October 2002

HeartMatters

Quarterly Bulletin of the European Heart Network

06

Food related diseases: the challenge for the new millennium

by Leslie Busk

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For cardiovascular disease prevention, there are challenges galore. It is predicted that cardiovascular diseases (CVD) will remain the largest overall burden on the health of the world's people until at least 2020. The number of people affected by type 2 diabetes is expected to increase dramatically, and overweight and obesity in our European populations has been described as an epidemic. All these conditions are diet-related; indeed, poor diets combined with inactive lifestyles are thought to account for one-third of cardio-vascular diseases. Type 2 diabetes and obesity are in themselves debilitating conditions, but they are also major risk factors for CVD.

Given these challenges, one would have thought that our policy makers would be happy to embrace the solutions for attacking the problems that are recommended by many organisations, including the European Heart Network (EHN). But, apart from some very good examples from Finland and Norway, not enough is being done either at national level or at European level in terms of adopting and implementing com-prehensive integrated food and nutrition policies. Not necessary, many of our policy makers say. We do not need elaborate food and nutrition policies, all we need to do is educate people about diet, our policy makers say. People must choose for themselves, we cannot tell people what to eat, our policy makers say.

Wrong, we say. Because we know that education about what constitutes a healthy diet is not enough – on its own it does not work. In particular, when 'people' are young children choice is not so obvious with those 'nice people on the television' telling them that having chocolate biscuits for breakfast is good for them. We know that the reasons why people eat what they eat are complex and the factors that have an impact on what we eat are many and varied. Dealing with diets, overweight and obesity is not just a personal responsibility. Causes are societal and prevention and remedies must, therefore, also be society's responsibility.

So what are the remedies or solutions?

Probably first of all a general acceptance by our policy makers of the fact that reducing the burden of diet-related illnesses is, indeed, a public responsibility. Having accepted that, we believe that it is essential that Governments and the European Union agree on comprehensive integrated food and nutrition policies. This includes an examination of what people eat to identify where the excess fat that gives them their problems with cholesterol comes from; where the excess salt that gives them their problems with hypertension comes from; and where the excess calories that give them their problems with overweight and obesity come from.

Policies that must be implemented include:

- production incentives and subsidies that promote intake of the type of foods that will help the populations meet dietary goals;
- standards for food composition and catering that avoid excess intake of fat, salt and calories;
- food labelling, advertising and promotion that is understandable and not misleading;
- pricing and retailing strategies that make the healthy choice the easy and economical choice;
- a physical environment that encourages more physical activity.

EHN, together with its members throughout Europe and ably assisted by international experts, has already made a number of very concrete recommendations on policies and actions which are essential in reducing the burden of CVD as well as other major chronic diseases. Sometimes our policy makers say that we are repetitive. Maybe we are, it is not always easy to be innovative – but then it is hardly necessary to exert oneself to come up with novel ideas when the basic recommendations are often not taken up or implemented by our policy makers. The reasons why? They are called barriers and mainly consist of vested economic interests.

EHN and its members fund research, we fund and organise programmes in various settings and with various target groups, we invest in Europe's heart health. Meanwhile, where are the European Union's dietary population goals and the nutrition action plan promised by the European Commission in its White Paper on Food Safety adopted in 2000?

Dear policy makers, it is time for you to stop shooting the paper tiger called food safety with a cannon and start tackling the real beast: poor diets.

Leslie Burt

'It is time to stop shooting the paper tiger called food safety with a cannon and start tackling the real beast: poor diets.'

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Heart Matters, focusing on cardiovascular disease prevention, is a publication relevant to policy makers, public health experts and organisations involved in health promotion, disease prevention and public health research.

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Cardiovascular diseases are the major overall cause of death in the World Health Organization (WHO) European Region, accounting for over four million deaths per year. Coronary heart disease (CHD), the most common cause of premature death, is responsible for nearly 90 000 deaths per year. In the WHO European Region, CHD causes 16% of all premature deaths in men and 12% in women. Moreover in central and eastern Europe, mortality from CHD is almost double that of the European Union and in many countries is still increasing. The picture for stroke is the same.

Therefore the European Region faces a substantial burden from cardiovascular diseases (CVD). Although mortality rates are declining in western Europe, the prevalence of CVD appears to be increasing. The risk of CVD increases with age, so improved survival rates mean that with an ageing population an increased number of Europeans are living with impaired cardiovascular health. Around one third of cardiovascular disease cases are related to eating a poor diet (British Heart Foundation).

A high saturated fat, energy dense diet that is low in foods of plant origin combines with a sedentary lifestyle and smoking to form the major causes of cardiovascular diseases, cancers and obesity. Around 30-40% of cancer cases could be prevented through better diet (Eurodiet, 2000).

The prevalence of obesity is up to 20-30% in adults and shows escalating rates in children, increasing their future risk of cardiovascular diseases. Obesity is estimated to cost some health services about 7% of their total health care budget, and diet related diseases as a whole can account for around 30% of national health costs. In contrast, improvements in nutrition may reduce the burden of disease by at least 10%, equivalent to an economic benefit worth as much as 5% of annual gross domestic product, taken as an average across the European Region ("Obesity in Europe", 2000).

Moreover, low breastfeeding rates and poor weaning continue to result in disorders such as growth retardation, poor cognitive development, and infections in young children, in addition to the longer term cardiovascular diseases. Unfortunately, increasing poverty and social inequalities result in eating habits which exacerbate the risk of cardiovascular diseases.

Ministerial delegations from 50 WHO member states adopted a historic first Food & Nutrition Action Plan at the WHO Regional Committee for Europe in Copenhagen in 2000. The action plan serves as a guide for European countries to develop policies to reduce the burden of food-related ill health. WHO assists its member states to develop national food and nutrition action plans with comprehensive, multisectoral approaches to food and nutrition issues including national food and nutrition monitoring systems, scientific knowledge bases, and advisory and coordinating mechanisms.

The first WHO European Action Plan provides a unique framework within which member states can begin to address the issue of preventing cardiovascular diseases. The framework consists of a nutrition strategy for low-income groups and for the critical periods throughout life, such as infancy, pregnancy and ageing. A sustainable food-supply strategy is proposed to ensure that there is enough food of good nutritional quality, as well as helping to stimulate rural economies and promote the social and environmental aspects of sustainable development.

At the WHO Regional Committee for Europe in September 2000, the regional member states unanimously endorsed the Resolution regarding the First Action Plan for Food and Nutrition Policy, confirming that there will be a WHO ministerial conference in 2005. The ministerial conference will provide the opportunity to assess the progress made regarding the implementation of the Food and Nutrition Action Plan (www.euro.who.int/Document/E72199).

Intersectoral food and nutrition policy development

To assist Member States in developing and implementing national food and nutrition action plans, WHO developed a three-day training module entitled "Intersectoral food and nutrition policy development – a training manual for decision makers". This module has been used in the following sub-regions: southeast Europe, the Baltic and Nordic countries and southern Europe. So far a total of 28 countries have participated in seven workshops.

National food and nutrition action plans

The above training manual provided the framework for the following workshops that were carried out in collaboration with the Food and Agriculture Organization of the United Nations (FAO), the United Nations Children's Fund (UNICEF), and the European Commission.

Southeast Europe:

The first workshop on development of national Food and Nutrition Action Plans in southeast Europe was held in Slovenia, June 2000. Participating from Albania, Bulgaria, Bosnia & Hercegovina, Croatia, Hungary, Poland, Slovenia and the former Yugoslav Republic of Macedonia were national representatives from many different sectors, including health and agriculture. A second workshop, with the same national representatives plus the Czech Republic, Romania, Slovakia and Yugoslavia, took place in Bulgaria in October 2001. A third workshop took place in Croatia in September 2002, when

12 countries presented the progress they had achieved on national action plans. Full reports are available from the Nutrition and Food Security Programme.

Baltic countries:

Participants from Estonia, Latvia and Lithuania took part in the first workshop on the development of national food and nutrition action plans for the Baltic countries in Latvia in August 2000. Participants were national representatives from different sectors, including health and agriculture. A second workshop was carried out in June 2001 to evaluate progress and advise on the way forward. A third workshop took place in Estonia in June 2002 when Estonia, Latvia and Lithuania presented their final drafts of national food and nutrition action plans. Full reports are available from the Nutrition and Food Security Programme.

Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) participated in the Baltic workshops with the aim of supporting the Baltic countries and sharing their experiences in the field of nutrition policy development. A proposal was developed to set up a Nordic/Baltic Public Health Nutrition Network. This proposal was successfully submitted to the Nordic Council of Ministers and funding has been secured for three years (2002-2005).

Southern Europe:

A workshop was held for countries in southern Europe in Rome in March 2002, with Andorra, Greece, Israel, Italy, Malta, Portugal, Spain, and Turkey invited to participate. Participants were national representatives from different sectors including health and agriculture. Full reports of all these workshops are available from the Nutrition and Food Security Programme.

Russian Federation:

The Nutrition programme worked with the national authorities to develop a Russian Food and Nutrition Action Plan for different regions of Russia. The "Arkhangelsk" declaration was endorsed by delegates from around 20 regions in October 2000. Two regions, Murmansk and Arkhangelsk, have started to implement their Regional Food and Nutrition policy, assisted by funding from the Norwegian government. Full reports in Russian and English are available from the Nutrition and Food Security programme.

WHO Regional Office for Europe

The WHO Food and Nutrition Action Plan outlines how the Regional Office will contribute to the implementation of the Action Plan. This includes:

- collating existing knowledge and scientific evidence to support policy development and implementation;
- stimulating research in areas where evidence is lacking;
- developing innovative ways to communicate scientific knowledge and information;
- collaborating with countries in translating knowledge into action, working with national counterparts and providing information, experience and expertise as required;
- developing cost-effective indicators for surveillance;
- producing updated lists of new information, documents and training materials;
- facilitating information sharing, using modern communication tools and maintaining a mechanism for rapid updating.

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References:

British Heart Foundation. "European cardiovascular disease statistics." London: BHF, 2000.

Eurodiet. Core Report. Coordinated by the University of Crete School of Medicine, 2000.

"Obesity in Europe: The case for action." International Obesity Taskforce and the European Association for the Study of Obesity, 2002.

www.euro.who.int/Document/E72199.

The WHO Regional Office has carried out the following during 2000-2002:

- Collaboration with the EU Commission and the French government during its presidency of the EU Council (July–December 2000) concerned the development of "Health and nutrition – elements for European action".
- A WHO training manual on intersectoral development of national food and nutrition action plans was produced in English and Russian.
- A WHO training manual on healthy nutrition for women and their families was produced in English and Russian.
- Dietary Guides provide the basis for countries to develop national food-based dietary guidelines and posters.
- Comparative analyses of nutrition policies and food-based dietary guidelines were completed in WHO European member states.
- A WHO/UNICEF publication "Feeding and nutrition of infants and young children" was produced.
- Guidelines on regional and urban food and nutrition action plans were developed for local authorities.
- Case studies were compiled on the development and implementation of food and nutrition policies.
- The Regional Office helped to contribute to the new "Global Burden of Disease" regarding the number of disability adjusted life years (DALYs) related to diet, with support from the UK government.
- Contributions were made to the European Health Report 2002, on obesity and nutrition.
- Close collaboration continues with the European Commission, FAO and UNICEF.
- WHO stimulates the development of new methods to assess the impact of agriculture policy on health.
- WHO's "Food and Health in Europe: a basis for action" will be published in 2003, in English and Russian.
- A meeting of nutrition governmental counterparts, supported by the Greek Ministry of Health and scheduled for February 2003, during the Greek Presidency of the EU, will provide an opportunity to evaluate progress in developing Action Plans and discuss the way forward using the new global strategy on diet, physical inactivity and health.

