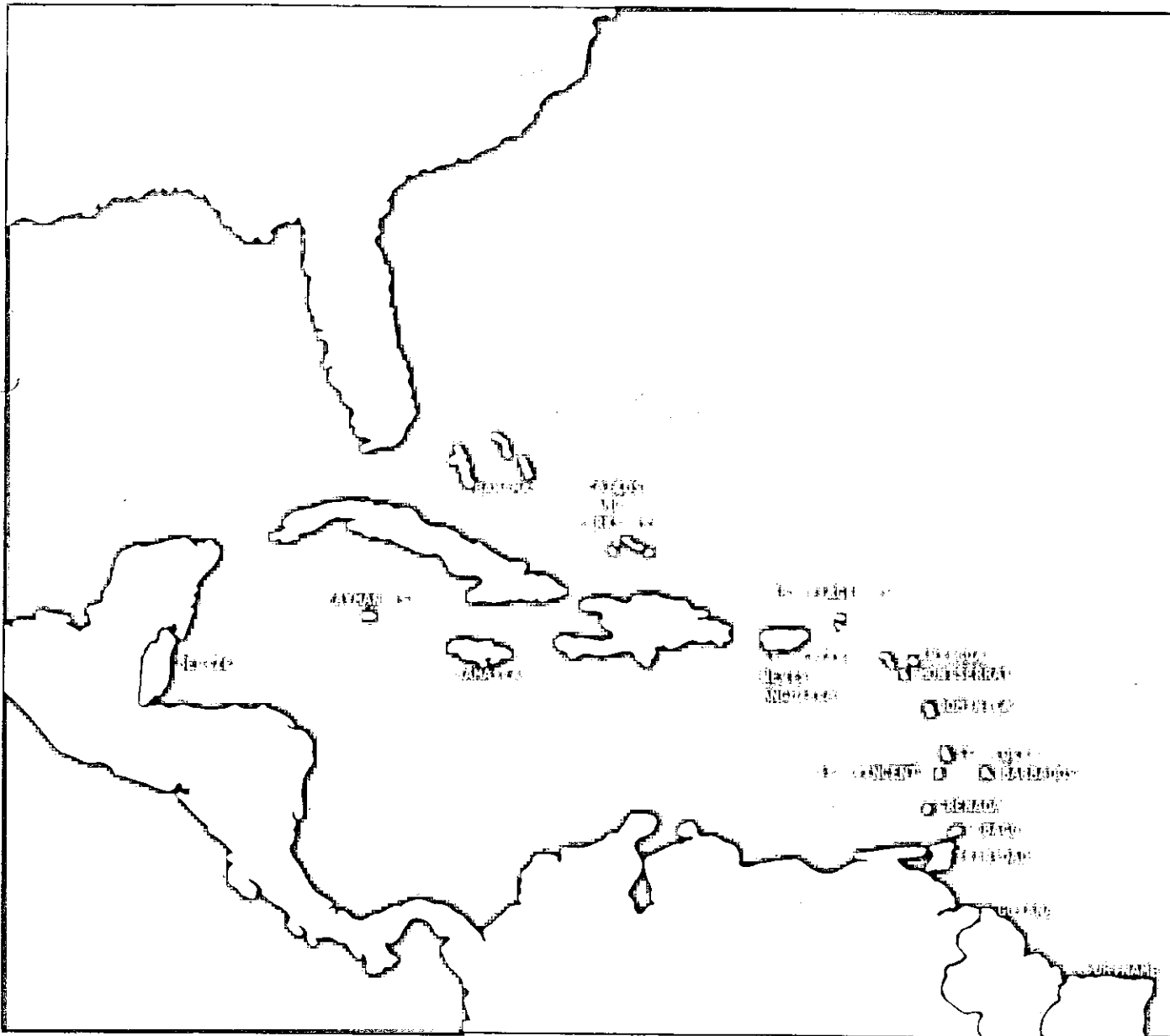


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DIET MANUAL FOR THE CARIBBEAN

FOR REFERENCE ONLY



Caribbean Food and Nutrition Institute
1984

The Caribbean Food and Nutrition Institute (CFNI), serves seventeen Caribbean countries* for which it is a major technical resource providing information, direct service and training and operational research in food and nutrition. The Institute is part of the development resource network of the Caribbean Community.

CFNI is also part of the world-wide development resource network through its role as a Pan American Centre administered by the Pan American Health Organization (PAHO). PAHO represents the World Health Organization (WHO) in the Americas.

*Antigua, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts-Nevis, Saint Lucia, St. Vincent, Suriname, Trinidad & Tobago, Turks & Caicos Islands.

DIET MANUAL FOR THE CARIBBEAN



CARIBBEAN FOOD AND NUTRITION INSTITUTE
KINGSTON 7, JAMAICA

PAN AMERICAN HEALTH ORGANIZATION
PAN AMERICAN SANITARY BUREAU, REGIONAL
OFFICE OF THE WORLD HEALTH ORGANIZATION

PREFACE

In 1977 a project for the development of a diet manual for the Caribbean was jointly initiated by Mrs. Beverley Spaulding, a Jamaican dietitian, and Miss Manuelita Zephirin, Public Health Nutritionist at the Caribbean Food and Nutrition Institute. The first stage was the establishment, in Jamaica, of a Committee comprising nutritionists, dietitians and medical practitioners. It was felt that the project should not be confined to Jamaica, so dietitians and physicians in other Caribbean territories were invited to participate and another Committee was formed in Trinidad in 1978.

A period of sustained and concentrated effort by these committees, assisted by other food/nutrition/health professionals throughout the CARICOM Region culminated in the production of the "Diet Manual for the Caribbean". This was intended to be a handbook and reference guide for medical practitioners, professional dietitians, nutritionists, other professionals in clinical practice in health care facilities and trained food service personnel in hospitals and related fields.

The focus of the Manual is the dietary management of the major nutrition-related diseases in the Region, except protein-energy malnutrition, which is dealt with in "Malnutrition and Gastroenteritis in Children: A Manual for Hospital Treatment and Management" (CFNI, 1978).

Its chief premise is that diet therapy is an important component of overall patient care. All diets chosen have a sound physiological basis, are appropriate to the nutritional needs and food habits of Caribbean people and are based on recommended dietary allowances for the Caribbean*. The use of indigenous foods is strongly advocated.

The dietary procedures outlined are designed to guide physicians, dietitians and other health personnel in prescribing modified diets and implementing diet orders, in light of current approaches to dietary management.

A separate booklet: "A Physician's Guide to Diet Ordering", was also developed by the Committee as a supplement to the Manual. This lists various medical conditions and indicates the types of diets needed and the pages of the Manual on which they appear.

The first edition of the Manual was published in 1980 after an in depth review of the draft by a Working Group of physicians, dietitians, nutritionists and members of CFNI staff (p. *iv*). After a period of use, questionnaires were circulated to users of the Manual and this evaluation led to its revision in September 1982.

*Recommended Dietary Allowances for the Caribbean, CFNI, 1979.

ACKNOWLEDGEMENT

The coordinator of this project expresses appreciation to all those who participated, in ways too numerous to mention, in the conceptualization, development and production of the first and revised editions of the "Diet Manual for the Caribbean".

Acknowledgement is particularly due to the Diet Manual Committees in Barbados, Jamaica, and Trinidad and Tobago, participants in the "Workshop on a Diet Manual for the Caribbean", December 1978, (p. *iv* to *v*), the Committee on Revision of the first edition (p. *v*) and her colleagues at the Caribbean Food and Nutrition Institute/Pan American Health Organization.

Special mention must be made of the contributions of Mrs. Beverley Spaulding, formerly Dietitian at the Kingston Public Hospital, Jamaica, and of Miss C. Rennie, Nutritionist, Trinidad and Tobago, who cooperated in editing the second edition of the Manual. The active collaboration of members of the Caribbean Association of Nutritionists and Dietitians, who gave helpful advice and support throughout the project, is also gratefully appreciated.

Acknowledgement is also given to Dr. Nancy Schwartz of the University of British Columbia, Canada, for editing the first edition of the Manual, and to the following persons who helped to evaluate the first edition:

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Sincere appreciation is due to those physicians who gave generously of their knowledge and time to serve on committees and provide advice and suggestions when necessary (p. *v*).

A final note of thanks must be given to the staff of the Caribbean Food and Nutrition Institute who were concerned with the final production of the manuscript, without whose input the Manual could not have been produced.

In compiling this second revised edition, the Committee on Revision (p. v) has incorporated recent findings in medical and nutritional research on therapeutic diets, while adhering to previously established criteria. As research progressively yields new knowledge, changes to the nutritional principles advocated for various diets are anticipated. Hence, in order to keep the information current and abreast with new advances and trends in the various fields involved, the Committee envisages further revisions. Comments and suggestions from users would greatly assist the Committee whenever subsequent revisions of the document are being considered. It is hoped that its implementation will stimulate more communication, consultation and cooperation among physicians, nutritionists, dietitians and other health care practitioners, and bridge the "knowledge gap" concerning the appropriate utilization of diets in preventive and therapeutic health care.

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SECTION I

DIETARY RECOMMENDATIONS

RECOMMENDED DIETARY ALLOWANCES FOR THE CARIBBEAN^(a)

Age	Sex	Body Weight kg	Energy ^(b)		Protein ^(c) g	FAT-SOLUBLE VITAMINS			WATER-SOLUBLE VITAMINS						MINERALS			
			kcal	MJ		Vitamin A ^(d) R.E. µg	Vitamin D ^(e) µg	Vitamin E ^(f) I.U.	Thia- mine mg	Ribo- flavin mg	Niacin ^(g) Equivalents mg	Pyri- doxine mg	Ascorbic Acid mg	Folacin ^(h) µg	Vitamin B12 µg	Cal- cium mg	Magne- sium mg	Iron ⁽ⁱ⁾ mg
0-5 mos. ^(j)	MF	5.0	Kg x 118	Kg x 0.49	11	400	10.0	4	0.3	0.4	4	0.3	20	40	0.3	400	50	5
6-11 "	MF	9.0	Kg x 108	Kg x 0.45	20	400	10.0	5	0.4	0.5	7	0.4	20	60	0.3	500	50	5
1-3 yrs.	MF	13.4	1360	5.7	23	400	10.0	7	0.5	0.7	9	0.8	20	100	0.9	500	150	7
4-6 "	MF	20.2	1830	7.6	29	400	5.0	9	0.7	1.0	12	1.3	20	100	1.5	500	200	7
7-9 "	MF	28.1	2190	9.2	35	400	2.5	10	0.9	1.2	15	1.5	20	100	1.5	500	250	7
10-12 "	M	36.9	2600	10.9	43	575	2.5	12	1.0	1.4	17	1.8	20	100	2.0	700	300	7
	F	38.0	2350	9.8	41	575	2.5	12	0.9	1.3	16	1.5	20	100	2.0	700	300	7
13-15 "	M	51.3	2900	12.1	53	725	2.5	12	1.2	1.6	19	2.0	30	200	2.0	700	350	12
	F	49.9	2490	10.4	45	725	2.5	12	1.0	1.4	16	1.5	30	200	2.0	700	300	16
16-19 "	M	62.9	3070	12.8	54	750	2.5	15	1.2	1.7	20	2.0	30	200	2.0	600	350	19
	F	54.4	2310	9.7	43	750	2.5	12	0.9	1.3	15	1.5	30	200	2.0	600	300	19
20-30 "	M	65.0	3000	12.6	53	750	2.5	15	1.2	1.7	20	2.0	30	200	2.0	500	350	6
	F	55.0	2200	9.2	41	750	2.5	12	0.9	1.2	15	1.5	30	200	2.0	500	250	19
40-49 "	M	65.0	2850	12.0	53	750	2.5	15	1.1	1.6	19	2.0	30	200	2.0	500	300	6
	F	55.0	2090	8.8	41	750	2.5	12	0.8	1.1	14	1.5	30	200	2.0	500	250	19
50-59 "	M	65.0	2700	11.3	53	750	2.5	15	1.1	1.5	18	2.0	30	200	2.0	500	300	6
	F	55.0	1980	8.3	41	750	2.5	12	0.8	1.1	13	1.5	30	200	2.0	500	250	6
60-69 "	M	65.0	2400	10.0	53	750	2.5	15	1.0	1.3	16	2.0	30	200	2.0	500	300	6
	F	55.0	1760	7.4	41	750	2.5	12	0.7	1.0	12	1.5	30	200	2.0	500	250	6
70+ "	M	65.0	2100	8.8	53	750	2.5	15	0.8	1.2	14	2.0	30	200	2.0	500	300	6
	F	55.0	1540	6.5	41	750	2.5	12	0.6	0.8	10	1.5	30	200	2.0	500	250	6
Pregnancy ^(k)	-	-	+285	+1.2	+13	800	5.0	15	+0.1	+0.2	+2	+0.5	50	400	3.0	1000	300	19 ^(l)
Lactation (first 6 months)	-	-	+550	+2.3	+24	1200	5.0	15	+0.2	+0.3	+4	+0.6	50	300	2.5	1000	350	19 ^(l)

NOTES:

- (a) The allowances are intended to provide amounts of nutrients sufficient for the maintenance of health in nearly all people in the Caribbean.
- (b) Based on moderate activity for adults. Adjustments should be made for greater or less activity. 1 MJ = 239 kcal.
- (c) Adjusted to NPU = 70 for average Caribbean diet except for 0-1 year-olds which is reference protein.
- (d) R.E. = Retinol Equivalents
1 µg R.E. = 1 µg retinol (3.3 I.U.)
= 6 µg beta carotene (10 I.U.)
- (e) 1 mcg = 40 I.U.
- (f) 1 mg dl- α -tocopheryl acetate = 1 I.U.
1 mg dl- α -tocopherol = 1.1 I.U.
1 mg d- α -tocopheryl acetate = 1.36 I.U.
1 mg d- α -tocopherol = 1.49 I.U.
- (g) 1 Niacin Equivalent = 1 mg niacin
= 60 mg tryptophan
- (h) Expressed as Free Folacin Activity
- (i) Based on 15% absorption for diets containing 14-20% of energy from animal foods.
- (j) Nutrients normally obtained through breastfeeding
- (k) Figures refer to varying periods of pregnancy (see text).
- (l) Assumes adequate iron stores at conception (see text).

DAILY FOOD GUIDE

PRINCIPLES OF NORMAL NUTRITION

There are certain nutrients which are recognized as being essential for normal health and development. Any diet which is continued for a long period of time must supply these nutrients or the health of the individual may be affected. This principle applies to normal diets and to diets modified for illness. Only in acute conditions, for a short period of time, should this principle be ignored.

In its publication "Recommended Dietary Allowances for the Caribbean"* the Caribbean Food and Nutrition Institute (CFNI) has made recommendations on the 14 nutrients needed to be supplied daily to maintain nutritional status. A Daily Food Guide has been developed on the basis of these Recommended Dietary Allowances (RDAs) whereby foods are grouped according to their major nutrient contributions. Additional quantities of the listed foods, fats and sugars are recommended to meet energy requirements and add palatability to the diet. This Daily Food Guide is used to plan menus for all diets in the Diet Manual and provides a sound foundation for diet planning. Modifications are made, where necessary, to meet specific dietary requirements. These amounts are considered adequate for practically all healthy persons and may even be excessive in some cases. To ensure that all of the provisions of the RDAs are being met, a complete analysis of the diet is informative and valuable, but is practical only under controlled research conditions. Assessing the diet in terms of actual food eaten is preferable.

The suggested allowances are intended to meet the needs of ordinary life situations and each allowance is applicable only when the needs for energy and all other nutrients are met. They do not cover additional needs that may result from stress, drug treatment, or from pathological conditions such as severe infections, parasitism or malabsorption. They do not apply to persons recovering from malnutrition.

THE BASIC SIX FOOD GROUPS FOR THE CARIBBEAN

A nutritionally adequate diet is based on a wise selection of a variety of foods in moderate amounts. Nutrients required to maintain health are provided by selecting foods from the following groups to meet the recommended number of servings:

*"Recommended Dietary Allowances for the Caribbean", CFNI, 1976.

1. **STAPLE FOODS**

- (a) Cereals: bread(from whole grain or enriched flour), flour, cornmeal, dried cereals, macaroni, spaghetti, rice

Nutrients contributed: protein, carbohydrate, B complex vitamins and fibre

- (b) Starchy fruits, roots, tubers and their products: banana, banana porridge, plantain, breadfruit, yam, Irish potato, sweet potato, dasheen, coco/eddoe, cassava

Nutrients contributed: carbohydrates, vitamins, minerals and fibre

Recommended number of servings per day - 4 or more

2. **LEGUMES**

Red peas, gungo/pigeon peas, black-eye peas, cow peas, split peas, other dried peas and beans, peanuts

Nutrients contributed: protein, carbohydrate, the minerals calcium and iron, fibre

The protein in dried peas, dried beans and nuts is more efficiently utilized by the body if a cereal such as rice or protein food from an animal source is included in the same meal.

Recommended number of servings per day - 1 or more

3. **DARK GREEN LEAFY, YELLOW AND OTHER NON-STARCHY VEGETABLES**

Callaloo, spinach, watercress, pakchoy/patchoi, string beans, pumpkin, carrot

Nutrients contributed: vitamin A, vitamin C, B complex vitamins, minerals and fibre

Recommended number of servings per day - 2 or more

Good sources of vitamin A are dark green or deep yellow vegetables
--

4. **FRUITS**

Mango, guava, orange, pineapple, West Indian cherry, pawpaw

Nutrients contributed: carbohydrate, vitamin C, vitamin A (yellow fruits), B complex vitamins, minerals and fibre

Recommended number of servings per day - 2 or more

5. *FOODS FROM ANIMALS*

- (a) Lean meat, fish, poultry, eggs, cheese, ham, sausages, sardines, liver, heart, kidney, tripe, etc.

Nutrients contributed: protein, iron, B complex and fat soluble vitamins and fat

- (b) Milk - fresh, evaporated, skimmed; yogurt, cheese

250 ml (1 cup) yogurt = 250 ml (1 cup) milk

2.5 cm (1 inch cube) cheddar cheese = 125 ml ($\frac{1}{2}$ cup) milk

Nutrients contributed: calcium, protein, vitamins A and D, thiamine, riboflavin, carbohydrate and fat

Recommended number of servings per day - 2 or more

Protein equivalents

The following are approximately equal in the amount of protein provided:

30 g (1 oz)	lean meat, poultry, fish
1	egg
125 ml ($\frac{1}{2}$ cup)	fresh milk or yogurt
125 ml ($\frac{1}{2}$ cup)	peas, beans or lentils (cooked)
30 ml (2 tbsp)	peanut butter
60 ml ($\frac{1}{4}$ cup)	roasted peanuts, shelled
30 g (1 oz)	cheddar cheese

6. *FATS*

Polyunsaturated: vegetable oils (except coconut oil), salad dressings

Saturated: butter, margarine, bacon, salt pork, coconut oil, fat on meat, fat in whole milk

Nutrients contributed: Fat, vitamin E, butter and fortified margarine provide vitamins A and E. Most oils do not contain vitamin A.

Recommended number of servings per day - 3 or more

Polyunsaturated fats should be consumed in place of saturated fats and total fat intake should be reduced.

SECTION II

DIETS FOR NORMAL NUTRITION

SERVING SIZES AND CHOICES

A serving is usually about $\frac{1}{2}$ a cup or a portion ordinarily served, such as a small orange, banana, tomato or potato or half a medium grapefruit. Enough servings of the right size will provide adequate nutrition for the eater. Some persons because of age, sex, physical status and energy expenditure need more servings of food than other members to satisfy their nutritional needs. For example, men will need more servings than women. Persons who do very hard, strenuous work will need more than those who do less strenuous work. Elderly persons will need fewer than growing children and teenagers. Pregnant and lactating women need more than persons who are not pregnant or lactating.

EXAMPLES OF ONE SERVING

1. *STAPLE FOODS* (1 serving has approximately 70 calories)

Cereal - flour, cornmeal, rice (30 g or 1 oz uncooked, 125 ml or $\frac{1}{2}$ cup cooked); bread - 1 slice (30 g or 1 oz); saltine crackers - 5

Starchy root - yam, potato, eddoe, dasheen (125 g or $\frac{1}{4}$ lb uncooked, 125 ml or $\frac{1}{2}$ cup cooked)

Starchy fruit - breadfruit (156 g or 5 oz uncooked); plantain/banana (125 g or 4 oz uncooked)

2. *LEGUMES* (1 serving has approximately 73 calories)

Dried peas, beans, peanuts (1 oz or 30 g uncooked, 125 ml or $\frac{1}{2}$ cup cooked)

Peanut butter (2 tbsp, i.e. 1 oz or 30 g)

3. *DARK GREEN LEAFY AND YELLOW VEGETABLES* (very few calories per serving of 'greens' like callaloo, spinach, pakchoi) - 36 calories per serving of yellow, e.g. pumpkin, carrots and green peas - 4 oz or 120 g uncooked uncooked, $\frac{1}{2}$ cup or 125 ml cooked.

4. *FRUITS* (40 calories per serving)

1 medium mango, orange, guava
 $\frac{1}{2}$ grapefruit, ripe banana
125 ml or $\frac{1}{2}$ cup juice

5. *FOODS FROM ANIMALS* (1 serving has approximately 146 calories)

60 g or 2 oz lean meat; 90 g or 3 oz fresh fish

60 g or 2 oz dried salted fish, hard cheese

90 g or 3 oz chicken; 120 g or 4 oz oxtail

2 eggs

250 ml or 1 cup fluid milk; 3 oz or 1 oz milk powder

7. *FATS AND OILS* (45 calories - 5 g fat - per serving)

5 g or 1 tsp margarine, butter, cooking oil

1 rasher streaky bacon

5 g or 1 tsp cream cheese

8 ml or 1½ tsp peanut butter

DIET FOR PREGNANCY

DESCRIPTION

During pregnancy there is an increased requirement for energy, protein, minerals and vitamins. This diet is designed to provide a nutrient intake to meet these needs. The Daily Food Guide should form the basis for nutritional intake during pregnancy.

INDICATIONS

This diet is indicated for the pregnant woman who requires no other dietary modifications.

Available evidence suggests that the course and outcome of pregnancy are more favourable when nutritional practices provide both mother and unborn child with adequate nutrients. Women who enter pregnancy at high nutritional risk will need additional diet counselling. Women are considered at high nutritional risk if they fall into one or more of the following categories:

1. Less than 18 years of age
2. Intervals of less than 18 months between pregnancies
3. Underweight or overweight prior to pregnancy
4. Inadequate weight gain during pregnancy
5. Limited financial resources
6. Limited food selection capabilities
7. Pre-existing medical complications such as diabetes mellitus, cardiovascular disease, kidney disease
8. Restricted dietary intake for religious, social, cultural or other reasons.

WEIGHT GAIN

The average weight gain in normal pregnancy is 10.5 to 12.5 kg (23 to 27 lb). This represents a gain of 0.7 to 1.3 kg (1 to 3 lb) during the first trimester followed by a gain of 0.35 kg (0.8 lb) per week thereafter. Severe restriction of energy (intake of less than 1500 kcal or 6.3 MJ per day) is potentially harmful to both the mother and developing baby. *Weight reduction diets in pregnancy are not advisable.* It is important, however, that after pregnancy women strive to return to normal weight.

ENERGY REQUIREMENT

An increase of 150 kcal per day in the first trimester to 350 kcal per day during the second and third trimesters or an average of 285 kcal per day for the entire pregnancy.

PROTEIN

An increase of 13 g per day above the normal diet is recommended.

IRON AND FOLIC ACID

The recommended daily intake of iron is 19 mg during pregnancy but most women need prophylactic supplementation of iron and folic acid in the recommended amounts:

Iron	60 milligrams, e.g. 180 mg ferrous sulphate daily
Folic Acid	200 micrograms daily

The effectiveness of iron absorbed from the diet depends upon its bio-availability. The right combination of foods is essential to ensure maximum absorption. Haeme iron, found in meat, is absorbed more efficiently than non-haeme iron, found in cereals and vegetables. Food can promote or inhibit non-haeme iron absorption when eaten at the same meal. Haeme and non-haeme iron absorption is enhanced by vitamin C which is found in most fruits, but particularly citrus fruits and juices, guavas and West Indian cherries. Red meats and organ meats also enhance the absorption of non-haeme iron when eaten with cereals and vegetables.

Tea and coffee should not be taken with or just before meals as this may inhibit iron absorption.

FIBRE

A high fibre diet should be encouraged to avoid problems of constipation.

ALCOHOL

Recent research indicates that it would be prudent to limit the consumption of alcohol during pregnancy.

SUGGESTED MEAL PLAN

The Regular Diet (see p. 40) with the addition of foods high in iron, especially liver, kidney, heart, lean meats, dark green leafy vegetables, dried peas and beans.

SPECIAL CONSIDERATIONS

PREGNANCY DURING ADOLESCENCE

There is increased risk when pregnancy occurs during adolescence, before growth has been completed. Special attention must be paid to meeting the individual's nutritional needs when the nutrient requirements of pregnancy are superimposed on the special demands of growth and maturation.

NAUSEA AND VOMITING

Women experiencing nausea and vomiting, commonly called "morning sickness" during pregnancy, should be counselled to eat small, frequent, dry meals and to eat promptly when hunger is first felt. Women should be advised to keep crackers, or other dry high carbohydrate foods near their beds to eat before getting out of bed.

Additional recommendations are:

- Eliminate fats and fatty foods until vomiting ceases
- Avoid highly seasoned foods
- Eat dry food separately from fluids
- Take small frequent feedings of alternate dry and fluid foods
- Substitute skimmed milk for whole milk when whole milk is not tolerated
- Separate fluids from solid feedings and take fluid feeding only if previous dry feeding has been tolerated
- Avoid any food causing nausea and/or vomiting
- As tolerance for food increases, eat larger meals several hours apart until the normal three meals per day pattern is re-established.

The following is a suggested daily intake plan; food should be added as tolerated to meet the recommended amounts listed in the Daily Food Guide.

SUGGESTED SCHEDULE OF MEALS FOR NAUSEA AND VOMITING

Before getting out of bed	1 or 2 plain crackers
8.00 a.m.	1 slice toast with jelly
10.00 a.m.	Cereal with sugar and 125 ml ($\frac{1}{2}$ cup) milk
11.00 a.m.	125 ml ($\frac{1}{2}$ cup) juice
12.00 noon	Lean chicken, fish or meat - small serving, baked, broiled or boiled; baked sweet or Irish potato or yam; 1 slice toast and jelly
2.00 p.m.	250 ml (1 cup) milk
4.00 p.m.	125 ml ($\frac{1}{2}$ cup) juice
6.00 p.m.	Lean chicken, fish or meat - small serving, baked, broiled or boiled; rice - 125 ml ($\frac{1}{2}$ cup) cooked; 1 slice toast
8.00 p.m.	250 ml (1 cup) milk
10.00 p.m.	1 fruit - ripe if raw, or cooked

If nausea and vomiting become severe and prolonged, the patient should be referred to her physician to avoid complications from lack of nutrient intake.

CONSTIPATION

If the patient complains of chronic constipation, a common discomfort of pregnancy, a high fibre diet should be recommended. Fresh, uncooked fruits and vegetables, juices, whole grain breads and cereals, plenty of water and frequent light exercise, such as walking, may be recommended. Highly refined foods, such as sweets, refined breads and cereals and soft low fibre vegetables and fruits should be avoided.

DIABETES

Pregnancy is often associated with increased maternal and foetal complications. Control may become unstable and the patient must be carefully monitored.

DIET FOR LACTATION

DESCRIPTION

To meet the extra nutritional demands for milk production, the diet during lactation must include additional energy, protein, minerals, vitamins and fluids. This diet is adequate in all nutrients.

INDICATION

This diet is ordered during lactation.

ENERGY

An additional 550 kcal above non-pregnant requirements should be supplied through nutrient-rich foods. Specific nutrient requirements are outlined in Recommended Dietary Allowances (p. 1).

