Association and the profession. Create awareness that there is such a profession as dietitians who work with doctors and other medical staff. Respond in the name of the Association rather than as individuals. A group packs more clout.

However, you need to work fast, that is, identify the issue, prepare the response and get it to the press the same day it appears. It is also important not to ignore other magazines besides those in the Singapore Press Holdings Group. There are lots of small magazines and publications to be exploited. Among these would be in-house newsletters, speciality magazines and trade publications. Exposure across several segments can achieve the same purpose as exposure in a general newsletter like *The Straits Times*, especially as it is easier to get into the smaller magazines.

Public relation companies work to get their clients into the paper as news items rather than in advertisements. For some reason, a news item seems to carry more clout than an advertisement even though both may be in the same paper. Although it is understandable that members of the Association should feel that their advice should not be for free, at the same time it should not be forgotten that if the aim is to raise media profile, it may be too much to hope that there is money to be made out of it.

### 2. What is regarded by the mass media as newsworthy?

Most items which make it to the mass media like

Liason Person: Kath Walsh

Kath Walsh is currently Principal Lecturer, Language and Communication Skills Centre, Ngee Ann Polytechnic, Singapore, and an active member on the Editorial Committee of the SNDA.

The *Straits Times* must have an angle, something that will grab the attention of readers. As the old saying goes in journalism schools, "Dog bites man is not news; man bites dog is news". So unfortunately for many people, what is **newsworthy** is very often the **sensational stuff, rather than the educational stuff**. And unfortunately too, professional people like dietitians tend to think that serious stuff should not be sensationalised because it means dropping important qualifications.

What the mass media wants is a new development, hence the word "news" or "newsy". It is therefore important to look at nutrition from that angle. For example, if an advertisement appears that makes shady or even false claims, the public can be alerted to it. Or if it is known that a certain study on which a company is basing its advertising campaign is suspect, then that is the news angle.

Of course, you can't make friends that way. If you **want to get into the news, you cannot avoid controversy**. In fact, the more controversial the better. Of course, you have to be very sure of your ground and be prepared to defend it through thick and thin and in the face of fierce commercial pressure.

### 3. What key factors contribute to handling a media interview successfully?

The most important part is to establish rapport with the interviewer. It is easier to ask for things to be done your way when you get on with the journalist on a personal rather than official level. It is also easier for the both of you to speak your mind. Second, be sure of your facts, look and sound authoritative. It inspires confidence. Third, it helps to know how a journalist works. In other words, to know what she is likely to zero in on out of the mass of stuff you are telling her. Why? Because then you can tailor what you say with that angle in mind. I know "angle" is a word that professionals tend to object to, but let's face it: all of us expect the mass media to have an angle whether it is newspapers, magazines, radio or TV. You have to present your education information in the same way to succeed with a journalist. If he or she is inexperienced, then it is even more important that you have control of the situation, that is, you give her the angle to use, and make it a good angle so she will use it.

#### 4. What constitutes an effective press release?

When it excites the attention of the mass media and gets them to call you up for more information. If it does that, then your press release has been well-written and has an angle that the mass media can use.

No angle, no interest. Of course, a good press release must also have basic information such as time, date, place and the event. Even if the story does not make it into the news pages, the details may find its way into the diary of events for the public.

## SPOTLIGHT

### Career Profile

**Mrs Tan Wei Ling**  
Member since 1984

Current Position : Director  
Food and Nutrition, Department  
Ministry of Health  
Singapore

I graduated from the University of Otago (New Zealand) in 1962 with a Bachelor's Degree in Home Science, majoring in Nutrition and Dietetics. Upon completion of another twelve month internship in Dietetics, I stayed on to practise as a Staff Dietitian in New Zealand for four months before finally returning to Singapore, my hometown, in April 1964.

With interest in teaching and whilst waiting for the Teaching Dietitian's post with the then Faculty of Medicine, University of Malaysia, I proceeded to study for the Postgraduate Diploma in Education at the University of Singapore. The course proved very worthwhile as it prepared me for the many years of "teaching" that followed.

During my four and a half years' teaching stint (from 1965 to 1969) at the University, I was awarded a fourteen month World Health Organization (WHO) Fellowship to pursue the Academic Postgraduate Diploma Course in Nutrition and the Certificate Course in Food Science and Applied Nutrition at the University of London's London School of Hygiene and Tropical Medicine. The group project by the 1967 batch was a four month nutrition survey (including food consumption) in Ghana, Africa. What an experience it was indeed! And little did I know then that I would not be conducting another big scale survey till the 1990's.

On returning to Singapore once again in January 1970, I joined the University of Singapore as a Temporary Research Nutritionist. Besides conducting the "Nutrition in Pregnancy" study for WHO, I lectured medical students in applied nutrition and dietetics. In the following year, the Nutrition Unit of the Ministry of Health was established, and I was appointed its first Public Health Nutritionist in October 1971. My office was then in a three-room ground floor HDB-flat in Bukit Ho Swee.