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Food, nutrition and cardiovascular disease prevention in the European Region

Susanne Løgstrup, Director European Heart Network and Mike Rayner, Director British Heart Foundation Health Promotion Group (University of Oxford) and Chair of the European Heart Network's Nutrition Expert Group

In 1998, the European Heart Network (EHN) published a policy position paper called "Food, Nutrition and Cardiovascular Disease Prevention in the European Union", in which EHN set out a summary of the current thinking on the relationship between diet and cardiovascular diseases (CVD). The paper aimed to achieve concerted action on CVD prevention within Europe. It called for a European food and nutrition policy to be developed and set out provisional dietary goals for the European Union.

There has been considerable progress since then. The European Commission's Eurodiet Project, established to begin developing a public health nutrition programme for the European Union (EU), published European dietary goals in 2000. In December 2000 the EU Council of Ministers adopted a resolution on nutrition asserting the importance of nutrition for health and inviting the Member States of the EU and the Commission to take action to promote better nutrition. The World Health Organization's Regional Office for Europe (WHO EURO) has also developed a Food and Nutrition Action Plan (see elsewhere in this publication).

In May 2002, EHN published a second edition, "Food, Nutrition and Cardio-vascular Disease Prevention in the European Region: Challenges for the New Millennium". This paper embraces the wider European Region, reflecting the fact that more than half of EHN's members are from countries outside the EU and that the EU is undergoing progressive enlargement. This second edition provides an up-to-date synopsis of the current consensus of scientific thinking on diet and the prevention of cardiovascular diseases, based on the Eurodiet Report and other key consensus documents. It also examines what needs to happen next to put the recommendations of Eurodiet, WHO EURO and the Council resolution into place and, in particular, what national heart foundations, health professionals concerned with the prevention of CVD, and informed members of the public can do to help.

The paper highlights five goals that are supported by the strongest scientific evidence and which would give the largest public heath gains. These are:

- a reduction in the intake of saturated fat and trans fats;
- an increase in the consumption of fruit and vegetables;
- a reduction in the intake of salt;
- an increase in physical activity levels; and
- a reduction in body mass index.

"Table 1 shows that there is a clear consensus about what the nutrition goals should be, and EHN urges the European Commission to formally approve the Eurodiet Project's goals."

The discussion of the five goals includes an identification of policies that would affect their achievement, including:

- information and education relating to food, nutrition and physical activity;
- production incentives and subsidies;
- standards for food composition and catering;
- food labelling, advertising and promotion; and
- pricing and retailing strategies.

Population-wide action to change diet and lifestyles for the prevention of CVD has already been seen to work in practice. North Karelia in Finland and Norway are examples of regions or countries that have implemented policies that have brought about major health gains. The main changes in Norwegian nutrition between 1975 and 1993 have been a reduction in fat consumption, mainly due to a reduction in saturated fat intakes, and an increase in consumption of fruit, vegetables and cereals. These changes are reflected in a fall of about 10% in the average blood cholesterol levels and a large reduction in heart disease mortality in middle-aged men and women. In North Karelia, Finland, results have been impressive. Between 1972 and 1993 total cholesterol fell by 13% in men and 18% in women, and use of saturated fats declined by one third. By 1994 mortality from heart disease fell by 65%.

Both examples show that the prerequisites for bringing about changes are:

- a comprehensive food and nutrition policy, which involves all relevant sectors;
- structures which involve senior policy makers; and
- political commitment to improving nutrition to be sustained by regular reports on the state of nutritional health.

For this issue of Heart Matters, EHN asked its member organisations to fill in a questionnaire whose purpose was to determine the extent to which countries in Europe have nation-wide population dietary goals, national comprehensive food and nutrition policies, and structures to support the implementation of policies (such as a national nutrition council). The questionnaire also asked if the countries monitored food and nutrition intakes as well as levels of overweight and physical activity.

On pages, 9, 10, 11 and 12 you will find three tables presenting the results of the survey.

Table 1 shows that 14 out of the 16 countries replying have population dietary goals. This table also shows how the goals of different countries compare with each other and with EHN's population dietary goals as published in "Food, Nutrition and Cardiovascular Disease Prevention in the European Region: Challenges for the New Millennium". In general there is a high degree of consensus about what the goals should be, though for some foods/nutrients there is more agreement than for others. For example, 13 countries have a quantified goal for saturated fat and 12 of those countries agree that the goal should be less than 10% of energy intake. Similarly, 14 countries have a quantified dietary goal for salt and 12 out those 14 countries agree that the dietary goal should be either 5 or 6 g/day. But while all agree we should be eating more fruit and vegetables and 14 countries have quantified targets, the goal varies between 240g/day (Belgium) and 750 g day (Norway).

The questionnaire also asked about what countries were doing to reach their dietary goals. Table 2 indicates that 9 of the 16 countries replying now have a national food and nutrition policy and that 10 countries have a food and nutrition council or the equivalent. But the details of the policies and the composition of the councils vary considerably. As indicated above, some countries, such as Norway and Finland, see nutrition policy as affecting the whole of the food chain in the way proposed by the EHN, while for other countries, such as Italy, the emphasis would appear to be on health education.

Table 3 shows that 13 countries have food and nutrient intake data which can be compared with their population dietary goals and with EHN's population dietary goals. The table shows that very few countries are actually meeting any of EHN's dietary goals. No country meets EHN's goals for fat, saturated fat, salt, carbohydrate, or folate from food (and at least 8 countries have comparable intake data for these nutrients). Similarly, and perhaps not surprisingly, given the well-known recent increases in obesity in most developed countries, no country (out of 9 countries) meets the EHN's goal for a desirable average Body Mass Index (BMI).

Out of EHN's five priority goals in relation to improving diets for the prevention of CVD, that is for saturated fat, trans fats, fruit and vegetables, salt, physical activity and BMI, only three countries, Denmark, Germany and Italy (out of 6 countries), meet the goal for trans fatty acids and only two countries, Italy and Spain (out of 13 countries), meet the goal for fruit and vegetables. (But note for the trans fats and physical activity goals most countries are not yet collecting data which allows comparisons to be made.) Clearly all countries have a long way to go to meet EHN's new population dietary goals.

These tables provide a unique insight into food and nutrient intakes across Europe and what food and nutrition policy makers think those intakes should be if food-related ill health is to be reduced. They provide invaluable information for those, like EHN, who are proposing that there should be a comprehensive and coherent food and nutrition policy for Europe and that the European Union should formally adopt population dietary goals.

During the development of the Eurodiet Project – a principal purpose of which was to formulate population dietary goals for the EU – EHN argued strongly for a survey of all national population dietary goals across Europe and of food and nutrient intakes in relation to those goals. Eurodiet's goals (on which EHN has based its own goals) have yet to be formally accepted by the European Commission, apparently on the basis that there isn't a sufficient consensus to support the goals. Table 1 shows that, on the contrary, there is a clear consensus about what the nutrition goals should be, and EHN urges the European Commission to formally approve the Eurodiet Project's goals. Table 3 shows that the food and nutrient intakes across Europe are a long way from those goals and underscores the need for concerted action to improve diets across the whole of Europe.

A note on how the tables were compiled

The data in these tables was derived from a questionnaire sent to EHN members in the summer of 2002. In that questionnaire respondents were asked to give the references for any national population dietary goals and the food and nutrient intake data for their country. Most respondents did supply references and these are available on request.

Please note that these tables represent the views of EHN members. When inquiring about national population dietary goals EHN asked "Does your country have National Population Dietary Goals?". This means that the goals in this table may not be officially recognised by, say the, government of that country. When inquiring about food and nutrient intake data EHN did not specify how the data should have been collected. Different countries will have collected the data in different ways, which makes precise comparisons between countries difficult.

The results of a similar survey of government representatives of Member States of the World Health Organization are about to be published (WHO EURO, "Situation and comparative analysis of food and nutrition policies in WHO European Member States", forthcoming). Some comparisons between the results of EHN's survey and those of the World Health Organization's survey can be made, and these comparisons indicate that despite differences in the respondents and in the ways in which questions were asked, the results are broadly similar.

Tables

Table 1. Comparing different national goals

	EHN goals	Austria	Belgium
Respondent	-	Austrian Heart Foundation	Belgian Heart League
"Does your country have population dietary goals?"	-	Yes	Yes
What year were they published?	2002	2000	2000
Total fat	< 30% energy	< 30% energy	< 30% energy
Saturated fats	< 10% energy	< 10% energy	< 10% energy
Trans fats	< 2% energy	-	-
Polyunsaturated fats	No goal	7% energy	3-7% energy
n-6 polyunsaturated fat	4 – 8% energy	2.5% energy	-
n-3 polyunsaturated fat	2g/day linolenic+ 200mg/day very long chain fatty acids	0.5% energy	- -
Monounsaturated fats	No goal	the rest	
Dietary cholesterol	No goal	< 300 mg/day	< 300 mg/day
Total carbohydrate	> 55% energy	> 50% energy	> 55% energy
Total sugars	No goal	< 10% energy	U
Dietary fibre	> 25 g/day (3 g/MJ)	30 g/day	15-22 g/1000 kcal
Salt	< 6 g/day	< 6 g/day	< 5 g/day
Folate	> 400 µg/day from food	400 µg/day	-
Fruit and vegetables	> 400 g/day (8)	> 400 g/day (8)	> 240 g/day (8)
Bread potatoes and other cereals	No goal	500-750g/day	U
Fish	No goal	2 x a week	1-2 x a week
Sugary foods	< 4 occasions/day	-	U
Physical activity	PAL of 1.75	> 25 mins, 3 x a week	> 30 mins a day
BMI	BMI 23 (kg/m^2)	< 25 (m) < 24 (w)	<25
Alcohol	No goal yet agreed	< 20 g/day (m) < 10 g/day (w)	1-2 x a day

	EHN goals	Netherlands	Norway
Respondent	-	Netherlands Heart Foundation	Norwegian Health Association
"Does your country have population dietary goals?"	-	Yes	Yes
What year were they published?	2002	2001	1997
Total fat	< 30% energy	20-40% energy (1)	30% energy
Saturated fats	< 10% energy	< 10% energy	10% energy (2)
Trans fats	< 2% energy	< 1% energy	
Polyunsaturated fats	No goal	< 12% energy	5-10% energy
n-6 polyunsaturated fat	4 – 8% energy	> 2% energy	-
n-3 polyunsaturated fat	2g/day linolenic+ 200mg/day very long chain fatty acids	1% energy from alpha linolenic + 200 mg/day long chain fatty acids from fish	0.5% energy (3)
Monounsaturated fats	No goal	-	10-15% energy
Dietary cholesterol	No goal	< 300 mg/day (33mg/MJ)	300 mg/day
Total carbohydrate	> 55% energy	> 40% energy	55-60% energy
Total sugars	No goal	-	10% energy
Dietary fibre	> 25 g/day (3 g/MJ)	> 3 g/MJ	22-35 g/day (3 g/MJ)
Salt	< 6 g/day	< 9 g/day	5 g/day (0.5 g/MJ)
Folate	> 400 µg/day from food	- (7b)	300 µg/day (7)
Fruit and vegetables	> 400 g/day (8)	400 g/day	750 g/day
Bread potatoes and other cereals	No goal	8-12 x a day	-
Fish	No goal	1-2 x a week	-
Sugary foods	< 4 occasions/day	< 7 x a day	-
Physical activity	PAL of 1.75	> 30 mins a day	> 30 mins a day
BMI	BMI 23 (kg/m2)	18.5-25	-
Alcohol	No goal yet agreed	2-3 x a day (m) 1-2 x a day (w)	20 g/day (m) (5% energy) 15 g/day (w) (5% energy)

