DIETARY MANAGEMENT OF DYSLIPIDAEMIA CLINICAL GUIDELINE

South African Medical Association Dyslipidaemia Nutrition Working Group

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1. INTRODUCTION

The scientific information that supports this guideline is contained in The Effect of Diet on Lipid Metabolism: Technical Report[1] and the Association for Dietetics in Southern Africa (ADSA)'s position statement on Dietary Management of People with Dyslipidaemia[2] The technical report will be available from ADSA, PO Box 1310, Cramerview, 2060.

The participants and the methodology are described in Annexure A.

2. ABBREVIATIONS

ADSA = Association for Dietetics in Southern Africa;

CHD = coronary heart disease;

HDL-C = high-density lipoprotein cholesterol;

HLP = hyperlipoproteinaemia;

hyperTG = hypertriglyceridaemia;

kJ = kilojoule;

LDL-C = low-density lipoprotein cholesterol;

MRC = Medical Research Council;

MUFA = monounsaturated fatty acids;

PUFA = polyunsaturated fatty acids;

SFA = saturated fatty acids;

TC = total cholesterol;

TG = triglyceride; and

VLFD = very-low-fat diet.

3. DIETARY INTERVENTION

Dietary modification forms part of the lifestyle and medical management of dyslipidaemia. (See Fig. 1 in Diagnosis, Management and Prevention of the Common Dyslipidaemias in South Africa — Clinical Guideline).

3.1 Purpose of the diet

Dietary intervention should be the first step in the treatment of dyslipidaemia,3 and the purpose of the diet is to:

- maintain or achieve desirable body mass and optimal health
- lower raised TC, LDL-C and TG levels raise the HDL-C level.

3.2 Dietary prescription for the treatment of dyslipidaemia

Dietary recommendations apply to adults and children above 2 years of age. Consultation with a dietician is recommended in order to achieve the maximum effect of dietary treatment. If the service of a dietician is not available, then appropriate brochures and materials can be obtained from the Heart Foundation of South Africa (see section 4) and the dietary sheets in

Annexures D and E may be used.

3.2.1 Characteristics of the diet

The diet for the treatment of hypercholesterolaemia and hyperTG should:

- provide enough energy to maintain! attain normal body mass
- include a variety of foods to meet the nutrient needs of the body
- be low in total fat, especially SFA and trans fatty acids
- include PUFA and MUFA as far as practical instead of SFA and trans fatty acids
- be low in dietary cholesterol
- be high in fibre, especially soluble fibre
- be high in unrefined (complex) carbohydrates provide enough protein to build and maintain body tissues
- include alcohol in moderation for those who consume alcohol (1 -2 drinks!day), while those with hyperTG should avoid alcohol as far as possible
- be low in sodium (approximately S g salt per day).
- Energy and nutrient distribution

Table 1. Energy and Nutrient Goals of the Step 1, 2 and 3 diets for the treatment of hypercholesterolaemia and hyperTG

	Step 1	Step 2	Step 3
Energy	Enough Energy to attain/maintain desirable body mass		
Total fat (%E)*	30	25	20
SFA (%E)	<10	<7	~6
MUFA (%E)	10+	Evenly distributed (if HDL-C is lowered, then increase MUFA)	
PUFA (%E)	~10		
Carbohydrate (%E)$	55	60	65
Protein (%E)	15-20 $$	15-20	15-20
Dietary Cholesterol (mg)	<300	200-250	100-150
Fibre (g)	20-35	25-35	25-35

%E = percentage of energy
$ Approximately 10% of the energy (as part of the percentage energy from carcohydrate could come from sugar (sucrose). In those with hyperTG the intake of sucrose should be less than 10%E
$$ If energy intake is low (<5000 kJ), then a protein intake of 20%E is advised

The energy and nutrient distribution on the Step 1, 2 and 3 diets recommended for the treatment of hypercholesterolaemia and hyperTG are given in Table I.