During the next six years, the small unit of nine professionals (a Medical Officer as Head, two Public Health Nutritionists, four Staff Nurses and two Assistant Nurses) conducted extensive training of in-service public health sector doctors, nurses and home economics teachers in nutrition education. School feeding schemes like the wheat-soya-skim milk blend and food rations for underweight school children were instituted. A register and home follow-up programme of severely underweight pre-school children were also started. The programme required me and my team to walk the mud tracks of 'kampongs' and climb the steps to dingy rental flats in housing estates.



My exposure to the management of kwashiorkor and marasmic children (often worm-infested) in Africa came in handy then.

From 1977, the prevalence of under-nutrition declined and the problem of obesity began to emerge. Nutrition messages changed, like the "eat more" became "eat less", and very soon, I was busy measuring the skinfold thicknesses to assess body fat in the weight management clinic for school children. I had to adapt quickly to focus my training and intervention activities on the prevention of heart diseases, hypertension, stroke and diabetes.

In the 80's, my scope of work widened to include that of a Health Education Officer in the Training and Health Education Department. Besides nutrition, I got involved in programmes dealing with family life education, family planning and contraceptive use, smoking, immunization, stress management, physical fitness, and publicity of primary health services. In 1985, I even went on an US-attachment for ten weeks to learn about AIDS education (besides nutrition) to prepare for its action programme in Singapore.

In the twenty years, the opportunities to experience mass media and inter-personal programme planning, organization, co-ordination, implementation and evaluation in a great number of settings were tremendous. The wide exposures to resources development and management, of both personnel and materials, were most invaluable. The two areas of work, plus some administrative experience thrown in, more than adequately prepared me to take over the leadership role in the present Food and Nutrition Department.\* Currently, besides handling administrative duties, I direct three teams in the areas of nutrition education and training, consultation and collaboration, and research and surveillance.

What I enjoy about my career is that the work is varied; no two projects are exactly the same. The work is also challenging and very satisfying, and it provides scope for working for and with people. It requires me to be multi-skilled and to be versatile in meeting changing needs; and to keep myself up to date with the latest information and research findings. And finally, it allows me to nurture younger professionals and guide them in their career advancements.

\* The mission, functions and work of the Food and Nutrition Department of the Ministry of Health are given in its annual report, obtainable at 226 Outram Road, Singapore 0316.

## Book Review:

# DIET FOR THE ASIAN DIABETIC

Reviewed by Carolyn Begin, B.Sc. (Hons)

*Diet for the Asian Diabetic*  
Oi Heng Rasmussen  
ISBN 981 204 271 7  
128 pp  
Softcover  
Price S\$12.50  
Reviewed by Carolyn Begin

## Description

This book is written by Oi Heng Rasmussen. The "About the Author" section reveals that Oi Heng graduated from the University of Western Ontario, Canada, in Food Science and Nutrition and interned at St. Michael's Hospital in Toronto, Canada. She worked as a therapeutic nutritionist for the Ontario Department of Health in Toronto. After returning to Singapore she worked at the Singapore General Hospital and Gleneagles Hospital. She is currently in private practice and is the Honorary Dietitian of the Diabetic Society of Singapore.

The book has an introduction by the Diabetic Society of Singapore which briefly discusses what diabetes is, the goal of treating diabetes and how diet and diabetes relate.

The first chapter, "Why a Diabetic Diet", outlines the purpose of a diabetic diet, the traditional diabetic diet and the "New" diabetic diet. Facts taken from research articles are not referenced. The "New" diabetic diet recommends an appropriate caloric intake for the individual, fibre-rich foods, carbohydrates to be 55 to 60%, protein 12 to 15% and fat less than 30% of total calories. These figures are in relative agreement with the guidelines set by the National Diabetes Commission in September of 1993 — carbohydrates to be 50 to 60% of calories, protein 15 to 20% and fat less than 30%.

The second chapter "What Should a Diabetic Eat?", focusses on carbohydrates, fibre, sugar, alternative sweeteners, alcohol, protein, fat and sodium. The discussions are concise and easy to understand.

The third chapter is entitled "How Much Should a Diabetic Eat?". There is a good discussion on insulin, energy and food. The readers are given a formula to calculate daily caloric requirement using body weight and activity level. The author does state that sex and age will also affect caloric needs but does not give a method for adjusting for these variables. An important point is made that it is not advisable to reduce energy intake below 1000

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In 1986, Carolyn Begin graduated from the University of Guelph, Ontario, Canada with an Honors Bachelor of Science degree in Applied Human Nutrition. She is a member of the Canadian Dietetic Association and an active member of the SNDA.

calories per day unless under the supervision of a doctor or dietitian, as this calorie level is unable to provide the necessary vitamins and minerals. Desirable body weight is calculated by the Body Mass Index which was recommended by the 1990 National Committee on the Prevention and Control of Obesity.

The fifth chapter, "When Should a Diabetic Eat?", gives a brief but good introduction to diabetic coma and insulin reaction, insulin action and methods for preventing hypo- and hyperglycemia. It should be noted that a new diabetic reading this book would certainly have questions and require further help.

