

NUTRITION AND HEART HEALTH

*A consensus statement
by organisations in Ireland
concerned with Public Health*

July 1996

NUTRITION AND HEART HEALTH

- * Eat a wide variety of foods
- * Maintain a healthy weight
- * Eat less fat, especially saturated fats
- * Eat more bread, cereals, potatoes, pasta and rice
- * Eat more vegetables and fruit
- * Choose sugary foods and drinks less often
- * Eat less salt
- * If you drink alcohol, keep within sensible limits

Diet is only one component of a healthy lifestyle which should include avoidance of smoking, regular exercise and occasional blood pressure checks.



A CONSENSUS STATEMENT FROM:

Department of Health
Faculty of Public Health Medicine, Royal College of Physicians in Ireland
Institute of Community Health Nursing
Irish Cancer Society
Irish Cardiac Society
Irish College of General Practitioners
Irish Dental Health Foundation
Irish Heart Foundation
Irish Nutrition and Dietetic Institute
Irish Practice Nurse Association
National Nutrition Surveillance Centre
Royal College of Physicians in Ireland
Royal College of Surgeons in Ireland

INTRODUCTION

Heart disease and cancer are major causes of death in Ireland. Obesity and diabetes are also major problems. These diseases are caused by both genetic and environmental factors. Of the environmental factors, smoking and diet are of particular importance. While there is no doubt that smoking is a major killer, considerable controversy has surrounded the relationships between diet and health. This is partly because the relationships between diet and disease are complex, but also because a considerable amount of misleading information has been presented to the public.

In 1995 and 1996, the major professional organisations with an interest in nutrition and health in Ireland met on a number of occasions to discuss areas of agreement with regard to nutrition and heart health. It was believed that

such a statement might be of assistance to the public, health professionals and the media. It is stressed that this statement represents a record of areas of agreement, and not an attempt to produce a revised nutrition policy.

An important development with regard to nutrition and health was the publication of the Department of Health's Nutrition Advisory Group's "Recommendations for a Food and Nutrition Policy for Ireland" in 1995. The bodies represented in the joint statement have considered this document in detail and strongly support it. The group was also impressed by the simplicity and clarity of the "Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans", 1995, issued to the Secretary of Health and Human Services and the Secretary of U.S. Agriculture.

616-12

JOINT STATEMENT ON NUTRITION AND HEART HEALTH

The representative group has agreed that the following recommendations are appropriate to Irish adults. These recommendations are particularly relevant to heart health, and also to the prevention of other chronic diseases such as some cancers, obesity and diabetes.

- * Eat a wide variety of foods
- * Maintain a healthy weight
- * Eat less fat, especially saturated fats
- * Eat more bread, cereals, potatoes, pasta and rice
- * Eat more vegetables and fruit
- * Choose sugary foods and drinks less often
- * Eat less salt
- * If you drink alcohol, keep within sensible limits

The rationale for these recommendations now follows:

Eat a wide variety of foods

A wide variety of foods chosen from the Food Pyramid (Appendix II) is recommended to provide an adequate supply of all the required nutrients. The exclusion of particular food groups is not recommended as this may lead to deficiency of nutrients. No food is good or bad; it is the overall habitual diet which determines whether the diet is healthy or not.

Maintain a healthy weight

Body mass index can be calculated by weight (kg)/height (m)² or by reference to the BMI chart (Appendix I). This chart also indicates ideal weight. The greater the degree of overweight, the higher the risk of coronary heart disease (CHD) mortality. This is related to effects such as hypercholesterolaemia, hypertension and the tendency to develop diabetes. Fat tissue mainly concentrated in the abdominal area is associated with an increased health risk.

For the overweight, a steady weight loss of 1–2 lbs (1 kg) per week is appropriate. Regular meals are advised, with emphasis on reducing excess calorie intake from fat, alcohol and sugar.

Increased physical activity helps to promote and maintain weight loss. Maintaining long term weight loss is easier with adequate support. Health professionals can help by setting a realistic weight loss goal with the individual, keeping an accurate record of weight and height, and providing encouragement and support. Where the individual is at increased risk of CHD, has diabetes or other health problems the advice of a dietitian should be sought.