Table II. Example of the nutient (g)* composition of a 7 500 kJ Step 1, 2 and 3 diet

	Step 1	Step 2	Step 3
Energy (kJ)	7 500	7 500	7 500
Total fat (g)	61	51	41
SFA (g)	18	14	12
MUFA (g)	24	19	14
PUFA (g)	19	18	15
Carbohydrate (g)	243	265	288
Protein (g)	66	66	66
Dietary Cholesterol (mg)	< 300	200-250	100-150
Fibre (g)	25-35	25-35	25-35

*1g fat=37kJ (9kcal); 1g protein=17kJ (kkcal); 1g carbohydrate=17kJ (4kcal)

In Table II an example is given of a 7500 kJ diet and how many grams of the different nutrients should be eaten on the Step 1, 2 and 3 diets in order to meet the goals given in Table I. The 7500 kJ diet is suitable for the overweight man and the normal weight woman. In Annexure B sources of the different nutrients that play a role in the dietary treatment of the individual with dyslipidaemia are given. An example of the foods allowed on a 7500 kJ Step 2 diet is given in Annexure C.

3.3 Specific dietary guidelines for different lipid and lipoprotein abnormalities

3.3.1 Hypercholesterolaemia

- It is recommended that patients with moderate hypercholesterolaemia but without CHD receive dietary treatment for at least 4 - 12 weeks before drug treatment is introduced. In those with hypercholesterolaemia and CHD, drug treatment should be introduced, earlier.
- A stepwise approach to lower fat intake is recommended. Should the individual not respond satisfactorily on the Step 1 diet (30% energy from fat), a Step 2 diet (25% energy from fat) is recommended. If target LDL-C <3.0 mmol/l is still not achieved, then the Step 3 diet (20% energy from fat) could be considered, but only under the supervision of a dietician. This low-fat, high-carbohydrate diet may increase TG levels and decrease HDL-C levels[4]

- In free-living populations a mean reduction in TC and LDLC concentrations of 5% were observed on a diet containing less than 30% energy from fat and less than 7% energy from SFA.5 However, under well-controlled conditions a reduction in TC of 14 - 19% and in LDL-C of 15 - 20% were observed[6]. Therefore, patients who are well motivated and monitored can lower their TC and LDL-C levels substantially on appropriate dietary treatment.

3.3.2 HyperTG

- The Step 1 diet is recommended for the individual with borderline hyperTG
- If the plasma TG levels do not normalise, then further restriction of fat intake may be needed
- Restrict sucrose intake in favour of carbohydrate from unrefined cereals, oats, legumes, vegetables and fresh fruit
- Restrict the intake of alcohol
- To increase omega-3 fatty acid intake, three portions of 100 g fatty fish per week could be included provided that fat intake is not excessive
- Consider the use of omega-3 fatty acid supplements to lower TG (only under medical supervision).

3.3.3 Severe hyperTG

Dietary modification is the treatment of choice for severe hyperTG and may avoid the necessity for drug treatment. Consultation with a dietitian is essential in order to achieve the maximum effect of dietary treatment for those with severe hyperTG[3].

- Fat restriction alone may be sufficient to lower hyperTG to a safe level
- Patients with severe chylomicronaemia (hyperlipoproteinaemia type I) may need very-low-fat diets, 25 - 35 g of fat (10 - 20%E) to prevent pancreatitis
- Approximately 15 g of fat is recommended for children with severe hyperTG
- Favour PUFA to provide essential fatty acids and omega-3 fatty acids to enhance TG lowering
- Medium chain fatty acids, e.g. Liprocil, may be used in food preparation since other dietary fats should be limited
- The intake of dietary cholesterol is not limited specifically, but a low intake is recommended
- Avoid alcohol
- If the TG levels are secondary and > 15 mmol/L, then treat the primary cause, e.g. diabetes mellitus and alcoholism.

4. FOOD SELECTION

Practical suggestions are needed in order to enable the patient to make the right food choices to meet the dietary prescription for the treatment of dyslipidaemia. The Heart Foundation of South Africa provides caregivers and patients with practical information on food selection to achieve intervention goals.

Heart Foundation of South Africa, P0 Box 15139, Vlaeberg, 8018.

Fax: 021-5106267.

- Pamphlets, booklets and recipe books

Diet sheets for westernised and Asian eating habits are given in Annexures D and F[7].