IRON AND FOLIC ACID

During lactation, most women need prophylactic supplementation of iron and folic acid in the recommended amounts:

Iron	60 milligrams, e.g. 180 mg ferrous sulphate daily
Folic Acid	300 micrograms daily

SUGGESTED MEAL PLAN

The Regular Diet (see p. 40) with the addition of four servings of food from animals and/or legumes and two servings of fruit juice should allow for adequate nutrient intake without undesirable weight gain.

DIET FOR INFANTS

NUTRITION OF THE NEWBORN

DESCRIPTION

The best diet for the newborn is breastmilk. All recent scientific data amply shows that breastfeeding is desirable. It supplies all nutrients needed for the first four months of life, including water. Studies have shown that even inadequately nourished mothers provide milk of sufficient quantity and quality (protein and energy), although the vitamin levels may be low if the mothers are themselves vitamin deficient.

INDICATION

The diet for the newborn is breastmilk, unless specific contraindications exist and are identified by the physician.

The publication "Guidelines to Young Child Feeding"* sets forth certain characteristics of breast milk and prerequisites of successful breastfeeding:

- (1) It is adapted to the precise metabolic needs of the infant.
- (2) It is readily available and convenient.
- (3) It is low-cost. It is cheaper to provide a nutritious diet for the lactating mother than to feed the infant on artificial milk.
- (4) It possesses, in addition to its relative sterility, specific unique anti-infective properties.
- (5) It promotes an ideal, close initial mother-child relationship.
- (6) It could have a protective effect against the development of breast cancer in mothers.
- (7) To ensure acceptance of the concept of breastfeeding and successful lactation among all newly delivered mothers, there should be a continuum of education on breastfeeding by highly motivated health staff - including doctors, nurses and auxiliary personnel - in schools, ante-natal and child welfare clinics and maternity and post-natal hospital wards. Special emphasis should be paid to the nutrition education of primiparae and vulnerable teenage mothers.

*Guidelines to Young Child Feeding in the Contemporary Caribbean", PAHO, 1970 (PAHO Scientific Publication No. 217).

- (8) Mothers delivered in hospitals are often the victims of conflicting advice received from doctors, nurses, commercial "milk nurses", other patients, visiting relatives and friends. Concerted efforts should be made to standardize the advice given by hospital and maternal and child health clinic staff.
- (9) Following delivery, the infant should be offered breastfeeding as early and at as frequent intervals as possible, using both breasts. Ideally, the infant's cot should be placed by the side of the mother's bed.
- (10) The newborn infant requires to be breastfed exclusively in order to obtain necessary nutrients and water. The high protein content, excellent nutritive value, and anti-infective properties (immunoglobulins, etc.) of colostrum must be emphasized to hospital health staff and newly delivered mothers. There is no need for routine early supplementation with either milk or glucose feeds, as they decrease the baby's appetite and the vigorousness of sucking. If really indicated, boiled water may be given by spoon feeding and not by bottle.
- (11) Practicing doctors, midwives, ward sisters and all other nursing personnel, should receive intensive education in the psychophysiology and anatomy of lactation, and in breastfeeding methods. They should also be made aware that breast engorgement and mastitis are not indications for stopping breastfeeding. This reorientation is especially needed in training schools for medical students, nurses, midwives and auxiliaries.
- (12) The services of successfully lactating and breastfeeding mothers should be enlisted in pre-natal clinics, health centres and hospital wards, since they are more experienced in the practical aspects of breastfeeding and can act as role models to new mothers.
- (13) Breastmilk alone is sufficient for the adequate nutrition of the infant up to the age of 4 to 6 months. The introduction of semi-solid foods between 4 and 6 months should be individualized, depending on the infant's requirements and the home situation.

ARTIFICIAL FEEDING

- (1) The use of glucose and water for feeding healthy infants should be discontinued. Glucose is costly and has no significant, relevant qualities compared with the cheaper cane sugar (sucrose) in cases where an addition to the energy value of a feed is desired.

- (2) Bush teas should not be used as a substitute for food. Some bush teas are harmful. Health personnel in each territory should advise mothers accordingly.
- (3) Considerable emphasis should be given in all clinics to the importance of hygiene and sanitation in infant feeding. Cup and spoon are recommended but, where considered necessary, the use of transparent pyrex-type thick plastic bottles is recommended, as they are easier to clean and less likely to warp with repeated boilings. Ideally, terminal sterilization (boiling bottle, containing milk mixture and with teat and cover on, for 15 minutes) should be practised. If circumstances do not permit this method, feeds should be mixed in cooled boiled water in a previously boiled bottle and teat, and used immediately after preparation. Chemical sterilization with hypochlorite solution is not recommended.
- (4) Careful serial weighing is the best way of assessing a young child's growth and nutrition. A frequently checked beam-balance scale and weight charts are essential equipment at all health centres. All health staff need training in weighing procedures, charting of weights and the interpretation of results. It should also be appreciated that an excessively fat baby is not healthy and this excess may lead to a permanent tendency to obesity in later life.
- (5) When artificial feeding of the infant up to 4 months of age has to be undertaken, the use of the cheapest, adequately nutritious and acceptable milk-based products with added sugar should be encouraged. This will often be a less advertised dried whole milk. It should be selected and actively promoted by those concerned with infant feeding, who should at the same time be thoroughly familiar with its use. Particular emphasis should be placed on the need for the provision of adequate amounts of the product, reconstituted at the proper strength, to meet the infant's daily nutrient requirements.

VITAMIN AND MINERAL SUPPLEMENTATION

- (1) In order to increase iron stores in the infant, delayed clamping of the umbilical cord should be encouraged.
- (2) If the child is fed only from the breast, no vitamin or mineral supplementation is required during the first 4 months.
- (3) The use of fruit and vegetable sources of ascorbic acid, preferably home-produced, should be encouraged, although emphasis must be given to cleanliness in preparation. These include citrus fruits, guava, mango, West Indian cherry, tomato, callaloo, etc.

- (4) Distribution of low-cost iron and folic acid supplements through health clinics is recommended for all infants from 4 months to 2 years of age. Recommended intakes are 20 mg of elemental iron (approximately 60 mg of ferrous sulphate) and 200 micrograms of folic acid per day.
- (5) Fluoride is a normal component of the diet and fluoridation of the community water supply up to a level of 1 part per million of fluorine is recommended to prevent dental caries in areas where the water contains little or none of this mineral and where the practice is feasible and safe.

WEANING AND TRANSITION TO FAMILY DIET*

- (1) Breastfeeding may be continued with benefit for as long as possible and preferably for one year.
- (2) In addition to milk, other foods should be introduced from 4-6 months onwards. Fruit juice would have already been introduced for the artificially-fed child.
- (3) Cereal porridges (cornmeal, rice) reinforced with milk or other available animal protein are recommended as the first semi-solid food to be given. They should be given by cup and spoon and not by bottle.
- (4) Smooth, well-cooked mixtures of other solid foods such as staples, animal products, peas and beans and dark green and yellow vegetables should be added in gradually increasing range and quantity.
- (5) As far as possible, these ingredients should be taken from the family meal before the addition of irritant condiments, especially hot pepper. The ingredients should be soft, digestible, clean and of a fairly thick consistency.
- (6) Attention should be given to the use of pulpy, soft-fleshed foods, requiring no cooking and preferably supplying compact energy and/or vitamins (pawpaw, ripe bananas, avocado, mango, etc.).
- (7) Mothers should be advised on (a) including all food groups in the family diet, (b) using ingredients of high nutritional value in relation to cost and (c) utilizing whenever possible, produce from the home gardens.

*This subject is dealt with in detail in "A Guide to Feeding the Weaning Age Group in the Caribbean", CFNI, 1982.

- (8) Mothers should be convinced of the desirability of using the entire edible portion of egg, meat, fish and sieved peas and beans rather than only selected portions such as gravies, teas or broth.
- (9) It is desirable that children by the age of one year share largely in the general family diet and generously so in reference to their special needs."

DIET FOR THE YOUNG CHILD

DESCRIPTION

Meal planning for children is based on the selection of foods from the Basic Six Food Groups for the Caribbean, in amounts required to meet the nutritional needs for growth and development. Selecting a wide variety of foods from each of the six food groups promotes the development of sound nutritional habits in children.

Food is presented in a simply prepared form, and in bite-sized pieces as "finger foods" to encourage the chewing process. Children will require small amounts of food at meal times and between-meal snacks of fruit or juice, milk, and bread or crackers. Foods that may be accidentally aspirated e.g. popcorn, corn, peanuts, should be avoided.

INDICATION

The feeding of the pre-school child in the Caribbean is of critical importance to combat the incidence of malnutrition. Because of rapid growth, the energy and protein needs of infants and young children are considerable. When energy needs are met, the requirements for other nutrients are more easily satisfied.

These diets are designed to meet the nutritional needs of children in the age groups of 1 - 3 years and 4 - 6 years.

ADEQUACY

The meal plans presented meet the RDAs for protein, energy and iron, when the types of foods and the amounts suggested are included each day.

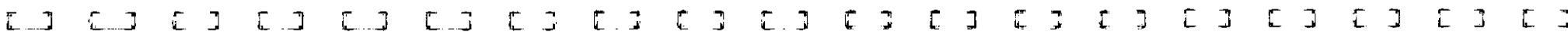
DIET FOR THE YOUNG CHILD (1 - 3 YEARS)

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Porridge (e.g. cornmeal, banana, oatmeal), easily digested ready-to-eat cereals (e.g. cornflakes), cooked white and sweet potato (no skins), dasheen, yam, tannia, eddoe, macaroni, noodles, spaghetti, rice, white enriched/whole-wheat bread, plain biscuits	Dry and coarse cereals, e.g. bran, shredded wheat, cereals containing nuts, dried fruit, fried potatoes/ground provisions
Legumes	All well cooked, without skins	Fried, highly seasoned with skins
Dark Green Leafy and Yellow Vegetables	Well cooked tender vegetables suitable as "finger foods" e.g. carrots, green beans, pumpkin, christophene, chopped spinach, callaloo (unseasoned), raw carrot, lettuce (shredded), tomato wedges	Strongly flavoured vegetables as cabbage, cauliflower, corn; diced raw vegetables
Fruits	Raw fruits, suitable as "finger foods", e.g. ripe banana, paw paw, mango, orange sections, water melon. All fruit juices.	Fruits with seeds or tough skins
Foods from Animals	Any chopped, tender, lean meat, chicken or fish without small bones, frankfurters, luncheon meat, bacon, mild cheeses, eggs (hard or soft cooked, poached, or scrambled), peanut butter. All milk and milk products.	Any fried or highly seasoned meat or fish, containing small bones; highly seasoned sausages, strongly flavoured cheeses
Fats	Butter, margarine, cream, oil, vegetable shortening, mayonnaise, gravy	Fried foods, excessive use of fats

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Miscellaneous	Salt, sugar, cocoa, chocolate, mild flavourings and extracts, ground cinnamon, mace, nutmeg, plain gelatin and cornstarch, desserts, plain cakes and cookies, custards, smooth ice-cream, soups made from allowed foods, carbonated beverages and fruit drinks occasionally, coconut (soft jelly and water	Jam, marmalade, preserves (with skins, seeds), coconut (mature fruit), nuts, olives, pickles, popcorn, potato and plantain chips, relishes, pepper, spicy or rich desserts, pastries, and any desserts with nuts; coffee, strong tea, soups highly seasoned or made with foods not allowed

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: YOUNG CHILD DIET (1 - 3 YEARS)

	MORNING	MID-MORNING	NOON	MID-AFTERNOON	EVENING	BEDTIME
MEAL PLAN	1 serving staple foods 1 serving foods from animals 2 tsp fats Miscellaneous	1 serving fruit	½ serving foods from animals ½ serving staple foods ¼ serving legumes ½ serving dark green leafy and yellow vegetables 1 tsp fats Miscellaneous	1 serving fruit ½ serving staple foods ½ serving foods from animals	½ serving foods from animals ½ serving staple foods ¼ serving dark green leafy and yellow vegetables 2 tsp fats Miscellaneous	½ serving staple foods ½ serving foods from animals
SAMPLE MENU	½ slice bread 125 ml (½ cup) oatmeal porridge with sugar, butter/margarine 30 g (2 tbsp) mashed sardines 125 ml (½ cup) milk 10 g (2 tsp) butter or margarine	120 g (½ cup) orange sections	30-45 g (2-3 tbsp) chopped chicken 60 g (4 tbsp) buttered rice 30 g (2 tbsp) dry pigeon peas (no skins) 30 g (2 tbsp) pumpkin cubes	½ banana) 125 ml (½ cup) milk) milk shake ½ slice bread or 2 plain biscuits	45 g (3 tbsp) flaked fish 60 g (4 tbsp) crushed yam with butter/margarine 30 g (2 tbsp) shredded lettuce ½ tomato (wedges)	125 ml (½ cup) milk ½ slice bread or 2 biscuits



DIET FOR THE YOUNG CHILD (4 - 6 YEARS)

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	All whole-grain or enriched cereals (cooked or ready-to-eat); white and sweet potatoes, all ground provisions, macaroni, spaghetti, noodles, rice, all whole grain or enriched breads, biscuits	Any highly seasoned; excessive use of sweet rolls, doughnuts
Legumes	All except nuts and seeds	Nuts and seeds
Dark Green Leafy and Yellow Vegetables	All fresh (raw, cooked), frozen or canned	None
Fruits	All fresh, frozen or canned fruits and fruit juices. (Include 1 serving of fruit or fruit juice daily for a source of vitamin C)	None
Foods from Animals	All whole, tender lean meats, chicken, fish without small bones, mild cheeses, eggs, peanut butter. All milk and milk products.	Any highly seasoned fish with small bones
Fats	Butter, margarine, cream, gravy, oil, vegetable shortening, mayonnaise, salad dressing	Excessive use of fats
Miscellaneous	Salt, sugar, cocoa, chocolate, ketchup, mustard, olives, pickles, herbs, mild spices, cakes, cookies, puddings, custard, gelatin, ice cream. Soups made from allowed foods. Carbonated beverages and fruit drinks occasionally.	Pepper, excessive amounts of spices

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: YOUNG CHILD DIET (4 - 6 YEARS)

	MORNING	MID-MORNING	NOON	MID-AFTERNOON	EVENING	BEDTIME
MEAL PLAN	<p>1½ servings staple foods</p> <p>1 serving foods from animals</p> <p>2 servings fats</p> <p>Miscellaneous</p>	<p>1 serving staple foods</p> <p>1 serving fruits</p>	<p>1 serving staple foods</p> <p>1 serving legumes</p> <p>1 serving dark green leafy and yellow vegetables</p> <p>½ serving foods from animals</p> <p>1 serving fruits</p> <p>1 serving fats</p> <p>Miscellaneous</p>	<p>1 serving foods from animals</p> <p>1 serving staple foods</p> <p>1 serving fruits</p>	<p>1½ servings staple foods</p> <p>1 serving foods from animals</p> <p>1 serving dark green leafy and yellow vegetables</p> <p>2 servings fats</p> <p>Miscellaneous</p>	<p>½ serving foods from animals</p> <p>1 serving staple foods</p> <p>1 serving fats</p>
SAMPLE MENU	<p>½ slice bread</p> <p>125 ml (½ cup) oatmeal porridge with sugar, butter/margarine</p> <p>45-60 g (3-4 tbsp) mashed sardines</p> <p>125 ml (½ cup) milk</p> <p>10 g (2 tsp) butter or margarine</p>	<p>120 g (½ cup) orange sections</p> <p>2 plain cookies</p>	<p>45-60 g (3-4 tbsp) sliced lean chicken</p> <p>250 ml (1 cup) rice and peas</p> <p>125 ml (½ cup) pumpkin cubes</p> <p>1 medium guava, stewed</p>	<p>½ banana) milk</p> <p>250 ml (½ cup)) shake</p> <p>milk</p> <p>4-5 crackers, plain</p>	<p>60-90 g (2-3 oz) flaked fish</p> <p>125 ml (½ cup) crushed yam with butter/margarine</p> <p>shredded lettuce</p> <p>1 tomato (wedges)</p> <p>1 slice bread pudding</p>	<p>125 ml (½ cup) milk</p> <p>1 slice bread</p> <p>5 ml (1 tsp) butter/margarine</p>

DIET FOR THE ADOLESCENT

Nutrition in the adolescent years focuses on a nutritionally adequate diet which is important for the promotion of optimum health, growth and development. The diet should be based on the Daily Food Guide, with the quantity of foods increased to support the large energy and nutrient needs of growth.

Since growth rate is at a maximum during adolescence, it is important that energy needs be met, to avoid a decrease in growth rate or the limited availability of nutrients necessary for body-building.

It is estimated that adolescents consume approximately 25% of their energy intake in between-meal snacks. Snacking may be encouraged if nutritionally acceptable foods are used and high sugar and high fat foods are avoided.

More attention should be paid to the nutritional adequacy of the diet among girls, more so than boys, since certain nutrient deficiencies, e.g. iron have been observed in girls. Nutrition counselling should emphasize the improvement of the nutritional quality of the diet rather than the use of nutrient supplements. Special consideration should be given to the use of iron-rich foods, and the regular use of fresh fruits and vegetables, whole-grain breads and cereals, and legumes.

ATHLETIC TRAINING

There is no specific nutritional requirement for the athlete. The diet of the adolescent athlete must be based on a variety of foods chosen from the Basic Six Food Groups and adjusted to meet the energy and nutrient needs of growth in addition to those of the increased physical activity. Carbohydrates and fats will provide energy. Excess protein or a high protein diet is *not* required.

ANOREXIA NERVOSA

An obsession with weight loss may lead to the condition *anorexia nervosa*, during which there is a drastic reduction in food intake, and subsequent malnutrition. This condition requires medical and psychological treatment. The role of the dietitian on the psychotherapy team will vary depending on the treatment method used. Forced feeding by tube, behaviour modification and a variety of group approaches may be used, depending on the patient and the physician involved.

PREGNANCY*

Pregnancy puts the adolescent at high nutritional risk, since her own nutrient needs for growth are superimposed on those of the foetus. In order to obtain the necessary nutrients and to maintain the recommended rate of weight gain throughout pregnancy, an average daily intake of 285 kcal (150 kcal per day in the first trimester, and 350 kcal per day in the second and third trimester) is recommended, in addition to the energy requirement of the relevant age group. An increase in protein of 13 g per day above the normal diet is recommended.

*Refer to Diet for Pregnancy, page 13

DIET FOR THE ELDERLY

DESCRIPTION

Nutrition for the elderly should be, as far as possible, the same as for young adults. There is little evidence that requirements for specific essential nutrients change with advancing age.

However, there are special considerations in planning meals for older adults. The basal metabolic rate declines with age and infirmities tend to reduce activity. As a result, less food is needed to meet energy requirements and unless food choices are made with great care, the amounts of essential nutrients consumed are likely to be less than in the more active years.

Foods should be selected in quantities indicated in The Daily Food Guide with the following important considerations:

1. Food for the older person should be attractively prepared and designed to stimulate appetite.
2. Foods may be modified in consistency to facilitate chewing. The diet must be individualized to the person's need, i.e. chopped, ground or blended.
3. Older people have well established food habits, likes and dislikes and must be encouraged to eat a balanced diet.
4. Some older people need extra fibre to prevent constipation.
5. An adequate fluid intake (6-8 glasses per day) should be encouraged.
6. Some older people have lost ability to taste and need foods more highly seasoned than other adults.
7. Three or more meals should be served daily with no more than 14 hours between a substantial evening meal and breakfast.
8. Bedtime snacks are usually well received by most older persons.

Some foods may cause discomfort to the elderly. In preparing meals for them it is important to consider each person individually and eliminate only those foods that cause distress.

ENERGY EXPENDITURE

Energy expenditure alters with age because of changes in body weight or body composition, decrease in the basal metabolic rate, decline in physical activity and increased prevalence of disease and disabilities. Several of these changes may occur from age 40 onwards. Therefore, the level of requirements for the older age group was determined as the following percentages of the requirements of adults 20-39 years of age:

Age	Percentage Adjustment
40-49 years	95
50-59 years	90
60-69 years	80
70 years and over	70

VEGETARIAN DIET

DESCRIPTION

Vegetarian Diets may be classified as:

1. Lacto-ovo vegetarian (plant foods, dairy products and eggs)
2. Lacto-vegetarian (plant foods and dairy products)
3. Pure vegetarian or vegan (plant foods only)

INDICATION

Various forms of vegetarianism are becoming increasingly popular, especially among adolescents and young adults, and may be used for reasons based on religion, economy, life style and ecology.

ADEQUACY

Many individuals and population groups have practised vegetarianism on a long term basis and have demonstrated excellent health. Plant-based diets, supplemented with milk or with milk and eggs, tend to be nutritionally similar to diets containing meats. However, the pure vegetarian diet needs careful planning to meet nutritional requirements especially in iron, calcium, riboflavin and vitamin B₁₂. Vitamin B₁₂ supplementation is indicated since there is no known plant source of this vitamin. Cooked dark green leafy vegetables can replace milk on an equal volume basis for calcium and riboflavin content. It is important to eat a wide variety of foods and to give particular attention to the combination eaten at each meal in order to supply a balanced combination of amino acids. Cereals such as rice, corn, wheat and oats complement legumes such as peas, beans and nuts. Foods which complement each other should be eaten at the same meal.

Adequate energy intake should be provided so that protein will not have to be used to meet energy needs.

The high fibre content of a well-balanced vegetarian diet is appealing to many because of the possible role of fibre in the prevention of certain diseases of the colon.

A vegetarian can be well nourished if he eats a variety of plant foods and gives attention to the critical nutrients mentioned above. Dairy products and eggs which are used on the Lacto-ovo vegetarian diet are excellent sources of nutrients that are of greatest concern. Legumes, dark green leafy vegetables supplemented by a vitamin B₁₂ tonic or pills should be included in those diets which contain no foods of animal origin.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Whole grain bread and cereals, enriched rice, flour, macaroni, noodles Starchy fruits, roots and tubers in moderation	Refined cereals Unenriched white rice and excesses of ground provisions
Legumes	All in increased amounts especially nuts and nut-like seeds - almonds, peanuts, cashews, soya-beans, peanut butter, textured vegetable protein	None
Dark Green Leafy, Yellow and Other Non-Starchy Vegetables	All, especially large quantities of callaloo, turnip greens, cabbage, cauliflower, bhagi, spinach, mustard greens, patchoi	None
Fruit	All fruits and fruit juices in increased amounts, including dried fruit	None
Foods from Animals	Increased amounts of milk, cheese, yogurt (Lacto-veg.) and eggs (Lacto-ovo veg.)	All meats, fish and poultry, all foods of animal origin, including milk, cheese and eggs (vegan)
Fats	Fortified margarine, vegetable oils, ghee and butter (Lacto-ovo veg.), peanut butter	None (Lacto-ovo veg.) Ghee (clarified butter), butter (vegan)
Miscellaneous	Sweets in general, brown sugar, molasses, syrup, jelly, jam, spices and condiments, pure vegetable soups (no meat base), coffee, tea, carbonated beverages	

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: VEGETARIAN DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple Foods Foods from animals and/or legumes* Fats Beverage Miscellaneous	Legumes Staple Foods Dark green leafy and yellow vegetables (2 servings min.) Fruits Fats Beverage Foods from animals*	Legumes Staple Foods Dark green leafy and yellow vegetables (2 servings min.) Fruits Fats Beverage Foods from animals*
SAMPLE MENU (LACTO-OVO VEGETARIAN)	Fresh orange Cornmeal porridge Hard cooked egg Wholewheat bread Butter Coffee	Boiled green banana and chick-pea (channa) salad Savoury callaloo/spinach Pawpaw slices Milk	Stewed red peas Plain rice Tossed salad with tomatoes, cucumber and cabbage Fresh fruit salad
SAMPLE MENU (VEGAN)	Fresh pineapple Wholewheat bread Peanut butter Honey Coffee	Split peas Spinach and rice Tossed salad - cabbage, tomato, cucumber Pumpkin Grapefruit juice	Lentil croquettes Potato salad with oil, vinegar, mustard dressing Dasheen leaves Sliced tomatoes Banana slices
<u>SNACK</u>			
Peanut butter and crackers with orange juice, legumes, fruit			

*Lacto vegetarians may add milk and milk products as desired; Lacto-Ovo vegetarians may add milk and eggs as desired.

SECTION III

STANDARD HOSPITAL DIETS

CLEAR FLUID DIET

DESCRIPTION

The Clear Fluid Diet reduces colonic residue to a minimum. It is non-irritating and is easily absorbed with a minimum of digestive activity.

No milk products are included.

The foods are liquid or become liquid at room and body temperature.

A Clear Fluid Diet is highly restrictive and is used only for short periods of time. This diet is inadequate in all nutrients except vitamin C and should not be used over extended periods of time without additional nutrient supplementation.

INDICATIONS

This diet is used pre-operatively, post-operatively, in the acute stages of many illnesses, especially in febrile conditions and in conditions where it is necessary to minimize the amount of faecal materials in the colon as preparation for bowel surgery or for a barium enema. It is also used following surgery of the colon or as a transition from intravenous feeding to a full fluid or solid diet following certain types of surgery.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	None	All kinds
Legumes	None	All kinds
Dark Green Leafy and Yellow Vegetables	None	All kinds
Fruits	Apple juice and strained fruit juices	Fruit juices with pulp, all fruit
Foods from Animals	Consommé or clear broth (beef, chicken or fish)	All other including milk and milk drinks
Fats	None	All kinds

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Miscellaneous	Weak tea and coffee, decaffeinated coffee, cereal beverages (e.g. Postum), clear fruit flavoured beverages, strained lemonade, flavoured gelatin, carbonated beverages, strained coconut water	All puddings, all other other beverages, ice cream, etc.

SAMPLE MENU: CLEAR FLUID DIET

MORNING	NOON	EVENING
Juice Coffee with sugar	Juice Clear broth Flavoured gelatin Tea	Juice Clear broth Flavoured gelatin Tea
MID-MORNING	MID-AFTERNOON	BEDTIME
Juice	Strained coconut water	Flavoured gelatin

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Miscellaneous	Coffee, tea, decaffeinated coffee, cereal beverages (e.g. Postum), carbonated beverages, fruit flavoured beverages, gelatin desserts, smooth ice cream, cornstarch puddings, popsicles, sugar, honey, plain hard sweets, salt, flavourings, e.g. chocolate syrup, cocoa, nutmeg.	All other beverages and puddings

SAMPLE MENU: FULL FLUID DIET

MORNING	NOON	EVENING
Orange juice Oatmeal porridge Milk Cocoa	Lemonade Strained cream of pumpkin soup Vanilla ice cream Tea with milk	Pineapple juice Beef broth Flavoured gelatin with cream Tea with milk
MID-MORNING	MID-AFTERNOON	BEDTIME
Eggnog	Milkshake	Milk

FULL FLUID DIET

DESCRIPTION

The Full Fluid Diet provides nourishment in the fluid state and consists of a variety of foods which are liquid or semi-liquid at room and body temperature and are easily digested and non-irritating.

Milk and milk products are included but will provide a moderate amount of residue in the colon.

INDICATIONS

The Full Fluid Diet may be used following surgery, for conditions of acute infections and for any patient who has difficulty chewing or swallowing or is too ill to eat solid or semi-solid foods.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Strained thin porridge	All others
Legumes	None	All
Dark Green Leafy and Yellow Vegetables	Vegetable juice, puréed vegetables in soups	All others
Fruits	All fruit juices	All others
Foods from Animals	Milk, milk drinks, plain yogurt, eggs in custards, and eggnogs, consommé, clear broth (beef, chicken or fish)	All others
Fats	Butter, margarine, oil	All others

SOFT DIET

DESCRIPTION

The Soft Diet consists of foods which are lightly seasoned and easy to chew, swallow and digest. All meats are minced and soft textured vegetables and fruits are served. Individual tolerance is an important consideration.