U = does have a goal but this is unquantified
(1) The goal for overweight people is 30-35% energy
(2) includes transfats
(3) for pregnant and breast feeding women only
(4) = current average
(5) added sugars not total sugars
(5a) added sugars not total sugars for those whose energy intake is < 8 MJ/day
(6) non-starch polysaccharide (not fibre)

Denmark	Finland	France	Germany	Ireland	Italy
Danish Heart Foundation	Finnish Heart Association	French Federation of Cardiology	German Heart Foundation	Irish Heart Foundation	Association against Thrombosis
Yes	Yes	Yes	Yes	Yes	Yes
1996	1998	2001	2000	1995	1996
< 30% energy	30% energy	30-35% energy	30% energy	U	25% energy
< 10% energy (2)	< 10% energy (2)	8% energy	10% energy	U	< 10% energy
		-	< 1% energy	U	< 5 g/day
5-10% energy	5-10% energy	-	-	-	<15% energy
-	-	4% energy	2.5% energy	2% energy	2% energy
-	1% energy	2g/day linolenic including 200mg/day very long chain fatty acids	0.5% energy	0.5% energy	0.5- 5% energy
10-15% energy	10-15% energy	20% energy	> 10% energy	-	10-15% energy
< 300 mg/day	< 300 mg/day	300 mg/day	< 300 mg/day	-	< 300 mg/day
55-60% energy	55-60% energy	50-55% energy	> 50% energy	-	55-60% energy
< 10% energy	< 10% energy (5a)	< 10% energy	U	-	< 10-12% energy (5)
25-35 g/day (3 g/MJ)	25-35 g/day (3 g/MJ)	25-30 g/day	> 30 g/day (3 g/MJ)	-	30 g/day
< 5 g/day	< 5 g/day	6-8 g/day	< 6 g/day	U	< 6 g/day
300 µg/day	> 36 µg/MJ	330 µg/day	> 39 µg/MJ (m) > 51 µg/MJ (w)	300 µg/day (7a)	200 µg/day (7)
600 g/day	500 g/day	600 g/day	800 g/day	320 g/day (8)	240-400 g/day (8)
-	U	400-600 g/day	U	U	2-4 x a day
300 g/week	2 x a week	2-3 x a week	1 x a week	-	U
-	U	-	U	U	U
30 mins a day	> 30 mins a day	-	PAL of 1.75	U	20 mins, 3-4 x a week
18.5 - 24-9	< 25	18.5-25	20-25	-	18.5-25
< 20 g/day (m) (< 5% energy) < 15 g/day (w) (< 5% energy)	< 20 g/day (m) (2-3 x a day) < 15 g/day (w) (1-2 x a day)	< 30 g/day (m) (3 x a day) < 20 g/day (w) (2 x day)	< 20 g/day (m) < 10 g/day (w)	U	< 40 g/day (m) (< 10% energy) < 30 g/day (w) (< 10% energy)

Portugal	Slovenia	Spain	Sweden	Switzerland	UK
Portuguese Heart Foundation	Slovenian Heart Foundation	Spanish Heart Foundation	Swedish Heart Lung Foundation	Swiss Heart Foundation	National Heart Forum
No	No	Yes	Yes	Yes	Yes
		2001	1997	2000	1991
		< 30-35% energy	< 30% energy	30% energy	33% energy
		7-8% energy	< 10% energy (2)	< 10% energy	10% energy
		-		< 1% energy	2% energy
		5% energy	5-10% energy	7-10% energy	6% energy
		-	-	1-2% energy	>1% energy
		2g/day linolenic including 200mg/day very long chain fatty acids	1% energy	6-8% energy	0.2% energy
		15-20% energy	10-15% energy	> 10% energy	12% energy
		< 300 mg/day		< 300 mg/day	< 335 mg/day (4)
		50-55% energy	55-60% energy	> 50% energy	47% energy
		-	< 10% energy	< 10% energy	10% energy (5)
		> 25 g/day	> 25-35 g/day	> 30 g/day (10-12.5g/1000 kcal)	18 g/day (6)
		< 6 g/day	< 6 g/day	< 6 g/day	6 g/day
		> 400 µg/day	> 400 µg/day	> 450 µg/day	200 µg/day (7b)
		700 g/day	> 500 g/day	500 g/day	400 g/day (8)
		6-11 x a day	U	3 x day	U
		-	>1 x a week	1-2 x a week	2 x week
		< 4 x a day	< 4 x a day	U	U
		PAL of 1.75	30 mins a day/ PAL of 1.75	30 mins a day	30 mins, 5 x a week
		< 25	< 25	< 25	20-25
		U	< 5% energy	< 20 g/day (m) < 10 g/day (w)	3-4 x a day (m) 2-3 x a day (w)

(7) 400 µg/day for those planning pregnancy, pregnant and/or breast feeding women
(7a) 500 µg/day for pregnant and 400 ug/day for breast feeding women
(7b) 300 µg/day for pregnant and breast feeding women

(8) recalculated from a goal given in servings. One serving assumed to be 80g

NB *goals for adults only. Some countries have separate goals for children and/or older people*

Tables

Table 2. National food and nutrition policies and councils

	Austria	Belgium	Denmark	Finland	France	Germany
Does your country have a national food and nutrition policy?	No	Yes	Yes	Yes	Yes	No
Publication date		2000	2001	2002	2002	
Does your country have a nation nutrition council or similar?	No	Yes	Yes	Yes	?	No

Table 3. Comparing national intake data with EHN's dietary goals

	EHN dietary goals	**Austria**	**Belgium**
Respondent		Austrian Heart Foundation	Belgian Heart League
Saturated fat	Less than 10% energy	17% energy	
Trans fats	Less than 2% energy	4-6% energy	
Fruit and vegetables	More than 400g/day	342 g/day	
Salt	Less than 6g/day	-	
Physical activity level	PAL of 1.75	-	
Body Mass Index	BMI 23	-	
Total fat	Less than 30% energy	38.2% energy	
Polyunsaturated fat		-	
n-6 polyunsaturated fat	4 – 8% energy	-	
n- 3 polyunsaturated fat	2g/day linolenic+ 200mg/day very long chain fatty acids	-	
Total carbohydrate	More than 55% energy	-	
Dietary fibre	More than 25g/day (or 3g/MJ)	-	
Folate	More than 400µg/day from food	-	
Sugary foods	4 or less occasions/day	-	

	EHN dietary goals	**Netherlands**	**Norway**
Respondent		Netherlands Heart Foundation	Norwegian Health Association
Saturated fat	Less than 10% energy	14.2-14.8% energy	14% energy
Trans fats	Less than 2% energy	2.9% energy	-
Fruit and vegetables	More than 400g/day	230-310 g/day	300 g/day
Salt	Less than 6g/day	9 g/day	10-12 g/day
Physical activity level	PAL of 1.75	-	-
Body Mass Index	BMI 23	24.8	25.9
Total fat	Less than 30% energy	36.5-37% energy	34% energy
Polyunsaturated fat		-	6% energy
n-6 polyunsaturated fat	4 – 8% energy	6.8-7.1% energy	-
n- 3 polyunsaturated fat	2g/day linolenic+ 200mg/day very long chain fatty acids	1.2-1.7 g/day	-
Total carbohydrate	More than 55% energy	42.7-45% energy	50% energy
Dietary fibre	More than 25g/day (or 3g/MJ)	20-25 g/day	17 g/day
Folate	More than 400µg/day from food	250 µg/day	-
Sugary foods	4 or less occasions/day	-	D

Ireland	Italy	Netherlands	Norway	Portugal	Slovenia	Spain	Sweden	Switzerland	UK
Yes	Yes	Yes	Yes	No	No	No	Yes	No	No
1995	1997	1998	1997				1995	2000	
No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Denmark	Finland	France	Germany	Ireland	Italy
Danish Heart Foundation	Finnish Heart Association	French Federation of Cardiology	German Heart Foundation	Irish Heart Foundation	Association against Thrombosis
15% energy	14.5% energy		14.7% energy	13.7% energy	12% energy
1.1% energy	-		< 1 % energy	-	0.43% energy
229 g/day	320 g/day		350 g/day	234 g/day	433 g/day
-	9 g/day		12 g/day	-	10 g/day
-	D		1.55 - 1.65	-	D
D	26.5		26.5	26.4	25.5
37% energy	32.5% energy		36.3% energy	35.4% energy	32.5% energy
5% energy	-		-	7.1% energy	6% energy
-	3.8% energy		4.9% energy	-	6% energy
-	2.3 g/day		1.7 g/day including 100 mg/day very long chain fatty acids	-	D
44% energy	51% energy		45.4% energy	46.4% energy	47.5% energy
2 g/MJ	21 g/day		20.1 g/day	20.3 g/day	21-25 g/day
275 µg/day	272 µg/day		225 µg/day	296 µg/day	89-259 µg/day
D	-		D	-	-

Portugal	Slovenia	Spain	Sweden	Switzerland	UK
Portuguese Heart Foundation	Slovenian Heart Foundation	Spanish Heart Foundation	Swedish Heart Lung Foundation	Swiss Heart Foundation	National Heart Forum
	14.8% energy	12.5% energy	15% energy (1)	14-15% energy	16% energy
	-	-			2% energy
	200 g/day	550 g/day	200-350 g/day	370 g/day	222 g/day
	-	> 6 g/day	8-10 g/day	10-12 g/day	D
	D	-	D	-	-
	D	25.7	24.7	D	26.5
	44.3% energy	38% energy	34% energy	38% energy	38.4% energy
	3.9% energy	-	-	5% energy	5.1% energy
	-	6% energy	-	-	5% energy
	-	-	-	-	1.7 g/day
	39.3% energy	-	47% energy	48% energy	42% energy
	20.1 g/day	> 25 g/day	21 g/day	< 25 g/day	22 g/day
	-	< 400 µg/day	225 µg/day	305 µg/day	262 µg/day
	-	-	6 x a day	-	-

D = there is data but in a form which cannot be compared with EHN's dietary goals

(1) Including trans fats

Campaigns for promoting healthy nutrition

Over the years, the Belgian Heart League has undertaken many campaigns concerned with promoting healthy nutrition. Most of these campaigns have been launched during the annual Heart Week. Below are some projects operated over the last few years, in chronological order.

1999 "Obesity: a 'big' problem"

In Belgium the prevalence of overweight is estimated at ± 30% and the real prevalence of obesity is currently about 15%. In order to counteract the trend toward overweight, a campaign entitled "Obesity: a 'big' problem" was launched in September 1999 with a major press conference.