5. EVALUATION OF DIETARY INTAKE

A questionnaire that could be used to evaluate dietary intake at the first visit and determine dietary compliance at subsequent

visits is given in Annexure F.7

6. REFERENCES

1. Wolmarans P. The Effect of Diet on Lipid Metabolism: Technical Report. Association for Dietetics in Southern Africa, 1999.
2. Association for Dietetics in Southern Africa (ADSA). Position Statement on Dietary Management of People with Dyslipidaemia. South African Journal of Clinical Nutrition 2000;13:16-22.
3. Adult Treatment Panel II. National Cholesterol Education Program. Second report of the expert panel on detection, evaluation, and treatment of high blood cholesterol in adults. Circulation 1994; 89(3): 1333-1445.
4. Knopp RH, Walden CE, Retzlaff BM, et at. Long-term cholesterol-lowering effects of 4 fat-restricted diets in hypercholesterolemic and combined hyperlipidemic men. The Dietary Alternatives Study. JAMA 1997; 278(18): 1509-1515.
5. Hunninghake DB, Stein EA, Dujovne CA, et at. The efficacy of intensive dietary therapy alone or combined with lovastatin in outpatients with hypercholesterolemia. N Engl J Med 1993; 328(17): 1213-1219.
6. Schaefer EJ, Lichtenstein AH, Lamon-Fava 5, et at. Effects of National Cholesterol Education Program Step 2 diets relatively high or relatively low in fish-derived fatty acids on plasma lipoproteins in middle-aged and elderly subjects. Am I Clin Nutr 1996; 63(2): 234-241.
7. Block G. Block Screening Questionnaire for fat and fruit/vegetable/fbre intake. I Nutr 1994; 124(lls) 2297S-2298S.

ANNEXURE A. NUTRITION WORKING GROUP MEMBERS AND METHODOLOGY

MRC, National Research Programme for Nutritional Intervention: Dr P Wolmarans; Heart Foundation of South Africa: Ms S Biesman-Simons; National Hospital, Bloemfontein: Ms R de Klerk; Dietician in private practice, Bellville: Ms M de Villiers; Pretoria Heart Hospital: Ms N de Villiers; Grey's Hospital, Pietermaritzburg: Ms P Freeman; Dietician in private practice, Cape Town: Ms C Fuller; RK Khan Hospital, Durban: Ms I Maharaj; Lipid Clinic, Potchefstroom University for Christian Higher Education: Dr W Oosthuizen; Department of Chemical Pathology, University of Pretoria: Ms A van der Merwe; Nutrition Consultant: Ms E Wentzel.

At the consensus meeting held on 11 - 12 August 1997 the South African Medical Association (SAMA) Dyslipidaemia Working Group requested that the dieticians, and the organisation they represented, develop dietary guidelines for the management of persons with dyslipidaemia. ADSA asked the principal author to

develop a discussion document, The Effect of Diet on Lipid Metabolism: Technical Report, which was circulated to the Nutrition Working Group. The group met in Cape Town in November 1997.

A position statement based on the technical report was discussed by 40 dieticians and nutritionists at a workshop at the 1998 Nutrition Congress, 25 -29 May 1998, at Sun City. The technical report was amended and sent to an expert committee for evaluation. The members of the expert committee included Dr J E Rossouw (National Institutes of Health, USA), Dr K Steyn (MRC), and Prof. H H Vorster (Potchefstroom University for Christian Higher Education).

The meeting held by the Nutrition Working Group in Cape Town was funded by a grant from SAMA. SAMA funded part of the guideline development process from unrestricted educational grants from Bayer, Bristol-Myers Squib, Hoechst Marion Roussel, MSD, Novartis, Parke-Davis, Pfizer, and PBM. Unifoods sponsored the travel of one delegate. The grants were made in accordance with the SAMA code of sponsorship, which precludes attempts by sponsors to influence unethically the content of the guideline. All money was paid directly to SAMA accounts and all disbursements were made from that fund.