INDICATIONS

This diet can be used when modification in consistency may be necessary for patients who have difficulty chewing and/or swallowing because of lack of dentures, wired or fractured jaws, mouth and throat disease, eye surgery or inability to tolerate solid foods, as in the case of geriatrics.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Porridge (e.g. cornmeal, banana, cream of wheat, farina, oatmeal), white bread and biscuits, mashed well-cooked white or sweet potatoes, tannia, yam, spaghetti, macaroni, noodles, rice	All other porridges, whole wheat bread or biscuits, all other ground provisions
Legumes	None	All kinds
Dark Green Leafy and Yellow Vegetables	All vegetable juices, well cooked pumpkin, carrots, christophene/chocho	All raw vegetables, all other cooked vegetables
Fruits	All fruit juices, all soft low fibre fruits (e.g. raw ripe banana, pawpaw); all other fruit should be well cooked and puréed or mashed	All other raw fruit, dried fruit

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Foods from Animals	All meat and poultry should be finely minced; all fish should be flaked; egg - soft or hard cooked, poached, scrambled; milk, milk beverages, cheese	Any meat, fish or poultry not prepared as indicated. Shell fish; all fatty meat; fried eggs
Fats	Butter, margarine, oil, lard, vegetable shortening, salad dressing	Fried foods
Miscellaneous	Coffee, tea, decaffeinated coffee, cereal beverages (e.g. Postum), plain corn-starch puddings, custards, ice cream, gelatin desserts, plain soft cakes and cookies, popsicles, sugar, ketchup, cream soups, consommé, broth (beef, chicken or fish), salt, mild flavourings, chocolate, cocoa, carbonated and fruit flavoured beverages	All other pastries and desserts containing nuts, raisins, coconut or fruit not allowed. Pepper, nuts, coconut, mustard.

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: SOFT DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fats Beverage	Foods from animals Staple Foods Dark green leafy and yellow vegetables Fruits Beverage	Foods from animals Staple Foods Dark green leafy and yellow vegetables Fruits Beverage
SAMPLE MENU	Pineapple juice Poached egg White bread (no crust) Margarine or butter Coffee Milk	Minced beef Steamed pumpkin Mashed tannia Baked custard Lemonade	Steamed fish Boiled carrots White bread (no crust) Margarine or butter Flavoured gelatin Milk

LIGHT DIET

DESCRIPTION

The Light Diet consists of foods which are tender, but not ground or puréed. Whole meats, cooked vegetables and fruits of moderate fibre content are allowed.

INDICATIONS

The diet is suitable for patients who cannot tolerate highly seasoned, fried or raw foods. It is sometimes used as a transition between the Full Fluid and the Regular Diet in patients convalescing from surgery, trauma or other illnesses. It should be individualized to suit specific patient tolerances.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	White or brown bread, biscuits, porridge, white or sweet potatoes, yam, tannia, spaghetti, macaroni, noodles, rice	Bread with raisins and nuts, nut bread, all other staples
Legumes	None	All
Dark Green Leafy, Yellow and Other Non-starchy Vegetables	All vegetable juices, cooked or canned vegetables including beets, carrots, pumpkin, christophene/ chocho	All other raw or cooked vegetables
Fruits	All fruit juices, ripe banana and pawpaw; all other fruit should be well cooked and seeded	All other raw and dried fruit

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Foods from Animals	Baked, broiled, roasted or stewed tender beef, lamb, veal, liver, chicken, turkey; all canned fresh or frozen fish; cheese; eggs - baked, poached, scrambled, soft or hard cooked; milk and milk beverages	Fried, highly seasoned or pickled meats, fatty meats; fried eggs
Fats	Butter, margarine, vegetable shortening, oils, lard, mild salad dressings, avocado	Fried foods
Miscellaneous	Coffee, tea, decaffeinated coffee, cereal beverages (e.g. Postum). Plain cake or cookies, plain puddings, smooth ice cream, gelatin desserts, pastries made with foods allowed, sugar. Salt, mild flavourings, cocoa, smooth peanut butter	Desserts containing nuts, coconut, dried fruit or fruits with small seeds. Pepper, mustard, nuts, coconut, popcorn

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: LIGHT DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Foods from animals Staple Foods Fats Beverage Miscellaneous	Foods from animals Staple foods Dark green leafy and yellow vegetables Fruits Fats Beverage Miscellaneous	Foods from animals Staple foods Dark green leafy and yellow vegetables Fruits Fats Beverage Miscellaneous
SAMPLE MENU	Grapefruit juice Poached egg Bread Margarine or butter Jelly Tea with milk	Steamed chicken Sliced yam Boiled beets Chilled pawpaw Orange juice	Hamburger patties Boiled potato Green beans Margarine or butter Tea

REGULAR DIET

DESCRIPTION

Regularly scheduled meals are planned according to the Daily Food Guide to contain the nutrients needed by the average healthy adult. The diet should be well balanced to provide nourishment and to appeal in colour, texture and flavour as a stimulus to appetite. Current research indicates that the diet should be high in fibre and low in fat.

INDICATIONS

The Regular Diet is indicated for persons who do not require any modifications of diet.

ADEQUACY

The diet will be adequate if the Daily Food Guide is followed. Energy needs are related to body size, age and activity level. These needs may be decreased due to lessened activity or increased due to a high expenditure or to stress caused by illness, undernutrition or other factors. To decrease the energy intake, smaller portions may be offered and the amount of fats, oils and sugar used in cooking reduced. To increase energy, a large or second serving may be provided at meal time or as between-meal snacks and additional butter, margarine, oils or sugar may be used for flavouring and in cooking.

Sugars and sweets should be limited to amounts that will maintain ideal body weight. Spices may be used for flavouring without adding extra energy.

Iron deficiency anaemia is a common problem among women of child bearing age in the Caribbean. In order that women meet the Recommended Dietary Allowance for iron, the following foods should be routinely included in the diet: legumes, meat, liver, eggs, dark green leafy vegetables, enriched bread and cereals, dried fruit, molasses and dark brown sugar.

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: REGULAR DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruit Staple Foods Foods from animals Fat Beverage	Foods from animals Staple Foods Legumes Dark green leafy or yellow vegetables Fruit Beverage Miscellaneous	Foods from animals Staple Foods Dark green leafy or yellow vegetables Fruit Fat Beverage Miscellaneous
SAMPLE MENU	Orange juice Bread Sardines Margarine or butter Milk Coffee or tea	Stewed chicken Rice and peas Pumpkin Stewed fruit	Fried fish Crushed yam Lettuce and tomato Bread pudding Lemonade

SECTION IV

THERAPEUTIC DIETS

BLAND DIET

DESCRIPTION

Dietary management of patients with chronic ulcer disease has been the subject of much controversy. In 1971, the American Dietetic Association, recognizing that the rationale for this diet was not supported by sufficient scientific evidence, published a Position Paper, reproduced below, which discussed several controversies.

INDICATION

Results of experiments have shown that there is no significant difference in the response of patients with active duodenal ulcer to a Bland or a Regular diet.

SUGGESTED MEAL PATTERN

Regular Diet or Soft Diet may be used according to patient tolerance; frequent, small-volume feedings should be offered.

Foods which are known gastric irritants should be avoided. These include black pepper, cayenne, chili powder, coffee, tea, cocoa and alcohol.

INDIVIDUALIZATION OF THE DIETARY PLAN IS RECOMMENDED.

BLAND DIET IN THE TREATMENT OF CHRONIC DUODENAL ULCER DISEASE*

The Bland Diet and its modifications have been used for many years as part of the treatment for duodenal ulcer and other gastro-intestinal disorders. It has most often been defined as one which is chemically and mechanically non-irritating; however, there is considerable lack of agreement as to which foods are actually non-irritating. Review of diet manuals from many states reveals regional differences in foods allowed. In reviewing the literature, it is noted that much of the rationale for the bland diet is based on tradition and even folklore.

The American Dietetic Association, in its commitment to interpret and apply the science of nutrition in the promotion of individual, group and community health:

*Approved by the Executive Board of the American Dietetic Association, May 21, 1971, as Position Paper No. 0000H. J. Amer. Dietet. Assoc. 59: 244, 1971.

1. Recognizes that the rationale (chemically and mechanically non-irritating) for the bland diet is not sufficiently supported by scientific evidence.
 - (a) Spices, condiments, and highly seasoned foods are usually omitted on the basis that they irritate the gastric mucosa. However, experiments have indicated that no significant irritation occurs, even when most condiments are applied directly on the gastric mucosa. Exceptions are those items which do cause gastric irritation, including black pepper, chili powder, caffeine, coffee, tea, cocoa, alcohol and drugs.
 - (b) Milk has been the basis of diets for duodenal ulcer for many years. One of the primary aims in dietary management of duodenal ulcer disease is to reduce acid secretion and neutralize the acid present. While milk does relieve duodenal ulcer pain, the acid neutralizing effect is slight. Its buffering action could be outweighed by its ability to stimulate acid production. Most foods stimulate acid secretion to some extent; protein provides the greatest buffering action and is also the most powerful stimulus to acid secretion. The use of milk therapy has been greatly reduced over the past decade, owing to a better knowledge of its side effects and allergic reactions. The controversy regarding use of milk still continues. There are those who still advocate the regular use of milk, primarily during the active stage of acute duodenal ulcer; however, strict insistence on its use during remission is unwarranted.
 - (c) Roughage, or coarse food, has been excluded from the diet on the basis that it aggravates the inflamed mucosal area. There is no evidence that such foods as fruit skins, lettuce, nuts and celery, when they are well masticated and mixed with saliva will scrape or irritate the duodenal ulcer. Grinding or pureeing of foods is necessary only when the teeth are in poor condition or missing.
 - (d) The effect of a bland diet on the healing of duodenal ulcer has been studied extensively. Investigations have compared various bland diets with regular or free choice diets. The results indicate that a bland diet made no significant difference in healing the ulcer. One such study demonstrated that the acidity

of the gastric contents was frequently lower when a free-choice diet was taken. Many foods have been incriminated as the cause of gastric discomfort and are subsequently eliminated from a patient's diet. Studies done on patients with and without documented gastrointestinal disease indicate that those with gastrointestinal disease cannot be distinguished by food intolerance. Symptoms of intolerance were more related to individual response than to intake of specific food or the presence of disease.

2. Believes that scientific investigation supports the validity of frequent, small feedings in the management of patients with duodenal ulcer disease. These have been found to offer the most comfort to the patient; additionally, acidity of the gastric contents is lower with small-volume, frequent feedings. It must also be recognized that rest, preferably in bed, rapidly reduces duodenal ulcer symptoms. This is a specially important factor in the healing of the ulcer.
3. Believes the following points should be of major consideration in developing a dietary plan for duodenal ulcer patients.
 - (a) Individualization of the dietary plan, since patients differ as to specific food intolerances, living patterns, lifestyles, work hours and education.
 - (b) Utilization of small volume, frequent feedings.
 - (c) Provision of educational materials relative to dietary support.
4. Advocates the continued pursuit of current research and recommends that valid information be utilized in updating dietary regimens.
5. Suggests that dietetic practitioners be cognizant of the possible harmful effects of milk-rice bland diet in patients who have a tendency towards hypercalcaemia and/or atherosclerosis.

LIBERAL BLAND DIET

The dietary management of chronic disorders of the upper gastrointestinal tract recommends that patients:

1. Avoid black pepper, cayenne, hot pepper, chili powder, alcohol, cocoa, chocolate, caffeine (coffee, tea, colas).
2. Eat slowly and chew thoroughly. Relax before and after each meal.
3. Eat three small meals and three in-between meal snacks. Plan regular meal and snack times.
4. Take medication only as prescribed by the physician.
5. Omit foods which cause discomfort and reintroduce into the diet at a later date.
6. Adapt the diet to individual food tolerances. The diet will provide adequate nutrition if planned according to the Daily Food Guide (see Regular Diet p. 40).

RESTRICTED RESIDUE DIET

DEFINITION OF TERMS

RESIDUE - Refers to the volume of fecal material remaining after the digestive processes have been completed, and includes indigestible fibres as well as bacterial and metabolic products.

FIBRE (roughage):

1. Crude fibre refers to the cellulose and lignin content of plant foods.
2. Dietary fibre refers to the combined undigested carbohydrates in food. It includes the cellulose and lignin of crude fibre as well as other carbohydrates (hemicellulose, pectins, gums and mucilages) which are not normally digested in the human tract.

NOTE - Food Composition Tables for Use in the English-speaking Caribbean present data for crude fibre. Dietary fibre is included as part of the "total carbohydrate" in the carbohydrate values given.

DESCRIPTION

The Restricted Residue Diet provides foods which will result in a reduced amount of dietary fibre in the intestinal tract and total faecal output. Foods containing a small amount of indigestible carbohydrate are allowed, such as fruit and vegetables from which skin, seeds and membranes have been removed. The amount of dietary fibre in a food is not affected by cooking but the dietary effects may be altered. Milk and milk products are limited to 500 ml (2 cups) per day since they produce a bulky residue in the colon.

Seasonings, spices and fried foods should be used as tolerated.

INDICATIONS

The Restricted Residue Diet may be indicated following large bowel surgery and for patients with incurable partial bowel obstruction. This diet is contraindicated for diverticular disease and irritable bowel syndrome.*

*Oddstein, F. Diet and Colonic Disease. J. Amer. Diet. Assoc. 60:499-503, 1972.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Potatoes, boiled or baked without skin, green bananas, yam, rice, macaroni, spaghetti, all breads and crackers made with refined flour, refined cereals, noodles	Potatoes with skin, fried potatoes, potato chips, brown rice, whole grain breads or rolls, whole grain cereal bran, cassava
Legumes	None	Peas, beans and nuts
Dark Green Leafy and Yellow Vegetables	Mild vegetables such as carrots, pumpkin, chocho/christophene, beets and tomatoes (without skin)	Raw vegetables, cabbage, onion, bhagi, egg plant, dark green leafy vegetables
Fruits	Ripe bananas, grapefruit and orange segments without membrane, custard apple, paw paw, naseberry/sapodilla without skin, watermelon	Dried fruits, berries, any others not listed
Foods from Animals	Tender lean beef, mutton, liver, fish, poultry, corned beef, frankfurters; cheddar cheese, eggs; milk: fresh, evaporated, condensed (limit to two cups including milk used in cooking)	Tough cuts of meat, fried, pickled or spicy meats; more than 500 ml (2 cups) of milk per day
Fats	Crisp bacon, butter, margarine, all cooking fats and oils; avocado	None
Miscellaneous	Honey, jelly, sugar, syrup and/or preserves without seeds, plain cake, sweets without nuts Salt, ketchup, cinnamon, nutmeg, gelatin desserts and puddings made with allowed milk, plain ice cream Coffee, tea, fruit juices, carbonated beverages, fruit flavoured beverages	Marmalade, jam with seeds; coconut Olives, pickles, salad dressing with seeds

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: RESTRICTED RESIDUE DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fats Beverage Miscellaneous	Food from animals Staple foods Yellow vegetables Fruits Fats Beverage Miscellaneous	Food from animals Staple foods Yellow vegetables Fruits Fats Beverage Miscellaneous
SAMPLE MENU	Orange juice Toast Scrambled egg Margarine or butter 125 ml ($\frac{1}{2}$ cup) milk Coffee	Chicken broth Baked fish Mashed potato Carrot coins Ripe banana 125 ml ($\frac{1}{2}$ cup)	Stewed chicken Fluffy rice Sliced tomato Margarine or butter Flavoured gelatin 125 ml ($\frac{1}{2}$ cup)
	SNACK 250 ml (1 cup) milk; biscuits		

HIGH FIBRE, HIGH RESIDUE DIET

DESCRIPTION

The High Fibre, High Residue Diet provides for addition of fibre in the form of whole grain breads and cereals, fruits and vegetables and dried fruits, resulting in large amounts of undigested fibre and bulk.

Adequate intake of fluid is recommended.

This diet is designed for use in the treatment of constipation, diverticulosis and irritable bowel syndrome. To increase fibre content above 10 gm may require more food than the patient can consume. Fibre from other than food sources would have to be prescribed, e.g. commercial preparations of methyl cellulose.

INDICATIONS

The High Fibre, High Residue Diet is used for improvement or maintenance of good bowel habits, functional disorders of the colon and in diverticular disease.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	All are allowed especially whole grain products, bran, raisin or whole wheat bread, corn, oatmeal, sweet and white potato with skin, brown rice, breadfruit and cassava which are highest in fibre	None
Legumes	All are allowed especially dried peas, beans, lima beans, butter beans, broad beans, cashew nuts and peanuts which are highest in fibre	None
Dark Green Leafy, Yellow and other non-starchy vegetables	All are allowed, especially raw	

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Fruits	Although all are allowed, raw, dried or cooked including skins, seeds and membranes are highest in fibre	None
Foods from Animals	All	None
Fats	All	None
Miscellaneous	All condiments and seasonings; seeds, fruit cake, carrot cake, nut and fruit cookies and coconut Sugar and sweets are allowed but marmalade and jam with seeds are highest in fibre	None

SUGGESTED DAILY MEAL PLAN WITH SAMPLE MENU: HIGH FIBRE, HIGH RESIDUE DIET

	MORNING	MID-MORNING	NOON	MID-AFTERNOON	EVENING	BEDTIME
MEAL PLAN	1 serving fruit 1 or more servings staple foods 1-2 servings food from animals Fats Beverage Miscellaneous	1-2 servings staple foods 1 serving foods from animals Miscellaneous	1 serving foods from animals 1 or more servings staple foods 1 or more servings legumes 1 serving dark green leafy and yellow vegetables 1 serving fruits Fats Beverage Miscellaneous	1 serving staple foods 1 serving fruits Beverage Miscellaneous	1 serving foods from animals 1 serving staple foods 1 serving dark green leafy or yellow vegetables 1 serving fruits Fat Beverage Miscellaneous	1-2 servings staple foods 1 serving foods from animals
SAMPLE MENU	125 ml (½ cup) fresh pineapple 200 ml (6 oz) oat meal porridge 1 scrambled egg Wholewheat toast 1 tsp margarine/butter Tea 250 ml (8 oz) milk	2 slices bran bread 15 g (1 tbsp) guava jam 250 ml (8 oz) chocolate flavoured milk	200 ml (6 oz) callaloo soup 2 slices wholewheat bread 60 g (2 oz) stewed beef 250 ml (1 cup) rice and peas 60 g (2 oz) cabbage and carrot salad 1 tsp margarine/butter Stewed prunes Beverage	1 coconut tart 250 ml (8 oz) Cherry drink	90 g (3 oz) fried fish 125 g (4 oz) yam rissoles 60 g (2 oz) pumpkin 60 g (2 oz) tossed salad with dressing Wholewheat bread 5 ml (1 tsp) margarine/butter 125 g (½ cup) grapefruit segments Beverage	3-4 wholewheat biscuits 250 ml (8 oz) milk



TUBE FEEDING

DESCRIPTION

Tube feedings are prepared from a mixture of foods modified in consistency so that they may be passed through a tube. They must be nutritionally adequate, well tolerated and easily digested. They should not cause distension, diarrhoea, hyperosmoli syndrome (dumping), constipation or dehydration. Commercial products made from a variety of foods and supplemented with various nutrients may also be available.

INDICATIONS

Feedings suitable for administration by tube may be prepared for patients unable or unwilling to consume an adequate diet by mouth.

The order for tube feeding must specify:

1. Total energy/24 hours
2. Total volume/24 hours
3. Frequency, e.g. Blenderized Meal Tube Feeding 50 cc with 50 cc water q2h
4. Additional nutrient modifications
5. Blenderized or brand of commercial formula desired

Few patients will tolerate the total amount of tube feeding required at full strength the first day. To avoid adverse reactions to tube feedings, start at half strength (0.5 kilocalories/ml). Volume may also have to be increased gradually until the desired total is achieved. Unless otherwise specified, the ratio of carbohydrate to protein and fat should be similar to a regular diet and the concentration should be one kilocalorie/ml. Large amounts of simple sugars should be avoided because they increase undesirable side effects. Attention should be paid to fluid requirements. Tube feedings high in protein or sodium can contribute to dehydration. Blenderized meal tube feedings offer the advantage of a greater variety of ingredients and control of nutrients. To decrease risk of foodborne infection, the following procedures should be followed:

1. Use only freshly prepared food
2. Do not use raw foods. In particular raw eggs should never be used because of the danger of salmonella infection
3. Sanitize all equipment used

4. Refrigerate feedings 35 degrees F. - 45 degrees F.
(1.67 degrees C. - 7.22 degrees C.)
5. Label prepared feedings and include date when made
6. Discard unused portion of tube feeding after 24 hours

TYPES OF TUBE FEEDING

Blenderized Meal Tube Feedings: These are prepared from a variety of common foods, mixed in a blender and strained. All foods or a normal diet which are liquids or which can be liquified in a blender may be used.

Commercial Tube Feeding: A variety of commercially prepared tube feedings are available; they are easier to prepare but may be more expensive.

GUIDELINES

Total water intake should be monitored carefully on a daily basis in all patients on tube feeding. A daily record of the intake of all nutrients should be kept. Any inadequacies due to excessive dilution or poor tolerance should be recorded in the patient's medical record and brought to the attention of the physician.

Tube feedings should not be warmed before use. Warming may result in coagulation of proteins, clogging of nasogastric tubes, coagulation of the formula, destruction of water soluble vitamins or more rapid growth of bacteria.

STANDARD TUBE FEEDINGS

Total Volume = 1 litre

1000 Kcal (4.2 MJ)

Ingredients	Measure	Weight g	Energy Kcal	Pro g	Fat g	CHO g	Na mg	K mg
Skim Milk Powder	2 tbsp	30	108.0	10.8	0.3	15.3	165.0	495.0
Milk, fluid whole	1 cup	250	162.5	8.8	8.8	12.5	125.0	360.0
Meat	2 oz	60	134.4	11.2	10.9	-	49.8	226.8
Egg	1	50	81.5	6.5	5.8	0.5	70.0	70.0
Carrots	1 cup	250	100.0	2.8	0.5	22.8	175.0	612.5
Potato	3½ oz	100	82.0	2.0	0.1	19.0	7.0	570.0
Orange Juice, canned, sweetened	1 cup	250	130.0	1.8	0.5	30.5	2.5	497.5
Oil	2 tbsp	30	265.2	-	30.0	-	-	-
TOTAL			1063.6	43.9	56.9	100.6	594.3	2831.8

NOTE: Add boiled water to increase volume, if necessary

STANDARD TUBE FEEDINGS

Total Volume = 3 litres

2000 kcal (8.4 MJ)

Ingredients	Measure	Weight g	Energy Kcal	Pro g	Fat g	CHO g	Na mg	K mg
Skim Milk Powder	4 tbsp	60	216.0	21.6	0.6	30.6	330.0	990.0
Milk, fluid whole	2 cups	500	325.0	17.5	17.5	25.0	250.0	720.0
Meat	3 oz	90	201.6	16.8	16.4	-	74.7	340.2
Eggs	2	100	163.0	12.9	11.5	0.9	140.0	140.0
Carrots	1½ cups	375	150.0	4.1	0.8	34.1	262.5	918.8
Potato	5 oz	150	123.0	3.0	0.2	28.5	10.5	855.0
Orange Juice, canned sweetened	2 cups	500	260.0	3.5	1.0	61.0	5.0	995.0
Vegetable Oil	4 tbsp	60	530.4	-	60.0	-	-	-
Sugar, brown	2 tbsp	30	111.9	-	-	28.9	9.0	103.2
TOTAL			2080.9	79.4	108.0	209.0	1081.7	5062.2

NOTE: Add boiled water to increase volume, if necessary



STANDARD TUBE FEEDINGS

Total Volume = 2 litres

3000 kcal (12.6 MJ)

Ingredients	Measure	Weight g	Energy Kcal	Pro g	Fat g	CHO g	Na mg	K mg
Skim Milk Powder	6 tbsp	90	423.0	32.4	0.9	45.9	495.0	1485.0
Milk, fluid whole	3 cups	750	487.5	26.3	26.3	37.5	375.00	1080.0
Meat	4 oz	120	268.8	22.4	21.8	-	99.6	453.6
Eggs	3	150	244.5	19.4	17.2	1.4	210.0	210.0
Carrots	1½ cups	375	150.0	4.1	0.8	34.1	262.5	918.8
Macaroni*	5 oz	150	184.5	6.3	0.6	37.6	1.0	98.5
Orange Juice, canned sweetened	2 cups	500	260.0	3.5	1.0	61.0	5.0	995.0
Vegetable Oil	6 tbsp	90	795.6	-	90.0	-	-	-
Sugar, brown	6 tbsp	90	335.7	-	-	86.7	27.0	309.6
TOTAL			3050.6	114.4	158.6	304.2	1475.1	5550.5

*Macaroni 50 g raw, cooked to yield 150 g

NOTE: Add boiled water to increase volume

LOW SODIUM TUBE FEEDING

Total Volume = 1.5 litre

1500 kcal (6.3 MJ)

Ingredients	Measure	Weight g	Energy Lcal	Pro g	Fat g	CHO g	Na mg	K mg
Skim Milk Powder	2 tbsp	30	108.0	10.8	0.3	15.3	165.0	495.0
Milk, fluid whole	1 cup	250	162.5	8.8	8.8	12.5	125.0	360.0
Salt free meat	2 oz	60	134.4	11.2	10.9	-	49.8	226.8
Egg	1	50	81.5	6.5	5.8	0.5	70.0	70.0
Salt free carrots, boiled	1 cup	250	100.0	2.8	0.5	22.8	175.0	612.5
Salt free potato, boiled	3½ oz	100	82.0	2.0	0.1	19.0	7.0	570.0
Orange Juice, canned sweetened	1 cup	250	130.0	1.8	0.5	30.5	2.5	497.5
Vegetable Oil	2 tbsp	30	265.2	-	30.0	-	-	-
Sugar, granulated	3½ oz	100	385.0	-	-	99.5	-	2.0
TOTAL			1448.6	43.9	56.9	200.1	594.3	2833.8

NOTE: Add boiled water to increase volume, if necessary

CONTROLLED ENERGY DIET

DESCRIPTION

The Controlled Energy Diet is planned to provide an energy intake below the level necessary to maintain the present body weight, thus providing for depletion of fat stores. A weight loss of approximately 1 kg (2.2 lb) per week is considered the maximum compatible with maintenance of health and normal activity. One-half kg (1 lb) of body fat contains approximately 3,500 kilocalories. If the patient's intake is reduced 500 kilocalories per day below maintenance requirements, a weight loss of 0.5 kg (1 lb) per week should result. An alternate method for estimating the level of caloric restriction is to multiply the patient's ideal weight by a factor of 10 kilocalories. Carbohydrate intake should be at least 5 g/100 kilocalories in order to prevent ketosis. Foods containing highly concentrated sources of calories are omitted. The food substitutions lists used to calculate diets for persons with diabetes may be as well used for the low calorie diet. Foods within each of the Six Food Groups are approximately equal in energy value and may be replaced by any other food within the same food group.

INDICATIONS

The Controlled Energy Diet is prescribed for reduction in body weight and fat and may be used as a basis for weight loss maintenance. The 600 kilocalorie diet may be inadequate in certain nutrients. It is, therefore, essential that patients on this diet be closely monitored.

WEIGHT REDUCTION SHOULD NOT BE ROUTINELY UNDERTAKEN DURING PREGNANCY OR LACTATION.

The success of any weight reduction programme is dependent upon many variables. Physical condition, activity, emotional state, food intake and food habit awareness must be evaluated and the findings used to best advantage by the dietitian/patient/physician team. In planning an appropriate diet, creating positive motivation is the key to success. Improvement of physical abilities, appearance, mental outlook or medical problems directly related to obesity can be individual influential forces. Reinforcement of motivation with behavioural modification techniques frequently produces good results.

Increased physical activity and long-term follow-up are important components of a weight-reduction programme.