This campaign was carried out with the Belgian Lipid Club and the Belgian Diabetes Association. Due to the combined efforts of the two organisations and the Belgian Heart League, 200,000 copies of an attractively presented brochure describing the different causes and aspects of obesity and suggesting several examples of healthy meals were produced. These brochures were distributed by medical doctors, dieticians and pharmacies.

2001 "Healthy breakfast"

Breakfast is not a major meal in traditional Belgian culture, so the results of a recent survey of breakfast eating habits in young people that was carried out among adolescents aged 14 to 18 did not come as a complete surprise. According to the survey, of these secondary school students:

- 15% never eat breakfast at all, so they always go to school with an empty stomach;
- 25% have a qualitatively and quantitatively inferior breakfast;
- ± 50% have an adequate breakfast
- and only 10% have a nutritionally valuable breakfast daily.

Breakfast and youth

Breakfast is an important meal at every age. For children, however, this meal has a particular importance for physiological reasons. Their storage capacity of glycogen (the form in which sugar is stored in the body) is very low, and glucose represents the principal fuel for the human nervous system. In the morning, the blood sugar level is low and the glycogen reserves are spent. One of the major functions of breakfast, therefore, is to restore the glycogen reserves after fasting all night, and complex carbohydrates such as those found in bread and other grain foods are particularly important.

Furthermore, scientific studies have demonstrated that eating breakfast contributes significantly to improving the physical and intellectual performance of children and adults in the course of the morning.

A new campaign

For all these reasons, in March 2001 the Belgian Heart League started a campaign entitled "A good start… for pleasure and health". This campaign was carried out in collaboration with the Belgian Association of Dieticians and the Belgian bakery industry.We produced and distributed 250,000 copies of a clearly written and attractively presented leaflet describing the different aspects of a healthy breakfast and suggesting several examples of a nutritionally appropriate start to the day. The leaflet argues in favour of having a meal in the morning by comparing the human body to a battery that needs its energy storage recharged every day. It also lists the food groups and portion sizes that make up a good breakfast, depending upon the age of the child or adolescent, and it recommends the desirable amount of physical activity for different age groups.

2002 "Cholesterol under control"

Cholesterol is one of the major risk factors for cardiovascular diseases, but more than 70% of the adult population in Belgium has a blood cholesterol level that is too high.

For these reasons cholesterol was the theme of our annual Heart Week (September 2002). A brochure (200,000 copies) entitled "Cholesterol under Control" discussing all aspects of cholesterol from prevention to treatment was distributed by medical doctors and dieticians.

Finnish Heart Association promotes better eating habits

New: Food in heart health promotion

FHA's first nutrition recommendation has now come out. Worked out by FHA's expert group in nutrition based on international (American Heart Association (AHA), European Heart Network (EHN) etc.) and national recommendations, the recommendation is aimed primarily at health care personnel.

Population goal:

- to promote healthy nutrition;
- to decrease excessive intake of energy and increase energy expenditure to decrease overweight and obesity;
- to decrease the intake of hard fats;
- to increase the proportion of soft fat in total fat;
- to decrease the intake of salt;
- to increase the intake of fibre;
- to increase the consumption of vegetables, fruit and berries.

The recommendation includes detailed objectives of the most crucial factors affecting heart health.

In practice the nutrition recommendation can be met by eating

- plenty of vegetables, fruit and berries;
- plenty of wholemeal bread and other wholemeal products;
- a moderate amount of soft vegetable fat, such as vegetable oil and margarine;
- only small amounts of hard fat (mainly from dairy and meat products);
- fat free and low fat milk products;
- fish regularly, fatty fish at least twice a week using different fish;
- salt in very small amounts.

Heart healthy food includes all the nutrients required under normal circumstances.

FHA's recommendations on heart health promoting physical activity are being drafted. Both recommendations will be released as one document to emphasise the importance of nutrition and physical activity together and separately according to the European model.

"Life in colours – health from vegetables"-campaign

Carried out by the Finnish Horticultural Products Society, the Finnish Heart Association and the Finnish Cancer Association, "Life in colours - health from vegetables" is continuing in autumn 2002. The campaign aims at increasing Finnish consumption of vegetables, fruit and berries to meet the recommendation of half a kilo of these foods every day. Started in mid-August and continuing till the end of October, this year's campaign targets 7th grade schoolchildren.

Included are the following components:

- The cookery book "Racking hunger", meant for 7th graders, is full of youthful, easy to prepare recipes. The foods contain abundant amounts of vegetables; the ingredients are low fat and low salt materials. Used in home economics classes, it is also a good aid in home cooking. Schools receive the book free of cost.

  The web site *www.raastavanalka.info* includes an Internet version of the cookery book, party hints, party recipes, a food glossary, and hints for beginners in cooking, a vegetable test and information on eating vegetables. The book and the web sites are publicised in a poster sent to schools.

- In cooperation with the Centre for Countrywomen and Homemakers about 100 vegetable events are arranged at primary schools. More than 22 000 schoolchildren can become acquainted with vegetables through exhibitions and vegetable tasting. Vegetable crossword puzzles reinforce knowledge in a fun way. Many schools also offer food connected with the theme in their school canteens.

  Only a fifth of schoolchildren eat at least three portions of vegetables, fruit and berries daily. The purpose of the school events is to remind children of the good effects and qualities of vegetables.

- TV spots that join physical activity and the health promoting effects of vegetables support the campaign. In badminton and sambic, success comes with the help of vegetables.

New: weight control project

Obesity and overweight increase the risk of CVD and non-insulin-dependent diabetes mellitus. Already high levels of overweight and obesity in Finland are increasing rapidly. In response, in 2001 FHA and Finnish Diabetes

Association launched a joint campaign, "Small decision a day", to prevent heart disease and type 2 diabetes. As part of the campaign a weight control model is being produced for health care providers. The campaign also includes supporting material connected to the model and instructor training. The material is especially targeted at people who are overweight (BMI less than 35), or have metabolic syndrome or type 2 diabetes. Planning and pre-testing of the programme and training started in 2001with the final programme planned for 2003. The aim of the programme is an efficient weight control model for organisations and health care workers.

Heart Symbol – every fourth consumer uses it as a criterion to select foods

FHA and the Finnish Diabetes Association launched the Heart Symbol system in the beginning of 2000. The right to use the symbol is granted (on application) to a packed product that fulfils the granting principles for the product group in fat quantity and quality, salt and cholesterol. For bread and cereal products, fibre content is also taken into account. Products that are not important as sources of fat and salt intake (e.g. vegetables and fruit) have been left out of the system. By September 2002 the right to use the symbol had been granted to 135 products (from 18 companies).

According to a May 2002 consumer survey, 43% of Finns over 15 years of age know the Heart Symbol by sight. During the preceding half a year the identification of the symbol had increased by about 15%. Especially encouraging: 24% of consumers claimed to have made their food choices especially because of the symbol often or occasionally.

From the viewpoint of the responsible organisations the most important objectives of the present year are

- to expand knowledge about the symbol and its use by consumers;
- to develop cooperation with the food industry;
- to increase the number of products and enterprises using the symbol;
- to develop cooperation with the retail sector;
- to increase the benefit of the symbol among e.g. health care professionals.

Programmes, campaigns and projects for promoting healthy nutrition

Since 1998 the German Heart Foundation has been conducting a cooperative programme with two private companies that produce respectively flour and margarine rich in omega-3 fatty acids. These companies are authorised to label their products with the German Heart Foundation's logo.

As one of the German Heart Foundation's intentions is to encourage people to change their lifestyle habits and get in better physical condition, it has published several related articles. In 2001, the German Heart Foundation published the offprint "Salt – Overweight – Stress" which is available in German and English. An abstract of this article is given on page 16. Another offprint describing the main risks of cholesterol and outlining a healthy diet was also published in German in 2001.

Recently, the German Heart Foundation published an article on Mediterranean food in its quarterly magazine "Herz heute" (Heart today). The article clarifies the differences between saturated and unsaturated fatty acids and explains the positive effects that a healthy diet has on the body. This article is available in German from the German Heart Foundation.

Table 1. Sodium and potassium content of a selection of foodstuffs. Sodium is the main constituent of common salt: 1g contains 0.39g of sodium.

in 100 g	Sodium (in mg)	Potassium (in mg)
Lean Meat	40 – 115	250 – 300
Smoked Pork	960	270
Ham	2500	215
Fresh Fish	25 – 115	150 – 300
Bismarck Herring	1000	250
Salted Herring	5900	100
Oils	1	1
Butter	5	15
Margarine	80 – 100	7
Mayonnaise	480	20
Full Cream Milk	50	160
Cheese	450-1000	90
Processed Cheese	1250	65
Rice	6 – 10	150
Flour	2 – 3	100 – 200
Bread	200 – 500	130 – 350
Fresh Fruit	0 – 20	100 – 250
Fresh Vegetables	0 – 130	150 – 230
Potatoes	15 – 20	350 – 450
Tomatoes	6	290
Tomato Ketchup	1300	600

Diet and high blood pressure

Prof. Dr. med. Malte Bühring, Immanuel Hospital, Berlin

Salt

Human beings have evolved over millennia with the help of a diet containing just a few grams of salt. It is quite apparent that it is not always possible for the human body to deal with a higher dosage of salt without negative side-effects occurring: however, these days, it is not at all uncommon for the population to absorb into their bodies approximately 10–12 grams of salt per day. Many of us then react to this higher intake with high blood pressure.

High salt intake counts as one of the primary factors causing high blood pressure, if not the most significant. Experiments on animals have demonstrated that consumption of too much common salt leads very rapidly to a serious rising of blood pressure. Results which compare salt intake and the blood pressure of various groupings of the population also attest to this fact most impressively. Consequently a diet low in common salt is the most sensible and effective measure that can be taken to reduce levels of high blood pressure. This course of action was often the only possibility of effective therapy within the framework of previous medical treatments. Both serious and acute cases were given a diet virtually devoid of salt in the early stages of illness. Such a salt-free diet, together with bed rest, often led to pleasing, positive results even for the most alarming conditions of high blood pressure within a matter of just a few weeks. This was also the period of medical history which recommended and indeed set great store by the so-called fruit, rice, potato or juice fast days. At the beginning of a new diet or as a regime to be followed regularly once a week, such days still today make a great deal of sense and are beneficial.

* See Prof. Dr. Ulrich Gleichmann et al.: "The New Lifestyle", special edition of the German

Even though we later discovered that we could eliminate common salt from the body by means of medication (the so-called diuretics) and thus make a diet low in salt seem unnecessary, it did not last long before the disadvantages of such a treatment were realised. And therefore dietary patterns low in salt have been regaining their importance.

Table 1 shows the salt content of a selection of foodstuffs. The information given makes crystal clear to what extent culinary skills and habits of our modern, civilised world have increased our intake of common salt: the following examples speak for themselves: an increase of a good thirty times as much salt when fresh lean meat is made into ham, almost a hundred times more salt in salted herrings than in fresh fish, almost 500 times more salt is present in mayonnaise than in its constituent oil and by the time a tomato makes the journey from its fresh state to the bottle of ketchup, it will have picked up 200 times more salt along the way!