ANNEXURE B. SOURCES OF NUTRIENTS THAT PLAY A ROLE IN THE TREATMENT OF DYSLIPIDAEMIA

Excessive energy	Too much food, food with a high fat content, too many refined carbohydrates
Fat	● Fat in full-cream milk, full-cream milk products, e.g. cheese, ice-cream, yoghurt ● Fat in meat, meat products, e.g. sausages, polony, fatty gravy, chicken skin ● Butter, margarine, oil, mayonnaise, salad dressing ● Fat, e.g. oil, margarine and butter used for frying or in the preparation of food or added to vegetables ● Cake, rich desserts, cookies, biscuits, pastries ● Fast foods, e.g. pies, pizzas and fried foods ● Snack foods, e.g. chips, fatty crackers, nuts ● Sweets, e.g. chocolate, toffies and fudge
SFA	Animal fat, hydrogenated vegetable fat (e.g. hard brick margarine), and vegetable fats, e.g. coconut oil, palm kernel oil, palm oil; coffee creamers and dairy blends; commercial products containing hydrogenated fats; coconut and products containing coconut
Trans fatty acids	Hydrogenated vegetable and marine oil (e.g. hard brick margarine), commercial products containing hydrogenated vegetable fats/oils; cooking oil heated several times. (Some margarines are very low in trans fatty acids — read the label)
MUFA	● Olive oil and canola oil ● Soft-type tub margarine high in MUFA (margarine made from olive oil and canola oil) ● Nuts, e.g. almonds, pecan nuts, and hazelnuts ● Avocados and olives

PUFA	● Sunflower oil, salad dressings made from sunflower oil ● Soft-type tub margarine high in PUFA ● Fatty fish ● Nuts, e.g. walnuts
Dietary cholesterol	All animal foods, brains, kidneys, liver, egg yolk, offal, tongue, caviar, roe, prawns, shrimps, chicken giblets
Complex carbohydrate	Wheat bran, products made from wholewheat flour, unrefined starchy foods (see also main sources of soluble fibre)
Refined carbohydrate and sugar	Foods prepared with white flour, cake, cookies, carbohydrate commercial confectionary, sugar, sweets, and sugar cold-drink
Soluble fibre	Oat bran and oats, dried beans, legumes, fruit, vegetables
Alcohol	Beer, brandy, spirits, whisky, wine (red, white, sweet, sparkling), liqueurs, sherry, coolers, and other alcoholic drinks
Sodium(salt)	Salt and flavouring salts used in the preparation of food or added after preparation, salty snacks, processed meats, biltong, cheese, commercial soup, gravy and pasta sauce powders, foods containing sodium, e.g. bicarbonate of soda, monosodium glutamate

For more information on the selection of foods that are permitted and those that should be excluded see diet sheets in Annexures D and E.

ANNEXURE C. EXAMPLE OF THE FOODS ALLOWED ON A 7500 KJ STEP 2 DIET

The daily amount of food allowed on a Step 2 diet, providing 7500 kJ for a normal weight woman or an overweight man to meet the nutrient goals of the Step 2 (therapeutic) diet, is given in Table I. The diet provides approximately 25% energy from fat, 58% energy from carbohydrate and 17% energy from protein.

Food Group	**Daily Amount of Food allowed**	**Examples of Food to choose from**
Skim milk	375 ml	Skim milk and skim milk products
	120 g	Very lean red meat or fish or chicken without skin (only 2 egg yolks per week) 1 egg = 30 g meat/fish/chicken
Bread/substitute	9 portions 1 portion = 1 slice (30 g) of bread or 125 ml of porridge or 125 ml of rice or 100 ml cooked dry beans or 1 medium potato	Whole wheat or brown bread, porridge, oats, brown rice, legumes, etc.

Margarine/oil	6 portions 1 portion = 5 ml margarine or 5 ml oil	Soft-type tub margarine high in polyunsaturated or monounsaturated fatty acids; sunflower oil, canola oil, olive oil
Fruit	5 portions 1 portion = one medium fruit or 125 ml fresh fruit juice	Any fresh fruit. Choose at least one vitamin C-rich fruit a day, e.g. oranges, naartjies, guavas.
Vegetables	4 portions 1 portion = 125 ml	Raw and cooked vegetables. Prepare without added fat, oil or margarine and sugar Choose 1 dark green vegetable, e.g. spinach, or 1 dark yellow vegetable, e.g. carrots, per day

Optional:

Sugar (not recommended for those with hyperTG)

- 3 x 5 ml sugar may be exchanged for 1 portion of bread (only 4 slices of bread may be replaced by sugar on the 7500 kJ diet)
- 5ml sugar = 5ml jam or 5ml honey or 5ml syrup
- 15 ml (3 x 5 ml) sugar = 2 jelly babies or 2 hard-boiled sweets
- 45 ml (9 x 5 ml sugar) = 340 ml cold-drink (fizzy drink).