GENERAL RULES

1. The meal plan should include a variety of foods from each food group.
2. Daily walking, running or exercise within the person's tolerance should be encouraged.

3. Special "dietetic" foods are not necessary.
4. Foods high in energy and low in nutrients are not recommended. These include: alcoholic beverages, chocolates, sweetened condensed milk, fried foods, gravies, cakes and pastries, jam, jelly, marmalade, molasses, regular soft drinks, sugar, tonic water.

See Section "Diets for Diabetes Mellitus" page 65, and refer to pages 73-83 for "Food Portions and Substitutes Lists".

SUGGESTED DAILY MEAL PLANS

600 KILOCALORIE (2.5 MJ) DIET

MORNING MEAL		
Egg or substitute	List 5	1 serving
Whole-grain cereal	List 1A	1 serving
Skim Milk	List 5	2 tbsp pwd or ½ cup liquid
Coffee or tea		

EVENING MEAL		
Meat or substitute	List 5	1 serving (low fat)
Bread or substitute	List 1	½ serving
Dark green leafy vegetables	List 3A	As desired
Yellow vegetables	List 3B	1 serving
Fruit	List 4	1 serving

NOON MEAL		
Bread or substitute	List 1B	1 serving
Legumes	List 2	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow vegetables	List 3B	1 serving
Fruit	List 4	1 serving

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

800 KILOCALORIE (3.4 MJ) DIET

MORNING MEAL

Fruit	List 4	1 serving
Egg or substitute	List 5	1 serving
Whole-grain cereal	List 1A	1 serving
Margarine/butter/fat	List 6	½ serving
Milk (Skim)	List 5	2 level tbsp pwd or ½ cup liquid

EVENING MEAL

Meat or substitute	List 5	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow vegetable	List 3B	1 serving
Bread or substitute	List 1A	1 serving
Fruit	List 4	1 serving
Milk (Skim)	List 5	2 level tbsp pwd or ½ cup liquid
Coffee or tea		

NOON MEAL

Meat or substitute	List 5	1 serving
Bread or substitute	List 1A	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow vegetables	List 3B	1 serving
Legumes	List 2	1 serving
Fat	List 6	½ tsp
Fruit	List 4	1 serving

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

1,000 KILOCALORIE (4.2 MJ) DIET

MORNING MEAL		
Egg or substitute	List 5	1 serving
Cereal (whole grain)	List 1A	1 serving
Bread or substitute	List 1A	1 serving
Coffee or tea		1 cup
Milk (Skim)	List 5	2 level tbsp pwd or ½ cup liquid

MID-MORNING SNACK		
Fruit	List 4	1 serving

NOON MEAL		
Meat or substitute	List 5	1 serving
Oil for cooking	List 6	½ tsp
Rice or substitute	List 1A	1 serving
Ground provisions	List 1B	1 serving
Yellow and other vegetables	List 3B	1 serving
Legumes	List 2	1 serving
Dark green leafy vegetables	List 3A	As desired
Fruit	List 4	1 serving

MID-AFTERNOON SNACK		
Fruit	List 4	1 serving

EVENING MEAL		
Meat or substitute	List 5	1 serving
Bread or substitute	List 1A	1 serving
Margarine/butter/fat	List 6	½ tsp
Yellow vegetable	List 3B	1 serving
Dark green leafy vegetables	List 3A	As desired
Milk (Skim)	List 5	2 level tbsp pwd or ½ cup liquid

BEDTIME SNACK		
Milk (Skim)	List 5	2 level tbsp pwd or ½ cup liquid
Bread/substitute	List 1A	½ serving

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

1,200 KILOCALORIE (5.0 MJ) DIET

MORNING MEAL

Egg or substitute	List 5	1 serving
Cereal (whole grain)	List 1A	1 serving
Bread or substitute	List 1A	2 servings
Margarine/butter/fat	List 6	1 tsp
Coffee or tea		
Milk (Skim)	List 5	3 tbsp pwd or ¾ cup liquid

MID-MORNING SNACK

Fruit	List 4	1 serving
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NOON MEAL

Meat or substitute	List 5	1 serving
Oil for cooking	List 6	½ tsp
Ground provision	List 1B	1 serving
Rice or substitute	List 1A	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow vegetables	List 3B	1 serving
Legumes	List 2	1 serving
Fruit	List 4	1 serving

MID-AFTERNOON SNACK

Fruit	List 4	1 serving
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EVENING MEAL

Meat or substitute	List 5	1 serving
Bread or substitute	List 1A	1 serving
Margarine/butter/fat	List 6	½ tsp
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3B	1 serving
Coffee or tea		
Milk (Skim)	List 5	2 tbsp pwd or ½ cup liquid

BEDTIME SNACK

Milk (Skim)	List 5	3 tbsp pwd or ¾ cup liquid
Bread or substitute	List 1A	½ serving

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

1,500 KILOCALORIE (6.3 MJ) DIET

MORNING MEAL

Egg or substitute	List 5	1 serving
Cereal (Whole grain)	List 1A	1 serving
Bread or substitute	List 1A	2 servings
Margarine/butter/fat	List 6	1 tsp
Coffee or tea		
Milk	List 5	2 tbsp pwd or ½ cup liquid

MID-MORNING SNACK

Fruit	List 4	1 serving
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NOON MEAL

Meat or substitute	List 5	2 servings
Oil for cooking	List 6	1 tsp
Ground provision	List 1B	1 serving
Rice or substitute	List 1A	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow and other vegetables	List 3B	1 serving
Legumes	List 2	2 servings
Fruit	List 4	1 serving

MID-AFTERNOON SNACK

Milk	List 5	2 tbsp pwd or ½ cup liquid
Bread or substitute	List 1A	1 serving

EVENING MEAL

Meat or substitute	List 5	1 serving
Bread or substitute	List 1A	1 serving
Margarine/butter/fat	List 6	1 tsp
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3B	1 serving
Coffee or tea		
Fruit	List 4	1 serving

BEDTIME SNACK

Bread/substitute	List 1A	1 serving
Milk	List 5	2 tbsp pwd or ½ cup liquid

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

DIETS FOR DIABETES MELLITUS

DESCRIPTION

The Diabetic Diet is intended to maintain the patient at a desirable weight and to maintain the blood sugar within normal limits. It is important that the intake of energy from protein, fat and carbohydrate be the same every day. The size of meals and time lapse between meals should also be the same. The kinds and exact amounts of food eaten are important because this affects energy level.

Meal plans must meet individual needs based on factors such as weight, occupation and activity and should reflect current concepts in the dietary management of diabetes. These include concern for total caloric intake, decreased intake of fat (particularly saturated fat, which has been associated with an increase in blood cholesterol - a possible risk factor in coronary heart disease), more liberal use of complex carbohydrates and fibre-containing foods, restriction of concentrated sweets, and regularity and consistency in timing of meals from day to day.

Wherever possible, a diet history should be taken prior to preparing the diet plan and every effort made to individualize the diet. Typical questions might be, "Do you eat all your meals at home?" "Do you carry a lunch from home?" "Do you eat in restaurants?" What do you eat when you are ill?" The diet counsellor also needs to know the foods the patient prefers, the food the family eats, shopping habits and how much money is budgeted for food.

The diet includes a variety of many different foods from the Daily Food Guide (pages 2 - 6). The foods within each group in the food portions listed are approximately equal in their energy, carbohydrates, protein and fat content. The daily carbohydrate intake approximates 55-60% of total kilocalories and should consist mainly of complex carbohydrate and fibre-containing foods.

Concentrated sugars and sweets that are rapidly absorbed should be avoided because they result in a greater and more immediate glucose response than calorically equivalent amounts of certain complex starches. A liberalized carbohydrate intake may facilitate a decreased intake of fat and cholesterol and permit lowering of elevated serum lipid levels.

Regularity and consistency in timing of meals is required with a balance of carbohydrate, protein and fat at each feeding to provide glucose at a controlled rate.

Carbohydrate replacement is the primary nutritional consideration for an insulin dependent individual who is ill. The patient should know that foods which are normally prohibited because they are high in simple sugars may be allowed during an illness.*

*For further details, refer to "Meal Planning for Diabetics", Caribbean Food and Nutrition Institute, 1980.

Sample Meal Plans and Food Substitution Lists are on p. 73-83.

EXERCISE

Strenuous exercise above the individual's customary level may reduce blood glucose levels. Consumption of extra carbohydrate before exercise would prevent the hypoglycaemic effect.

PREGNANCY AND LACTATION

During this time there is increased stress which is often associated with maternal and foetal complications. The diabetic must be carefully monitored as control may become unstable.

INDICATIONS

DIABETES MELLITUS

A large percentage of persons with maturity onset of diabetes are obese. Weight reduction has a very beneficial effect and may be all that is required to achieve control in mild cases of non-insulin-dependent diabetes (NIDD).

GENERAL RULES

1. Meals are served at approximately the same time every day. This is particularly important when patients are receiving insulin or other medication for diabetes.
2. The diet must be followed exactly at every meal. Extra foods between meals are not allowed. Any between-meal snack must be subtracted from the noon or evening meal OR must be a "no value" or "free" food such as tea, coffee or broth. Bedtime feedings, however, are part of the standard diabetic diet.
3. Sugar may *not* be used on foods or in cooking. Honey, molasses, syrup, jelly, jam, other sugar products or fruits canned with sugar are *not* included.
4. Food is measured with standard measuring equipment (measuring cups, measuring spoons and ruler) until amounts can be accurately estimated. Checks should be made from time to time to make certain that measurements are accurate. Food is to be measured *after* it is cooked, and all measurements are made level.

DETERMINING THE DIET PRESCRIPTION: HOW TO APPROXIMATE
THE INDIVIDUAL DIETARY NEEDS

Factors to consider:

1. Weight and Height
2. Calorie needs
3. Division into protein, carbohydrate and fat
4. Division into meals and snacks
5. Limitations (modifications for special conditions)
6. Need for insulin
7. Individual food habits
8. Family food budget

FACTORS TO CONSIDER IN DETERMINING THE INDIVIDUAL DIET PRESCRIPTION*

1. WEIGHT AND HEIGHT

<u>Build</u>	<u>Women</u>	<u>Men</u>	<u>Children</u>
Medium	Allow 100 lb for first 5 ft of height plus 5 lb for each additional inch	Allow 106 lb for first 5 ft of height plus 6 lb for each additional inch	Chart growth pattern on graph (Wetzel, Iowa, or Stuart) every 3-6 months**
Small	Subtract 10%	Subtract 10%	
Large	Add 10%	Add 10%	

2. DETERMINATION OF CALORIC NEEDS

A. For Adults

1. Basal kilocalories equals desirable body weight (lb) x 10
2. Add activity kilocalories:
 - (a) Sedentary equals desirable body weight (lb) x 3
 - (b) Moderate equals desirable body weight (lb) x 5
 - (c) Strenuous equals desirable body weight (lb) x 10

*Reprinted from "The Guide for Professionals: The Effective Application of Exchange Lists for Meal Planning", 1977. The American Diabetes Association and The American Dietetic Association.

**Check with local health personnel for appropriate Growth Chart.

3. Add kilocalories for indicated weight gain, growth (pregnant women), or lactation
4. Subtract kilocalories for indicated weight loss.

B. For Children

1. Children vary markedly in their calorie needs depending on rate of growth and level of activity
2. Estimate calorie requirement from chart of Recommended Daily Dietary Allowances (pp. 1).
3. Adjust calorie intake as needed to maintain normal rate of growth

3. DETERMINATION OF GRAMS OF PROTEIN, CARBOHYDRATE AND FAT

1. *Protein:* 20% of total kilocalories for growing children and pregnant women, minimum of 0.5 g per lb desirable body weight for other adults
2. *Carbohydrate:* From 50-70% of nonprotein kilocalories
3. *Fat:* From 30-50% of nonprotein kilocalories

4. SUGGESTED DIVISION INTO MEALS AND SNACKS

1. Meals usually contain 2/10 to 4/10 of the kilocalories and carbohydrate, and snacks usually contain 1/10 of the kilocalories and carbohydrate
2. In the non-insulin dependent individual, food is usually divided into three meals per day; in the insulin dependent individual, food is usually divided into three meals and a bedtime snack and occasionally a midafternoon and/or midmorning snack, depending on plasma glucose levels

5. LIMITATIONS (MODIFICATIONS FOR SPECIAL CONDITIONS)

1. Protein
2. Saturated fat and/or cholesterol
3. Sodium
4. Potassium
5. Other

DISTRIBUTION OF MAJOR NUTRIENTS IN CONTROLLED
ENERGY AND DIABETIC DIETS

Energy Kcal	Carbohydrate		Fat		Protein	
	g	%	g	%	g	%
589	91.5	62	11	17	31	21
830	115.0	55	22	24	43	21
981	143.5	59	23	21	50	20
1211	179.5	59	29	22	58	19
1535	210.0	55	47	27	68	18
1848	262.0	57	52	25	83	18
2022	281.0	56	62	27	85	17
2561	353	55	77	27	114	18

SUGGESTED DAILY MEAL PLANS: DIABETIC DIET

The following Meal Plans are presented as *SAMPLES ONLY* and should be used as a guide where a professional dietitian is not available to individualize the diet. Dietary modification is a life-long requirement needing periodic assessment and possible adjustment. The importance of adapting the plan to suit the patient's lifestyle cannot be overemphasized.

1,800 KILOCALORIE (7.6 MJ) DIET

MORNING MEAL		
Egg or substitute	List 5	1 serving
Cereal (whole grain)	List 1A	1 serving
Bread or substitute	List 1A	3 servings
Butter or other fat	List 6	1 tsp
Coffee or tea		
Milk	List 5	2 tbsp pwd or ½ cup liquid

MID-MORNING SNACK		
Fruit	List 4	1 serving

NOON MEAL		
Meat or substitute	List 5	2 servings
Oil for cooking	List 6	1 tsp
Ground provision	List 1B	2 servings
Rice or substitute	List 1A	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3A	As desired
Legumes	List 2	2 servings
Fruit	List 4	1 serving

MID-AFTERNOON SNACK		
Milk		2 tbsp pwd or ½ cup liquid
Bread or substitute	List 1A	1 serving

EVENING MEAL		
Meat or substitute	List 5	2 servings
Bread or substitute	List 1A	2 servings
Margarine/butter/fat	List 6	1 tsp
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3B	2 servings
Coffee or tea		
Fruit	List 4	1 serving

BEDTIME SNACK		
Bread or substitute	List 1A	1 serving
Milk	List 5	2 tbsp pwd or ½ cup liquid

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

2,000 KILOCALORIE (8.4 MJ) DIET

MORNING MEAL

Fruit	List 4	1 serving
Egg or substitute	List 5	1 serving
Bread or substitute	List 1A	3 servings
Margarine/butter/fat	List 6	2 tsp
Coffee or tea		
Milk	List 4	2 tbsp pwd or ½ cup liquid

MID-MORNING SNACK

Fruit	List 4	2 servings
Bread or substitute	List 1A	1 serving

NOON MEAL

Meat or substitute	List 5	2 servings
Oil for cooking	List 6	2 tsp
Ground provisions	List 1B	2 servings
Rice or substitute	List 1B	1 serving
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3B	1 serving
Legumes	List 2	2 servings
Fruit	List 4	1 serving

MID-AFTERNOON SNACK

Milk	List 5	2 tsp pwd or ½ cup liquid
Bread or substitute	List 1A	1 serving

EVENING MEAL

Meat or substitute	List 5	2 servings
Bread or substitute	List 1A	2 servings
Margarine/butter/fat	List 6	1 tsp
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3B	2 servings
Legumes	List 2	1 serving
Coffee or tea		
Fruit	List 4	1 serving

BEDTIME SNACK

Milk	List 5	2 tbsp pwd or ½ cup liquid
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NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

2,500 KILOCALORIE (10.5 MJ) DIET

MORNING MEAL

Fruit	List 4	1 serving
Egg or substitute	List 5	2 servings
Bread or substitute	List 1A	3 servings
Margarine/butter/fat	List 6	2 tsp
Coffee or tea		
Milk	List 5	2 tbsp pwd or ½ cup liquid

MID-MORNING SNACK

Fruit	List 4	2 servings
Bread or substitute	List 1A	1 serving

NOON MEAL

Meat or substitute	List 5	3 servings
Oil for cooking	List 6	2 tsp
Ground provision	List 1B	2 servings
Rice or substitute	List 1A	2 servings
Dark green leafy vegetables	List 3A	As desired
Yellow or other vegetables	List 3B	2 servings
Legumes	List 2	2 servings
Fruit	List 4	2 servings

MID-AFTERNOON SNACK

Milk	List 5	2 tbsp pwd or ½ cup liquid
Fruit	List 4	1 serving
Bread or substitute	List 1A	1 serving

EVENING MEAL

Meat or substitute	List 5	3 servings
Bread or substitute	List 1A	3 servings
Margarine/butter/fat	List 6	1 tsp
Dark green leafy vegetables	List 3A	As desired
Legumes	List 2	1 serving
Yellow or other vegetables	List 3B	2 servings
Coffee or tea		
Fruit	List 5	1 serving

BEDTIME SNACK

Milk	List 5	2 tbsp pwd or ½ cup liquid
Biscuits or substitute	List 1A	1 serving

NOTE: Please check pages 73-83 for foods that may be substituted. Remember there are several choices that can be made at each meal.

FOOD PORTIONS AND SUBSTITUTES LISTS*

LIST 1: STAPLE FOODS

A. BREAD, RICE AND CEREAL SUBSTITUTES - Portions to give about 70 calories
15 grams carbohydrate, 2 grams protein

	<u>Measure</u>
Bread/toast, shop, sliced	- 1 slice (4" x 4")
Bread/toast, shop, sliced	- 1½ slices (3½" x 2½ ")
Bread/toast, homemade	- 1 medium thin slice
Bread, hard dough	- 1 thin slice
"Hops" bread	- 1 small
Bammy	- ½ small (6" diameter, 1½" thick)
Hamburger roll	- 1 small
Hot dog roll	- 1 small
Biscuits, small, round, water type	- 6 only (1¼" diameter)
Biscuits, cream cracker type	- 3 only (2" diameter)
Biscuits, saltines	- 6 only (2" squares)
Roti, Dal Puri	- ¼ (9" diameter or size of dinner plate)
Ryvita/Vita Wheat	- 2-2½ biscuits
Bake/Johnny cake (baked only)	- Wedge 3¼" x 1¼", ¾" thick
Rice, cooked	- ½ cup
Rice and peas, cooked	- ½ cup

*Reprinted from "Meal Planning for Diabetes", CFNI, 1980.

LIST 1: STAPLE FOODS

A. BREAD, RICE AND CEREAL SUBSTITUTES (cont'd)

	<u>Measure</u>
Noodles, boiled	- ½ cup
Macaroni, boiled	- ½ cup
Spaghetti, boiled	- ½ cup
Cornmeal (2 tbsp cooked with water to yield)	- ½ cup
Oatmeal (2 tbsp cooked with water to yield)	- ½ cup
Cream of Wheat (2tbsp cooked with water to yield)	- ½ cup
Arrowroot (2 tbsp cooked with water to yield)	- ½ cup
Sago (2 tbsp cooked with water to yield)	- ½ cup
Arrowroot/cornflour/cornstarch	- 2 tbsp
Flour (dry, uncooked): wheat/plantain/yam, etc.	- 2 tbsp
Dumpling made from 2 tbsp flour/cornmeal	- 1 only
Corn-on-cob (small)	- 1 only
Canned corn, whole kernel	- ½ cup
Cornflakes	- ¾ cup
Weetabix	- 1 only

B. STARCHY FRUITS, ROOTS AND TUBERS: Portions to give about 70 calories, 15 grams carbohydrate, 2 grams protein

	<u>Measure</u>
Breadfruit	- 2 pieces 2" x 1" wedge
Cassava	- Piece (2" x 2½" x ½")

LIST 1: STAPLE FOODS

B. STARCHY FRUITS, ROOTS AND TUBERS (cont'd)

	<u>Measure</u>
Dasheen	- Piece (2" x 2½" x ½")
Eddoe/coca	- Piece (2" x 2½" x ½")
Green banana	- 1 medium
Irish potato, boiled	- 1 medium
Irish potato, mashed	- ½ cup
Plantain	- Piece 2" or 3-2" slices
Sweet potato	- 2 thin slices (2" x 2¼" x ¼")
Tannia	- Piece (2" x 2½" x ½")
Yam/Yampie	- Piece (2" x 2½" x ½")

LIST 2: LEGUMES

Portions to give about 73 calories, 14 grams carbohydrate, 4 grams protein

	<u>Measure</u>
Channa/Chickpea	- ⅓ cup
Dahl, medium consistency	- ½ cup
Dried peas and beans (1 tbsp dry), cooked	- ⅓ cup
Green peas, canned	- ½ cup
Green pigeon/gungo peas, broad beans	- ⅓ cup
Stewed peas	- ⅓ cup
Baked beans (canned without molasses and pork)	- 2 tbsp or ¼ cup
Peanuts (salted or unsalted, roasted and shelled)	- 16

LIST 2: LEGUMES

	<u>Measure</u>
Cashew nuts (salted or unsalted, roasted and shelled)	- 7

LIST 3: DARK GREEN LEAFY, YELLOW AND OTHER NON-STARCHY VEGETABLES

A. GREEN LEAFY AND OTHER LOW-CALORIE VEGETABLES:

Vegetables such as those listed in this group may be used as desired if raw, as they do not have many calories. When cooked use only one cup. Do not add fat or oil in cooking or in serving. Do not use salad dressing. You may use these vegetables at each meal in addition to your other vegetable allowance.

Baghi	Kale
Bamboo shoots	Lettuce
Cabbage	Melongene/Egg Plant/Aubergine/ Baigan
Callaloo bush (Dasheen leaves, Amaranthus)	Mustard greens
Carailli	Okra
Cauliflower	Pak Choy/Patchoi
Celery	Pawpaw, green
Chives/green seasoning	Spinach
Christophene/Chocho	Squash
Cress/Criches/Cressles	Tomato
Cucumber	

B. YELLOW AND OTHER VEGETABLES: *Portions to give about 36 calories, 7 grams carbohydrate, 2 grams protein*

	<u>Measure</u>
Beetroot	- ½ cup
Bodi	- ¾ cup
Carrot	- ½ cup
Chow Mein (Chinese vegetables)	- ½ cup
Mixed vegetables, canned	- ⅓ cup

LIST 3: DARK GREEN LEAFY, YELLOW AND OTHER NON-STARCHY VEGETABLES

B. YELLOW AND OTHER VEGETABLES (cont'd)

	<u>Measure</u>
Onions	- 1 medium or 2 small or ½ cup
Pumpkin	- ½ cup
String beans, salad beans (immature pod)	- ¾ cup
Turnip	- ½ cup

LIST 4: FRUITS

A. CITRUS FRUITS AND JUICES: Portions to give about 40 calories, 10 grams carbohydrate

	<u>Measure</u>
Grapefruit	- ½ (3½" diameter)
Grapefruit juice, fresh	- ½ cup
Grapefruit juice, canned, unsweetened	- ½ cup
Orange/Ortanique	- 1 small (2" diameter) 1 medium; ½ large
Orange juice, fresh	- ½ cup
Orange juice, canned, unsweetened	- ½ cup
Portugal/Tangerine/Potigal	- 1 small/medium

B. OTHER FRESH FRUITS

Banana, ripe	- ½ large (6" banana) or 1 small
Cashew, fruit	- 1 large
Cherries (West Indian)	- 20

LIST 4: FRUITS

B. OTHER FRESH FRUITS (cont'd)

	<u>Measure</u>
Dunks/Jujube/Coolie plum	- 12
Figs, ripe (small banana)	- 1 small
Guava	- 1 medium
Guineps/Ackee*/Chennette	- 10
Mammie apple	- ½ cup
Mango, ripe	- 1 small
Pawpaw/Papaya	- ⅓ medium size
Pineapple, raw	- 1 slice ½" - ¾" thick
Pineapple, juice, unsweetened	- ⅓ cup
Pineapple and orange juice, mixed, unsweetened	- ⅓ cup
Plums	- 10 small or 6 medium
Pommecythere/Golden apple/June plum/ Jew plum	- 1 medium - 3" x 2"
Pommegranate	- 1 small
Pommerac/Otaheite apple	- 1 medium
Sapodilla/Naseberry	- 1 medium
Soursop, pulp	- ½ - ¾ cup
Soursop, juice	- ⅓ cup
Star apple/Caimit	- 1 medium/small
Sugar apple/Sweet sop	- 1 small
Watermelon	- 1 slice - 5" x 1" thick

*Not Jamaican Ackee

LIST 4: FRUITS

C. IMPORTED FRESH FRUITS

	<u>Measure</u>
Apple	- ½ medium or 1 small
Grapes	- 14 medium
Pear	- 1 small

D. CANNED FRUITS: All canned fruits must be drained well and rinsed to remove syrup

	<u>Measure</u>
Apricot	- 3 halves
Fruit cocktail	- ⅓ cup
Grapefruit segments	- 5
Pears	- 2 halves
Peaches	- 2 halves
Pineapple	- 1 ring or ⅓ cup pieces

E. DRIED FRUITS

Dates	- 2 only
Figs, dried	- 1 only
Prunes	- 2 medium only
Raisins, currants	- 2 tbsp

LIST 5: FOODS FROM ANIMALS

Portions to give about 73 calories, 7 grams protein, 5 grams fat. All meats must be measured after cooking. If you do not wish to use foods from animals you may substitute Legumes (see page 75).

A. MEATS AND POULTRY

	<u>Measure</u>
Chicken	- 1 small drumstick
Chicken, sliced	- 2 slices 1½" x 3"
Chicken wing	- 1 small
Chicken necks	- 2 small
Chicken backs	- 1¼
Beef, sliced thin (1/8 thin)	- 2½" x 3"
Beef, stew (boneless)	- 4 small cubes/1 tbsp
Lamb, sliced thin	- 2½" x 3"
Lamb, chop, fat trimmed	- 1 small
Goat (boneless)	- 4 small cubes or 1 tbsp
Mutton (boneless)	- 4 small cubes or 1 tbsp
Pork, slice	- 2½" x 3"
Pork, chop, fat trimmed	- 1 small
Pork, pig tail	- 1 small piece
Oxtail, fat trimmed	- 1 piece 2" x ½"
Ham, lean, thin slice	- 2" x 3"
Salt meat, fat trimmed	- 2" x 3"
Liver	- 1½" x 2" x ½" (match box size)
Kidney, stewed	- 1 tbsp
Heart, Ox, slice	- 2" x 3"

LIST 5: FOODS FROM ANIMALS

A. MEATS AND POULTRY (cont'd)

	<u>Measure</u>
Heart, Sheep or Calf	- ½ small
Mince (minced meat)	- 2 tbsp
Sausage	- 1 small or ½ large
Luncheon meat	- 1 slice 2½" diameter, ¼" thick
Bologna	- 1 slice
Salami	- 2 thin slices
Corned beef	- ¼ cup
Pig's trotters	- 2 pieces 2" x 1"

B. FISH

Fresh fish	- 1 small piece 2½" x 2" x ½" thick
Flying fish	- 1
Sardines (oil drained)	- 1 large or 2 small
Salt fish	- 1 small piece, 2½" x 3" or ¼ cup flaked
Canned tuna fish, salmon, mackerel	- ¼ cup
Shrimps, prawns	- 5 medium
Oysters	- 3 medium

C. EGGS

Egg	- 1 medium
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D. CHEESE

Cheddar and American type	- 1" cube
Cottage	- 2 tbsp

LIST 5: FOODS FROM ANIMALS

E. MILK: Portions to give about 73 calories, 6 grams carbohydrate, 4 grams protein, 4 grams fat

	<u>Measure</u>
Milk, fresh cow's	- ½ cup
Milk, liquid skim*	- ½ cup
Milk, evaporated whole	- ¼ cup
Milk, powdered skim* (before adding liquid)	- 2 tbsp
Milk, powdered whole (before adding liquid)	- 2 tbsp

LIST 6: FATS AND SUBSTITUTES

Portions to give about 45 calories, 5 grams fat

	<u>Measure</u>
Margarine	- 1 tsp
Butter	- 1 tsp
Lard	- 1 tsp
Shortening	- 1 tsp
Mayonnaise/Salad dressing	- 1 tsp
Oil	- 1 tsp
Ghee	- 1 tsp
Bacon, streaky without rind	- Small rasher
Bacon fat	- 1 tsp
Chicken fat	- 1 tsp

*You may add 1 teaspoon of fat from List 6 (5 grams fat) when you use ½ cup liquid skim milk or 2 teaspoons dry skim milk powder.