If we, however, refrain from adding an extra portion of salt to our usual foodstuffs and if we also endeavour to avoid products particularly rich in salt, we will then achieve a daily salt intake of approximately 5 to 6 grams. This amount is considered to be the absolute limit tolerated by patients suffering from high blood pressure. After a certain period of following a strict, salt-controlled diet, patients become accustomed to the new taste and cope well with it. Indeed this new kind of diet enhances the entire sense of taste and new dimensions are added to the palate, sensations which tend to enrich the delight of the eating experience rather than diminishing it as one might perhaps think. When preparing dishes one can make use of herbs and spices instead of salt: e.g. parsley, thyme, rosemary, garlic, tarragon and nutmeg. And the most sophisticated gourmets have always rejected the idea of smothering the finer impressions of elegant cooking with over-generous helpings of salt.

At present it can be said that the importance of refraining from the consumption of common salt must be made clear to every patient suffering from high blood pressure. Nevertheless it must also be taken into account that some people seem to be more sensitive to salt than others. And clearly the latter will therefore not experience such great benefits from a diet low in salt. Consequently the medical profession suggests that salt should be avoided on a trial basis. If blood pressure levels do not change after a period of several weeks and if they fail to rise once "normal" eating patterns have been resumed, such a disciplined course of dietetic action will not be particularly worthwhile*. A further aspect is now steadily growing in importance: it is probably not only the sodium content of the organism which is of significance (Sodium is the component of common salt essential for us), the deciding factor is the amount of potassium present in the body at the same time. High potassium values tend to be favourable. Thus one undesired and one unpleasant effect of many a diuretic is that large amounts of potassium are also eliminated from the body along with sodium.

Therefore one can conclude that a diet should include and indeed favour products rich in potassium. It is interesting to observe that the potassium content is particularly high in those very diets recommended above, i.e. fruit diet, rice diet or potato diet.

*In the case of a rare kidney disease, low sodium syndrome, a certain amount of common salt can even be required to maintain healthy functioning of the kidneys.

Conference on Child Nutrition

A Conference on Child Nutrition brought together experts working in nutrition, health promotion, nursing, education, advertising, the food industry and food safety for one day to exchange information in Dublin on 11 April 2002.

In association with the National Heart Alliance and at that organisation's request, the Irish Heart Foundation's Council on Nutrition published a "Statement on Child Nutrition" in April to coincide with the conference. The full text of the statement including references can be read on www.irishheart.ie.

Key presentations

Food advertising to children:

Limiting TV viewing reduces exposure to food advertising, which was shown to be a key influence on children's food choices. This was highlighted by guest speaker Charlie Powell, from Sustain, an alliance of over 100 organisations that advocate the introduction of legislation to restrict the promotion of fatty, sugary and salty foods to children.

Children are more vulnerable than adults to the effects of advertising, and given the poor nutritional state of many children's diets, the selective targeting of children by manufacturers of unhealthy foods seems unjustifiable. Between 95% and 99% of the food products advertised during children's TV programmes contain high levels of fat, sugar or salt. The portrayal of unhealthy food and soft drinks as attractive and desirable choices may have a negative influence on children's dietary habits and undermine the efforts of parents and health professionals to encourage healthier patterns of eating.

Does salt matter?:

There is substantial evidence that dietary salt intake plays a critical role in blood pressure regulation, including the rise in blood pressure with age seen in most populations. Research shows that salt intake influences blood pressure in infancy and childhood. High blood pressure is the dominant risk factor for stroke and is a major cause of heart attack. Thus, changes in dietary salt at the whole population level, leading to a modest fall in population mean blood pressure, are likely to produce a substantial fall in the incidence of cardiovascular events.

It is estimated that the current salt intake of Irish children is broadly similar to that of children in the UK, i.e. up to 5 g of salt per day. Food labelling is essential to enable informed consumers to choose healthful foods.

Brief summary of Statement on Child Nutrition

Coronary heart disease death rates for men and women in Ireland are the highest among European Union countries. Lifelong dietary habits are established in childhood, and family doctors and their practice teams are ideally placed to act as opinion formers and to communicate advice on nutrition that is essential for cardiovascular disease prevention. Intended as a resource for health professionals who have the opportunity to promote healthy living among young, ostensibly healthy people, the Statement does not apply to specific groups with special nutritional needs. By definition, here the term "childhood" refers to ages 2 to 18.

What Irish children are eating

There is little information on the eating habits of children below primary school age, but Irish data on school children suggests that their diet has a higher than desirable fat content. The recent Health Behaviours of School Children (HBSC) survey suggests that a significant proportion of this fat comes from eating high fat, energy dense snacks. Boys aged 9-17 eat more of these foods than girls. In addition, a social class gradient was evident, with disadvantaged children consuming more of these snack foods.

IRISH HEART FOUNDATION

Summary of Irish Heart Foundation recommendations

1. For infants, where possible, encourage breastfeeding. Children who have been breastfed have been shown to have lower blood cholesterol levels, lower levels of obesity and lower blood pressure values.

2. *For children under two years of age*, a relatively high fat diet is important. Milk is the primary nutrient source for these children and therefore whole milk is recommended. Low fat milk is not suitable for this age group. *For children between two and five years,* introduce a gradual reduction in total fat intake to approximately 35% of energy requirements. *Children older than five years* require a moderate intake of fat (no more than 35% of energy from fat) with an emphasis on those foods high in monounsaturated and poly-unsaturated fats.

3. To meet calcium requirements, consider milk as a primary source but consider using low fat milk between ages two to five and onwards.

4. Choose from a wide variety of foodstuffs. Use the Food Pyramid as a guide.

5. Snack foods tend to be high in saturated and trans fat, salt and sugar. They should be enjoyed as an occasional treat and not as part of a staple diet.

6. Try not to add salt to food eaten by young people. Salt is directly related to the risk of developing high blood pressure, even in children.

7. Encourage regular, family meals. Young children/people who eat meals with their family consume fewer high calorie drinks, eat more fruit and vegetables and eat less fat in food, both at home and away from home.

8. Limit television viewing and thereby exposure to food advertising as these factors can influence children's behaviour in terms of food consumption.

9. Encourage regular play and physical activity – the enjoyment benefits of being physically active most days of the week will help reduce overweight, obesity and CVD levels.*

10. Food labelling is essential to enable consumers to choose healthful foods. Legislation may be required at national and international level to ensure adequate adherence by the food industry to scientifically based guidelines.

11. A public health campaign should help to improve awareness about good childhood nutrition to prevent CVD.

12. Research related to childhood nutrition is needed in Ireland.

* **The National Heart Alliance recommends that all young people (5-18 years) should participate in physical activity of moderate intensity for at least one hour each day. Young people who are currently very inactive should participate in physical activity of moderate intensity for at least half an hour every day.**

Promoting heart healthy nutrition in Italy

Since good nutrition can help prevent heart disease, the Italian Association against Thrombosis (ALT) has promoted a number of different initiatives designed to encourage Italians to eat in a healthy way. Many are aimed at informing physicians as significant mediators, while others target the general population directly.

Publications – communication

Since its foundation ALT has periodically addressed the issue of nutrition and CVD, each time analysing different aspects, providing different perspectives on the matter, and raising awareness through the use of different communication tools. Over the last few years several initiatives and publications have been produced, and ALT's bulletin (Salto) has occasionally been dedicated to nutrition and its role in CVD prevention.

Nutrition, thrombosis and CVD – conference

On 17-19 November 1999 ALT organised a conference in Rome on nutrition and CVD. An extraordinary turnout of specialists (mainly nutritionists, cardiologists, and haematologists) who actively participated, each addressing the matter from their own perspective, made the conference very productive. Over the three days several aspects and implications of nutrition were analysed, including among others nutrition and physical activity and CVD, the Mediterranean diet of olive oil and fish, the effects of alcohol consumption, and health cost-benefit evaluations.

The conference was opened by ALT's president Lidia Rota Vender, who introduced the European Heart Health Initiative (EHHI) project to all participants.

This conference had a wide international impact, and also received great media coverage.

Christmas olive oil – healthy nutrition promotion

Throughout the month of December 2001 ALT combined a fund raising programme with encouragement to practise healthy nutrition in a campaign involving Christmas baskets with high quality olive oil. Promoted through a number of events ranging from exhibitions to trade fairs to hockey matches, the campaign was also announced in 15,000 copies of Salto magazine. In addition, the initiative was promoted through ALT supporters, who were invited to encourage their friends, colleagues, partners and neighbours to purchase the "healthy" Christmas baskets for their own use or as Christmas gifts for their friends and relatives.

Enclosed in the basket with two bottles of top quality olive oil was informational material concerning CVD risks and ways to improve health, in particular through the Mediterranean diet, in which olive oil has traditionally played an important role. The baskets were sold for 20€ each and the money collected is being used to further CVD prevention initiatives. Vini and Spiriti Company sponsored the campaign by covering the packaging and shipping expenses.

A Fish Called ALT – healthy nutrition

promotion

Following the great success obtained during its launching phase (31 March and 1 April 2000), the Fish Called ALT initiative had a sequel on 6 and 7 April 2001. This project is meant to influence the nutritional habits of the Italian citizens by explaining the advantages of a diet rich of fish consumption to them. During the campaign in the main market squares of three major cities a kilogram of fresh fish, together with a booklet of recipes and information on CVD and CVD prevention, was given to those who decided to contribute a minimum amount of 20€ to research on CVD and to the activities of ALT.

The pilot project was implemented in Milan in 2000. The following year two other cities joined, so the second phase saw our members working in Milan, Rome and Bologna. As was the case in 2000, the initiative was well received and promoted by the local and national press. In fact coverage in the media continued for nearly a month, with promotion and feedback.

In addition to combining fund raising with the promotion of healthy nutrition, the campaign brought together partners from government and industry. Working with ALT on the programme as partners were the Ministero delle Risorse Agricole e Forestali (Ministry of Fisheries and Agriculture); the Associazione Piscicultori Italiani (Italian Association for Fish Breeders); and Sicily Fish Farm, a company specialised in fish breeding.

Translation of EHN nutrition paper –

advocacy

In order to share EHN's findings on nutrition with key decision makers in Italy, ALT translated the EHN Nutrition paper summary into Italian, then sent the paper along with the Italian translation to all Italian political authorities concerned with the matter. ALT outlined how a healthy diet is linked to CVD prevention and how political decisions could play a significant role in the improvement and diffusion of healthy eating habits and therefore have a positive effect on CVD prevention.

Fully endorsing EHN recommendations, ALT called for a political commitment to healthy nutrition: Italian policy makers were encouraged to enact a comprehensive and effective policy to promote heart healthy nutrition in Italy.

In order to give EHN efforts the proper media coverage, the paper was sent to all the major relevant Italian newspapers and magazines along with the translation and a press release.

by the Netherlands Heart Foundation

Netherlands Heart Foundation programmes, campaigns and projects for promoting healthy nutrition

The Netherlands Heart Foundation already has a long tradition in promoting healthy nutrition. For more than 30 years dieticians have been offering nutrition education sessions, giving advice on a healthy range of offerings in company restaurants and assisting in developing recipe books and other nutrition education materials.

Heart Foundation policy aims at different levels: nutrition education for the general public, creating facilities to enable people to eat in a healthy way, influencing laws, and developing guidelines for intermediaries. Activities are summarised below according to these categories.

Nutrition education for the general public

Through the Information Centre of the Heart Foundation letters and questions on nutrition are answered. Booklets on healthy eating, heart healthy cooking, how to read a label, overweight, high blood pressure and high cholesterol can be ordered. In addition a Calorie Wheel (energy in foods related to exercise time) is available. Dieticians can analyse the composition of foods consumed during a day using a computer programme. This method is used during health education markets, for example.