The sixth chapter, "A Balanced Diet Plan", divides foods into four basic food groups. The green or GO group as in a traffic light, is fruits and vegetables. The yellow group is cereals, the orange meat and dairy products and the red fats, oils and sugar. The red group signifies a red traffic light where you should stop and think before you eat foods from this group. Commonly eaten foods within the four food groups are divided into 80 calorie portions. The idea being that it is more convenient and less time consuming to estimate calories through portion sizes rather than actually counting them. By observation of portion sizes, the calorie content of most foods can be estimated. This should result in better dietary compliance. Foods in each food group are divided into 80 calorie portions by weight, measure and quantity. For example, one egg (50 g) and 1/2 cup rice (55 g) are both 80 calories. There are some measures using "palm size" which introduces some degree of inaccuracy. The written list of 80 calorie portions within each food group is quite extensive. However, the number of pictures given is limited (12 pictures per food group). The items in each food group appear to be nutritionally comparable. The concept of a variety of food choices within each food group would need to be reinforced with the reader. The protein, fat and carbohydrate content (in grams) of foods are provided. Thus if desired, the proportion of these nutrients could be worked out. There is a table which shows the recommended number of 80 calorie portions from each food group each day in order to consume a balanced diet. A dietitian would be needed to ensure the diabetic has actually chosen a nutritionally adequate diet. The reader is told to divide his or her daily energy requirement by 80 to translate into the food portions needed each day. The number of portions are then divided into 3 meals or more. A diabetic would require help here to decide on the number of meals and snacks, on how to divide the food portions among them, and how to time them in relation to insulin action times.

The remainder of the book is 50 recipes with 30 colour photographs. Each recipe provides the number of portions from each food group for four

to six servings. The user would have to divide for a single serving. For example, the Winter Melon Soup serves four to six and provides five meat, two vegetable, one starch and a 1/2 fat. The user needs to divide the soup into four or six servings and then divide the total portion figures by four or six to determine how many portions from each food group he has consumed. This seems quite complicated! However, it is certainly a benefit to have low fat, low calorie recipes for Asian dishes available.

## Comment:

A discussion now is necessary regarding the usefulness of an 80 calorie portion system. Currently in Singapore, dietitians use exchange lists based on the British or American systems to teach a diabetic diet. The American Dietetic Association (A.D.A.) takes the position that a variety of meal planning approaches should be available to the dietitian to effectively teach the patient. This would provide flexibility with regards to the degree of emphasis on weight loss, glucose control, literacy required, structure and complexity. A meal planning approach which is best suited for the individual can be chosen.

The A.D.A. has conducted surveys to investigate various meal planning approaches. Several have been found to be used successfully. One type is termed a "Point System" and is similar to the 80 calorie portion

system. In the Point System one calorie point is equal to 75 calories. The A.D.A. feels this is an easy method for well motivated individuals. Not a great deal of literacy is required for this method but the patient must be able to use the tables and be comfortable with numbers and calculations. With this system diet records need to be maintained for review with a dietitian. It should be used as a step by step approach to nutrition education. As counselling progresses, appropriate nutrition education can be added.

The A.D.A. points out that a chosen meal planning approach should have some national attention and be pilot tested to establish its usefulness. Other written and audio-visual resources should be available to support its use in teaching. Currently the 80 calorie system in not being used by the majority of Singapore dietitians, has not been pilot tested and there is only a limited supply of other teaching resources available.

This book may, in the future, provide an alternative method of teaching the diabetic meal plan. It should be seen as only one of several approaches to the diet for a diabetic.

## Reference

1. The American Dietetic Association "Meal Planning Approaches in the Nutrition Management of the Person with Diabetes" 1987.

# Dietary Treatment of Adrenoleukodystrophy (X-Linked)

by Bridget Fenby, B.Sc. (Hons), Postgrad. Dip Dietetics, SRD

X-linked adrenoleukodystrophy (ALD) is a genetically determined disorder causing adrenocortical insufficiency and progressive central nervous system demyelination. Incidence is reported to be one in twenty thousand. **The biochemical defect in ALD is an impaired ability to oxidize very long chain fatty acids (VLCFA).** This results in accumulation of saturated VLCFA particularly hexacosanoic (C26:0), pentacosanoic (C25:0) and tetracosanoic (C24:0) in tissues and body fluids. It is thought that this accumulation of VLCFA is responsible for damage to the myelin sheath.

Childhood ALD is the most common phenotype. **Affected boys** develop normally until **4 to 8 years**, then suffer dementia and progressive neurologic deficit leading to a vegetative state. Second in frequency is adrenomyeloneuropathy (AMN) in which young men over a period of decades experience progressive paraparesis. Ninety percent of patients in these two groups have varying degrees of adrenal insufficiency (Addison's Disease).

Adrenal hormone replacement therapy is effective in correcting the adrenal insufficiency associated with ALD, but does not alter the course of the neurological disability. When neurological symptoms of ALD have already manifested themselves there is no proven method to prevent the progression of the disease, however, several approaches are under investigation. These include dietary regimens that have been shown to normalize plasma VLCFA levels, bone marrow transplantation and immunosuppression (1).