LIST 6: FATS AND SUBSTITUTES (cont'd)

	<u>Measure</u>
Pork, salt	- 1" cube
Avocado	- $\frac{1}{8}$ (4" diameter)
Ackee (Jamaican)	- 3 pieces of Arilli
Cream cheese	- 1 tbsp
Peanut butter	- 1 tsp
Peanuts	- 10 only shelled
Cashew nuts	- 4 only shelled
Olives, green	- 5 small

PROTEIN RESTRICTED DIET

DESCRIPTION

The Protein Restricted Diet is a modification of the Regular Diet with protein level prescribed as required, in order to reduce the level of serum nitrogenous waste products. The restricted protein levels are arbitrarily set at 10 gram levels of progression. In impending hepatic coma, the level of protein is severely restricted to 10-20 grams daily and increased in increments of 10 grams as the patient improves. If coma does occur, the protein intake should be reduced to zero and an adequate energy intake should be given in the form of carbohydrate and fat, to prevent catabolism of protein for energy. These diets are also indicated for patients suffering from kidney disorders. Protein used in these diets should be of high quality.

INDICATIONS

The Protein Restricted Diet is prescribed for hepatic disease related to ammonia intoxication. This diet may also be used for chronic renal failure, to control blood urea nitrogen levels (BUN). In the presence of ascites, oedema or hypertension, sodium restriction may be indicated. (See pages 103 to 114 for Sodium Restricted Diets.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Rice, macaroni, noodles, spaghetti, yam, potato, breadfruit, starchy foods; whole grain or enriched breads and cereals	None
Legumes	None	All
Dark Green Leafy and Yellow Vegetables	All fresh, frozen or canned vegetables	None
Fruits	All fresh, frozen or canned fruits and juices	None
Foods from Animals	Egg, cheese, milk or meat	All others
Fats	All fats, butter, margarine, shortening, cooking oil and salad dressings to provide additional calories	

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Miscellaneous	Herbs, spices, sugar, jams, jellies, honey, syrup, marmalades, hard candy, coffee, tea, lemonade, fruitade, carbonated beverages, fruit ices and pop-sicles	Milk beverages except made with milk allowance

PROTEIN EQUIVALENTS

The following foods are approximately equal in the amount of protein provided:

Milk

One serving contains 4 g protein

- Fresh - 125 ml ($\frac{1}{2}$ cup)
- Evaporated - 60 ml ($\frac{1}{4}$ cup)
- Condensed - 60 ml ($\frac{1}{4}$ cup)
- Full cream powdered - 30 ml (2 tbsp)
- Skim milk powdered - 30 ml (2 tbsp)

Meat and Substitutes

One serving contains 7 g protein

- Lean meat, fish, poultry - 30 g (1 oz)
- Egg - 50 g (1)
- Cheese - 30 g (1 oz)

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: PROTEIN RESTRICTED DIET
(20 GRAMS PROTEIN)

	MORNING	NOON	EVENING
MEAL PLAN	<p>1 serving fruit</p> <p>2 servings staple foods</p> <p>2 tsp fat or substitute</p> <p>Beverage (as allowed)</p> <p>Miscellaneous</p>	<p>1 serving food from animals</p> <p>1 serving staple foods</p> <p>2 servings dark green leafy or yellow vegetables</p> <p>1 serving fruits</p> <p>4 tsp fat or substitute</p> <p>Beverage (as allowed)</p> <p>Miscellaneous</p>	<p>1 serving staple foods</p> <p>2 servings dark green leafy or yellow vegetables</p> <p>1 serving fruits</p> <p>4 tsp fat or substitute</p> <p>Beverage (as allowed)</p> <p>Miscellaneous</p>
SAMPLE MENU	<p>1 orange</p> <p>125 ml (½ cup) oatmeal porridge with honey</p> <p>125 ml (½ cup) fluid milk</p> <p>1 slice bread with 10 ml (tsp) butter</p> <p>Jelly</p> <p>Coffee with 15 ml (1 tbsp) condensed milk</p>	<p>Egg fried rice made with 1 egg and 125 ml (½ cup) cooked rice and 125 ml (½ cup) chopped vegetables</p> <p>Sliced tomato</p> <p>Oil for frying</p> <p>125 ml (½ cup) fruit salad</p> <p>Lemonade</p>	<p>125 ml (½ cup) mashed potatoes with butter</p> <p>125 ml (½ cup) buttered carrots</p> <p>250 ml (1 cup) tossed salad with 10 ml (2 tsp) mayonnaise</p> <p>1 slice pineapple with syrup</p> <p>Tea with 15 ml (1 tbsp) condensed milk</p>

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
 MENU: PROTEIN RESTRICTED DIET
 (40 GRAMS PROTEIN)

	MORNING	NOON	EVENING
MEAL PLAN	1 serving fruits 1 serving food from animals 3 servings staple foods 3 tsp fat Beverage Miscellaneous	1 serving food from animals 2 servings staple foods 2 servings dark green leafy or yellow vegetables 4 tsp fat or substitute 1 serving fruits Beverage Miscellaneous	1 serving food from animals 2 servings staple foods 2 servings dark green leafy or yellow vegetables 1 serving fruits 4 tsp fat or substitute Beverage Miscellaneous
SAMPLE MENU	½ grapefruit 125 ml (½ cup) oatmeal porridge with honey 125 ml (½ cup) fluid milk 2 slices bread 1 scrambled egg 3 tsp fat (15 ml) Jelly Coffee with 15 ml (3 tsp) condensed milk	30 g (1 oz) roast beef 250 ml (1 cup) buttered rice 125 ml (½ cup) buttered carrots 250 ml (1 cup) tossed salad 10 ml (2 tsp) mayonnaise ½ banana Lemonade	30 g (1 oz) cheese 2 slices bread Sliced cucumber and tomato with 10 ml (2 tsp) french dressing 1 slice pineapple with syrup Tea with 15 ml (3 tsp) condensed milk

INCREASED PROTEIN AND ENERGY DIET

DESCRIPTION

The Increased Protein Diet is designed to provide additional amounts of protein and energy in conditions where the protein requirements of the individual have been increased or when there have been excessive protein losses from the body. This diet is based on the Regular Diet and provides approximately one and one-half of two grams of protein per kilogram of ideal body weight. Snacks, including beverages high in protein and energy, may be given between meals.

This diet contains approximately 100-125 grams protein and at least 2,500 kilocalories (10.5 MJ).

INDICATIONS

This diet may be used before and after surgery, following immobilization, bone fractures, injury and burns, in some cases of nephrotic syndrome and some cases of chronic liver diseases, hyperthyroidism, anaemia, fevers, ulcerative colitis, cancer and for the grossly undernourished adult patient.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple foods	Rice, macaroni, noodles, spaghetti, yam, potato, breadfruit and other starchy foods, bread and flour products	None
Legumes	Fresh or dried peas and beans, baked beans, nuts, peanut butter	None
Dark Green Leafy and Yellow Vegetables	Pumpkin, carrots, beets, cabbage, callaloo, string beans and all other vegetables	None
Fruits	All	None
Foods from Animals	Meats, fish, poultry, liver, milk, eggs, cheese; (125 ml - ½ cup) legumes may be substituted for 30 g (1 oz) meat	None

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Fats	Butter, margarine, shortening oils and salad dressings, salt pork, bacon and bacon fat, avocado and ackee	None
Miscellaneous	Tea, coffee, cocoa, chocolate drinks, malted milk, fruit drinks; include 500 ml (2 cups) daily of a high protein beverage; choose from any of the recipes listed Sugars and sweets	None None

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: INCREASED PROTEIN AND ENERGY DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fats Beverage Miscellaneous	Foods from animals Staple foods Legumes Dark green leafy or yellow vegetables Fats Beverage Miscellaneous	Foods from animals Staple foods Legumes Dark green leafy or yellow vegetables Fats Beverage Miscellaneous
SAMPLE MENU	1 orange 1 fried egg 250 ml (1 cup) oats porridge 2 slices bread 10 ml (2 tbsp) butter Jam 250 ml (1 cup) cocoa with milk	120 g (4 oz) baked chicken 125 ml (½ cup) rice and peas 1 slice breadfruit 125 ml (½ cup) carrots Sliced tomato and lettuce 15 ml (1 tbsp) mayonnaise Fruit drink	Fried fish 125 ml (½ cup) baked beans 3 slices bread 10 ml (2 tbsp) butter 1 slice pineapple 250 ml (1 cup) milk beverage

MID-MORNING SNACK
250 ml (1 cup) high protein drink

MID-AFTERNOON SNACK
250 ml (1 cup) high protein eggnog

SNACKS: 500 ml (2 cups) high protein drink (select from recipes)

INGREDIENTS PER SERVING OF SOME HIGH PROTEIN BEVERAGES

INGREDIENTS	EGGNOG	HIGH PROTEIN EGGNOG	HIGH PROTEIN DRINK	HIGH ENERGY DRINK
Egg	1	1	1	1
Milk	200 ml ($\frac{3}{4}$ cup)	200 ml ($\frac{3}{4}$ cup)	200 ml ($\frac{3}{4}$ cup)	200 ml ($\frac{3}{4}$ cup)
Sugar	30 ml (2 tbsp)	30 ml (2 tbsp)	15 ml (1 tbsp)	10 ml (2 tsp)
Vanilla	3 drops	3 drops	-	-
Powdered non-fat milk	-	45 ml (3 tbsp)	45 ml (3 tbsp)	-
Ice Cream	-	-	-	125 ml ($\frac{1}{2}$ cup)
Chocolate syrup or flavouring	-	-	30 ml (2 tbsp)	30 ml (2 tbsp)
High protein supplement	-	-	30 ml (2 tbsp)	-

FAT RESTRICTED DIET

DESCRIPTION

The total daily fat content of the Fat Restricted Diet is limited to 40-45 grams by omitting foods with a high fat content.

The *amount* of fat in this diet is of primary importance. For patients with severe abnormalities requiring modifications in the *type* as well as the *amount* of dietary fat, one of the diets for hyperlipoproteinemia should be prescribed.

Traditionally, those foods considered to be gas forming have been restricted in Low Fat Diets prescribed for patients with gallbladder disorders. Based on available evidence which indicates a highly individual response to various foods, gas forming foods are not routinely eliminated from this diet. *The patient should be interviewed* to determine if certain foods cause discomfort. If so, those foods should be avoided or used in moderation.

This diet is restricted in fat but not necessarily in total energy. It should *not* be used as a Controlled Energy Diet for weight reduction.

INDICATIONS

The Restricted Fat Diet may be used with patients who have disorders involving the pancreas, gallbladder, liver or other diseases, resulting in impaired digestion or absorption of fat.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Rice, macaroni, noodles, spaghetti, yam, potato, breadfruit and other starchy foods; bread and flour products; all prepared without fat	Fried foods and food prepared with oil or fat
Legumes	Peas and beans, if tolerated	Nuts, peanut butter, soybeans
Dark Green Leafy and Yellow Vegetables	All kinds prepared without fat or oil	All fried or creamed vegetables
Fruits	All fruits and fruit juices	None

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Foods from Animals	<p>Lean fresh meats, fish, poultry without skin and trimmed of visible fat; shellfish - boiled, stewed, baked or grilled</p> <p>Skimmed milk, yoghurt and cheese made from skimmed milk</p> <p>Egg (no more than one yolk daily) prepared without fat; egg whites as desired</p>	<p>All fried or sautéed meats, fish and poultry; all meats not included under foods allowed, e.g. corned beef, tinned meats, fish in oil, duck</p> <p>Regular milk, evaporated milk, fullcream sweetened condensed milk; regular cheese</p>
Fats*	<p>10 g (2 tsp) only; margarine, oil, butter, shortening, cream cheese, mayonnaise</p>	<p>Gravy, bacon, bacon drippings, salt pork; all visible fat; butter, margarine, cream cheese, mayonnaise (except as allowed in the meal pattern); avocado and ackee</p>
Miscellaneous	<p>Sugar, syrup, jelly, jam, preserves, sweets without nuts or chocolate; gelatin desserts and puddings made with skimmed milk and half-cream condensed milk; spices and condiments such as ketchup, mustard, vinegar, salt, pepper</p> <p>Fat free broth and soups</p> <p>Coffee, tea, fruit flavoured drinks, carbonated beverages</p>	<p>Chocolate, nuts, coconut, cream, salad dressings with oil; gravies, rich sauces, olives, chips, buttered popcorn, ice cream, custard, desserts with egg yolks</p> <p>Soups made with evaporated milk, cream or whole milk</p> <p>Chocolate drinks egg-nogs, milkshakes, malted milk</p>

*If fat restriction is less than 40 grams, do not use any fats

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: FAT RESTRICTED DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruit Staple Foods from animals Fat Beverage Miscellaneous	Foods from animals Staple Dark green leafy or yellow vegetable Fruit Fat Beverage Miscellaneous	Foods from animals Staple Dark green leafy or yellow vegetable Fruit Fat Beverage Miscellaneous
SAMPLE MENU	Orange juice Boiled egg Bread 2.5 ml (½ tsp) margarine Skimmed milk Coffee Jelly	60 g (2 oz) baked chicken (no skin) FF* Crushed yam FF* String beans Sliced tomato and lettuce 2.5 ml (½ tsp) fat for cooking Stewed guavas Fruit drink	60 g (2 oz) steamed fish FF* Rice FF* Carrots ½ grapefruit 2.5 ml (½ tsp) margarine Skimmed milk Tea

Restricted quantities apply only to foods containing significant amounts of fats; amounts of other foods may vary according to individual needs.

*FF - Fat free or cooked without fat

FAT CONTROLLED LOW CHOLESTEROL DIET

DESCRIPTION

The Fat Controlled Low Cholesterol Diet combines reduced intake of total fat, cholesterol and saturated fat with increased ratio of polyunsaturated to saturated fats. This diet is designed for individuals who are at ideal body weight. When weight reduction is required, a well-balanced Controlled Energy Diet, low in cholesterol and controlled in both amount and type of fat, should be followed.

A Fat Controlled Low Cholesterol Diet is appropriate for preventing an elevation of blood cholesterol which is often correlated with an increased risk of heart disease. Polyunsaturated fats (those fats liquid at room temperature) are substituted for saturated (hard) fats in the diet. Major dietary sources of cholesterol are restricted and the total amount of fat in the diet is reduced.

INDICATIONS

This diet is used: (1) when there is a history of cardiovascular disease suggesting a need for some alterations in the constituents of the diet; and (2) in moderate hypercholesterolemia.

The principal objectives of this diet are to provide daily menu patterns that:

1. Reduce total fat to 30-35% of total energy intake
2. Restrict saturated fat to less than 10% of total energy intake
3. Increase polyunsaturated fat to 11-14% of total energy intake
4. Reduce dietary cholesterol to less than 300 mg a day

To meet these objectives, the following changes in the diet are observed:

1. Saturated fats are reduced by limiting the intake of animal fats including cheese, whole milk, evaporated milk, butter, cream and meat. All meat and poultry should be lean with all visible fat removed. The use of lean beef, lamb, pork and ham should be limited to three servings of 90 g (3 oz) portions (cooked weight) per week.
2. Foods high in cholesterol are restricted, including organ meats (brain, kidney, sweetbreads, heart, fish roe and liver), shellfish and eggs. Egg yolks are limited to three a week.

3. The vegetable oil in the diet is one of the most important foods that must be consumed daily in order to meet the recommended percent of energy from poly-unsaturated fat.

Olive and peanut oils should be restricted to not more than 30 ml (2 tbsp) per day. Coconut oil and palm oil should be avoided because of high content of saturated fats.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	All without animal fats	Fried unless in allowed oil
Legumes		
- Peas, Beans	All	Pork and Beans and any prepared with animal fats or shortening
- Nuts	Nuts except cashew and Macadamia	Cashew and Macadamia
Dark Green Leafy and Yellow Vegetables	All	Those in sauces made with egg; those cooked with meat fat or shortening
Fruits	All	None
Foods from Animals		
- Milk	Skimmed milk, low fat yoghurt, skimmed milk cheese	Whole milk, cream, butter, regular cheeses
- Eggs	Three egg yolks a week including those used in cooking; egg whites as desired	More than three egg yolks a week
- Meat, Fish and Poultry	Lean, well-trimmed meat, baked, broiled, roasted or stewed; discard fat which cooks out of meat; chicken and turkey (no skin), fish, shellfish; shrimp is low in fat but high in cholesterol; use a 60 g (2 oz) serving as a meat substitute not more than twice a week; 60 g (2 oz) liver no more than once a week	Fried meats unless fried in allowed oils; heavily marbled and fatty meats, bacon, spare ribs, fatty corned beef, duck, goose, mutton, frankfurters, sausage, luncheon meats; organ meats; since liver is rich in iron it should not be eliminated completely

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Fats	Oil and margarine made from polyunsaturated fats such as corn, cottonseed, soyabean, sunflower, safflower - no limitation include at least 30-60 ml (2-4 tbsp) daily; gravy, sauces, mayonnaise and salad dressings made with allowed oils; olive and peanut oil not more than 30 ml (2 tbsp) daily	Butter, regular margarine, coconut oil, palm oil, solid shortening; lard, bacon "drippings"; suet, regular gravies, avocado pear, ackee
Miscellaneous		
- Soups	Fat free broths, soups made with skimmed milk	Soups made with cream, evaporated milk, whole milk or meat fat
- Beverages	Coffee, tea, cocoa powder in allowed milk, carbonated drinks, fruit juices, fruit flavoured drinks, vegetable juices	Hot chocolate, eggnog, regular milkshakes, yoghurt made from whole milk
- Condiments	Salt, pepper, herbs and other seasonings, ketchup, pickles, olives; spices (all kinds)	
- Dessert	Fruit whips, fruit ices, gelatin desserts, plain puddings prepared with skimmed milk and eggs from allowance	Pastries
- Sweets	In moderation: honey, jam, marmalade, molasses, preserves, syrup, sugar, jellies	Chocolate, coconut sweets made with butter, cream, evaporated milk and coconut

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: FAT CONTROLLED LOW CHOLESTEROL DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Polyunsaturated fat Beverage Miscellaneous	Foods from animals Staple foods Dark green leafy and yellow vegetables Polyunsaturated fat Fruits Beverage Miscellaneous	Foods from animals Staple foods Dark green leafy and yellow vegetables Polyunsaturated fat Fruits Beverage Miscellaneous
SAMPLE MENU	Orange juice Cornmeal porridge Bread Skimmed milk Guava jelly Coffee	Baked chicken (no skin) Rice String beans Carrots with oil and vinegar dressing Fruit salad Cherry drink	Steamed fish Mashed potato Lettuce and tomato with oil and vinegar dressing Stewed fruits Skimmed milk Tea

DIETS FOR HYPERLIPOPROTEINEMIAS

DESCRIPTION

Five diets for Hyperlipoproteinemia have been classified by Frederickson and co-workers.* These are highly specific regimens designed to control intake of nutrients involved in lipid metabolism. These include total fat, ratio of polyunsaturated to saturated fat, cholesterol, type and amount of carbohydrate, alcohol, and if weight reduction is indicated, total energy intake.

INDICATIONS

These diets are indicated for Types I and V Hyperlipoproteinemia and for moderate to severe cases of Types IIA, IIB, III and IV. If the patient is at ideal weight, the initial diet prescription is usually for the diet bearing the same number as the Hyperlipoproteinemia phenotype.

TYPE I

The diet is restricted to 25-35 grams of fat and may be a modification of the Fat Restricted (40 g fat) Diet. Omit the entire fat group to achieve a diet restricted to 25 grams of fat. Each 5 ml or teaspoon of fat added to the diet increases the total fat in the diet by 5 grams: therefore if "30 g fat" is ordered, 5 ml or 1 teaspoon of fat from the fat group may be used daily. Alcohol is not recommended. All other principles of the diet apply. All vegetables and fruits are usually tolerated well.

TYPE IIA

Use the Fat Controlled Low Cholesterol Diet as a basis with the following modifications:

1. Omit all egg yolk and organ meats (brain, kidney, sweetbread, liver, heart).
2. Limit beef, lamb, pork and ham to 90 g (3 oz) three times a week.
3. Use up to 270 g (9 oz) of poultry, veal, fish and shellfish.
4. Consume 5 ml (1 tsp) polyunsaturated fat for each ounce of meat eaten.

*Reprinted from Frederickson, D., Bonnell, M., Levy, R. and Ernst, N. "Dietary Management of Hyperlipoproteinemia: A Handbook for Physicians and Dietitians", National Heart and Lung Institute, Bethesda, Maryland, Reprinted 1974.

5. Omit completely those foods listed under "Foods to Avoid" on the Fat Controlled Low Cholesterol Diet, pages 96-97.
6. Use alcohol with discretion.

TYPE IIA DIABETIC, TYPE IIA ENERGY CONTROLLED FOR
WEIGHT REDUCTION: TYPE IIB AND TYPE III

Use the booklet "Meal Planning for Diabetics" and accompanying diet sheet at the prescribed energy level with the following modifications of the Food Substitution lists:

- List 1 - Staple foods
Appropriate as listed
- List 2 - Legumes
Appropriate as listed except do not use fat, salt
pork or oil in cooking
- List 3 - Dark Green Leafy, Yellow and Other Non-starchy Vegetables
Appropriate as listed
- List 4 - Fruit
Appropriate as listed
- List 5 - Food from Animals
Milk - use only skimmed milk
Meat and Fish - omit liver, kidney, eggs and high fat
meats. Use lean meats trimmed of all visible fats
- List 6 - Fats
Omit all fats except those that are from vegetable sources
Coconut oil should not be used

TYPE IV

A Fat Controlled, Energy Controlled Diet at the appropriate energy level is followed for either weight reduction or maintenance. Alcohol may be included in the diet in small amounts only, as a substitute for CHO.

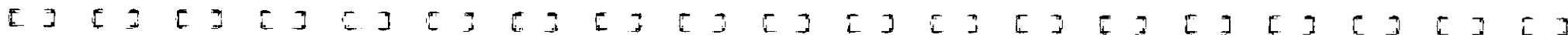
TYPE V

The energy composition of the Type V diet is 50% carbohydrate, 20% protein and 30% fat. A Fat Controlled, Energy Controlled Diet should be followed. Alcohol is not recommended.

SUMMARY OF DIETS FOR TYPES I-V HYPERLIPOPROTEINEMIA*

	TYPE I	TYPE IIA	TYPE IIB & TYPE III	TYPE IV	TYPE V
Diet prescription	Low fat 25 - 35 g	Low cholesterol Polyunsaturated fat increased	Low cholesterol approximately: 20% Cal Pro 40% Cal Fat 40% Cal CHO	Controlled CHO, approximately 45% of calories; moderately res- tricted choles- terol	Restricted fat, 30% calories; controlled CHO, 50% of calories moderately res- tricted choles- terol
Calories	Not restricted	Not restricted	Achieve and maintain "ideal" weight, i.e. reduction diet if necessary	Achieve and main- tain "ideal" weight, i.e. reduction diet if necessary	Achieve and main- tain "ideal" weight, i.e. re- duction diet if necessary
Protein	Total protein intake is not limited	Total protein intake is not limited	High protein	Not limited other than control of patient's weight	High protein
Fat	Restricted to 25 - 35 g; kind of fat not important	Saturated fat intake limited; polyunsaturated fat intake increased	Controlled to 40% calories (poly- unsaturated fats recommended in preference to saturated fats)	Not limited other than control of patient's weight (polyunsaturated fats recommended in preference to saturated fats)	Restricted to 30% of calories (poly- unsaturated fats recommended in preference to saturated fats)

*Reprinted from Frederickson, D., Bonnell, M., Levy, R. and Ernst, N. "Dietary Management of Hyperlipoproteinemia: A Handbook for Physicians and Dietitians", National Heart and Lung Institute, Bethesda, Maryland. Reprinted 1974.



SUMMARY OF DIETS FOR TYPES I-V HYPERLIPOPROTEINEMIA (cont'd)

	TYPE I	TYPE IIA	TYPE IIB & TYPE III	TYPE IV	TYPE V
Cholesterol	Not restricted	As low as possible; the only source of cholesterol is the meat in the diet	Less than 300 mg - the only source of cholesterol is the meat in the diet	Moderately restricted to 300 - 500 mg	Moderately restricted to 300 - 500 mg
Carbohydrate	Not limited	Not limited	Controlled - concentrated sweets are restricted	Controlled - concentrated sweets are restricted	Controlled - concentrated sweets are restricted
Alcohol	Not recommended	May be used with discretion	Limited to 2 servings (substituted for carbohydrate)	Limited to 2 servings (substituted for carbohydrate)	Not recommended

SODIUM RESTRICTED DIETS

DESCRIPTION

The four levels of Sodium Restricted Diets are:

1. 500 mg Sodium (strict) 22 mEq) (22 mmol)
2. 1 g Sodium (moderate) (43.5 mEq) (43.5 mmol)
3. 2 g Sodium (mild) (87 mEq) (87 mmol)
4. 3-5 g Sodium - no added salt (130-180 mEq)
(130-180 mmol)

The diets should be prescribed in terms of milligrams (mg), grams (g), milliequivalents (mEq) or millimoles (mmol) of Sodium. *SUCH TERMS AS LOW SALT, SALT FREE OR LOW SODIUM ARE NON-DESCRIPTIVE AND WILL BE CONSIDERED AS A 2 G SODIUM RESTRICTED DIET.*

A Sodium Restricted Diet may be calculated by adding the amounts of sodium in each food allowed per day. General guidelines for amounts of food allowed in each level of Sodium Restricted Diet may also be followed. Levels below 500 mg are not recommended but could be used for short term or tests only. Severe sodium restrictions are not necessary with the advent of anti-hypertensive medication. On the other hand the effectiveness of the medication is enhanced by a milk restriction of sodium.

Salt substitutes are predominately potassium chloride salts and may be contra-indicated in some conditions. They should be used only with the permission of the physician.

Many convenience foods contain sodium and should not be used on Sodium Restricted Diets. Effervescent salts, laxatives and other medicines containing sodium must not be used. *Labels should be read carefully.* Salt is added to processed foods in the form of MSG (monosodium glutamate), sodium bicarbonate and other compounds containing sodium. With the wide variety of frozen foods and packaged mixes available to the consumer plus the sodium-containing additives found in foods, it is extremely difficult for patients to follow less than a 2 g Sodium Restricted Diet. A 4 g Sodium Restricted or No Added Salt Diet is a practical level for home use.

INDICATION

Sodium Restricted Diets are indicated in congestive heart failure, hypertension, renal disease with sodium retention, liver disease with ascites and adrenocortical steroid therapy, oedema and kidney disease. Restricting sodium in the diet promotes loss of body water by reducing the sodium content in body tissues.

Sodium Restricted Diets are frequently accompanied by a high or low potassium diet. A list of sodium and potassium content of foods appears in Appendix C.