Currently as part of a programme that offers tailored advice on a healthy lifestyle, customised information on nutrition is being developed. This programme will be placed on the web site of the Heart Foundation in autumn 2004.

Nutrition education for groups

For the last 30 years ten free-lance dieticians have been providing nutrition education sessions for members of women's organisations, associations of elderly people and other groups. Besides a slide show on healthy eating, healthy snacks from our recipe booklet are prepared by participants and tasted. Other forms of health education are a quiz, a test to gain insight into one's own food habits, a nutrition activity circuit or tasting products with different percentages of fat, for example cheeses. Since 1998 the theme of the meetings has been extended to incorporate a healthy lifestyle, including (non)smoking and exercise. As from 2002 lifestyle education (including nutrition) is also given to diabetics and their families.

Campaigns

Since 1990 three healthy nutrition campaigns have been conducted in cooperation with the government, the food industry, retailers, local health services, and nutrition, health and consumer organisations. The Heart Foundation was and still is a major financial contributor. Each campaign lasted/lasts five years: from 1990-1995 the campaign "Beware of fat", from 1996-2001 "Healthy nutrition, what's keeping you?" and ongoing from 2002-2006 "Your weight in balance" were conducted or are under development. Important activities have been:

- Guided tours through supermarkets by dieticians to teach consumers about the information on food packaging regarding the fat content and fat composition of the products;
- Stir-frying demonstrations to promote the use of vegetable oils and to stimulate the consumption of vegetables, held in supermarkets and, in order to reach parents with young children, in animal zoos;
- Seven tests in print and on the Internet to become aware of one's own food habits (for example concerning fat, fibre, fruit and vegetables, snacks, meals);
- Weighing teams in supermarkets to promote eating 200 grams of vegetables a day;
- Labelling foods in supermarkets (text on label: do you eat 200 grams of vegetables every day?);
- Yearly "Healthy Nutrition Prize" for food industry, to stimulate developing new foods that contribute to healthy eating.

Starting in 2002 the campaign to prevent overweight will focus on adults 20-35 years old. The balance between energy intake by food and energy expenditure by exercise will be stressed. The first year emphasis will be on creating awareness of slow weight gain; in addition to mass media advertisements, a leaflet and a body mass instrument will be developed.

Creating facilities for healthy eating

Healthy range offered in company restaurants

Since 1978 dieticians of the Heart Foundation have been consulting on a healthy range of snacks and dishes in company restaurants. Guidelines were developed by which catering managers can improve the range themselves. A manual of guidelines was introduced during a conference on healthy canteen food. The Heart Foundation and the Netherlands Education Centre, together with the organisation of all Dutch caterers (VENECA Education Bureau of Fruit and Vegetables), developed, introduced and tested nationwide guidelines for a healthy range of foods in company restaurants. Starting in 1995 a box with materials for an action week on healthy nutrition was developed. It includes materials to decorate the restaurant, a guide/manual for catering managers, leaflets for visitors, and labelling materials for healthy foods. Special attention is paid to improving fruit and vegetable consumption, in co-operation with the Education Bureau of fruit and vegetables.

Food composition analysis

To give people insight into the composition of foods, the Heart Foundation analysed the food composition, especially the fat and salt content, of all margarines, meats, snacks and soups. This information was published in a consumer magazine and used for fat and salt guides (consumer material). The data was also used for negotiations with the food industry to promote the development of healthy foods. Foods offered in canteens were analysed and the results were used to promote healthy canteen foods (labelling system and guidelines for caterers). Recently trans fatty acid compositions of margarines, bakery products and snacks were analysed.

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Food endorsement scheme

In 2000 the feasibility of a Heart Foundation endorsement scheme for foods low in saturated fat and high in fibres was investigated. Support was requested from nutrition and health education opinion leaders, juridical aspects of a logo including a heart on foods were described, criteria for healthy foods were developed, and consumer tests were conducted with different logos. Although one of the logos was associated with the right connotation, the logo printed on different foods turned out to have different meanings depending on the food group. For example, the logo on lean chicken meat was not approved because the meat was sold through the supermarket and not freshly cut by a butcher.

Since consumer test results were confusing, the project was stopped. This was an unexpected reason for aborting the project — opposition from the food industry was expected to be the major barrier because of a fear of discrimination against certain foods.

Influencing law and developing guidelines

Lobbying

The Heart Foundation lobbies at national level, as well as participating regularly in discussion groups on Dutch policy on healthy nutrition. Since the 1990s the Netherlands Heart Foundation has also been carrying out lobbying through the European Heart Network (EHN) in Brussels aimed at developing heart healthy laws at European level. Examples are the law on nutrition labelling and on nutrition, health and medicinal claims.

As a member of the nutrition working group of EHN the Netherlands Heart Foundation contributed to the recently developed policy document "Food, nutrition and cardiovascular disease prevention in the European Region".

Nationwide guidelines

The Heart Foundation is an initiator and participant in developing nationwide guidelines for (para)medical professionals, such as the cholesterol and hypertension consensus (in cooperation with all professional groups) and on overweight and homocysteine.

To introduce these guidelines and to educate professionals, conferences have been organised in cooperation with other (para)medical professional groups.

Programmes

Since the mid 1990s the Heart Foundation has been organising programmes concerning youngsters, adults and the elderly.

Youngsters

For primary schoolchildren ages 10 to 12, the Heart Foundation stimulates exercise through the yearly Junior Heart Day and the Heart Dance Award. In materials and quizzes attention is also paid to healthy eating.

Adults

In addition to the activities in restaurant companies and lifestyle education sessions mentioned above, in 2002 weekly cooking demonstrations were performed through the Floriade, an international fair on agriculture, fruit and vegetables.

Elderly people

The Heart Foundation participates in the National Health Enhancing Physical Activity campaign to promote exercise and to a lesser extent healthy eating. Different activities are developed, for example fitness walks and a daily television programme on exercising and on nutrition education. Courses on nutrition and exercises are promoted.

Special groups

At the moment a programme for people with a low social economic status and for non-native Dutch people is under development. A healthy lifestyle programme including healthy eating is being worked out for people working at a socially-supported work place. For non-natives (Turks and Moroccans) a programme on heart diseases and risk factors is being developed for health educators who speak the language of the target group. In 2003 health education meetings will start. Data has been gathered on the prevalence of lifestyle and risk factors among non-natives, and the effectiveness of ongoing interventions and activities in the Netherlands aimed at these groups has been described. Further research on determinants of behaviour is being initiated.

Evaluation and research

Increasingly the Heart Foundation conducts research before starting a project and evaluates the project afterwards. Examples of research are:

- Among people who cook at least three days a week: cooking habits regarding fat and the use of salt, herbs and spices;
- Knowledge, attitudes, efficacy and behaviour among 2000 people;
- Prevalence of lifestyle and risk factors among non-natives and natives in the Netherlands;
- Effectiveness of large scale interventions among the elderly and young adults;
- At the moment an overview of ongoing activities and a literature search of the effectiveness of intervention among 10 to 18-year-old children are being prepared.

Several universities and research organisations conduct the research for the Netherlands Heart Foundation.

Evaluation

Projects such as the supermarket tours, stir-frying demonstrations, junior heart days and heart dance awards have been evaluated.

Tackling overweight and obesity in Portugal

The fat profile of the portuguese population

In 2001, the Portuguese Heart Foundation (PHF) completed a population study, enabling it to determine the fat profile of the Portuguese population. It selected a sample of 1,500 individuals, chosen at random to be representative of the Portuguese population. In addition to establishing clinical and laboratory parameters, the PHF investigated the population's food knowledge, and eating habits were also assessed.

The results were not very encouraging. Total cholesterol for the population was found to be 5.45 mmol/l (a confidence interval of 95% between 5.39 and 5.50 mmol/l). About 68.5% of the population probably has a level above the 4.9 mmol/l recommended by the Portuguese Atherosclerosis Society. About 23.4% of the population is at a very high risk, with cholesterol over 6.2 mmol/l.

As regards HDL cholesterol, the situation may be slightly better, as the average level found in the Portuguese population was 1.35 mmol/l (C.I. 95% between 1.33 and 1.37 mmol/l). This meets Portuguese Atherosclerosis Society recommendations for a level above 1.16 mmol/l. On average, females had significantly higher levels than males (1.46 compared to 1.22 mmol/l). Probably only 3.1% of the population has a risk level equal to or lower than 0.90 mmol/l.

The average level of triglycerides for the population was 1.50 mmol/l. Probably about 16.9% of the population has a risk level of above 2.0 mmol/l, the limit recommended by the Portuguese Atherosclerosis Society.

Without enquiring into what their food comprises, virtually all Portuguese people eat breakfast, lunch and dinner. However, only 20.5% of those questioned take a mid-morning snack during the week. At the weekend, that figure falls to 13.6%. A mid-afternoon snack is taken by far more people, amounting to 55.5% of the population during the week and a little less (52.9%) at the weekend. PHF recommendations currently call for five meals per day, including mid-morning and mid-afternoon snacks.

The vast majority (94%) have heard of cholesterol. However, only 62% have heard of triglycerides. Correct knowledge of the food sources of cholesterol was widespread: food types that individuals associated most with high cholesterol were cakes and pastries (83.4%), butter (82.1%), chocolate (76.7%) and red meat (63.5%). The food they least associated with it were white meat (17.7%), olive oil (16.6%), beans and chickpeas (14.0%), and fruit and vegetables (14.0%).

The factors seen as being most closely associated with cardiovascular risk were smoking (95.5%), high blood cholesterol (91.1%), alcohol (89.0%), obesity (88.8%), high blood pressure (88.7%) and poor diet (87.7%). This generally reflects PHF recommendations, although a small glass of red wine at meals is not considered a major risk factor.

Although the majority recognise the benefits of physical exercise, only 32% say that they exercise regularly.

Although the Portuguese population is aware of cardiovascular risks, few put that knowledge into practice, and many have a cholesterol level above the recommended levels. Prevention should focus more on establishing the conditions to enable habits and behaviour to change.

XL Plan – a plan for life

Obesity has been classified by the World Health Organization (WHO) as the new epidemic of the 21st century. Similar to the trend in other developed countries, the number of overweight or obese people is also on the increase in Portugal.

With a view to helping to control this public health problem, the Portuguese Heart Foundation (PHF) has developed the XL Plan, which consists of a programme of personalised nutritional support designed for people who wish to lose weight in a healthy manner and to change their eating habits so as to avoid regaining weight after dieting as well. All adults with excess weight (BMI ≥ 25 kg/m2) and who need to slim down can find out about the XL Plan from their family doctor.

The doctors provide the patients with the XL Plan questionnaire, which is filled out and forwarded to the PHF. Each patient is then contacted by the XL Plan nutritionists and monitored for six months by means of regular telephone contacts.

After the first telephone conversation, a personalised diet that is adapted as closely as possible to the eating habits and preferences of each patient is drawn up and forwarded by post. In the ensuing contacts, the patient's adaptation to the diet, weight difference and waist circumference are assessed/measured and his/her motivation to continue to lose weight is strengthened.

During this monitoring phase the patient also receives useful information material promoting a change in eating habits after the diet.

Initial results are encouraging

As the first year of the programme comes to a close we are now in a position to evaluate the results of the 2,351 people who have taken part in the programme so far. The majority are of the female sex (82%) and they joined the XL Plan programme basically for health reasons (19.3%) and better well-being (63.8%). The average ages were 47.5 ± 13.6 years for men and 43.9 ± 13.3 years for women.