## Dietary Treatment

Several types of diet therapy have been tried since the early 1980's. Initially a diet **restricting VLCFA**; specifically low in **C26:0** was tried but this regimen failed to lower plasma VLCFA levels or to alter clinical progression. The next approach was based upon the hypothesis that the administration of monounsaturated fatty acids might reduce endogenous synthesis of saturated VLCFA by competing for the same enzyme elongation system. Patients were treated with a diet low in C26:0 supplemented with glycerol trioleate oil. Plasma levels of C26:0 decreased by approximately 50%. However, this regime had limitations as (i) it failed to return VLCFA to normal, (ii) failed to stem the rapid progression of the disease in symptomatic boys, and (iii) it took 30 – 90 days before there was a significant reduction in VLCFA (1).

The next modification of the diet and the approach currently being used is to combine oleic acid (C18:0) with erucic acid (C22:1) in order to provide a more

potent inhibitor of saturated VLCFA elongation. It was observed that the addition of oral erucic acid brings about normalization of VLCFA in a short time (1).

A product called "**Lorenzo's Oil**" (70% oleic acid, 20% erucic acid) was developed for this purpose. It is named after a boy whose parents (neither of whom were scientifically trained) were determined to learn complex and biochemical facts that enabled them to contribute substantially to the understanding and therapy of the disease. A film called "**Lorenzo's Oil**", based on their experiences was released earlier this year.

Erucic acid is a component of rapeseed oil. There have been some concerns about the possible toxic effects of Lorenzo's oil. **Erucic acid produces a transient cardiac lipidosis in rats and pigs**, but probably does not do so in monkeys and humans. Existing trials have not reported any significant toxicity. Lorenzo's oil appears to be associated with a moderate reduction in platelet count, which is not severe enough to warrant discontinuation of the diet. Hence careful monitoring is required (1).

I have recently been involved in using Lorenzo's oil with adult AMN patients in Singapore. The oil was obtained from the suppliers in the U.K. and sent by air freight to Singapore. As the dietary treatment is so specific to ALD/AMN and not commonly used, I liaised with Dietitians involved in using it in the U.K. to discover more about the practicalities of advising such patients.

## Current Recommended Dietary Management (2,3,4)

### Pre-diet

- Assess nutritional status.
- Assess normal energy and nutrient intakes using three day recorded diet diary.
- Patients must be made aware that a significant change in lifestyle and a great deal of commitment is needed to follow such a diet.

### Diet

- Give 20% of total energy intake in the form of Lorenzo's oil taken as a drink in two doses with meals. It can be mixed with skimmed milk, syrup or fruit juice.
- Diet must be low in fat and low in C26:0. This entails reducing the fat in the diet to 15 – 20% of energy intake.
- Glycerol trioleate oil can be used for cooking. This greatly enhances the palatability of the diet and enables fried foods to be taken.
- Supplement vitamin and mineral intake as necessary. Principle nutrients affected are the fat soluble vitamins.

- Supplements of essential fatty acids (EFA) to be given as intake of EFA on such a low fat diet is likely to be inadequate.
- Supplement energy intake with glucose polymers or glucose drinks if energy intake is low.
- Provide information about suitable food choices, eating out and recipes.

## Review

- Monthly appointments until satisfied that patients understanding and compliance are good.
- Assess dietary intake using three day recorded diet diary to ensure nutritional adequacy and check that fat intake is reduced to 15 – 20% of total energy intake.
- Check weight regularly.
- Monitor plasma VLCFA levels.

## Recent Developments

Data from recent trials has shown that the patients most likely to benefit from diet therapy are pre-symptomatic patients. Recent trials have demonstrated that plasma C26:0 levels decrease to normal within one month of diet therapy in more than 80% of patients. Improvement in peripheral nerve function has been demonstrated in AMN patients. However,

in 60% of childhood ALD patients with neurological symptoms, the diet has done little to halt the progression (2).

In the USA, the National Institute of Health and the Food and Drug Administration are currently funding a five year study of the clinical efficacy of the oil, involving 257 patients with ALD (5).

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4. Van Duyn, M.A., Moser, A.E., et al (1984). The design of a diet restricted in saturated very long-chain fatty acids: Therapeutic application in adrenoleukodystrophy. *The American Journal of Clinical Nutrition*, 40, 277-284.
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# A Report on the XV International Congress of Nutrition

Adelaide, South Australia  
26 September — 1 October, 1993

The XV International Congress of Nutrition was held in Adelaide, Australia from 26 September — 1 October, 1993. This report aims to share with all SNDA members a brief summary of some of the interesting presentations and details the scientific challenges ahead for all nutritionists and dietitians.

## About International Union of Nutritional Sciences (IUNS)

The IUNS was established in 1948 as a non-governmental international organization to bring together nutritional scientists around the world. It aims to encourage the exchange of nutritional information through congresses, conferences and publications and to establish commissions and committees to deal with specific nutritional subjects.

The first IUNS international congress was held in Basel, Switzerland in 1962 and was attended by 150 scientists from 18 countries. Since then, it has been held every four years, attracting new delegates every time. The last one, which was held in Seoul, South Korea in 1989, was attended by 3500 scientists from 104 countries.

The main aims of the IUNS are:

- to increase the visibility of the IUNS and nutrition on the world agenda;
- to increase availability of the human resources of world nutrition;
- to acknowledge nutrition centres in developing countries.