Alcohol (not recommended for those with hyperTG or who are overweight)

- 1 slice of bread may be exchanged for 120 ml wine or 25 ml brandy or 25 ml whisky (25 ml = 1 standard tot)
- 2 slices of bread may be exchanged for 340 ml beer (one can of beer).
- Limit to 1 - 2 drinks per day. Only 2 slices of bread a day may be exchanged for alcoholic drinks.

ANNEXURE D. DIETARY SHEET FOR THE TREATMENT OF DYSLIPIDAEMIA — WESTERNISED EATING HABITS

General guidelines

- Achieve and maintain desirable weight
- Reduce total fat intake, especially saturated fat
- Reduce intake of foods high in cholesterol
- Increase fibre intake
- If you use sugar and alcohol, then do so in moderation
- Use less salt in food preparation and avoid adding salt at the table
- Eat a variety of foods
- Eat at least three meals per day

- Drink at least 6 - 8 glasses of water per day.

Healthy food choices

Fats and oils and nuts

- Use sunflower, canola, olive and soya oils
- Use soft-type tub margarine
- Use non-stick vegetable sprays
- Use almonds, pecan nuts, hazelnuts and peanuts in moderation.

Meat, fish and poultry

- Lean cuts of beef, pork and mutton
- Keep portion size to 90 - 120 g per day
- Poultry and ostrich without skin
- Eat fish at least twice a week
- All shellfish, except prawns, shrimps and caviar
- Choose tinned fish in water or brine.

Legumes (lentils, dry beans)

- All types of lentils, peas and beans
- Baked beans and other tinned dried beans.

Eggs

- Use a maximum of 3 egg yolks per week and eat less other foods containing cholesterol.

Milk and milk products

- Low-fat milk and skim milk
- Low-fat and fat-free yoghurt
- Low-fat and fat-free cottage cheese
- Low-fat buttermilk.

Breads and cereals

- Brown bread and wholewheat bread
- Oats, oat bran, maize meal
- High-fibre breakfast cereals
- Low-fat wholewheat crackers

- Rice, pasta (without eggs).

Fruit and vegetables

- Fresh/frozen fruit and vegetables
- Eat at least five portions of fruit and!or vegetables per day
- Eat a variety of fruits and vegetables
- Preferably choose fresh fruits instead of fruit juice
- Use avocado and olives in moderation
- Eat dried fruit as a snack.

Miscellaneous

- Low-fat salad dressings, vinegar or lemon juice
- Condiments and seasonings in moderation
- Low-fat sorbet and fruit ices
- Boiled sweets, wine gums, fruit pastilles, jelly babies, jelly beans and marshmallows.

Beverages

- Tea, coffee, diet cold-drinks, sugar-free squash
- Use sweetened cold-drinks and squash in moderation
- Use sweetened fruit juices in moderation.

Alcoholic drinks

- If you use alcohol, then limit intake to 1 - 2 drinks per day

  (1 drink = 340 ml beer or 120 ml wine or 25 ml spirits). Patients with high triglycerides and!or hypertension and/or overweight patients should avoid alcohol.

Desserts

- Choose fresh fruit, jelly, skim-milk custard, fat-free and low- fat yoghurt, fruit ices, fruit yoghurt.

Foods to avoid

Fats and oils

- Butter
- Hard brick margarine, brick cooking fat, lard
- All fried food
- Coconut and biscuits containing coconut
- Mayonnaise.

Meat, fish and poultry

- Fatty beef, pork and mutton
- Processed meat, i.e. polony, sausages, viennas
- Organ meats, i.e. offal, liver, kidneys, tripe, liver spread, pate
- Tinned meat, pies
- Take-away foods, i.e. fried chicken, hamburgers
- Deep-fried foods.

Milk and milk products

- Full-cream milk, blends
- Condensed milk
- Cream, artificial cream, coffee and tea creamers
- Regular (full-fat) ice-cream
- Full-cream yoghurt
- Full-fat cheese (Gouda, Cheddar, etc.).

Fruit

- Use canned fruit in syrup in moderation.

Bread and cereals

- White bread and white rolls
- Refined breakfast cereals
- Salted high-fat savoury snacks
- Biscuits, cakes, puddings, chocolates, fudge, etc.
- Crisps, corn bites, other savoury snacks, e.g. nuts.