Table 1. shows the distribution of the BMI values.

18.5 – 24.9 kg/m^2	31	1.3
25.0 – 29.9 kg/m^2	671	28.5
30.0 – 34.9 kg/m^2	867	36.9
35.0 – 39.9 kg/m^2	516	21.9
≥ 40 kg/m^2	266	11.4
Total	**2351**	**100.0**

Table 1 – BMI frequency.

The second and third contacts take place roughly one month after the patient has started the new eating plan recommended by the nutritionists. Between the first and second evaluation stages the reductions in weight were statistically relevant. The male patients showed a greater difference between their initial weight and their weight at the second weighing (an average of 2.47 kg). Those who joined the XL Plan on the advice of their doctor or for health reasons were the ones who lost most weight (2.39 and 2.34 kg on average respectively). The results are shown in the following table.

These initial results are very promising. The participants are pleased with the progress they are making, and the clinics and family doctors can rely on the help of the PHF in what must be seen as a collective effort to reduce obesity and promote a healthy lifestyle in general.

Motives	N	Initial weight		2nd weighing		Weight difference	
		Mean	SD*	Mean	SD	Mean	SD
Both sexes	1975	87.06	15.45	84.98	15.29	2.08	2.70
Men	365	98.50	14.72	96.04	14.71	2.47	2.99
Women	1610	84.46	14.40	82.48	14.28	1.99	2.62

*SD = standard deviation

Motives	N	Initial weight		2nd weighing		Weight difference	
		Mean	SD	Mean	SD	Mean	SD
Doctor's advice	140	85.96	13.14	83.57	12.79	2.39	2.62
Health reasons	382	89.94	15.18	87.60	15.11	2.34	2.89
Aesthetic reasons	60	82.98	13.75	81.29	13.81	1.69	2.26
Discrimination	119	95.69	19.26	93.68	18.91	2.01	3.09
Well-being	1212	85.43	15.07	83.43	14.93	2.00	2.61

Promotion of healthy nutrition in Slovenia

A non-governmental organisation active since 1992, the Slovenian Heart Foundation has more than 6000 members. The Foundation works with many external collaborators from the fields of medicine, nutrition and sport, and from school systems all over Slovenia.

The activities of the Foundation are mainly focused on the prevention of cardiovascular diseases (CVD), and strive to reduce mortality caused by these diseases, which is still very high in Slovenia, although in the last 12 years it has dropped from 52% to 42%.

Meeting the need for education about correct nutrition

According to the latest data from 1997, obesity and overweight can be observed in 43.3% of Slovenian people in the age group from 20 to 65. Obesity and increased body weight are a powerful factor for greater chances of developing cardiovascular diseases. The percentage of obesity in people has to be reduced by improving the nutrition regimen and by active recreation.

Nutrition is therefore a key area for the Slovenian Heart Foundation. Slovenians eat too much fat and not enough fruit and vegetables. In order to change the dietary habits of a nation it is not enough to distribute information, though – one must also offer foods that constitute a healthy diet. Eleven years ago the Slovenian Heart Foundation started the project entitled "Protects health". This project involves conferring the "protects health" label on suitable food products – health protecting food.

Highlighting healthy food with the "protects health" label

Various branches of the Slovenian food industry, such as the meat industry, bakeries and dairies, responded promptly after the launching of the "Protects health" project, in 1993, to the initiative of the Slovenian Heart Foundation recommending that suitable food products carry the relevant label. The acquisition of the "protects health" label has a powerful marketing effect. There are already 193 health protecting food products available.

The aim of the project is to label food products with outstanding quality with the sign "protects health", thereby increasing the supply of foods that have a low content of fat, cholesterol, salt or added sugar, that have a low energy content, a favourable ratio of fatty acids, and a high dietary fibre content.

Inadequate nutrition is among the most important factors for the development of CVD. It is difficult to measure the effect of food as a single factor, since there are several negative factors present. However, the mortality rate due to CVD has dropped slightly, and a significant reason for this lies in improved awareness of correct nutrition. The doctrine has become prevalent in Slovenia that the prevention of cardiovascular diseases is not only more pleasant for people, but also cheaper, if the treatment that has to be undertaken after the outbreak of the disease is taken into consideration.

The "protects health" project in action

The stylised heart shape on food products denotes that they contain a lower quantity of fats, saturated fatty acids and cholesterol, less salt and sugar, lower energy value or that they have a higher than average fibre content. The following table summarises the required levels of these factors:

Component	Claim	Conditions
Fat	Low	< 3 g / 100 g < 1,5 g / 100g
	Free	< 0,5 g / 100 g/ ml
Saturated fat	Low	< 1,5 g / 100 g < 0,75 g / 100 ml
	Free	< 0,1 g / 100 g/ ml
Cholesterol	Low	< 20 mg / 100 g < 10 mg / 100 ml
	Free	< 0,005 g / 100 g/ ml
Sugars	Free	< 0,5 g / 100 g / 100 ml
Sodium	Low	< 120 mg / 100 g < 40 mg / 100 g
	Free	< 5 mg / 100 g
Dietary fibre	High	> 4 g / 1 MJ
Energy	Low	< 40 kcal (170 kJ) / 100 g < 20 kcal (80 kJ) / 100 ml
	Free	< 4 kcal (17 kJ) / 100 ml

The"protects health" label is granted by the Slovenian Heart Foundation to those food products that meet the standards set according to the guidelines of the World Health Organization. The sign "protects health" may be used only for pre-packaged foods that are manufactured in a reproducible way. The compliance of food products is evaluated by an independent Commission with its registered office at the Institute of Hygiene with the Medical Faculty in Ljubljana. The independent Commission is composed of renowned experts in the field of healthcare and nutrition. All the declared food products should be safe for human consumption and should have an appropriate declaration. All the analyses must be performed in accordance with the regulations.

In the last year suitable set meals in restaurants were also eligible to obtain the "protects health" label. The method for obtaining the label is similar to the one already described. Protective meals must have low fat content (less than 30% according energy value), low saturated fatty acids content (less than 10% according energy value), low cholesterol content (less than 100 mg per 1000 kilocalories), and only small amounts of sodium (less than 800 mg per 1000 kilocalories).

Monitoring

All health protecting food products are checked every year by taking samples at random from shops and submitting them for analysis by authorised laboratories. Once the manufacturer of a product has been awarded a "protects health" label, the manufacturer is bound not to change the contents of the product and must allow quality control at its own expense.

Positive results from an effective project

The project is efficiently designed in all its aspects and follows the targets of the Healthcare Plan of Slovenia; therefore the Ministry of Health has granted its official support. The success of the project or of the "protects health" trademark depends greatly on media presentation. Through its journal "For the Heart" and through articles published in newspapers, as well as through radio and TV spots, the Slovenian Heart Foundation has informed the Slovenian public about the "protects health" label. Numerous lectures held on health protecting food products and healthy nutrition, which schools show great interest in, are also very important.

Every year the Slovenian Heart Foundation, together with food manufacturers, organises presentations of health protecting food products with exhibitions and food tasting at fairs and major social events.

It seems that the cooperation between manufacturers of health protecting food products and the Slovenian Heart Foundation is running successfully, since the number of food products with the "protects health" label is on the increase and the products labelled in this way are recognised and trusted by more than 40% of Slovene adults. The project is being implemented in the curricula of many elementary schools. From our experience and from the results of questionnaires, the label of "health protecting" food is a good guide to choosing food products for all those who are familiar with this label. Generally people dislike obtaining data by reading declarations, as they are often printed in tiny letters, or are deficient.

According to the last questionnaire carried out in October 1999, 63% of people who are familiar with the health protecting label often decide to purchase this kind of products, 33% regularly buy health protecting food products, and only 4% pay no attention to the label. This result provides good stimulation for the Slovenian Heart Foundation to keep spreading the health protecting food label and stressing the importance of the healthy food that this label stands for.

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Slovenian Heart Foundation programmes, campaigns and projects for promoting healthy nutrition

- Education through the foundation's review "For Heart", seven issues per year, one each year thematic. The journal "For Heart" has been published in 60,000 copies each year since 1992. Each issue contains a column about nutrition and at least two articles discussing this topic.
- The leaflet "How can our heart and veins hold up longer" was published in 1995 in 6,000 copies and again in 1999 in 4,000 copies.
- Folded leaflet entitled "Protects health" is published on an annual basis; it contains a description of the project called "Protects health" and a list of health-protecting food products. The number of copies is 4,000 per year.
- The book entitled "Nutrition – a source of health" was published in 1997 in 2,000 copies.
- The trademark "protects health" is awarded to foods with low total fat, low saturated fatty acids, low cholesterol, sodium, sugar and energy content and high fibre content according to Codex Alimentarius standards, as well as balanced fatty acids (ratio 1 : 1 : 1) in oils. The Slovenian Heart Foundation started to evaluate food products in 1993; currently there are over 190 food products carrying this label, with 20 new products accepted every year. "Protects health" trademark for set meals in restaurants: the Slovenian Heart Foundation started evaluating set meals in 2000.
- Weight control/loss and cholesterol measurements are carried out in our central "For the Heart" consulting office and in 12 branch offices all over Slovenia, as well as in different public venues organised throughout Slovenia.
- The exhibition called "For the Heart" was held in 1995, 1998, 1999, 2000, 2001 and 2002. Each year the Slovenian Heart Foundation discusses a different topic; however, part of the exhibition is always dedicated to nutrition.
- The Slovenian Heart Foundation has participated in different fairs for promoting healthy nutrition, organised in Slovenia since 1995 (for example the fair "Nature, Health" in Ljubljana, etc.).

Reaching out to the whole population with nutrition activities

Numerous activities of the Spanish Heart Foundation (SHF) in the last few years have been devoted to teaching the public about good nutrition, reflecting the foundation's dedication to the prevention of cardiovascular disease (CVD). Projects intended for children, housewives and working women, teachers or the general public aim to inform people about the advantages of the traditional Mediterranean diet and encourage children in particular to develop good eating habits.

SHF has been especially successful in developing alliances with the food industry. The annual Heart Week always features a number of company stands with information and free samples for attendees, and special sections in SHF's general interest periodical reflect the cooperation of the food industry in special sections on dairy products, vegetables and olive oil, for example.

Healthy breakfasts

Because 60% of the children in Spain go to school without breakfast, or without an adequate breakfast, for the last nine years SHF has targeted 6 to 12-year-old children with a campaign to teach about the nature and importance of a healthy start to the day. Each programme begins with a questionnaire the pupils fill out concerning their nutritional habits, which incidentally helps SHF determine what people currently eat. A cardiologist talks to them about health-promoting nutrition, and the participants share a free healthy heart breakfast of milk, fresh fruit, natural juices, olive oil, bread, honey and dairy products. The talk is reinforced a few days later when children complete drawings of good breakfasts.

The partnership of the SHF, the Ministry of Agriculture and the Spanish Society of Cardiology has reached 67,000 children in more than 300 cities, but much remains to be done in this area.

A healthy heart: you decide

Targeted at women because they are generally responsible for choosing and cooking family meals and for the nutrition training of their families, this one-month project was held in 1998 and in 2001. A team of cardiologists travelled around Spain, offering a presentation on healthy nutrition, physical activity, tobacco use, hypertension and so on. Each talk was followed by a healthy meal. Good media coverage enhanced the effects of the programme, in which 2,000 housewives participated directly in 2001.