## The XV International Congress of Nutrition — Adelaide 1993

The primary function of the Congress was to act as a forum for the exchange of ideas, theories and experiences between some of our leading scientists and nutritionists. It also helped to establish priorities and directions for the future of global nutrition and to concentrate on finding practical solutions to the problems of the developing world. The main theme dealt with the integration of nutritional policies into an ecologically sustainable strategy — the need to adapt and develop global food production so that it can keep pace with the world's increasing population, without further depleting our natural resources.

The Congress was planned to include state-of-the-art lectures, 50 symposia, 42 practical workshops and over 1500 posters. Some of the interesting presentations have been summarized below.

### State of the Art Lectures

#### New Global Perspectives to Overcome Malnutrition — WHO/FAO

Prof. Ramalingaswami, WHO/FAO

Prof. Ramalingaswami, in the very first presentation of the Congress said that "The World Declara-

tion and Plan of Action for Nutrition" adopted at the Rome ICN yielded the political force needed to move from rhetoric to action." He commented that since then a change of momentum has been evident from the upward surge of the synthesis of knowledge at the ICN to downward support and local action. Each country was encouraged to develop a National Action Plan within the guidelines of the Plan of Action to eliminate:

1. Famine and famine-related deaths,
2. Starvation and nutritional deficiency diseases in communities affected by man-made and natural disasters,
3. Iodine and vitamin A deficiency.

#### Hiroshi Nakajima Lecture Series — Nutrition Immunology Breakthrough For World Health Prof. R.K. Chandra, University of Newfoundland, Canada.

The first of the series of lectures dedicated to the current Director General of the World Health Organization, was presented by Prof. Ranjit Kumar Chandra of the University of Newfoundland, Canada. He reported that the immune system is very sensitive to malnutrition, reducing resistance to infection, encouraging the spread of infection and slowing down natural recovery. Any marginal deficiency of a single nutrient will almost immediately begin to impair several aspects of immune response, effecting cell-mediated immunity, phagocyte function, antibody affinity, secretory mucosal immunity and the complement system.

Prof. Chandra offered for discussion the practical applications of these discoveries — the possibility of producing "designer" feeding formulae for patients with poor nutrition and compromised immunity. This can help in the care of the very young by counteracting the increased risk of infection in low birth infants and improving the immunocompetence in the elderly.

#### Halving Child Malnutrition by the Year 2000 — UNICEF

Dr Urban Jonsson, Senior Adviser-Nutrition, UNICEF.

Dr Urban Jonsson presented delegates with the greatest challenge for the remainder of the century — malnutrition. "... we regard malnutrition as one of the most serious and embarrassing problems in the world today. Serious because it affects hundreds of millions of people — mainly innocent children. Embarrassing because the world has the knowledge and the means to solve it", said Dr Jonsson.

At present, malnutrition is decreasing at only 1/2 percent in developing countries. Four times this rate is required to halve malnutrition and meet the year 2000 goal. "The problem of undernutrition is compounded by the fact that nutrition is marginalized by governments, universities and agencies. Nutrition work is often co-ordinated by small nutrition units — with inadequately trained staff and small budgets", he reflected. Dr Jonsson reiterated that the nutritional goals agreed on at the International Congress of Nutrition, Rome, 1992, by the international community should be promoted as the moral minimum. Mid-decade targets including iodization of salt, elimination of vitamin A deficiency, implementation of the Baby Friendly Hospital and 20% reduction in PEM.

UNICEF's nutrition strategy promotes a practical approach to social mobilization and empowerment recognizing the fact the poor people already use very resource relevant coping strategies for their survival and development. There are two essential strategies:

- Community participation and empowerment to design and implement sustainable empowerment.
- Care for children and women in their family and community environment.

Dr Jonsson stated that the nutrition community represented at the Congress can contribute to and lead a global movement to eradicate malnutrition.

### Plenaries

#### Food, Nutrition and the Environment

Professor Alan Rerat, Institut National de la Recherche Agronomique, Paris.

This presentation discussed the agricultural and environmental policies necessary for world food production to cope with the demands of the next decade. Application of current knowledge into practice, implementation of food farming practices, careful management of natural resources, development of national and global responsibilities to sustain agricultural and aquatic systems. Often the threats to the ecosystem such as acid rain, deforestation, desert formation, overfishing and greenhouse effects are impossible to control and often local populations have neither resources nor the incentive to address them. It was summarized that it was a global responsibility to find alternatives for regional over exploitation.

#### Clinical Nutrition — it's Critical Future — New Strategies

Prof. Peter Furst, Director of the Institute of Biological Chemistry and Nutrition, Stuttgart.

Prof. Peter Furst, through this presentation tried to provide a clear picture of what can and cannot be achieved through nutritional treatment. He felt that clinical nutrition has come a long way and today our understanding of the relationship between nutrition and illness can go as far as to explore the role of diet in the regulation of gene expression.

Prof. Furst discussed the theory behind the therapeutic approaches which enable problems caused by nutritional disorders to be reversed or modified, such as the concept of molecular nutrition, alterations of stress response, and the provision of tissue specific substrates.

### Nutrition Transition in China

Prof. Chen Xiaoshu, Chinese Institute of Nutrition and Food Hygiene.