500 MG SODIUM DIET (22 mEq) (22 MMOL)

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods - Bread and Cereals	Low sodium bread, biscuits, pancakes, cornbread and waffles made with low sodium baking powder*; regular cereals cooked without salt; puffed rice, puffed wheat, shredded wheat	Sweet rolls, salted crackers, pretzels; products made from commercial mixes, self-raising flour and cornmeal, salt, baking powder or soda; instant and quick cooking hot cereals and dry cereal containing sodium compounds
- Starchy Fruits, Roots and Tubers	White or sweet potatoes, yam, eddoes and other ground provisions, rice, noodles, spaghetti and other pasta, corn	Instant potatoes and yam with sodium added; potato chips, corn chips, plantain and breadfruit chips, salted popcorn
Legumes	Dried peas and beans, unsalted nuts and unsalted peanut butter	Salted nuts, salted peanut butter
Dark Green Leafy and Yellow Vegetables	Fresh, unsalted, low sodium canned, except those listed under Foods to Avoid; low sodium tomato juice; (greens limited to only 125 ml or ½ cup serving daily) 125 ml (½ cup) = 9 mg sodium	Vegetables canned or frozen with salt, frozen peas, lima beans, mixed vegetables, corn, sauerkraut, pickles and others in brine; beets, beet greens, carrots, spinach, celery, tomato juice and other vegetable juice to which sodium has been added
Fruits	All allowed except dried fruit	Dried fruit

*Recipe for Low Sodium Baking Powder is on page 111.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Foods from Animals	<p>500 ml (2 cups) milk or milk products except those listed under foods to avoid, homecultured buttermilk</p> <p>Milk - 250 ml (1 cup) = 120 mg sodium</p> <p>All fresh or frozen meats, poultry and fish</p> <p>Meats - 30 g (1 oz) = 25 mg sodium</p> <p>One egg 1 = 70 mg sodium</p>	<p>Commercial buttermilk, malted milk, instant milk mixes</p> <p>Cured, salted, canned or smoked meats, poultry or fish, e.g. bacon, ham, corned beef, luncheon meat, frankfurters, sausage, sardines, regular peanut butter and regular cheese, meat substitutes to which sodium has been added</p> <p>More than one egg per day</p>
Fats	<p>Unsalted butter or margarine, vegetable oils; avocado, unsalted nuts</p>	<p>Bacon fat, salt pork, regular margarine or butter; regular commercial salad dressings or mayonnaise, olives, salted nuts</p>
Miscellaneous Beverages	<p>Coffee, instant coffee, decaffeinated coffee, tea, carbonated beverages</p>	<p>Beverage mixes including instant cocoa and fruit flavoured powders</p>
Desserts	<p>Desserts made with plain gelatin and fruit juice; unsalted bakery goods; ice cream, pudding and custard made from milk and egg allowance</p>	<p>Desserts made with salt, baking powder, soda, prepared pudding mixes, gelatin</p>
Sweets	<p>Hard sweets, sugar, syrup, honey, jelly, jam, sugar substitutes</p>	<p>Commercial sweets (candy) other than those allowed</p>

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Condiments	Pepper, spices, garlic and onion powder, dry mustard; lemon juice, bay leaf, sage, allspice, cinnamon, nutmeg, vinegar, chili powder, parsley, curry powder	Salt, regular ketchup, prepared mustard, olives, pickles, horse-radish, celery salt, soy sauce, onion salt, garlic salt, monosodium glutamate (MSG) meat sauce, barbecue sauce; all commercially prepared or convenience foods; baking powder, baking soda

BASIC 500 mg SODIUM DIET (22 mEq) (22 mmol)			
500 ml (2 cups) milk	120 mg x 2	=	240 mg
1 egg		=	70 mg
150 g (5 oz) meat	25 mg x 5	=	125 mg
4 vegetables	9 mg x 4	=	36 mg
Low sodium bread	5 mg x 3	=	15 mg
3 fruits	2 mg x 3	=	6 mg
	TOTAL	=	<u>492 mg</u> =====

1 GRAM (1000 mg) SODIUM DIET (43.5 mEq) (43.5 mmol)
Use the basic 500 mg Sodium Diet with the following additions:
1. Three slices of regular bread in place of low sodium bread. One slice of regular bread = 125 mg sodium.
2. 15 ml (3 tsp) regular butter or margarine. 5 ml (1 tsp) butter = 50 mg sodium

1000 mg SODIUM DIET			
500 ml (2 cups) milk	120 mg x 2	=	240 mg
1 egg		=	70 mg
150 g (5 oz) meat	25 mg x 5	=	125 mg
3 slices regular bread	125 mg x 3	=	375 mg
15 ml (3 tsp) regular butter or margarine	50 mg x 3	=	150 mg
4 vegetables	9 mg x 4	=	36 mg
3 fruits	2 mg x 3	=	6 mg
	TOTAL	=	1002 mg =====

- | 2 GRAM (2000 mg) SODIUM DIET (87 mEq) (87 mmol) |
|---|
| <ol style="list-style-type: none">1. Foods may be cooked or canned with salt but not salt is added after is cooked. Salt used in preparation of food should be limited to 5 ml (1 tsp) daily.2. Omit the following foods with high sodium content:
ham, bacon, corned beef, luncheon meat, frankfurters, sausage, salt pork, salt fish, pigtail, salt meat, cooked or canned fish or meat, ketchup, chili sauce, mustard, soya sauce, monosodium glutamate (Vte-Sin, Accent), celery salt, onion salt, garlic salt and seasonings containing salt, Worcester sauce, bouillon cubes, canned soups, tomato or vegetable juices, pickles, olives, processed cheese, cheese spreads, salted crackers, potato chips, plantain chips, breadfruit chips, salted nuts.3. Several spices may be used for flavour. See those listed under "Flavouring Ideas". |

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: SODIUM RESTRICTED DIETS

500 MG SODIUM

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fat Beverage Miscellaneous	Foods from animals Staple foods Legumes Green leafy or yellow vegetable Fat Fruits Beverage Miscellaneous	Foods from animals Staple foods Green leafy or yellow vegetable Fat Fruits Beverage Miscellaneous
SAMPLE MENU	Orange juice Unsalted cream of wheat 1 scrambled egg Low sodium toast Low sodium margarine 250 ml (1 cup) milk Coffee	60 g (2 oz) unsalted baked chicken Unsalted rice and peas Unsalted green beans Tossed salad Unsalted salad dressing Low sodium bread Low sodium margarine Fruit salad Iced tea	90 g (3 oz) unsalted roast beef Baked potato Unsalted pumpkin Sliced tomato Pineapple 250 ml (1 cup) milk

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: SODIUM RESTRICTED DIETS (cont'd)

1000 MG SODIUM

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fats Beverage Miscellaneous	Foods from animals Staple foods Legumes Green leafy or yellow vegetables Fats Fruits Beverage Miscellaneous	Foods from animals Staple foods Green leafy or yellow vegetables Fats Fruits Beverage Miscellaneous
SAMPLE MENU	Grapefruit juice Unsalted cornmeal porridge 1 scrambled egg 1 slice regular toast 5 ml (1 tsp) regular margarine Coffee 250 ml (1 cup) milk	90 g (3 oz) unsalted baked chicken 120 ml (½ cup) mashed yam Unsalted pigeon peas Unsalted steamed pumpkin Stewed guavas Lemonade	60 g (2 oz) unsalted hamburger pattie Baked potato Sliced tomato 1 slice regular bread 5 ml (1 tsp) regular margarine Orange Tea 250 ml (1 cup) milk

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: SODIUM RESTRICTED DIETS (cont'd)

2000 MG SODIUM

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fats Beverage Miscellaneous	Foods from animals Staple foods Legumes Green leafy or yellow vegetables Fats Fruits Beverage Miscellaneous	Foods from animals Staple foods Green leafy or yellow vegetables Fats Fruits Beverage Miscellaneous
SAMPLE MENU	Grapefruit juice 1 boiled egg Bread Margarine Milk Coffee	Beef stew Rice and peas Sweet potato Carrots Banana Lemonade	Baked fish Parslied potato Sliced tomatoes Bread Margarine Milk

NO ADDED SALT (approximately 3-5 g Sodium) DIET

All foods are allowed as on a regular diet, with a moderate amount of salt permitted in preparation of food. No salt should be added after the food is cooked. Excessively salty foods and the use of salt at the tables are not permitted.

SODIUM FREE BAKING POWDER

The following recipe can be prepared by a pharmacist:

Potassium Bicarbonate	-	39.8 g
Cornstarch	-	28.0 g
Tartaric Acid	-	7.5 g
Potassium Bitartrate	-	56.1 g

5 ml (1 tsp) regular baking powder = 7.5 ml (1½ tsp) sodium-free baking powder. Cream of tartar and yeast may be used without restriction.

FLAVOURING IDEAS

SEASONINGS AND FLAVOURING AIDS ALLOWED ON SODIUM RESTRICTED DIETS

Allspice	Cumin
Almond extract	Curry
Anise seed	Dill
Basil	Escallion (shallot)
Bay leaf	Fennel
Bouillon cube, low sodium dietetic if less than 5 mg sodium per cube	Garlic, garlic juice or garlic powder
Caraway seed	Ginger
Cardamon	Horseradish root or horseradish prepared without salt
Chili powder	Juniper
Chives	Ketchup, dietetic
Cinnamon	Lemon juice or extract
Cloves	Mace
Cocoa (5-10 ml or 1-2 tsp daily)	Mint
Coconut	Mustard, dry, or mustard seed

SEASONINGS AND FLAVOURING AIDS ALLOWED ON SODIUM RESTRICTED DIETS (cont'd)

Maple extract	Saffron
Marjoram	Sage
Nutmeg	Salt substitutes*
Onion, onion juice or onion powder	Savory
Orange extract	Sesame seeds
Oregano	Sorrel
Paprika	Sugar
Parsley or parsley flakes	Sugar substitutes*
Pepper, fresh, green or red	Tarragon
Pepper, black, red or white	Thyme
Peppermint extract	Turmeric
Pimento peppers for garnish	Vinalla extract
Poppy seed	Vinegar
Poultry seasoning	Wine if allowed
Purslane	Walnut extract
Rosemary	

FOR MEAT, POULTRY, FISH, EGGS

Beef	- Bay leaf, dry mustard, green pepper, garlic powder, marjoram, nutmeg, onion, sage, thyme
Chicken and Turkey	- Paprika, parsley, poultry seasoning, sage, saffron, tarragon, thyme
Lamb	- Basil, curry, garlic, marjoram, mint, rosemary, sage
Pork	- Garlic, marjoram, onion, oregano, rosemary, sage, thyme
Veal	- Basil, bay leaf, curry, ginger, marjoram, mint, oregano, rosemary, sage, tarragon
Fish	- Bay leaf, curry, dry mustard, green pepper, lemon juice, marjoram, mushrooms, paprika, saffron, sage, tarragon, thyme

*Without sodium, and if approved by physician

FOR MEAT, POULTRY, FISH, EGGS (cont'd)

Eggs - Basil, curry, dry mustard, green pepper, marjoram, onion, paprika, parsley, rosemary, saffron, thyme

FOR VEGETABLES

Beets - Cloves, ginger, lemon juice, tarragon, thyme

Carrots - Cinnamon, ginger, marjoram, mint, nutmeg, parsley, sage, thyme

Corn - Green pepper, pimento

Cabbage - Cumin, marjoram, mint, oregano, tarragon, turmeric

Green Beans - Lemon juice, marjoram, mint, nutmeg, oregano, rosemary, tarragon, thyme

Eggplant - Marjoram, sage, thyme

Onions - Sage, thyme

Peas - Green pepper, marjoram, onion, rosemary, sage, thyme

Potatoes - Green pepper, mace, mint, onion, parsley, paprika, rosemary, thyme

Squash - Basil, cinnamon, ginger, mace, nutmeg, onion

Tomatoes - Basil, bay leaf, marjoram, onion, oregano, sage, thyme

SEASONINGS AND FLAVOURINGS NOT ALLOWED ON SODIUM RESTRICTED DIETS

Salts - Regular, flavoured or seasoned such as celery, garlic, onion

Meat Flavourings - A-1 sauce, Kitchen Bouquet, meat tenderizers, soya sauce, Tabasco sauce, other bottled meat sauces and barbecue sauces

Miscellaneous - Bouillon cubes, ketchup, chili sauce, horseradish (prepared with salt), monosodium glutamate, canned mushrooms, prepared mustard, olives, pickles, celery flakes or leaves, celery seed

SODIUM COMPOUNDS TO AVOID

These are the most common sodium compounds added to foods. The words "soda", "sodium" or the symbol 'Na' on labels will indicate products that must be avoided. Do not use foods that contain the following:

- Salt
- Baking soda (bicarbonate of soda, sodium bicarbonate)
- Baking powder
- Monosodium glutamate (MSG)
- Brine (salt and water)
- Sodium cyclamate
- Sodium saccharin
- Sodium propionate
- Sodium sulphite
- Di-sodium benzoate

DIETS FOR CHRONIC RENAL FAILURE

In acute or chronic renal failure, the dietary intake of protein, sodium and potassium is carefully regulated from day to day. At the same time, adequate energy must be provided to prevent catabolism. The level of each nutrient depends on the patient's clinical status, biochemical and laboratory parameters. At lower levels of protein intake, protein-containing foods of high biological value, such as milk and eggs, should provide about 50-70% of the daily protein allowance.

When it is necessary to regulate fluid intake in order to balance output, all foods (including canned foods) should be well drained before serving.

Patients undergoing peritoneal dialysis lose large amounts of protein during the fluid exchange process of the treatment. In order to partially compensate for this loss, an increase in dietary protein is recommended.

Blood levels of water-soluble vitamins are decreased in chronic renal failure. For this reason, supplements of folic acid and other water soluble vitamins should be given.

The CFNI publication "Chronic Renal Failure: A Diet Guide for the Caribbean"* has been designed to assist in the planning of diets for chronic renal failure. Foods are grouped according to the Basic Six Food Groups commonly used in nutrition education in the English-speaking Caribbean and according to their protein, sodium or potassium content. Approximate values for selected nutrients are given for each of the six food groups.

In treating patients who require careful monitoring, such as in metabolic studies, the dietitian/nutritionist must calculate the individual diet using "Food Composition Tables for the Caribbean".**

Meals must be designed to suit individual preferences of the patient, and on-going counselling should be provided to ensure that the patient maintain adequate nutritional status and that the symptoms of uraemia are minimized. This is a crucial aspect of overall patient care.

*For further details refer to "Chronic Renal Failure: A Diet Guide for the Caribbean", Caribbean Food and Nutrition Institute, 1984.

**"Food Composition Tables for the Caribbean", Caribbean Food and Nutrition Institute, 1974.

PURINE RESTRICTED DIET

DESCRIPTION

This diet is designed to provide a reduced intake of purine nitrogen. The metabolism of purines results in the formation of uric acid. In the past, dietary restriction alone was used in the management of elevated blood uric acid levels. Medications have proven effective in controlling serum urate levels.

INDICATIONS

This diet may be used as an adjunct to drug therapy for patients with gout or for the evaluation of serum uric acid levels and uric acid excretion. Fasting or excessive intake of alcohol increase serum uric acid levels, hence, are to be avoided. Weight reduction may have a beneficial effect on urate metabolism for overweight individuals with gout.

ADEQUACY

This diet meets the RDA for adults for all nutrients except iron for females.

SUGGESTED MEAL PATTERN

Since there is much controversy in current literature concerning the value of restricting purine nitrogen in the dietary treatment of gout, only those foods known to be very high in purine are eliminated from the diet. A large fluid intake is helpful in eliminating uric acid, preventing renal calculi and retarding progressive involvement of the kidney. See Appendix E for a table of purine content of foods.

FOODS TO AVOID

- All organ meats (heart, kidney, liver, sweetbreads, brains)
- Anchovies
- Herring
- Mackerel
- Fish roe
- Shrimp
- Meat extracts (broths and gravies)
- Dried legumes
- Sardines
- Alcohol - avoid excessive intake

LACTOSE RESTRICTED DIET

DESCRIPTION

The Lactose Restricted Diet is based on the Regular Diet with the omission of unfermented milk and milk products. All milk products contain lactose, however, those which are fermented are often tolerated by individuals who cannot tolerate whole milk. Lactose is added in small amounts in the processing of many food and drug products. All labels should be read carefully for the addition of lactose, milk or milk solids. When these are listed as major ingredients the food should be avoided or used as tolerated. Lactalbumin, lactate and lactic acid do not contain the disaccharide lactose and are not eliminated.

INDICATIONS

The Lactose Restricted Diet is indicated for individuals with symptomatic lactose intolerance. These symptoms may include diarrhoea, flatulence, abdominal pain or bloating. Dietary management with a lactose free diet may be indicated in primary or secondary lactase deficiencies. Certain individuals with primary and many with secondary lactase deficiency have some lactase activity and can tolerate small amounts of milk, milk products and foods containing milk. *Tolerance must be individually determined.*

ADEQUACY

The Lactose Restricted Diet is low in calcium. It is adequate in all other nutrients. A supplementary source of calcium may be desirable.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Staple Foods	Rice, macaroni, noodles, spaghetti, yam, potato, breadfruit and other starchy fruits, roots and tubers; bread and flour products, cornmeal, oats, etc.	All prepared with milk and milk products including bread and cakes; cereals processed with milk or milk powder
Legumes	Peas, beans and nuts, peanut butter, soya bean milk	All prepared in cream sauce made with milk or cream
Dark Green Leafy and Yellow Vegetables	All kinds	All prepared in cream sauce made with milk or cream

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Fruits	All kinds	None
Foods from Animals	All meat, fish, poultry, eggs, fermented cheeses (cheddar and any cheese aged with bacteria)	Milk, plain or in foods; sausages, luncheon meat or other meat products with added lactose; cottage cheese
Fats	Margarine, oil, lard. <i>PURE</i> mayonnaise, shortening, peanut butter	Cream, butter, synthetic mayonnaise
Miscellaneous	Sugar, syrup, jelly, jam, honey, marmalade, herbs and spices, gelatin dessert; coffee, tea, carbonated beverages, fruit drinks, non-dairy products	

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: LACTOSE RESTRICTED DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Legumes Foods from animals Fats Beverage Miscellaneous	Foods from animals Staple foods Legumes Dark green leafy and yellow vegetables Fruits Beverage Miscellaneous	Foods from animals Staple foods Dark green leafy and yellow vegetables Fruits Beverage Miscellaneous
SAMPLE MENU	Orange juice Cornmeal porridge with soya milk Sardines Bread Margarine Coffee with soya milk Jelly	Braised beef Rice and peas Steamed patchoi Watercress and cucumber Cherry drink	Frizzled salt fish Crushed yam with margarine Lettuce and tomato Chilled pawpaw Soya milk

GLUTEN FREE DIET

DESCRIPTION

The diet contains no wheat, rye, barley or oat gluten but allows the use of rice and corn and must provide high levels of energy, protein and iron. Where the condition of gluten intolerance is permanent, very close supervision and strict adherence to the diet are essential.

INDICATIONS

This diet is indicated where there is a marked intolerance to gluten resulting in gluten-induced enteropathy, sprue, non-tropical sprue, idiopathic steatorrhea and as part of the treatment of the skin lesions of dermatitis herpetiformis.

FOOD GROUP	FOODS ALLOWED	FOODS TO AVO'D
Staple Foods	Cornmeal, cornflakes, corn-starch, cornbread (no wheat flour added), rice, rice flour; starchy fruits, roots and tubers, i.e. all ground provisions and their products: arrowroot flour, sago, potato flour, banana flour, cassava flour	All foods made from wheat, oats, barley and rye - e.g. wheat flour, bread, pastries, dumplings, oatmeal, cream of wheat, wheat germ, barley, macaroni, spaghetti
Legumes	Fresh - all; Dried - all; canned - in clear liquid only	Canned in sauce
Dark Green, Leafy Yellow and Other Non-starchy Vegetables	All unless in thickened sauce or breaded	Canned in thickened sauce; prepared in sauce or breaded
Fruits	All	None
Foods from Animals	Plain meats, fish and poultry Milk, cheese, eggs	Canned meat products Any meats which may have flour or bread crumbs added, e.g. stuffings, meat loaf, "accra" (fish cakes), meat patties, sausage, croquettes

FOOD GROUP	FOODS ALLOWED	FOODS TO AVOID
Fats	Butter, margarine, ghee, oils, peanut butter, pure mayonnaise	Commercial salad dressings
Miscellaneous	<p>Carbonated beverages, clear 'fruit' drinks, e.g. sorrel, mauby, ginger-beer, tea, coffee and cocoa with no flour added</p> <p>Hard sweets, sugar, syrups, sno-cones, gelatin desserts, ice cream and puddings with no flour added</p> <p>Clear soups</p> <p>Pure vegetable soups</p> <p>Fresh and dried herbs and seasonings</p> <p>Flavourings</p>	<p>Cocoa and coffee if flour is added</p> <p>Postum, malted milk, Ovaltine, beer, ale, cakes, pies, pastries, ice cream cones</p> <p>Soups thickened with flour</p> <p>Ketchup, prepared mustard</p> <p>Meat sauces</p> <p>Regular baking powder</p> <p>Stock cubes and powders containing flours</p> <p>All malt products</p>

NOTE: Warn patients that all labels on prepared and packaged foods, including flours, must be read carefully and that due care must be exercised when eating out. These are some ingredient names that mean gluten is present: hydrolysed vegetable protein, farina, malt, semolina, vegetable gum, emulsifiers, stabilizers.

SUGGESTED DAILY MEAL PLAN WITH SAMPLE
MENU: GLUTEN FREE DIET

	MORNING	NOON	EVENING
MEAL PLAN	Fruits Staple foods Foods from animals Fats Beverage Miscellaneous	Foods from animals Staple foods Legumes Dark green leafy and yellow vegetables Fats Fruits Beverage Miscellaneous	Foods from animals Staple foods Dark green leafy and yellow vegetables Fats Fruits Beverage Miscellaneous
SAMPLE MENU	Orange juice Corn muffins Scrambled egg Margarine Jam Cocoa with milk	Roast beef Sliced yam Steamed rice Stewed red beans Buttered spinach Soursop drink	Plain baked chicken Mashed potato Buttered pumpkin Lettuce and tomato Milk

BEDTIME Milk, cornflakes

NUTRITIONAL CARE OF THE CANCER PATIENT

The development, progression and treatment of cancer may adversely affect nutritional status. Nutrition therapy should be instituted early and monitored on a regular basis. Follow-up of the patient's nutritional status is essential. Indiscriminate supplementation without consistent patient monitoring often leads to negligible results.

Nutritional assessment is the first step in the nutritional management of the patient with cancer. Based on results of the nutritional assessment, a therapeutic nutrition programme can be tailored to meet individual needs.

Foods should be selected as outlined in the Daily Food Guide based on the Basic Six Food Groups for the Caribbean, with modifications to meet the patient's individual needs. It is possible to add significant energy and other nutrients through the use of regular foods.

Energy intake can be increased through simple dietary modifications such as:

- serving fruit juice or milk instead of water
- adding extra butter or margarine
- adding sugar or jelly to foods consumed

Vitamin and mineral supplements should be given if food intake is insufficient to meet the daily nutrient requirements. When more aggressive nutritional support is required, enteric tube feedings or parenteral nutrition may be considered. Parenteral nutrition is usually indicated for patients with inadequate gastro-intestinal tract function.

SPECIAL PROBLEMS

Symptoms

Anorexia

Treatment

- Small frequent meals
- Attractive meals
- Between-meal snacks
- Having appealing food items easily available for snacking
- Consider the use of nutritional supplements

<u>Symptoms</u>	<u>Treatment</u>
Taste Aversions	
(a) Red Meats	<ul style="list-style-type: none">- Serve cold meats or meat dishes- Use alternate source of protein, such as eggs, cheese, milk, yoghurt, nuts, fish, poultry
(b) Sweet Foods	<ul style="list-style-type: none">- Use unsweetened foods and drinks- Use lime/lemon to 'cut' sweetness of beverages, where appropriate- Use a bland-tasting (less sweet) nutritional supplement- Use fat as the primary supplemental source of energy
Nausea/vomiting	<ul style="list-style-type: none">- Avoid strong food odours- Encourage clear fluids such as broth, fruit juice; continual sipping of small amounts of fluid may help to reduce nausea- Use of antiemetic drugs may reduce nausea- Separate dry and liquid foods
Excessively Dry Mouth (Xerostomia)	<ul style="list-style-type: none">- Use liquids and very moist soft foods; dry foods should be moistened with gravy, broth, sauces or melted butter
Sore Mouth and Throat	<ul style="list-style-type: none">- Use soft foods and liquids that are cold or at room temperature- Avoid highly seasoned or acidic foods- Maintain good oral hygiene
Diarrhoea	<ul style="list-style-type: none">- Decrease dietary fibre intake- Use small frequent feedings- Avoid gas-producing foods- Consider lactose content of diet- Use anti-diarrhoeal agents as directed by the physician
Constipation	<ul style="list-style-type: none">- Increase fibre in the diet, by adding fresh fruits and vegetables, whole-grain cereals- Ensure adequate fluid intake- Medication as directed by the physician

SECTION V

**GUIDELINES FOR NUTRITIONAL
CARE AND COUNSELLING**

GUIDELINES FOR RECORDING NUTRITIONAL INFORMATION IN MEDICAL RECORDS*

The dietitian, like other members of the health team, cooperates in carrying out the written order of the responsible physician. By promptly recording in the patient's medical record pertinent, meaningful observations and information on food habits, food acceptance and dietary treatment, the dietetic staff uses the only reliable means of documenting regular communication with the physician and other professionals participating in the patient's total care.

Although verbal communication is informative, it is sporadic and does not replace the need for documentation that will reach all members of the health team involved in the patient's care. Documented communication is necessary for patients receiving short-term care. It is also of prime importance for those patients requiring prolonged care, if a unified appraisal of existing problems is to be made and plans for coordinating management are to be carried out.

Brevity without sacrifice of essential facts is the essence of effective recording. Dietary progress notes and summaries should be as brief as is consistent with good communication, avoid professional jargon and have meaning for all responsible members of the health care team contributing to the patient's care. When professional opinion is expressed, it should be phrased to indicate clearly that it is the view of the person recording.

Remarks that are critical of treatment carried out by others, that indicate bias against the patient, or that are unprofessional should never appear in the medical record.

A "Department of Dietetics" stamp will readily identify the entries of the dietetic staff on progress notes forms. Patients on normal or near-normal diets occasionally present problems requiring dietetic entries. Such entries should be flagged to apprise the physician of nutrition information or problems.

WHO IS TO RECORD

Entries in patient medical records may be made only by individuals so authorized by the institution's policies, which are usually developed in cooperation with the medical staff. When the services of a qualified dietitian

*Adapted from "Guidelines for Therapeutic Dietitians: Recording Nutritional Information in Medical Records", Chicago, American Hospital Association, 1976.

are not available on a regular full-time basis, dietetic technicians or dietetic assistants may be designated as authorized alternates to record current, pertinent nutritional care information commensurate with the responsibility delegated to their position within the institution. All entries should be dated and signed with the name and title of the person making the entry.

WHAT TO RECORD

The qualified dietitian or authorized alternate is responsible for recording the following subject items for patients on modified diets:

1. *CONFIRMATION OF DIET ORDER*

- (a) Within 24 hours of admission, a notation that the prescribed modified diet order is being fulfilled (except for those patients not being fed orally).
- (b) All subsequent orders by the physician for a modified diet.

2. *SUMMARY OF DIETARY HISTORY*

- (a) Evaluation of the patient's diet pattern, nutrient deficit, life-style, food allergies and socio-economic resources essential for nutritional care planning.
- (b) Assessment of the patient's awareness of the relationship of diet to disease, which has a direct bearing on plans for individual nutritional care.

3. *NUTRITIONAL CARE THERAPY*

- (a) Type of diet and, if indicated, the number of calories or other nutrients, such as sodium, cholesterol, or saturated fat.
- (b) Daily record of patient's nutrient intake during a period of quantitative or qualitative control of food and fluid intake, medication, or other pertinent therapy.
- (c) Report of the patient's tolerance to the prescribed diet modification, including the effect of the patient's appetite and food habits on food intake and any substitutes made.
- (d) Notations of any changes in diet orders and diet instruction plans.