Tips for food preparation

- Avoid frying foods
- Rather bake, roast, steam, grill or stew food
- Do not use oil or fat in the preparation of vegetables
- Trim all visible fat from meat before cooking
- Remove skin of poultry before cooking
- Use only skim milk in the preparation of dishes or for baking
- Limit the use of recipes that contain butter, brick margarine, cream, cheese, egg and full-cream milk
- Chill stews, soups and gravies and remove the fat!oil that collects at the top
- Marinate lean meat and chicken to improve the tenderness and flavour. Try various combinations of herbs and spices with wine or fruit juice

- Use low-fat yoghurt and buttermilk and flavoured vinegars to reduce fat in salad dressings
- Substitute low-fat plain yoghurt for sour cream
- Whip well-chilled low-fat evaporated milk to substitute for whipped cream
- Substitute 2 large egg whites for 1 whole large egg
- Use non-stick pans to minimise the use of additional fat when sautéing or browning
- Stir-fry is an excellent way to prepare quick and healthy meals.

This diet sheet was compiled by ADSA.

For more information write to: P0 Box

1310, Cramerview, 2060.

ANNEXURE E: DIET SHEET FOR THE TREATMENT OF DYSLIPIDAEMIA — ASIAN EATING HABITS

General guidelines

- Achieve and maintain desirable weight
- Reduce total fat intake, especially saturated fat
- Reduce intake of foods high in cholesterol
- Increase fibre intake
- If you use sugar and alcohol, then do so in moderation
- Use less salt in food preparation and avoid adding salt at the table
- Eat a variety of foods
- Eat at least three meals per day
- Drink at least 6 - 8 glasses of water per day.

Healthy food choices

Fats and oils and nuts

- If you use oil!soft-type tub margarine, then use 1 - 2 teaspoons per person per meal
- Use sunflower, canola, olive, soya oils
- Use soft-type tub margarine.

Meat, fish and poultry

- Lean cuts of beef, pork and mutton
- Poultry without skin
- Eat fish at least twice a week

- All shellfish, except prawns, shrimps and caviar
- Choose tinned fish in water or brine.

Legumes (lentils, dry beans)

- All types of lentils, peas (dhals) and beans
- Baked beans and other tinned dried beans.

Eggs

- Use a maximum of 3 egg yolks per week and eat less other food containing cholesterol

Milk and milk products

- Low-fat milk and skim milk
- Low-fat and fat-free yoghurt
- Low-fat and fat-free cottage cheese (paneer)
- Low-fat buttermilk.

Breads and cereals

- Brown bread and wholewheat bread and roti
- Oats, oat bran, maize meal
- High-fibre breakfast cereals
- Low-fat wholewheat crackers
- Rice, pasta (without eggs).

Fruit and vegetables

- Fresh / frozen fruit and vegetables
- Eat at least five portions of fruit and / or vegetables per day
- Eat a variety of fruits and vegetables
- Preferably choose fresh fruits instead of fruit juice
- Use avocado and olives in moderation
- Eat dried fruit as a snack.

Miscellaneous

- Low-fat salad dressings, vinegar or lemon juice
- Condiments and seasonings in moderation
- Chutney and pickles without oil
- Low-fat sorbet and fruit ices
- Boiled sweets, wine gums, fruit pastilles, jelly babies, jelly beans and marshmallows.

Beverages

- Tea, coffee, diet cold-drinks, sugar-free squash
- Use sweetened cold-drinks and squash in moderation
- Use sweetened fruit juices in moderation.

Alcoholic drinks

- If you use alcohol, then limit intake to 1 - 2 drinks per day (1 drink = 340 ml beer or 120 ml wine or 25 ml spirits). Patients with high triglycerides and / or hypertension and / or overweight patients should avoid alcohol.

Desserts

- Choose fresh fruit, jelly, skim-milk custard, fat-free and low- fat yoghurt.

Foods to avoid

Fats and oils

- Butter and ghee
- Hard brick margarine, brick cooking fat, lard
- All fried foods
- Coconut and biscuits containing coconut
- Mayonnaise.

Meat, fish and poultry

- Fatty beef, pork and mutton
- Processed meat, i.e. polony, sausages, viennas
- Organ meats, i.e. offal, liver, kidneys, tripe, liver spread, pate
- Tinned meat, pies
- Take-away foods, i.e. fried chicken, hamburgers
- Deep-fried foods.