China has increased food production significantly. As a result per capita food consumption has increased dramatically — solving the problems of food security and overall improved health. The new threats facing Chinese nutritionists are no longer due to malnutrition but due to the diseases of affluence. Cancer, cardiovascular and cerebrovascular diseases are on the top of the list of chronic diseases associated with the adoption of western food habits. Launching an education campaign to restore the traditional diet was the recommendation from Prof. Chen.

### Symposia

#### Climate change and food production

This study, funded by the US Environmental Protection Agency, provided a global assessment of the potential effects of climate change on crops yield, world food supply and regions vulnerable to food deficit. Key findings show that the net effect of climate change is to reduce global cereal production up to 5% production in the developed world may improve and decline in the developing world due to the climate change, thus the population at risk of hunger in developing nations could increase even with a high level of farmer adaptation.

#### Women's health and nutrition

This symposia assessed the effects of different policies and the links between these public policies and its effect on women's health and household nutritional status. One paper discussed the conflicting results from different countries especially with regard to whether increasing income improved women's nutritional status. An interesting presentation from Kenya showed that de-facto female headed households have lower levels of malnutrition amongst pre-schoolers than children from higher income male-headed households. However, there was little improvement in women's health as the positive effects of higher income were offset by the tremendous work burden of these women.

#### Prevention of cancer by nutritional means

Current medical thinking attributes that one-third of cancers are related to diet and nutrition. One report cited an Australian intervention study in which the effect of fat, fibre, and beta-carotene on the occurrence of adenomatous polyps was studied. Except for the supplementation with bran which showed less severity and a lower total surface area of adenomas, none of the other supplements showed any positive effect. Lowering fat levels below current recommended levels was also not effective.

From India, a study reported that micronutrient supplementation with vitamin A, beta-carotene, riboflavin, selenium and zinc had a negative effect on the development of precancerous oral lesions. A study from China, showed that green tea had an inhibitory effect on the growth of skin papillomas in mice.

### Prevention of iodine deficiency

The most common cause of preventable mental disability in the world is Iodine Deficiency Diseases (IDD). It can be easily treated with iodized salt or iodized oil. Experiences from Philippines, China, Tanzania and India presented at this program discussed the various aspects, strategies and monitoring techniques to combat IDD.

### Workshops

#### Nutrition education for health professionals

This workshop looked at the implementation of nutrition education strategies in undergraduate and continuing health professional education. An international panel of speakers presented their diverse experiences with the aim of generating practical strategies for those involved in the education of health professionals.

#### Edible oils

This workshop examined the health implications of fat intake and fat metabolism. One interesting paper presented showed that in a randomized trial fats lauric, myristic and palmitic acids exert similar effects on lipid levels in rats. Another presentation showed that the risk of CVD is inversely related to plasma levels of anti-oxidant vitamins.

### XV IUNS Declaration

The General Assembly at the XV IUNS Congress in Adelaide agreed on the following declaration:

1. To issue a public statement at the IUNS in strong support of the World Declaration and the Plan of Action for Nutrition developed at the ICN in Rome in December 1992.
2. Countries to make all efforts to eliminate famine, starvation and malnutrition before the end of this decade.
3. All countries to incorporate:
  - Nutritional considerations in the development plans.
  - Improve household food security.
  - To protect consumers through improved food quality and safety.
  - Prevent and manage infectious diseases.
  - Promote breast feeding.
  - Care for the socio-economically deprived and nutritionally vulnerable.
  - Prevent and control major micronutrient deficiencies.
  - Promote appropriate diets and healthy lifestyles.
  - Assess, analyze and monitor nutrition and situations.
4. Commendation of the FAO and WHO on their efforts and encourages further and continued strengthening of their nutrition sections.
5. All nutritional scientists to press and assist their governments to implement nationally appropriate nutrition plans and policies in line with the International Plan of Action.
6. Greater support of research in nutrition, basic, clinical, applied and training in nutrition, ranging from high professional levels through to education of the general public and in schools.



### NEW NESTUM ALL-IN-ONE OATS

NESTUM Oats Beverage is a nutritious and delicious drink which provides the body with carbohydrates, protein and dietary fibre while being low in fat. It also contains vitamins and minerals.

NESTUM Oats Beverage comes in single serve (30g) sachets. Each sachet contains oats, skimmed milk and sugar. Just add 200ml of hot water to a sachet of NESTUM Oats Beverage and stir. Take it as a beverage during breakfast and anytime of the day.

NESTUM Oats Beverage is available in 2 packings:

Box Pack — 10 × 30g sachets  
Polybag — 20 × 30g sachets

It is available in all supermarkets and provision shops.

### PRODUCT UPDATE

Product information is supplied by the manufacturer of the product.



### JEVITY

Jevity is an isotonic, nutritionally complete liquid food that contains fibre (14.4 g dietary fibre/litre). The fibre, which is derived from soy helps patients maintain a normal bowel function, especially in the management of diarrhoea and constipation. Jevity contains all known essential and conditionally essential nutrients. Jevity is lactose-free and gluten-free.