- (e) Brief written communications between dietetic staff and physician and/or nursing service personnel, pertinent to patient's nutritional care.
- (f) Request, if indicated, for referral of patient to appropriate health centre or clinic for assistance in following diet at home.

4. *NUTRITIONAL CARE DISCHARGE PLAN*

- (a) Description of diet instructions given to patient and/or family. If printed instructions are given to patient or family, a copy should be placed in the patient's medical record.
- (b) Description or copy of diet pattern forwarded to health centre, clinic or health care facility for subsequent patient care.
- (c) Plan for patient's continued nutritional care, including any dates for return visits. If nutritional care follow-up reverts to the physician's office practice, this should be noted in the patient's record.

5. *DIETETIC CONSULTATION*

- (a) The physician's written request for dietetic consultation should be acknowledged.
- (b) Consultation reports containing a written opinion by the dietitian that reflects an assessment of the patient's dietary history, examination of the patient's medical record for any previous dietetic care, and any recommendations for normal or modified diet. Subsequent counselling of the patient or family should be recorded in the patient's medical record.

6. *METHOD OF RECORDING*

The method selected should be compatible with the institution's method for recording clinical data.

DIETARY COUNSELLING

The diet history form was developed for use in determining a person's eating habits, food likes and dislikes and need for dietary counselling.

Utilizing the information gathered from the diet history, determine:

- (1) those positive aspects of the diet which should be reinforced. Something good can be found in almost every diet and every effort should be made to impose as few changes as possible at a time;
- (2) any nutrient deficiencies and types of dietary counselling needed to correct them or make them conform to the diet orders.

In the diet counselling session, the instructions should be given in simple terms so that they may be clearly understood by the patient. Written instructions should be given and visual aids utilized when appropriate. Other members of the family may be included in the counselling session. This is especially important when some one other than the patient does the food purchasing and/or meal preparation.

In some countries, community resources may be utilized by the patients after they go home from the hospital. A referral may be made to public health nurses, nutritionists and community nutrition workers who can provide dietary assistance.

DIET HISTORY FORM

Name _____ Age _____ Ethnic Group/Religion _____

Address _____

Reason for Diet Referral _____

Referred by _____

Physician's diet order _____

Height _____ Weight _____ Desirable Weight _____

Other pertinent lab data _____

Has a doctor, nurse, dietitian or nutritionist ever told you to follow a diet? _____

When? _____ What did this person tell you? _____

Are you still on this diet? _____ What was the result of the diet? _____

What foods do you like best? _____

What foods do you not eat? _____

Who cooks most of your food? _____

Who else eats the foods that are cooked? (Number of persons, ages, etc.) _____

Who does the food shopping? _____

About how much money is spent per week for food? _____

Do you receive any foods that you don't buy? _____

What foods? _____ From home garden? _____

Other (including any government donated food programmes) _____

Do you have in working condition, a refrigerator? _____

A stove? _____ With an oven? _____ With a broiler? _____

How many meals do you eat away from home each week? _____ Where? _____

How often do you take laxatives? _____ What kind? _____

How often do you take vitamins? _____ What kind? _____

What medicines do you take regularly? _____

What type of work, exercise or leisure activities do you do each day? _____

Is there anything you would like considered in planning your diet (nationality, food preferences, religious rules, difficulty in chewing, etc.)? _____

Do you believe that you are intolerant or allergic to any food? _____

Specify _____

Comments or observations of interviewer (include impression of validity of information given):

Date of next appointment _____

Interviewer: _____

Position: _____

Date: _____

FOOD INTAKE FORM

NAME: _____

DATE: _____

TIME	PLACE	FOOD TAKEN	AMOUNT

FOOD INTAKE (24 HOUR RECALL)

INSTRUCTIONS

Using the Food Intake Form, list the foods you ate yesterday.

Record anything you eat and drink in each 24 hour period.

Remember to write down *when* you ate or drank each food and *where* this was.

Describe each food fully. Indicate whether it is raw or cooked. If cooked, tell how it was prepared (for example: fried, boiled) and how it was served (for example, was anything added like margarine, oil, salad dressing, sugar, syrup, honey, etc.).

Record the amount of each food and beverage. If you are uncertain about the quantity, please estimate (e.g. 125 ml or $\frac{1}{2}$ cup, 30 ml or 2 tsp, etc.).

FOOD FREQUENCY CHECKLIST

INSTRUCTIONS

Indicate whether or not the following foods are eaten by checking the "NEVER EAT" or "EAT" for each item. For each food checked "EAT", write the approximate number of times eaten in a day or week. If any particular food is eaten less than once a week, do not write anything in the column "WEEK".

In some cases, more than one food has been listed on a line. If all of these foods are not eaten, underline the specific food which is eaten. A space has been provided at the end to write in foods which are not listed and are eaten regularly.

FOOD FREQUENCY CHECKLIST (cont'd)

FOOD	NEVER EAT	EAT	DAY	WEEK	HOW MUCH
<i>1. STAPLES</i>					
<i>(a) Bread, Rice and Cereals</i>					
Cream of Wheat					
Corn meal					
Rice					
Spaghetti, Noodles					
Macaroni					
Bread					
Bakes					
Biscuits					
Crackers					
<i>(b) Starchy Fruits, Roots & Tubers</i>					
Potato (sweet, Irish)					
Breadfruit, Yam					
Other starchy vegetables					
<i>2. LEGUMES</i>					
Dried beans, Peas					
Nuts					
Peanut Butter					
<i>3. DARK GREEN LEAFY AND YELLOW VEGETABLES</i>					
Greens, dark & leafy					
Yellow vegetables (carrots, etc.)					
<i>4. FRUITS</i>					
Fresh fruit, or					
Juice					
Fruit, canned					
<i>5. FOODS FROM ANIMALS</i>					
Milk, whole					
Milk, skimmed					
Evaporated milk					
Low fat milk 2%					
Condensed milk					

FOOD FREQUENCY CHECKLIST (cont'd)

FOOD	NEVER EAT	EAT	DAY	WEEK	HOW MUCH
5. FOODS FROM ANIMALS (cont'd)					
Cheese					
Ice Cream					
Fish					
Eggs					
Chicken					
Beef, Veal, Lamb					
Liver					
Pork, Ham					
Luncheon meats					
Sausages					
Sardines					
6. FATS					
Bacon, Salt Pork					
Butter, Margarine					
Cooking fat, oil					
Salad Dressing					
Mayonnaise					
Avocado					
7. MISCELLANEOUS					
Cakes, Cookies					
Pie, Pastry					
Sugar					
Salt					
Syrup					
Molasses					
Honey					
Sweets					
Jam, Jelly					
Preserves					
Carbonated Beverages					
Beer, Stout, Malt, etc.					
Whiskey, Rum, Gin, etc.					
OTHER FOODS NOT LISTED:					
Recommendations and any referrals made:					

NUTRITIONAL GUIDELINES FOR USE IN CORONARY CARE UNITS*

The following nutritional pattern for use in the Coronary Care Unit is suggested for short-term use, i.e. the initial five to ten day period, following acute myocardial infarction.

- (1) Nothing by mouth prior to evaluation by the physician. In most instances, intravenous solution started to facilitate administration of drugs required if arrhythmias and shock ensue.
- (2) Patient to be re-evaluated for dietetic progression every 24 hours.
- (3) For the first 24 hours, 500 to 800 kilocalories (1000 to 1500 ml) liquid diet, with only small amounts of liquid taken at a time. Foods which may be offered include: clear soups, broth, skim milk, fruit juices, weak tea, ginger ale and water.
- (4) Energy level of 1000 to 1500 kilocalories to meet patient's metabolic requirements. Nutritional proportions should be approximately: 20 per cent protein, 45 per cent carbohydrate and 30 to 35 per cent fat (low saturated fat; poly-unsaturates as the primary source of dietary fat) with cholesterol limited to 300 mg per day.

Physicians should be alert to the risk of carbohydrate intolerance which may require reduction in carbohydrate and proportionate increase in protein.

- (5) Beverages and other liquids served at body temperatures. Non-caffeine and decaffeinated beverages are preferred. Stimulants and extremes in temperature to be avoided.
- (6) Small, frequent meals consisting of foods which are easily digested, free of gastric irritants, soft and low in roughage.

*Source: Christakis, G. and M. Winston. Nutritional therapy in acute myocardial infarction. J. Amer. Dietet. Assoc. 63:233, 1973.

- (7) Foods to be included: tender, lean cuts of meat; fish and poultry; tender, cooked or canned vegetables and fruits; plain breads; cooked cereals; simple puddings and gelatin desserts. Egg yolks limited to three a week.
- (8) Nutritional plan to be individualized on basis of patient's clinical status, physiologic and psychologic needs. Areas usually requiring modification are: carbohydrates, protein, fat, total energy, electrolytes and fluids.

GROWTH CHARTS

OBJECTIVES AND USES

Growth charts are vital tools for the promotion of healthy growth of infants and young children. If properly used, they alert the health worker to early deviations from normality that require decisions on care or referral. They also serve as an educational tool for the family of the child, as a visual record of the nutritional and health status of the child and of important events such as immunizations. Taken together, growth charts can be used to monitor growth at community level and thus to influence planning. They can also be used to measure recovery from protein-energy malnutrition. They are a vital tool in primary health care.

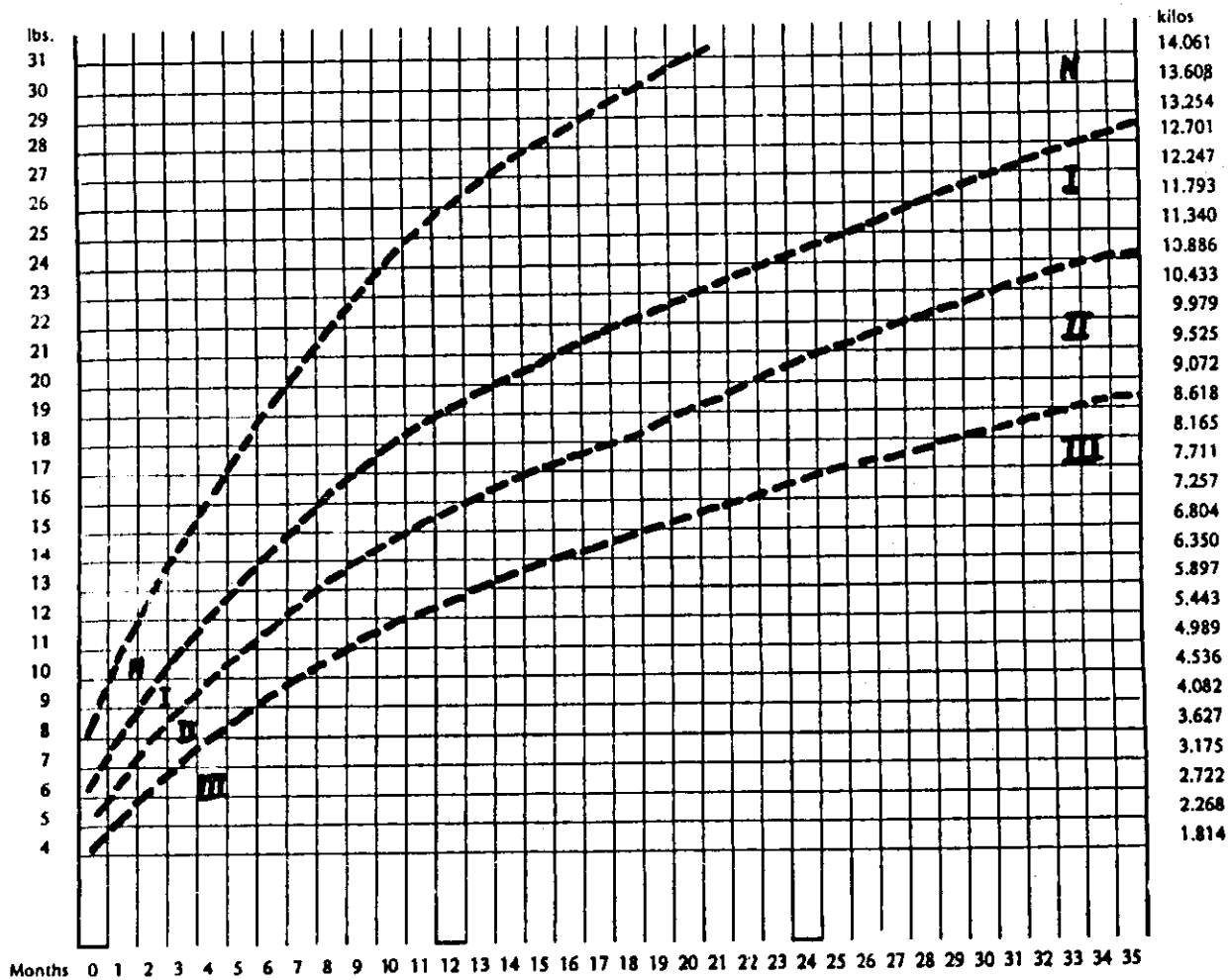
Three types of growth chart are used in routine maternal and child health services in the Caribbean community. These are the Gomez Chart, the Child Health Passport and the Clinic Chart. More information on these charts can be obtained from Ministry of Health Personnel or CFNI. In addition, a Catch-up Growth Chart has been developed for monitoring recovery from protein-energy malnutrition.

GOMEZ CHART

The Gomez Chart¹ (Figure 1) categorizes children into normal, Grade I (mild) malnutrition, Grade II (moderate) malnutrition, and Grade III (severe) malnutrition. The major drawback of the Gomez Chart is that grades are somewhat arbitrarily drawn. Approximately 16% of healthy children naturally fall into Grade I².

FIGURE 1: THE GOMEZ CHART

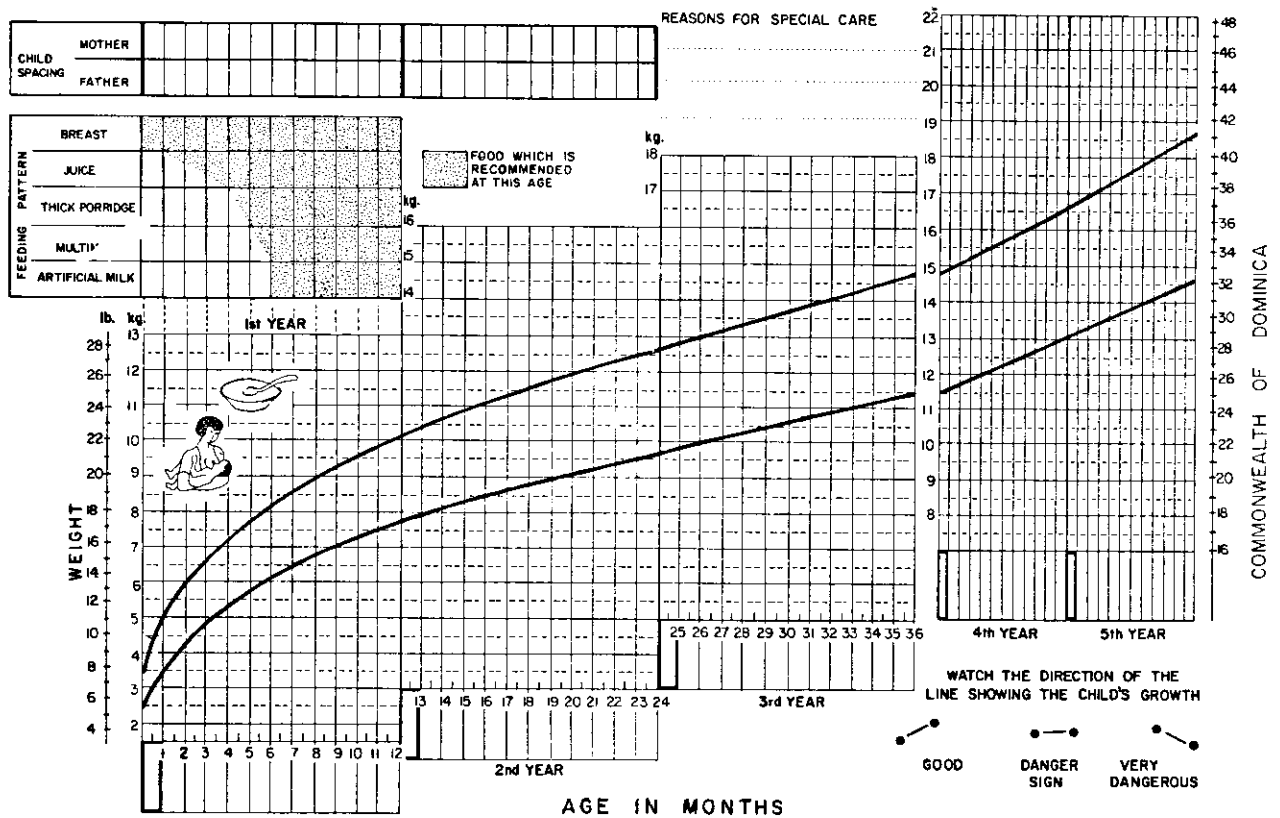
WEIGHT-FOR-AGE CHART 0-35 MONTHS



CHILD HEALTH PASSPORT

The Child Health Passport³ (Figure 2), is an adaptation of the Home-Based Chart developed by WHO following an intensive international trial⁴. The Child Health Passport, a "unisex" chart, is easy to understand and use. It incorporates a "road to health" of weight for age along which most children should travel. This chart should be retained by the mother at home and thus be available for family consultations and home visits by health staff.

FIGURE 2: CHILD HEALTH PASSPORT



The upper and lower lines indicate the 50th and third percentiles of the reference values, respectively. This means that half the normal children will have weight paths above the two lines.

CLINIC CHART

Complementary to the Child Health Passport (home-based) is the Clinic Chart (Figure 3). This is more complex in that it incorporates six channels of development and separate charts for boys and girls. Table I shows the meaning of the six channels of development in the Clinic Chart. It is based on the WHO Service Chart⁴. It enables statistical analysis to be carried out on data on children seen in a clinic.

FIGURE 3: CLINIC CHART (FOR GIRL)

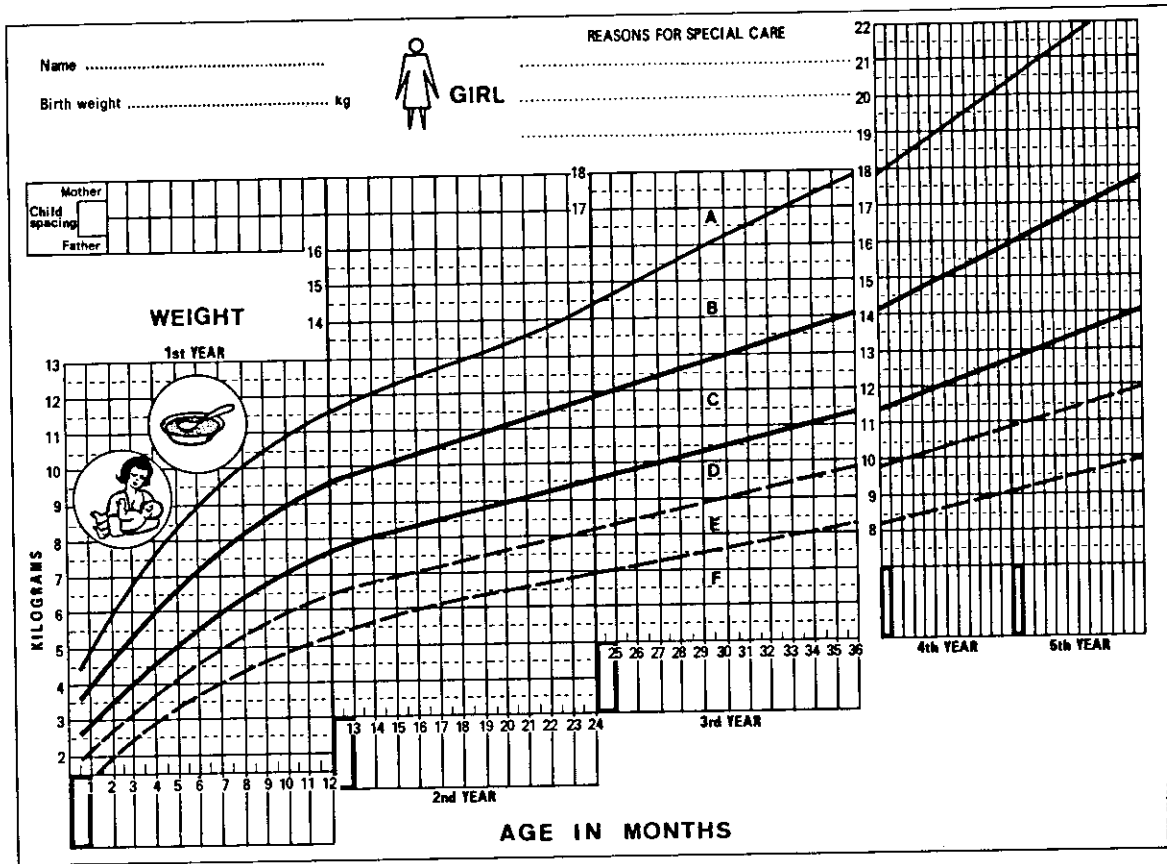


TABLE 1: REFERENCE WEIGHT VALUES FOR THE CLINIC CHART

LIMITS	CHANNEL
Greater than 97th percentile	A
Between 97th percentile and 50th percentile	B
Between 50th percentile and 3rd percentile	C
Between 3rd percentile and a -3 standard deviation	D
Between -3 standard deviation and -4 standard deviation	E
Less than -4 standard deviation	F

CATCH-UP GROWTH CHART

Somewhat different charts are needed for monitoring the response of children being treated in hospitals for severe protein-energy malnutrition. The Tropical Metabolism Research Unit (TMRU) of the University of the West Indies has devised a "Catch-up Growth Chart"⁵, an easy visual way of evaluating a child's immediate recovery from severe protein-energy malnutrition. This chart is constructed to incorporate the goal of a weight gain of 2-3 kg within 6-10 weeks. It applies to children of all ages and with all types of protein-energy malnutrition who receive high energy feeds during recovery.

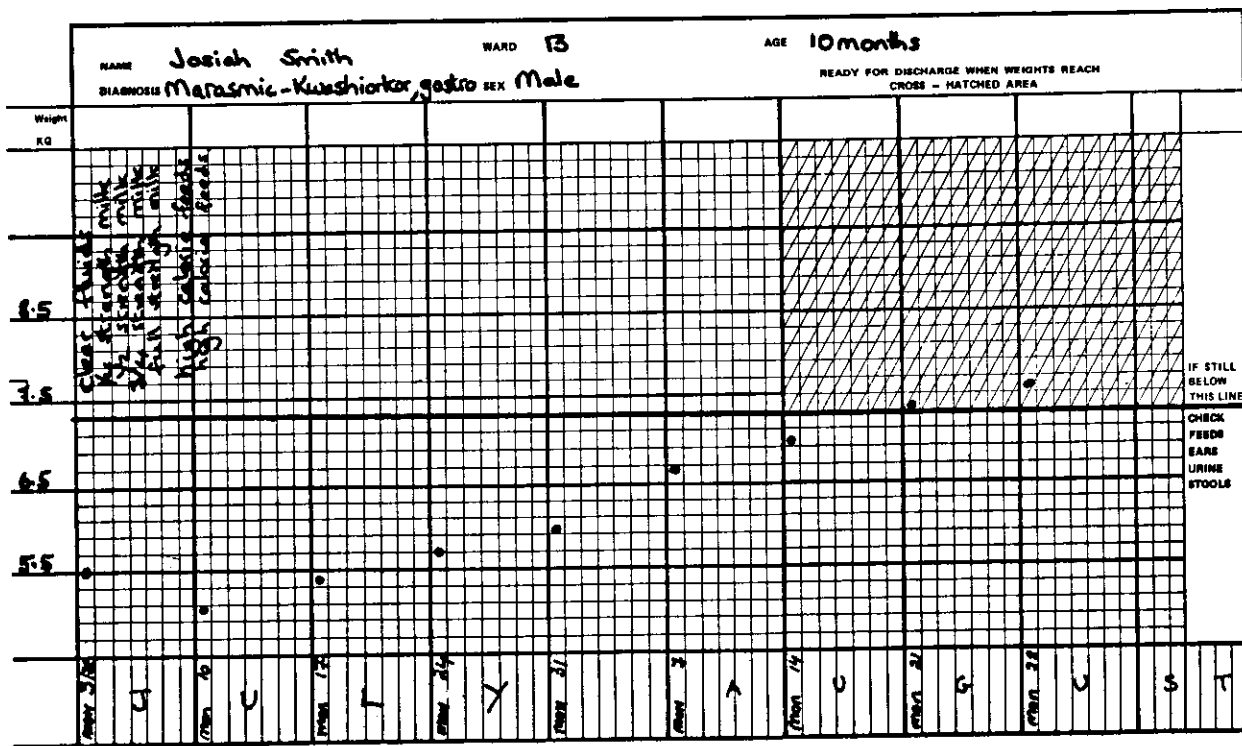
Most hospitals find it difficult to measure children's weights and are unable to calculate when a child is at the ideal or expected weight for height, as recommended in "Malnutrition and Gastroenteritis in Children: A Manual for Hospital Treatment and Management"^{*}. In most hospitals, weights are recorded in a book, making them difficult to interpret.

^{*}Malnutrition and Gastroenteritis in Children: A Manual for Hospital Treatment and Management, CFNI, 1978.

HOW TO USE THE CHART

In the example (Figure 4), Josiah Smith's admission weight, 5.5 kg, was entered on the second line of the vertical scale, instead of the first, to allow for the loss of oedema fluid. Josiah lost 450 g in the first week. The day and date of admission were written on the horizontal scale which is divided into weeks, so that weekly weight (as in the example) or daily weights can be recorded, according to the routine of the hospital. There is space on the chart to record the changes in the treatment, as the example shows. When the child's weight crossed the thick line into the cross-hatched area, he was ready for discharge. In this case, Josiah reached his expected weight for height by the eighth week after admission to hospital. If he was gaining weight poorly, his weight would remain below the thick line. A checklist of common problems is shown on the chart to help diagnose the reason for faltering.

FIGURE 4: CATCH-UP GROWTH CHART



REFERENCES: GROWTH CHARTS

1. Gomez, F., R.R. Galvan, S. Frenk, J. Cravioto Muñoz, R. Chavez, and J. Vasquez. "Mortality in Second and Third Degree Malnutrition". *J. Trop. Pediat.*, 2, 77-83, 1956.
2. Gueri, M., J.M. Gurney and P. Jutsum. "The Gomez Classification. Time for a Change". *Bull. Wld. Hlth. Org.*, 58, 773-777, 1980.
3. Wit, J.M. and S.C.V. Davies. "A Home- and Clinic-Based Growth Chart for Dominica". *Cajanus*, 15, 42-52, 1982.
4. World Health Organization. "A Growth Chart for International Use in Maternal and Child Health Care. Guidelines for Primary Health Care Personnel". Geneva, WHO 1978 (Monograph Ser. No. 53).
5. Landman, J., A. Jackson, E. Wheeler and P. Grant. "A Catch-Up Growth Chart". *J. Trop. Pediat.*, 27, 47-51, 1981.