Keep your heart updated

A package of activities, this campaign started in a small town near Madrid included a healthy breakfast attended by 150 children, their parents and teachers; a conference on healthy habits presented by a cardiologist to 100 women at their workplace, accompanied by a healthy lunch; a conference for the general public; an afternoon of physical activity for a whole neighbourhood; and a closing session presided over by the Mayor and the local authorities.

The brochure produced for the campaign stressed the Mediterranean diet and healthy breakfasts, as well as the importance of engaging in physical activity, avoiding drugs and tobacco, and controlling CVD risk factors.

Put your heart into it

Working with the Spanish Society of Cardiology, the Spanish Federation for the Rural Woman, local governments and the Ministry of Agriculture, the SHF offered one-month programmes in 1999 and 2000 aimed at rural Spanish women. In small cities all over Spain, where people usually have limited opportunities to be informed about CVD prevention, cardiologists held presentations on heart-healthy lifestyles. Participants shared a free healthy meal.

Mediterranean diet on television

In August and September 1999 all the national, local, public and private television channels informed the general public about the benefits of the traditional Mediterranean diet, to counteract the trend toward fast food. Several food producers cooperated in the campaign.

Heart Week

Each October in its Heart Week the SHF works with a wide variety of partners to draw the attention of the general public and specific groups to the steps necessary for preventing CVD. Among many activities dedicated to good nutrition are cooking classes, for children and for housewives, which are made entertaining as well as informative. Special emphasis is also given to educating teachers, in order to reinforce health education programmes in the schools and pass on valuable information.

The healthiest afternoon

Cooperating with local government, the sports council and food companies, in October 2001 the SHF ran a project aimed at children from the ages of 7 to 16 that attracted 500 children and their parents to a special Saturday afternoon. A variety of activities presented good nutrition information in a playful manner, with individual and team activities based on answering questions about good and bad food. A theatre presentation about fruit consumption underlined this important aspect of correct eating.

The secret of fruits

To increase children's intake of fruit and vegetables, the theatre piece performed on "The healthiest afternoon" was also presented in 14 schools in the Madrid area. An entertaining book with the script of the performance and information about the positive qualities of fruit was given to the children to help them retain the information, together with some apples to "practise on".

SHF publications on nutrition

"Healthy cooking for busy families", 1998
Recipes with an emphasis on quick preparation and cooking

"Recipes with heart", 1999
Recipes and beautiful illustrations

"Cholesterol and heart", 2001
Comprehensive information about cholesterol for the general public

"A new style in the time of …", 2002
Recipes by famous chefs prepared for the 2002 Heart Week

"Cardiohealthy Cooking"
For more information visit the web page: *www.fundaciondelcorazon.com*

Brochures including "Recipes for a healthy heart" (2001), "Recipes for a healthy day" (2000), and "Practical lessons of cardio-healthy cooking" (1999)

Roadside Restaurant Project

Cardiovascular disease is the most common national disease of our time. As part of the Swedish Heart and Lung Foundation's preventive work, the "Roadside Restaurant Project - Good food for road users" was implemented during the period 1999-2001. The Swedish National Food Administration initiated the project in 1995 and passed it on to the Swedish Heart and Lung Foundation in 1999.

Healthier food choices for drivers

Professional drivers need better food - this was the point of departure for the Roadside Restaurant Project. They stand a far greater risk of developing cardiovascular disease than many other groups. In addition, as a group they display many classic forms of high-risk behaviour. Professional drivers are overweight, they get little exercise either at work or during their leisure time, they smoke more, and they eat more fat and less fruit and vegetables than average. Being a professional driver also means holding a stressful job, often involving irregular working hours, shift work, time pressure and long periods away from home. It is hardly surprising that it becomes hard to eat regularly and healthily under such circumstances.

The starting point of the project was that many professional drivers eat at roadside restaurants. If the restaurants served good food adapted to the drivers' needs and wishes, this would be of help to many of them. As a by-product the project would also benefit all other visitors to roadside restaurants.

Road restaurants - havens for fatty foods

According to a survey performed by the Swedish Heart and Lung Foundation in June 2000, food at roadside restaurants on average contains twice as much fat as is recommended by the Swedish Nutritional Recommendations (SNR). According to the SNR, food consumption should include no more than 60 to 90 grams of fat a day, depending on the individual and his/her energy needs. As professional drivers are usually males, and their work is sedentary, their daily fat intake should be around 75 grams.

SNR's recommendations regarding meal distribution state that lunch should provide approximately 30% of the total daily energy intake. This means it should not contain more than about 25 grams of fat, including extras such as bread, butter, salad and dressing.

The fat content of the dishes studied was between 24.1 and 69.2 grams of fat per portion, including extras. Therefore, the dish with the highest fat content contained nearly as much fat as people should consume in an entire day. The average for the dishes was 48.9 grams of fat per portion.

This survey was performed on normal dishes from restaurants' lunchtime menus. On the traditional à la carte menus usually even fattier alternatives are found, e.g. the popular Wiener schnitzel with fried potatoes containing approximately 100 grams of fat per portion!

New methods and new choices

The aim of the Roadside Restaurant Project was thus to influence Swedish roadside restaurants' range of food, thereby improving the eating habits of professional drivers. Restaurants participating in the Roadside Restaurant Project were trained by the project's own trainers in the use of new cooking methods which reduce the use of fat. Examples of these cooking methods are: oven-roasting, low-fat "top-thickening" of sauces and casseroles, use of lighter dairy products in dressings, sauces, casseroles etc.

Providing good choices is only really helpful, though, if the restaurant customers know what to choose, so the trainers' work also involved informing professional drivers as to how they can improve their eating habits. This was done in collaboration with the Swedish Transport Workers' Union and the Swedish Association of Haulage Contractors, partly in conjunction with their regular meetings of members.

A major public campaign in the form of a road show was also performed over two weeks in August 2000. The road show visited three of the project's roadside restaurants, as well as the Nordic countries' biggest truck trade fair, attended by 45,000 people.

Project results clearly show that the concept worked. An assessment was performed by measuring fat in portions of food. Of the dishes tested, 50% had a fat content of less than 20 g/portion. This can be compared with the country's restaurants which did not take part in the project, where only 10% of the dishes tested had a fat content of less than 20 g/portion.

Another type of assessment involved measuring the amount of fat the restaurants purchased prior to the training compared with the situation afterwards. The amount of fat the restaurants purchased dropped by an average of 35%.

A continuing challenge

The only disadvantage of this project was that it took up a great deal of time and resources. It required close contact with the staff of the roadside restaurants, as well as assiduous encouragement and reminders regarding the new working methods to prevent them slipping back into their old habits. Since roadside restaurants have a very high staff turnover, it is also difficult to achieve continuity in their work.

Nonetheless, the Roadside Restaurant Project was a very good example of how public-health projects can be run, using a large, clearly defined target group and collaborating with important players. Unfortunately no-one was able to take over the project after 2001, which is the classical dilemma for projects of this nature.

The Roadside Restaurant Project could be a perfect EU-wide project, bearing in mind that professional drivers work not just in their own countries but to a very large extent in other European countries as well.

Heart health and good nutrition projects

Many of the activities of the British Heart Foundation (BHF) relate to informing people about a healthy diet that can contribute to good heart health. Programmes are aimed at children, at adults in the general public including heart patients, and at health care practitioners.

Entertaining teaching for children

Artie Beat is a fun, heart shaped balloon character designed to teach 5 to 11-year-old children about the purpose and function of the heart and a healthy lifestyle, so they can help avoid heart disease later on. Developed in September 1996, Artie has his own "Artie Beat's Healthy Cookbook" which is proving to be an excellent resource to encourage children to make their own healthy meals. There is also a "Five a day" fruit and vegetable chart.

In development is Artie Beat's picnic, which will be disseminated through primary schools and contain teachers' notes and classroom activities. Its aim is to introduce very young children (4 to 6-year-olds) to the concept of a balanced diet.

The British food retailer Marks and Spencer has contributed funds to develop some of Artie's initiatives. A supermarket chain, Kwiksave, also sponsored a leaflet.

"Nutrition Mission" is a CD Rom aimed at 7 to 11-year-old children, primarily through schools. The CD Rom helps to deliver the nutrition section of the curriculum in all four UK countries. Also included are teacher's notes, the Balance of Good Health Plate and interesting food facts.

Informing the general public and heart patients

"The Light Hearted Cookbook" and "The Everyday Light-Hearted Cookbook" produced in the mid 1990s are still in existence but no longer actively promoted. Producing them was a hybrid commercial/educational project, i.e. the cookbooks display BHF's logo and are available both in high street bookshops and via BHF.

"A Taste of Low Fat Asian foods" is a book written for adults who want to follow a low fat Asian diet but keep to the traditional eating plan. It was recognised that mainstream recipe books are not necessarily appropriate, and a nutritionist from a South Asian background contributed to its development.

"Food should be fun" is a booklet that has been in circulation for many years and is about to be revamped and redesigned. It offers practical tips and simple recipes to the general public.

"So you want to lose weight for good", an A4 full colour booklet, contains advice on how to lose weight and guidelines for healthy eating. (A revamped version consists of two "So you want to lose weight" booklets aimed separately at men and women.) The emphasis is on balanced eating, portion counting, etc. The booklet was focus group tested and approximately 600,000 are sent out in a year.

"Guide to Food Labelling" helps people understand what food labels mean and how much of particular foods each person should eat to help keep their heart healthy. This is key material targeting members of the general public, trying to empower the consumer and distil policy changes and guidelines from the Food Standards Agency.

"Cut the saturated fat" is a wall chart that unfolds to A2 size and gives advice on how to cut down the fat in the diet. It targets the general public, suggesting ways to minimise intake of fat in general and saturated fat in particular. This has received sponsorship from the fish producer, Princes. A "Guide to Food Labelling" is sent out with every copy of the wall chart.

The Heart Information Series range of booklets explain the different conditions affecting the heart and circulation. The Series is intended for patients, their family and friends, to help them understand their illness and its management. One particularly relevant edition is "Eating for your heart" with the emphasis on protecting the heart to minimise further problems. Another is "Reducing your blood cholesterol" for people with a high blood cholesterol level.

The latest information for health professionals

Factfiles are produced for health professionals to give clear, concise and up-to-date information on issues relating to heart health. Each Factfile is produced on an A4 sheet of paper and is delivered to over 47,000 general practitioners every month. Ring binders and indexes are available for storage and reference. A particularly relevant edition was "Fish, Fruit, Vegetables and Mediterranean Diet" giving a summary of evidence.

In addition, BHF produces annual "Coronary Heart Disease Statistics". This publication is an independent resource for adults, students and policymakers, in fact all those who are developing actions and services to prevent and treat coronary heart disease in the UK. Of particular relevance is the "Diet and Nutrition" supplement.

NB: Most of the above mentioned booklets are available for the public to order free of charge and many are available on the British Heart Foundation's web site (www.bhf.org.uk) to download.

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The mission of the European Heart Network is to play a leading role through networking, collaboration and advocacy in the prevention and reduction of cardiovascular disease so that it will no longer be a major cause of premature death and disability throughout Europe.

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The European Heart Network acknowledges the financial support received from the European Commission for this project. Neither the European Commission nor any person acting on its behalf is liable for any use made of the following information.