Nutrient content : (Per litre of Jevity)

1060 Kcals, 44.4 g protein, 151.7 g carbohydrate and 35.9 g fat.

### NEW BOOKS

**McCANCE AND WIDDOWSON'S THE COMPOSITION OF FOODS. 5th Edition**  
2nd Reprint 1993. Edited by: B. Holland, A.A. Welch, I.D. Unwin, D.H. Buss, A.A. Paul, D.A.T. Southgate.  
Softcover, ISBN 0 85186 391 4 (1991) Price £35.

The Composition of Foods, 5th Edition, provides up-to-date nutrient data covering all food groups and is the largest single set of official UK food tables available.

The book contains updated and revised data and covers 1,188 foods. Included are previously unpublished data on over 50 new popular foods such as tuna canned in brine. The nutrient coverage for this edition has been extended to include selenium, manganese, iodine, non-starch polysaccharide, fatty acids. The Composition of Foods remains the essential handbook for those who need to know the nutritional value of foods consumed in the UK, 65% of the book provides new information.

**FOOD AND CANCER PREVENTION: CHEMICAL AND BIOLOGICAL ASPECTS** Edited by: K. Waldron, I.T. Johnson, G.R. Fenwick. Hardcover, ISBN 0 85186 455 4, Price £55.

Food and Cancer Prevention: Chemical and Biological Aspects is the first book to be published on this subject and represents the current state-of-the-art. It is interdisciplinary in scope and provides researchers from around the world with the opportunity to update themselves with developments in this area.

Epidemiological evidence makes it clear that diet can protect against cancer as well as promote it. Developments in molecular and cell biology have led to an increased understanding of cell proliferation and differentiation. This book explores the impact of diet on basic biological mechanisms and to help identify research opportunities and assess research priorities.

**BOWES AND CHURCH'S FOOD VALUES OF PORTIONS COMMONLY USED** 16th Edition,  
Jean A.T. Pennington ISBN 0 39754 829 X, Price \$39.95

This reference text, an enduring standard in nutritional science, has been extensively revised to insure relevance to today's eating habits — 85% of the book is new or updated. Provides complete nutritional information on 8500 foods in an easy to use tabular format. This edition includes monounsaturated fat content, 3000 more food and the listing of the sources for each food entry.

**FOOD : THE DEFINITIVE GUIDE**  
Edited by: T. Coultate, J. Davies. Softcover,  
ISBN 0 85816 431 7, Price £12.50.

This new book is the definitive and in-depth guide to food, nutrients and diet. It is unique in providing single point reference for all those studying food-related subjects. It presents information in short, easily digestible chapters which provide answers to the following broad questions: What food do we eat? What are the constituents of food? What should we be eating? Do we need to change our diet and how?

**EATING DISORDERS: THE DIETITIAN'S GUIDE TO UNDERSTANDING AND TREATMENT**  
Karen Palmer, ISBN 0 83420 383 9, Price \$98.95

A comprehensive manual for the Dietitian who is currently working with eating disorder patients as well as a training/educational book for those who may be starting work with these individuals.

The book covers the syndromes of anorexia nervosa and bulimia, and helps in the development and administration of an eating disorders programme. Details of methods to assess each individual and to set goals for nutritional rehabilitation are covered.

## MEETINGS

### 16th – 19th March, 1994

#### 2nd International Congress of Nutrition in Pediatrics

**Venue:**  
Lisboa, Portugal

**Contact:**  
Sociedade Portuguesa de Pediatria  
Rua Amilcar Cabral  
15 - R/c 1  
1700 LISBOA  
Tel: 351-1-7574680  
Fax: 351-1-7577697

### 17th – 19th September, 1994

#### 13th National Dietitians Association of Australia Conference

**Theme:** Partnership and Equity

**Venue:**  
Ayers Rock Resort,  
Yulara  
Northern Territory  
Australia

**Contact:**  
Dietitians Association of Australia  
P.O. Box 11,  
O'Connor, A.C.T. 2601  
5/11 McKay Gardens,  
Turner, A.C.T. 2601

### 2nd – 5th October, 1994

#### The First Asian Conference on Dietetics

**Venue:**  
Jakarta, Indonesia

**Contact:**  
The Secretariat of  
The First Asian Conference on Dietetics  
c/o Department of Dietetics  
Dr. Cipto Mangunkusumo Hospital  
Jl. Diponegoro 71  
P.O. Box 1086  
Jakarta 10430  
Indonesia  
Tel: 62-21-3143655  
Fax: 62-21-5210176

### 7th – 11th October, 1995

#### 7th Asian Congress of Nutrition

**Venue:**  
Beijing, China

**Contact:**  
Mr Ma Shi-liang  
Chinese Nutrition Society  
c/o Institute of Nutrition and Food Hygiene  
29 Nan Wei Road  
Beijing 100050  
China  
Tel: 86-1-304-3472  
Fax: 86-1-30101875

### October, 1995

#### 5th World Congress on Clinical Nutrition

**Venue:**  
Hangzhou, China

**Contact:**  
Prof. Zhu Shou Min  
Department of Nutrition  
Zhejiang Medical University  
Hangzhou, Zhejiang 310031  
PR China  
Tel: 571 722700  
Fax: 571 771571

### 1st – 6th July, 1997

#### XXXIII International Congress of Physiological Sciences

**Venue:**  
St Petersburg, Russia

**Contact:**  
IUPS 1997  
c/o CONGREX  
P.O. Box 35  
FIN-00621  
Helenski  
Finland

### 27th July – 1st August, 1997

#### 16th International Congress of Nutrition

**Venue:**  
Montreal, Canada

**Contact:**  
Secretariat  
16th International Congress of Nutrition  
National Research Council Canada  
Ottawa, ON,  
Canada  
K1A 0R6  
Tel: 613-993-9009  
Fax: 613 957-9828

## Singapore Nutrition and Dietetics Association

### APPLICATION FOR MEMBERSHIP

Application forms are available from the Honorary Secretary, Singapore Nutrition and Dietetics Association, Tanglin P.O. Box 180, Singapore 9124.