Eat less fat, particularly saturated fats

Fat is essential in the diet to provide a concentrated source of energy, fat soluble vitamins A, D and E and essential fatty acids.

Fats are classified as saturated, monounsaturated or polyunsaturated depending on their chemical structure. Each has different properties in relation to effects on blood cholesterol. Saturated fats have the effect of raising low density lipoprotein (LDL) cholesterol and total cholesterol. Polyunsaturates have been shown to reduce LDL cholesterol but also at high intakes to decrease HDL cholesterol, a lipoprotein which is a beneficial carrier of fat in the blood. Evidence to date suggests that monounsaturates have a largely neutral effect on total cholesterol but may protect HDL cholesterol levels.

Most foods contain a mixture of different types of fat. Animal foods contain both saturated and monounsaturated fats. Vegetable sources of fat are generally monounsaturated or polyunsaturated fats. Fish provides a particular family of polyunsaturated fat, the n-3 series.

There is substantial evidence of an association between fat intake and the development of arterial diseases such as coronary heart disease (CHD). It is recommended that the diet should contain a balance of fats. Saturated fats in particular should be reduced due to their cholesterol-raising effects. However, the relationship between diet and CHD is more complex than this because different fatty acids

may have other individual effects. Fish oil sources of fatty acids are likely to confer protection against heart disease risk through prevention of clotting and other possible beneficial effects.

Fats can also be classified according to whether the fatty acids are arranged in *cis* or *trans* form. The *cis* form is most usual. *Trans* fatty acids are formed by hydrogenation during the production of margarines and certain oils. They are naturally present in dairy and meat products. The main sources in the diet are hard margarines, certain oils and products made from them such as cakes, biscuits and confectionery. High intakes of *trans* fatty acids can raise cholesterol levels. Current scientific consensus recommends that *trans* fatty acid intake should not increase any further.

The cholesterol content of food is considered to exert a much smaller effect on blood cholesterol than saturated fats. Measures taken to reduce saturated fat intake will, in general, also help to lower dietary cholesterol intake.

Eat more bread, cereals, potatoes, pasta and rice

Eating carbohydrate foods, especially wholegrain varieties, provides energy and dietary fibre. Research indicates that when increased amounts of carbohydrate are consumed, a lower fat intake can be maintained more successfully.

Wholegrain foods provide key vitamins and dietary fibre. An adequate intake of fibre rich foods induces a feeling of fullness which can aid weight control. Recent findings show that many Irish people restrict their intake of starchy foods because they perceive these foods to be 'fattening'. However, there is substantial evidence that a diet rich in carbohydrates is less likely to lead to excess weight gain compared to a diet high in fat.

Adequate dietary fibre intake plays a role in maintaining bowel health when consumed in conjunction with a sufficient fluid intake. A meal plan based on fibre rich starchy foods is a key part of diabetic control. Increased dietary fibre intake may have a beneficial effect on cholesterol levels.

Eat more vegetables and fruit

Ireland presently has one of the lowest fruit and vegetable intakes in the EU, although food consumption data show that this has increased over the last decade. It is recommended that

four or more portions of vegetables and fruit should be eaten daily.

There is evidence that eating a diet high in vegetables and fruit is associated with reduced risk of developing heart disease and cancer, perhaps because of the anti-oxidant vitamin content.

Anti-oxidant vitamins are found in vegetables and fruit (beta carotene/vitamin A and vitamin C) and in vegetable oil especially sunflower oil, nuts, seeds and green leafy vegetables (vitamin E). In general, it is considered more advantageous to eat increased amounts of vegetables and fruit rather than to take vitamin supplements.

Choose sugary foods and drinks less often

Refined sugars such as those present in table sugar, jam, honey, biscuits, confectionery and sugary drinks should be chosen less frequently. The likelihood of dental caries is increased by the frequency of exposure to these foods in the mouth. If these foods are eaten as part of a meal there is less chance of dental caries occurring. A mix of starchy foods and some sugar may help make a low fat diet more palatable and sustainable.

Eat less salt

Current evidence suggests salt intake relates to the increase in blood pressure which occurs as people get older.