Milk and milk products

- Full-cream milk, blends
- Condensed milk
- Cream, artificial cream, coffee and tea creamers
- Regular (full fat) ice-cream / kulfi
- Full-cream yoghurt
- Full-fat cheese (Gouda, Cheddar, etc.).

Fruit

- **Canned fruits in syrup.**

Bread and cereals

- White bread and white rolls
- Refined breakfast cereals.

Sweetmeats and savoury snacks

- Biscuits, cakes, puddings, sweetmeats (burfi, jalobi), chocolates, fudge, etc.
- Sev and nuts
- Crisps, corn bites, other savoury snacks.

Miscellaneous

- Sweetened fruit juices (in moderation)
- Cold-drinks (in moderation).

Tips for food preparation

- Do not use more than the allowed amount of oil / margarine
- Avoid frying foods
- Rather bake, roast, steam, grill or stew food
- Do not use oil or fat in the preparation of vegetables
- Trim all visible fat from meat before cooking
- Remove skin of poultry before cooking
- Use only skim milk in the preparation of dishes or for baking
- Limit the use of recipes that contain butter, brick margarine, cheese, egg and full-cream milk
- Cut down on salty snacks, for example salted nuts (chevra)
- Chill curries and remove the fat/oil that collects at the top
- Marinate lean meat and chicken to improve the tenderness and flavour. Try various combinations of herbs and spices with fruit juices
- Substitute low-fat plain yoghurt for sour cream
- Whip well-chilled low-fat evaporated milk to substitute for whipped cream
- Substitute 2 large egg whites for 1 whole large egg
- Use non-stick pans to minimise the use of additional fat when sautéing or browning
- Stir-fry is an excellent way to prepare quick and healthy meals.

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For more information write to: P0 Box

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ANNEXURE F. SCREENING QUESTIONNAIRE (ADAPTED FROM BLOCKY AND USED WITH PERMISSION)

Think about your eating habits over the past year or so. Approximately how often do you eat each of the following foods? Mark an 'x'in one box for each food.

To score: For each food, write the number that is at the top of the column you checked in the box at the far right. Add up the numbers in the boxes to get your total scores for meat/snacks and fruit/vegetable/fibre.

Frequency	Once or less than once per month	2-3 times per month	1-2 times per week	3-4 times per week	5+ times per week	
Points	0	1	2	3	4	**Your score**
Hamburger or cheeseburgers						
Red meat, e.g. beef and mutton						
Fried chicken (with skin)						
Hot dogs, frankfurters, salami, Russians, sausages						
Cold cuts, lunch meats, ham (with fat), etc.						
Salad dressings, mayonnaise, etc.						
Margarine or butter						
Eggs						
Bacon or pork sausage						
Cheese or cheese spread						
Full-cream milk						
Potato chips ('slap chips')						
Potato crisps, corn chips, popcorn, etc.						
Ice-cream						
Doughnuts, cake, cookies, puddings, etc.						
Meat/snack score						

Frequency	Less than once per week	About once per week	2-3 times per week	4-6 times per week	Every day	
Points	0	1	2	3	4	**Your score**
Orange juice, guava juice, Vitamin C-rich fruit						

Not counting juice, about how often do you eat any fruit						
Green salad						
Potatoes						
Dried beans, e.g. baked beans, kidney beans, legumes						
About how often do you eat any other vegetables						
High fibre/bran cereal or high fibre porridge/oat porridge						
Wholewheat bread or brown bread						
Fruit/vegetable/fibre score						

Your meat/snack score

More than 27 Your diet is high in fat. There are many ways you can make your eating pattern lower in fat. You should look at your highest score to identify problem areas.

25 -27 Your diet is quite high in fat. To make your eating pattern lower in fat, you may want to begin in the areas where you scored highest.

22 -24 You are generally eating a typical westernised diet, which could be lower in fat.

18 -21 You are making better low fat food choices.

17 or less You are making the best low-fat choices. Keep up the good work!If you scored 17 or less, you're doing well! This is the desirable score on this screening questionnaire.

Your fuit/vegetables/fibre score

24 or more You're doing very well! This is the desirable score on this screener.

23- 17 You should include more fruit, vegetables and wholewheat products.

Less than 17 Your diet is probably low in important nutrients. You should find ways to increase the intake of fruit, vegetables and other fibre-rich foods you eat every day.