### MEMBERSHIP

Full members must hold a degree, diploma or any other recognised professional qualification and/or experience in dietetics or nutrition. Please assist us in processing your application by submitting the following:-

1. A copy of degree/diploma
2. Course syllabus and description
3. Transcripts
4. Verification statement from other dietetic or nutrition associations.

### Affiliate members shall be:-

1. Any person who, in the opinion of the Committee, occupies a position in a field allied to the profession of dietetics, and/or nutrition.
2. Any person or corporate body interested in the promotion or advancement of dietetics, and /or nutrition, or any branch thereof.

No person who is eligible for full membership shall be entitled to affiliate membership.

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All full members shall be required to pay an annual subscription of \$60.00. Full members joining part of the way into the year may pay a pro-rated subscription, this being calculated from the beginning of the month after membership is confirmed.

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## SUBSCRIPTION FORM

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**EFFECTS OF ALCOHOL CONSUMPTION ON PLASMA AND URINARY HORMONE CONCENTRATIONS IN PREMENOPAUSAL WOMEN.**

M.E. Reichman, J.T. Judd, C. Longcope, A. Schatzkin, B.A. Clevidence, P.P. Nair, W.S. Campbell and P.R. Taylor, *Journal of the National Cancer Institute*, Vol 85, 722-727, May 5, 1993.

Most epidemiologic studies of the relationship between alcohol and breast cancer risk have shown that persons who drink moderate amounts of alcohol have a 40 – 100% greater risk of breast cancer than those who do not consume alcohol. This study examined the hypothesis that alcohol consumption affects level of reproductive hormones. Researchers conducted a controlled diet-study involving 34 women aged 21 to 40 years, the study lasted for 6 consecutive menstrual cycles during which the women consumed 30 g ethanol per day for three menstrual cycles and no alcohol for other three cycles. Alcohol intake was associated with statistically significant increases in levels of serum hormones. The finding – that alcohol consumption by premenopausal is associated with increases in total estrogen levels and the amount of bioavailable estrogens – may explain the causal mechanism for a positive association between alcohol intake and breast cancer.

**PERSUASIVENESS OF NUTRITIONAL MESSAGES.**

M. Murphy, A. Wise and A. McLeish, *Journal of Human Nutrition and Dietetics*, 6, 49-55, 1993.

Mothers in a shopping centre were asked to rank messages for persuasiveness. The messages chosen concerned fat in chips, salt in soups, sugar in soft drinks and dietary fibre in bread. They were written in a combination of styles, for example, a technical statement that was positive and guilt-evoking or a non-technical statement that was negative and non-guilt evoking. There were eight messages for each food arranged in a Latin square to avoid bias. It was concluded that persuasiveness was enhanced by positive and reduced by technical language. The use of guilt-evoking ideas regarding mothers responsibility to family health did not influence the overall persuasiveness of the message.

**NUTRITION AND HUMAN DISEASE: HOW MUCH EXTRA VITAMIN C MAY SMOKERS NEED?**

C.E. Cross and B. Halliwell, *The Lancet*, Vol 341, 1091, April 24, 1993.

Measurements of the effects of cigarette smoke on the constituents of human plasma, including antioxidants may be a model for what may happen in the lung lining fluid of cigarette smokers. In experiments with human plasma, the ascorbate content was reduced by about half on average after exposure to one puff of cigarette smoke. After correction for the slow loss of ascorbate in air-exposed controls, it was estimated that each puff of cigarette smoke caused oxidation of about 0.09 mg ascorbate. Because one cigarette contains about 9 puffs, smoking one cigarette may consume 0.8 mg ascorbate. This would amount to a loss of 16 mg ascorbate a day for a person who smokes one pack per day and a loss of 32 mg for a person who smokes two packs per day.

**DIETARY MANAGEMENT OF ACUTE DIARRHOEA IN CHILDREN.**

I.W. Booth, *The Lancet*, Vol 341, 996-997, April 17, 1993.

In Europe and North America the guidelines for management of gastroenteritis in children included graded introduction of milk after rehydration. This cautious approach to refeeding inevitably leads to a reduction in nutrient intake. In malnourished children nutrient restriction may be a problem; even a few days of "bowel rest" may be associated with substantial atrophy of structure and function in the small intestine and pancreas. On an average children in developing countries have 5 or 6 episodes of acute diarrhoea a year and the nutrient deficiencies are cumulative. Several studies conducted with well-nourished children with mild diarrhoea show that rapid refeeding with a child's normal foods is not detrimental.