Herbs, lemon juice, black pepper and garlic can be used as alternatives to salt. In addition to salt reduction, an increased intake of fruit, vegetables and wholegrain starchy foods may help to control blood pressure as they are good sources of potassium.

Salt substitutes can be useful in helping to reduce salt intake, but still contain sodium. Individuals with renal or cardiac disorders may be sensitive to the high potassium levels of these products. Onion salt, garlic salt and sea salt all contain sodium and are of little benefit in lowering sodium intake.

If you drink alcohol, keep within sensible limits

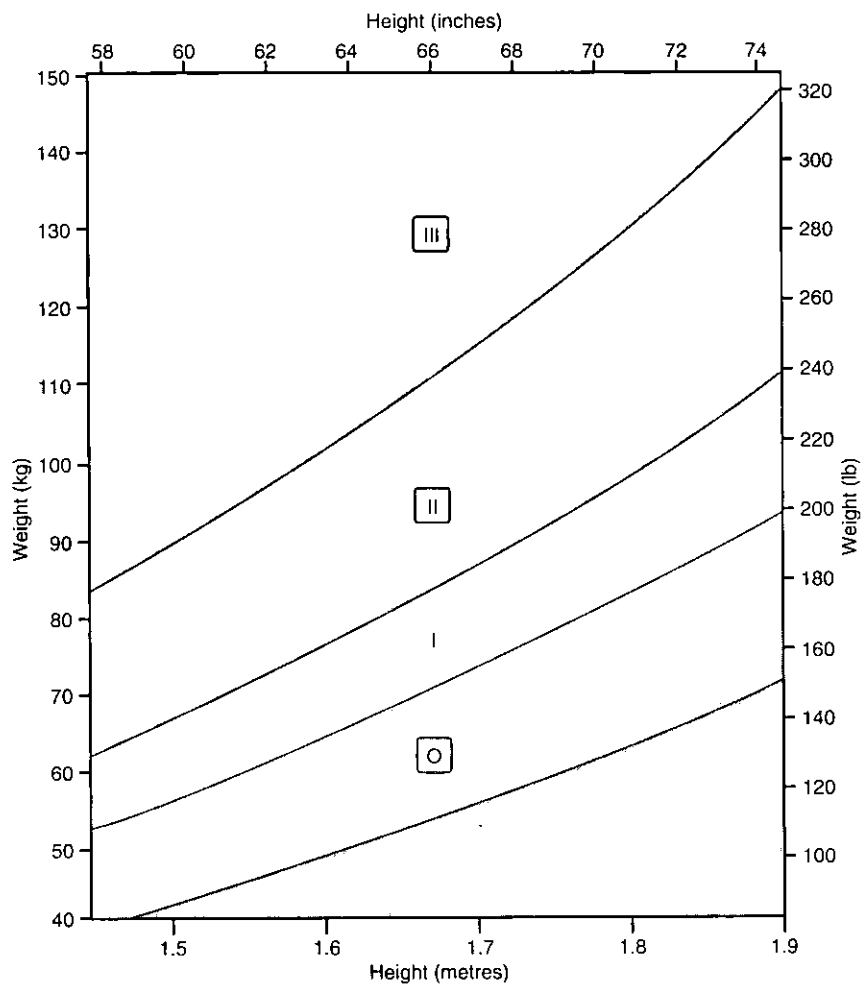
Excess alcohol intake raises blood pressure, increases the risk of some cancers and contributes to overweight. However, moderate alcohol consumption has been associated with

reduced risk of coronary heart disease, although there is insufficient evidence to support advising non-drinkers to begin drinking. The recommended limits for health are 14 units for women and 21 units for men over one week. In practice

this means no more than 2-3 units per day, preferably with food and with some alcohol free days. [1 unit= a glass of wine or a half pint of beer. A measure of spirits is 1.5 units].

APPENDIX I

Ideal Weight Chart with BMI reader. Adapted from 'Treat Obesity Seriously – A Clinical Manual'. J.S. Garrow, (1981), with the kind permission of the publishers.