APPENDICES

APPENDIX A: TABLE OF WEIGHTS AND MEASURES

1 tsp	= 5 g = 5 cc = 5 ml
3 tsp	= 1 tbsp
1 tbsp	= ½ oz = 15 g = 15 cc = 15 ml
2 tbsp	= 1 oz = 30 g (actual 28.35 g) = 30 cc = 30 ml
16 tbsp	= 8 oz = 1 cup = 250 g = 250 cc = 250 ml
2 cups	= 16 oz = 1 pint = 500 g = 500 cc = 500 ml
2 pints	= 32 oz = 1 quart = 100 g = 100 cc = 100 ml
1 cup	= 250 ml
¾ cup	= 200 ml
⅔ cup	= 175 ml
½ cup	= 125 ml
⅓ cup	= 75 ml
¼ cup	= 60 ml
1 inch	= 2.54 centimetres
1 litre	= 1.0567 quarts
1 kilocalorie	= 4.18 kilojoules
1 milliequivalent	= one thousandth of an equivalent
1 microgram (mcg)	= one thousandth of a milligram
1 milligram (mg)	= one thousandth of a gram
1 gram (g)	= one thousandth of a kilogram = 1 cc = 1 ml
4 quarts	= 1 gallon
4 pecks	= 1 bushel
1 pound	= 453.6 g
2.2 pounds	= 1 kilogram

To convert:

ounces to grams multiply by 30
grams to ounces divide by 30
pounds to kilograms divide by 2.2
kilograms to pounds multiply by 2.2
inches to centimetres multiply by 2.54

APPENDIX B: MILLIGRAM/MILLIMOLE/MILLIEQUIVALENT
CONVERSION TABLE

<u>MILLIEQUIVALENTS</u>	<u>SODIUM GRAMS</u>	<u>(EQ. WT. 23) MILLIGRAMS</u>	<u>POTASSIUM GRAMS</u>	<u>(EQ. WT. 39) MILLIGRAMS</u>
10	0.23	230	0.39	390
20	0.46	460	0.78	780
25.6	-	-	1.00	1000
30	0.69	690	1.17	1170
40	0.92	920	1.56	1560
43.5	1.00	1000	-	-
50	1.15	1150	1.95	1950
60	1.38	1380	2.34	2340
70	1.61	1610	2.73	2730
80	1.84	1840	3.17	3170
90	2.17	2170	3.51	3510
100	2.30	2300	3.9	3900
128	-	-	5.0	5000
171.5	5.00	5000	-	-
256	-	-	10.0	10,000
435	10.0	10,000	-	-

Millimoles/Milliequivalents Na or K =

$$\frac{\text{grams Na or K} \times 1 \text{ Eq. Wt.}}{\text{Eq. Wt. in Grams}} \times 1000 \text{ meq/mmol} = \text{1 Eq. Wt.}$$

$$\text{Grams Na or K} = \text{meq. Na or K} \times \frac{1 \text{ Eq. Wt.}}{1000 \text{ meq.}} \times \frac{\text{Eq. Wt. in grams}}{1 \text{ Eq. Wt.}}$$

APPENDIX C: SODIUM AND POTASSIUM CONTENT OF FOODS

FOOD GROUPING AND LISTING

Foods in the Tables are grouped under 12 headings in the sequence found in the CFNI Food Composition Tables. They bear no relationship to the Six Food Groups used for Meal Planning in the Caribbean. The groups are as follows:

- 1: Cereals
- 2: Starchy Fruits, Roots and Tubers
- 3: Sugars and Syrups
- 4: Pulses, Nuts and Oilseeds
- 5: Vegetables
- 6: Fruits
- 7: Meat and Poultry
- 8: Eggs
- 9: Fish and Shellfish
- 10: Milk and Milk Products
- 11: Fats and Oils
- 12: Miscellaneous Foods

TERMS AND SYMBOLS

Trace: denotes that the amount present is insignificant

- : indicates no data available or available data not reliable

COMPOSITION OF FOODS IN 100 g EDIBLE PORTION

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
<i>1. CEREALS</i>			
Bammy, commercial (salted)	136	140	4
Bammy, commercial (salt free)	18	105	4
Barley, pearled, raw	3	120	3
Corn, whole kernel, canned, yellow	310	200	3
Corn, cornmeal, whole grain	1	248	1
Corn, immature, raw	Trace	280	1
Cornflour	52	61	3
Cornflakes, added nutrients	1005	120	1
Popcorn	3		1
Oatmeal (rolled oats)	33	370	3
Rice, brown, raw	9	214	1
Rice, white unenriched	5	92	1
Rice, parboiled	9	150	1
Rice, flour	5	241	2
Wheat flour, all purpose:			
enriched	2	95	1
unenriched	2	95	1
Flour, whole wheat	3	370	1
Biscuits, sweet	360	110	43
Bread, white enriched	507	85	1
Bread, whole wheat	527	273	1
Cake, sponge	167	87	1
Cake, dark fruit	158	496	1
Crackers, saltine	1100	120	1
Crackers, soda	1100	120	1
Egg noodles, dry, enriched	5	136	1
Farina, enriched	2	83	1
Spaghetti, macaroni, enriched	2	197	1
Vitawheat	722	437	4
Wheat germ	3	827	1

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
2. STARCHY FRUITS, ROOTS AND TUBERS			
Arrowroot (flour)	5	18	3
Banana, green, boiled	12	172	4
Banana, ripe	4	401	2
Breadfruit, fresh fruit	13	396	2
Breadfruit, boiled, peeled	35	195	4
Cassava (fresh root)	2	394	2
Cassava (meal and flour)	11	926	2
Cassava (porridge)	2	20	4
Coco/Dasheen/Taro, fresh tuber	10	488	2
Plantain, green, boiled	4	330	3
Plantain, ripe, fried	3	610	3
Potato, Irish (fresh tuber)	7	570	3
Potato, Irish (french fries)	12	1020	3
Potato, Irish (instant)	89	1600	1
Potato, sweet, pale	31	210	2
Yam, fresh	10	294	2
Tannia, fresh	-	-	
3. SUGARS AND SYRUPS			
Sugar, dark brown, crude	30	344	1
Sugar, granulated	Trace	2	3
Sugar, dextrose or glucose, liquid BP	150	3	3
Syrup, molasses, medium	37	1063	1
Syrup, golden	270	240	3
Syrup, corn	68	4	1
Sugar cane juice	2	102	2
Honey	10	51	2,3
Jams and Preserves	12	88	1
Jellies	17	75	1
Guava jelly	7	39	4

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
3. SUGARS AND SYRUPS (cont'd)			
Marmalade, citrus	18	44	3
Candy, chocolate, milk	120	420	3
Candy, marshmallows	39	6	1
Candy, hard	32	4	1
Icy Mint	39	8	4
Toffees, mixed	320	210	3
4. PULSES, NUTS AND OIL SEEDS			
Beans, broadbean, whole seeds, dry	8	1123	2
Lima Bean, whole seeds, dry	18	295	2
Lima Bean, green, immature, fresh, raw	2	650	1
Red Peas, Kidney Beans, whole seeds	19	1151	2
Blackeye Peas/Cowpea, whole seeds, dry	6	688	2
Chickpea, whole seeds, dry	10	1006	2
Lentils, whole seeds, dry	29	780	2
Green Peas, whole seeds, dry	35	1005	1
Split Pea, without seed coat, raw	40	895	1
Pigeon Peas/Congo Peas, dry	29	1100	3
Soybean, whole seeds, dry	-	-	
Soybean, milk	15	58	2
Peanuts, raw	6	680	3
Peanuts, roasted and salted	440	680	3
Peanut butter, salted	607	670	1
<u>Tree Nuts</u>			
Almonds, roasted and salted	198	773	1
Cashew nut, whole seed, dry	26	420	2
Coconut, mature	7	555	2
Coconut, immature jelly	51	257	2

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
<i>4. PULSES, NUTS AND OIL SEEDS (cont'd)</i>			
<u>Tree Nuts (cont'd)</u>			
Coconut, milk	16	254	4
Coconut, water	25	147	1
Walnuts, nut dried	3	690	3
<u>Seeds</u>			
Sesame	49	508	2
Sunflower, dry		815	2
<i>5. VEGETABLES</i>			
<u>Green Leafy and Yellow Vegetables</u>			
Amaranth (leaves)/callaloo, boiled	16	345	4
Asparagus, canned, green, drained	236	166	1
Beet (greens)	130	570	1
Cabbage, Chinese/pakchoi	22	279	2
Cabbage, common	10	238	2
Carrot, fresh, raw	70	245	2
Carrot, canned, solid and liquid	236	120	1
Cassava (leaves)	4	409	2
Chocho/Christophene	2	108	2
Dasheen (leaves)	9	963	2
Endive	14	294	2
Lettuce, iceberg	9	175	1
Lettuce, green	9	264	1
Mixed vegetables, frozen	59	208	1
Mustard greens	24	297	2
Parsley, curly	28	900	2
Peas and carrot, frozen	92	171	1
Pepper, hot, immature, green or yellow	-	-	
Pepper, hot, red	25	564	1

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM</u> <u>(mg)</u>	<u>POTASSIUM</u> <u>(mg)</u>	<u>REFERENCE</u>
5. <i>VEGETABLES (cont'd)</i>			
<u>Green Leafy and Yellow</u>			
<u>Vegetables (cont'd)</u>			
Pepper, sweet, raw	2	210	3
Peas, green, canned, garden	230	130	3
Peas, green, canned, processed	330	170	3
Pigeon pea, green	5	622	2
Pumpkin (mature fruit)	8	350	2
Pumpkin (leaves and tops)	6	472	2
Spinach, raw	71	470	1
Watercress	60	310	3
<u>Other Vegetables</u>			
Ackee, canned	240	270	3
Avocado pear	2	278	2
Bamboo shoots	6	402	2
Beet, common, red	36	330	2
Cauliflower	20	349	2
Celery	96	326	2
Cucumber	13	154	2
Egg Plant/Garden Egg/Melongene	7	221	2
Garlic bulbs	18	373	2
Mushroom, canned, solid and liquid	400	197	1
Okra	7	190	3
Olives, green, pickled	2250	91	3
Onion (matured bulb)	10	140	3
Onion (young green bulb and entire top)	13	230	3
Squash Bash/Marrow	1	210	3
Tomato, ripe	4	235	2
Cherry tomato	-	-	
Tomato, chili sauce	1338	370	1
Tomato, ketchup	1120	590	3

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM</u> <u>(mg)</u>	<u>POTASSIUM</u> <u>(mg)</u>	<u>REFERENCE</u>
5. <i>VEGETABLES (cont'd)</i>			
<u>Other Vegetables (cont'd)</u>			
Turnip, root	60	281	2
Water Chestnut, Chinese	6	454	1
6. <i>FRUITS</i>			
<u>Citrus Fruits</u>			
Grapefruit, fruits, all varieties	1	135	1
Grapefruit, juice, fresh	1	162	1
Grapefruit, juice, canned, sweetened	1	162	1
Grapefruit and orange juice, blended blended, canned, sweetened	1	184	1
Lemon, fruit	4	137	2
Lime, fruit	2	82	2
Lime juice/drink/lemonade	<1	117	4
Orange, all varieties, peeled	1	200	1
Orange, juice, fresh	1	200	1
Orange, juice, frozen concentrated, unsweetened, undiluted	2	657	
Orange, juice, canned, sweetened	1	199	
Ortanique	-	-	-
Shaddock	1	235	
Tangerine/Mandarin, fresh fruit	2	126	
<u>Other Fruits</u>			
Apple, fresh fruit	2	130	2
Apple juice, canned	1	101	1
Apricot	1	218	2
Banana, ripe	4	401	2
Caimit/Star apple, fruit, ripe	5	140	2
Cantaloupe	12	251	1
Cashew, common, fresh	7	124	2

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM</u> <u>(mg)</u>	<u>POTASSIUM</u> <u>(mg)</u>	<u>REFERENCE</u>
<i>6. FRUITS (cont'd)</i>			
<u>Other Fruits (cont'd)</u>			
Cherries, fresh, sweet	2	191	1
Cherry, West Indian, fruit, ripe	8	83	1
Currants, black, raw	3	372	1
Custard apple	6	495	2
Dates, dried (weighed without stones)	5	750	3
Fruit cocktail, canned in heavy syrup	5	161	1
Golden apple/Pommecythere/Jew plum	-	-	
Governor plum	1	171	2
Granadilla, Passion fruit, raw, pulp and seeds	28	350	3
Grapes, black, flesh only	2	320	3
Grapes, juice, canned or bottled	2	116	1
Raisin, uncooked, unbleached	27	763	1
Guava, whole	4	291	2
Guava, canned	7	120	3
Guinep/genip/chinette/ackee	-	-	
Jubube/coolie plum/dunks	3	278	2
Mamee apple	-	-	
Mango, ripe	3	214	2
Pawpaw/papaya	3	234	1
Peach, canned	1	150	3
Pear, canned	1	90	3
Pineapple, raw	1	146	1
Pineapple, juice, canned, unsweetened	1	149	1
Pineapple, juice, pack	1	147	1
Pomegranate	7	379	2
Prunes, dried, medium, uncooked	8	694	1
Sapodilla/naseberry	-	-	

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
6. FRUITS (cont'd)			
<u>Other Fruits (cont'd)</u>			
Sorrel, raw	-	-	
Sweetsop/Sugar apple	5	299	2
Tamarind	3	570	2
Watermelon, fresh fruit	4	120	3
7. MEAT AND POULTRY			
<u>Beef</u>			
Retail cuts, trimmed to retail level, no bone:			
medium fat	83	378	2
fat	-	267	2
Bologna	1300	230	1
Frankfurters, raw	1100	220	1
Luncheon meat	1050	140	3
Salami	1850	160	3
Frankfurters	980	98	3
Beef, salted, raw	-	-	
<u>Mutton and Lamb</u>			
Retail cuts, trimmed to retail level, lean and fat			
	72	330	3
<u>Pork</u>			
Retail cuts, trimmed to retail level, chops, loin, raw, lean and fat			
	56	290	3
Leg, raw, lean and fat	59	300	3
Bacon, streaky	1500	240	3
Bologna	1300	230	1
Ham, canned	1250	280	3
Ham, light, cured	-	-	-

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM</u> (mg)	<u>POTASSIUM</u> (mg)	<u>REFERENCE</u>
<i>7. MEAT AND POULTRY (cont'd)</i>			
<u>Pork (cont'd)</u>			
Luncheon meat, canned	1234	222	1
Salted pork, raw	1212	42	1
Sausage	760	160	3
<u>Poultry</u>			
Chicken, dressed, ready to cook	81	320	3
Chicken, breast	72	330	3
Chicken, drumstick	89	300	3
Chicken, neck and back (weighed with bone)	-	-	
Chicken, thigh (weighed with bone)	50	190	3
Chicken, wing (weighed with bone)	41	160	3
Chicken, gizzard		200	2
Duck (domestic), raw	110	290	3
Turkey, dressed, raw	54	300	3
<u>Other Meats</u>			
Rabbit (domestic), flesh only, raw	67	360	3
Goat, lean meat	90	-	2
<u>Offals</u>			
Brain, all species, raw	140	270	3
Pork, trotters	-	-	
Beef heart, raw	95	320	3
Beef liver	110	213	2
Chicken liver, raw	85	300	3
Pork liver	110	447	2
Oxtail, raw	110	270	3
Pigtail in brine	-	-	
Lamb tongue	480	250	3

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
7. <i>MEAT AND POULTRY (cont'd)</i>			
<u>Offals (cont'd)</u>			
Beef tripe, dressed, raw	46	8	3
Beef tripe, stewed	73	100	3
8. <i>EGGS</i>			
Hen - fresh eggs:			
whole	140	140	3
white	190	150	3
yolk	50	120	3
9. <i>FISH AND SHELLFISH</i>			
<u>Fish</u>			
Anchovy	147	447	2
Bonito	-	-	
Codfish, salted, semi-dried	-	-	
Codfish, dehydrated, lightly salted	8100	160	1
Cavalli	-	-	
Dolphin	242	370	2
Fish stick, frozen, cooked	500	260	3
Flying fish	73	516	2
Grouper	-	-	
King fish	-	-	
Mackerel, canned, solid and liquid	-	-	
Pilchards, canned in tomato sauce	370	420	3
Pilchards, smoked, kippered (weighed with bone)	540	280	3
Salmon, raw, pink	64	306	1
Salmon, canned, pink	387	361	1
Sardine, canned in oil	510	560	1
Shark	79	549	2

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM</u> <u>(mg)</u>	<u>POTASSIUM</u> <u>(mg)</u>	<u>REFERENCE</u>
9. FISH AND SHELLFISH (cont'd)			
<u>Fish (cont'd)</u>			
Snapper	120	373	2
Tuna, canned in oil	800	301	1
<u>Shellfish</u>			
Crabs, boiled, flesh only	370	270	3
Lobster, raw, whole	182	500	2
Shrimp, raw	185	333	2
<u>Molluscs</u>			
Clams, all kinds, raw, in shell, meat only	200	197	2
Oyster, raw	510	260	3
Oyster (weighed with shell)	61	31	3
10. MILK AND MILK PRODUCTS			
Cow's milk:			
Fluid, whole, 3.5% fat	50	144	1
Fluid, whole, U.H.T.	50	140	3
Fluid, skim	52	150	3
Canned evaporated, unsweetened	180	390	3
Canned condensed, sweetened	130	390	3
Dry, whole	440	1270	3
Dry, skim, regular	550	1650	3
Dry, skim, instant, fortified	526	1725	1
Cheese, cheddar	610	120	3
Cheese, cream (Philadelphia)	250	74	1
Cheese, cottage	450	(54)	3
Cheese, processed	1360	82	3
Cheese (spread)	1625	240	1
Cream, light, table	42	120	3

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
<i>10. MILK AND MILK PRODUCTS (cont'd)</i>			
Cream, heavy, whipping	34	100	3
Cream, sterilised, canned	56	120	3
Ice cream, regular, 10% fat	63	181	1
Ice cream cones	232	244	1
Goat's milk, whole	40	180	3
Human milk	14	58	3
<i>11. FATS AND OILS</i>			
Butter, salted	870	15	3
Coconut (milk)	16	254	4
Fish liver oil	Trace	Trace	3
Ghee	-	-	
Lard	0	0	2
Margarine, fortified with Vit. A	987	23	1
Oil, pure, all kinds	0	0	2
Olive oil	Trace	Trace	3
Pork, fat, raw	38	87	3
French dressing	1370	79	1
Mayonnaise	597	34	1
Salad dressing	586	9	1
Shortening, vegetable	-	-	
Suet, block	21	13	3
Suet, shredded	Trace	Trace	3
<i>12. MISCELLANEOUS FOODS</i>			
<u><i>Spices and Condiments</i></u>			
Barbecue sauce	815	174	1
Curry powder	180	619	2
Ginger, ground	34	910	3
Hot pepper sauce	-	-	

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM (mg)</u>	<u>POTASSIUM (mg)</u>	<u>REFERENCE</u>
<i>12. MISCELLANEOUS FOODS (cont'd)</i>			
<u><i>Spices and Condiments (cont'd)</i></u>			
Mustard, prepared paste, yellow	1252	130	1
Soya sauce	7325	366	1
Vinegar	20	89	3
<u><i>Beverages and Drinks</i></u>			
Cocoa, dry powder, high fat	715	651	1
Chocolate, plain	11	300	3
Coffee, instant, dry powder	72	3256	1
Tea, brewed without sugar	Trace	17	3
Malt drink	-	-	
Beer, Stout, 3.6% alcohol	7	25	1
Brandy, Whisky, 37.9% alcohol		2	1
Champagne	4	57	3
Gin, 33.4% alcohol	1	2	1
Spirits, mean of brandy, gin, rum, whisky	Trace	Trace	3
Wine, table, 9.9% alcohol	5	92	1
Cola type carbonated soft	8	1	3
Ginger ale	-	-	
Root beer	-	-	
Bournvita	460	380	3
Horlicks	350	750	3
Milo	-	-	
Ovaltine	150	850	3
Nutrament	-	-	
<u><i>Baby Foods in Jar</i></u>			
Banana	29	118	1
Cereal/veg./meat mixtures	381	77	1
Fruit and fruit products	53	73	1

<u>FOODS AND DESCRIPTION</u>	<u>SODIUM</u> <u>(mg)</u>	<u>POTASSIUM</u> <u>(mg)</u>	<u>REFERENCE</u>
<i>12. MISCELLANEOUS FOODS (cont'd)</i>			
<u>Baby Foods in Jar (cont'd)</u>			
Liver, strained	253	202	1
Meat and poultry	241	181	1
Vegetables, spinach creamed	272	142	1
<u>Mixed Ready Foods</u>			
Baked beans canned in tomato sauce	480	300	3
Spaghetti with meatballs in tomato sauce	488	98	1
Cream of asparagus soup, canned, condensed	820	100	1
Cream of mushroom soup, canned, condensed	795	82	1
Green pea soup, condensed	734	160	1
Tomato soup, condensed	830	360	3
Vegetable soup with meat broth	690	196	1
<u>Other Foods</u>			
Baking powder	11,800	49	3
Gelatin - pure	-	-	3
- dessert powder	318	-	1
Yeast - baker's, dry, active	52	1998	1

REFERENCES: COMPOSITION OF EDIBLE FOODS

1. U.S. Department of Agriculture. Agricultural Research Service. "Composition of Foods". (Agriculture Handbook No. 8), USDA, 1963.
2. U.S. Department of Health, Education and Welfare. Public Health Service. *Food Composition Table for Use in East Asia*, USDA, 1972.
3. Paul, A.A. and D.A.T. Southgate. *McCance & Widdowson's The Composition of Foods*, London, Her Majesty's Stationery Office, 1978.
4. Willkie, Hila Gertrude. *A Pilot Study for the Dietary Management of Chronic Renal Failure*, M.Sc. Thesis, U.W.I., Mona, Jamaica, 1976.

APPENDIX D: CHOLESTEROL CONTENT OF FOODS

<u>FOODS AND DESCRIPTION</u>	<u>MILLIGRAMS PER 100 g EDIBLE PORTION</u>	<u>REFERENCE</u>
A. FOODS OF VEGETABLE ORIGIN		
Cereals, starchy roots, sugar, beans and peas, vegetables, fruits, etc.	0	1
B. FOODS OF ANIMAL ORIGIN		
1. MEAT AND POULTRY		
Bacon, raw, lean and fat	57	2
lean only	51	2
Beef, raw, lean and fat	65	2
lean only	59	2
cooked, lean only	82	2
corned, canned	85	2
Beefburgers, fried	68	2
Black Pudding, fried	68	2
Brains, calf and lamb, raw	2200	2
calf, boiled	3100	2
lamb, boiled	2200	2
Chicken, raw, light meat	69	2
dark meat	110	2
liver, raw	380	2
Duck, raw, meat only	110	2
Ham	33	2
Heart, lamb, raw	140	2
ox, raw	140	2
ox, stewed	230	2
Kidney, lamb, raw	400	2
ox, raw	400	2
ox, stewed	690	2
pig, raw	410	2

<u>FOODS AND DESCRIPTION</u>	<u>MILLIGRAMS PER 100 g EDIBLE PORTION</u>	<u>REFERENCE</u>
B. FOODS OF ANIMAL ORIGIN (cont'd)		
<i>1. MEAT AND POULTRY (cont'd)</i>		
Lamb, raw, lean and fat	65	2
raw, lean only,	79	2
cooked, lean only	110	2
Liver, calf, raw	370	2
lamb, raw	270	2
beef, raw	270	2
pig, raw	260	2
Luncheon meat	53	2
Mutton, with bone	65	1
without bone	65	1
Oxtail, raw	75	2
stewed	110	2
Pork, raw, lean and fat	72	2
raw, lean only	110	2
cooked, lean only	110	2
Rabbit, raw	71	2
Salami	79	2
Sausage, beef, raw	40	2
frankfurters	46	2
Tongue, ox, raw		
ox, canned	110	2
Tripe, dressed	95	2
stewed	160	2
Turkey, raw, light meat	49	2
dark meat	81	2
roast, light meat	62	2
dark meat	100	2
Veal, with bone	90	1
without bone	90	1

<u>FOODS AND DESCRIPTION</u>	<u>MILLIGRAMS PER 100 g EDIBLE PORTION</u>	<u>REFERENCE</u>
B. FOODS OF ANIMAL ORIGIN (cont'd)		
2. EGGS		
Egg, whole, raw	450	2
Egg, white, raw	0	2
yolk, raw	1260	2
yolk, dried	1780	2
frozen	1280	1
3. FISH AND SHELL FISH		
Caviar or fish roe	7300	1
Clam, meat only	50	1
Crab, in shell	125	1
meat only	125	1
canned	100	2
Fish, steak	70	1
fillet	70	1
Fish fingers, frozen	(50)	2
Lobster	150	2
Mussels, raw*	100	2
Oysters, raw*	50	2
Pilchards, canned in tomato sauce	(70)	2
Salmon, canned	90	2
Sardines, canned in oil:		
fish only	100	2
fish plus oil	80	2
Shrimp	200	2
Tuna, canned	65	2

<u>FOODS AND DESCRIPTION</u>	<u>MILLIGRAMS PER 100 g EDIBLE PORTION</u>	<u>REFERENCE</u>
B. FOODS OF ANIMAL ORIGIN (cont'd)		
4. MILK AND MILK PRODUCTS		
Cheese, cheddar	70	2
cottage	13	2
cream	94	2
Edam type	72	2
processed	88	2
Cheese spread	71	2
Cream, sterilized, canned	73	2
Ice cream	45	1
Milk, cow's, fresh, whole	14	2
U.H.T.	14	2
condensed, whole	34	2
dried, whole	120	2
dried, skim	18	2
evaporated	34	2
Human, mature	16	2
Yogurt	7	2
5. FATS AND OILS		
Butter	230	2
Lard and other animal fat	95	1
Margarine, all vegetable fat	0	1
two-thirds animal fat, one-third vegetable fat	65	1
Suet, block.	(60)	2
shredded	74	2
Salad dressing, mayonnaise	70	1
Mayonnaise (home-made)	260	2

<u>FOODS AND DESCRIPTION</u>	<u>MILLIGRAMS PER 100 g EDIBLE PORTION</u>	<u>REFERENCE</u>
C. MIXED DISHES/MISCELLANEOUS		
Bread pudding with raisins	64	3
Cake, chocolate	43	3
fruit, dark	45	3
rock	40	2
sponge	246	3
Custard, egg	100	2
made with powder	16	2
Dumpling	8	2
Macaroni and cheese, baked	21	3
Meringues	0	2
Noodles, egg	94	3
dry	31	3
cooked	31	3
Pancake	61	2
Pie, lemon meringue	90	2
pumpkin	61	3
Pizza, cheese and tomato	20	2

REFERENCES: CHOLESTEROL CONTENT OF FOODS

1. *Food Composition Tables for Use in the English Speaking Caribbean*, Table V, p. 98. Caribbean Food and Nutrition Institute, Kingston, 1974.
2. Paul, A.A. and D.A.T. Southgate. *McCance & Widdowson's The Composition of Foods*, London, Her Majesty's Stationery Office, 1978.
3. Freeley, R.M., P.R. Crivier and B.K. Watt. "Cholesterol Content of Foods". *J. Amer. Diet. Assoc.*, 61:134-149, 1972.

APPENDIX E: PURINE CONTENT OF FOODS

MORE THAN 150 mg PER 100 g

	<u>mg per 100 g</u>
Sweet breads	825
Anchovies	363
Sardines (in oil)	295
Liver (calf, beef)	233
Kidney (beef)	200
Meat extracts	160 - 400
Gravies	variable

50 - 150 mg per 100 g

Meat	Peas, dried
Poultry	Lentils, dried
Fish - fresh and saltwater	Spinach
Lobster, crab, oysters, eels	Oatmeal
Meat soups and broths	Wheat germ and bran
Beans, dried	

0 - 15 mg per 100 g

Fruits of all kinds	Chocolate
Vegetables, except above	Coffee
Most bread, cereals and cereal products	Condiments
Milk	Cream
Cheese	Custard
Eggs	Herbs (seasonings)
Nuts of all varieties	Ice cream
Fats of all types	Sugars, syrups, sweets
Cakes and biscuits	Milk and fruit desserts
Carbonated beverages	Vegetable and cream soups

0 - 15 mg per 100 g (cont'd)

White sauce

Olives

Popcorn

Relishes

Salt

Tea

Vinegar

REFERENCE: PURINE CONTENT OF FOODS

1. Church, C.F. and H.N. Church. *Food Values of Portions Commonly Used*. New York, J.B. Lippincott Co., 1975.

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