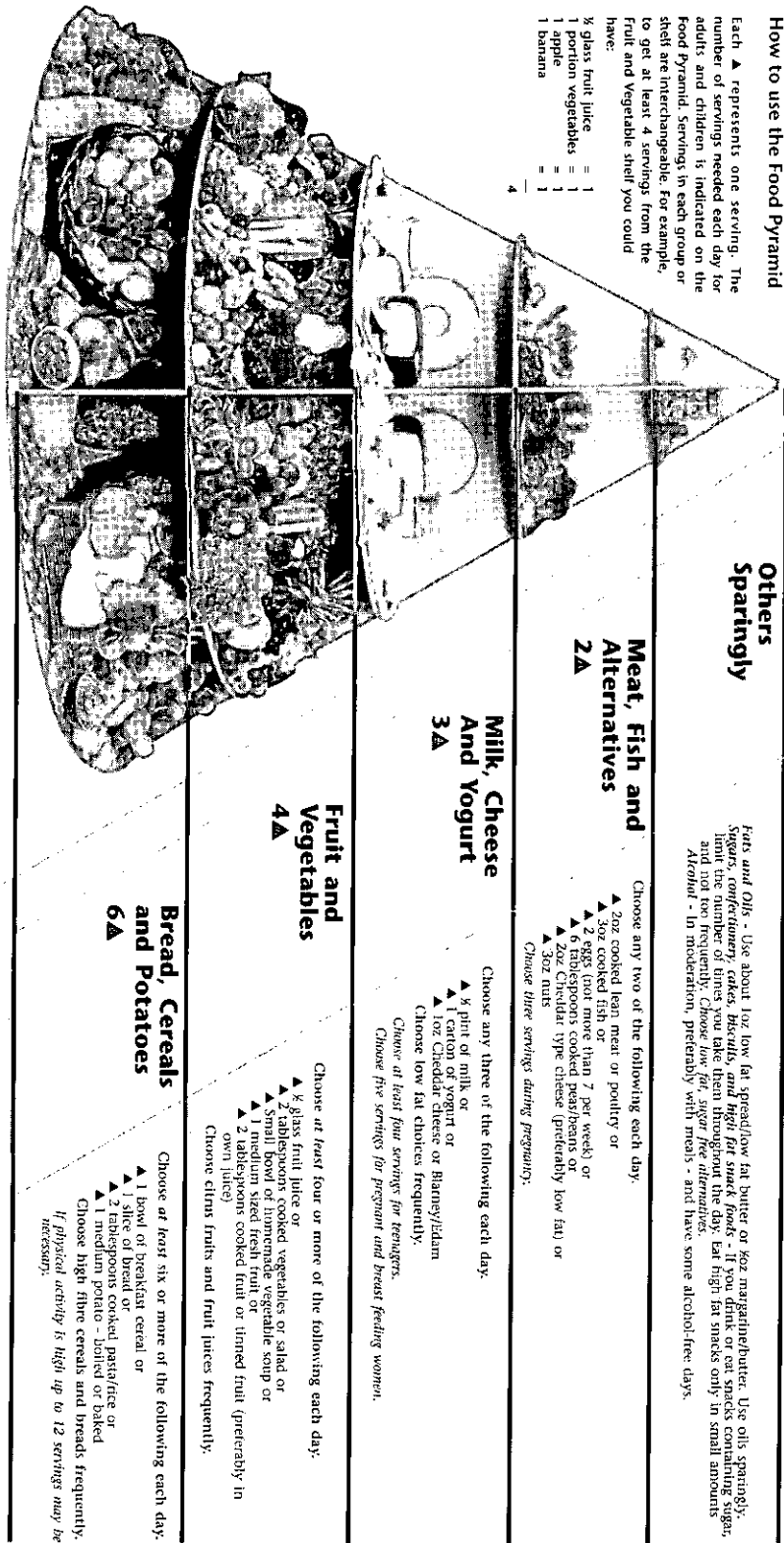
BMI

	< 20	- underweight
Grade 0	20-24.9	- healthy weight
Grade I	25-29.9	- overweight: should lose weight
Grade II	30-39.9	- obese: needs to lose weight
Grade III	> 40	- severe obesity: must lose weight

$$\text{Body Mass Index} = W(\text{kg}) / H(\text{m})^2$$

APPENDIX II

Food Pyramid, Health Promotion Unit, Department of Health



Use the Food Pyramid to plan your healthy food choices.