

PRACTICAL THERAPEUTIC DIETETICS

II: MODIFICATION OF CALORIES

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REDUCING DIETS

Overweight is a major problem encountered in medical practice. Although many different diets have been devised for the treatment of obesity, these frequently fail because complicated methods of calculating calorie requirements and long lists of suggested substitutions confuse and overawe the patient and are frequently deterrents in active treatment.

The reducing diet compiled for use in Groote Schuur Hospital was designed with the full realization that the range of calorie intake was possibly slightly wider than that found in accurately calculated prescriptions. However, the intention was to make it simple, satisfying and economical, thus encouraging the patient to follow it for a long period.

The objectives of a reducing diet should be:

(a) To bring about a gradual loss of weight (a 1,000-calorie diet should cause an approximate weight loss of 2 lb. a week).

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- (b) To correct faulty dietary patterns.
- (c) To prevent a feeling of hunger or fatigue.

Food Fallacies

Many patients seem unaware of the following points:

- (i) Alcohol and cool drinks contain many calories, and are therefore forbidden to those on a reducing diet.
- (ii) Honey may *not* be taken by patients on reducing diets.
- (iii) Toast and bread contain the same amount of calories.
- (iv) Oil and butter are equally calorific.

WEIGHT REDUCING DIET (1,000 CALORIES)—SAMPLE MENU

The following diet, roughly equal to 1,000 calories, can be arranged to suit the food habits of individual patients.

Breakfast

- 1 portion fruit from exchange list
- 1 egg or a medium serving of fish (not fried)
- Lettuce and tomato
- Tea or coffee with milk from day's ration
- One portion 'starch' from exchange list

Mid-morning

Tea with milk from day's ration

Dinner (Midday or Evening)

Lean meat, poultry or fish (average serving, *not* roast or fried)

Vegetables and salads according to exchange list

1 portion 'starch' from exchange list

1 portion fruit from exchange list

Tea-time

Tea with milk from day's ration

Supper or Lunch

Lean meat, white fish, poultry (small serving, *not* roast or fried) or 1 egg or 1 oz. of cheese.

Vegetables or salad as on exchange list

1 portion 'starch' from exchange list

1 portion fruit from exchange list

Tea or coffee with milk from day's ration

Ration for the Day

$\frac{1}{2}$ pint of skimmed milk or $\frac{1}{4}$ pint of skimmed milk and $\frac{1}{4}$ oz. (1 teaspoonful) of butter to use on the bread at meals.

Notes

1. Commercial cool drinks and minerals are forbidden. A home-made drink of lemon juice, soda-water and saccharin is permissible, if desired.

2. No sugar is allowed in tea or coffee. Saccharin may be taken as desired.

3. Foods should be boiled, steamed, grilled or broiled rather than roast or fried.

4. *Lower calorie diets*: To bring the calorie content of the diet down to 800 calories, omit all starch exchanges or 2 starch and 2 fruit exchanges. For a 600 calorie diet omit all starch and fruit exchanges, and take only $\frac{1}{4}$ pint of milk.

Exchange List

Starches. The following foods are interchangeable. Each taken in the amount mentioned can be regarded as one portion of 'starch' (for example, you may take 1 slice of bread or 3 cream crackers or any other exchange):

1 medium-sized potato	2 tablespoons of rice,
1 teacupful of porridge	macaroni or spaghetti
3 tablespoons of beetroot,	3 cream-cracker biscuits
peas, parsnips, broad	3 Provita biscuit strips (or
beans, sweet potatoes, or	equivalent)
mealie meal	4 Salticrax (or equivalent)
2 teaspoonfuls of Ovaltine,	1 tablespoonful of nuts
Milo or cocoa (or	2 tablespoonfuls of ice cream
equivalent)	1 (oz.) slice of bread $\frac{1}{4}$ -inch
	thick

Fruit. The following fruit portions are interchangeable, and one portion may be taken wherever fruit is allowed on the diet list (they may be taken raw, stewed or baked):

1 apple	1 mango
2 apricots	2 peaches
1 banana	1 pear
Teacupful fruit salad	6 stewed prunes
2 guavas	Thin slice of pineapple
12 grapes	1 orange

The following foods and fluids may be taken without restriction:

Asparagus, cabbage, cauliflower, celery, carrots, cress, cucumber, green beans, kohlrabi, horseradish, leeks, lettuce, marrow, mushrooms, olives, onions, pawpaw, pumpkin, radishes, rhubarb, spinach, squash, swedes, tomatoes and unsweetened pickles.

Clear soup, meat and vegetable extract (e.g. Oxo, Marmite), tea, ground coffee (not coffee essence), soda water, lemon juice, vinegar, salt, pepper, cinnamon, nutmeg, curry powder.

When necessary, saccharin or 'sucaryl' should be used for sweetening.

High-calorie foods which must be avoided include the following:

Sugar, glucose, jam, honey, syrup, sweets, chocolates, flour, cakes, sweet biscuits, pastries, puddings, oil, fats, tinned fruit, beer, stout, sweet wines, sausages, fizzy drinks, and fried foods.

LOW-CALORIE PACKED LUNCHES

The following are some suggestions to the overweight person who takes a packed lunch to work or school:

1. Take your 'starch' allowance as 2 *thin* slices of bread, making it more palatable with one of the fillings given below. *N.B. You are not allowed any butter unless you take one teaspoonful INSTEAD OF your meat ration.*

2. The meat or fish ration allowed at lunch can be replaced with one of the following: A hardboiled egg, a $\frac{1}{2}$ -inch block of cheese, a vienna or frankfurter sausage, 2 teaspoons of mayonnaise mixed with a salad (see below), or a few thin slices of corned beef.

Sandwich spreads which may be taken *instead of* the above include:

(a) Skimmed-milk cheese mixed with tomato blocks, shredded lettuce, sweet peppers, radish or similar vegetables.

(b) Minced haddock and lettuce leaves.

(c) Shredded raw cabbage mixed with 1 teaspoonful of mayonnaise.

(d) Grated biltong and gherkin.

(e) Fish paste and tomato.

(f) Minced liver.

(g) One teaspoonful of butter.

(h) Half a canned pilchard, mixed with chopped onion, vinegar, salt and pepper.

3. To make up bulk in the lunch-box, you can take in addition:

(a) Salads, e.g. carrots as sticks or grated, radishes, diced cucumber, celery sticks, cauliflower, tomatoes, unsweetened pickles and gherkins.

(b) Drinks, e.g. tomato juice (which can be made economically from tomato paste, water, salt, pepper, vinegar and Worcester sauce), lemonade (made from soda water, lemon juice and saccharin) and soup (from fat-free broth and the unrestricted vegetables).

(c) Pawpaw is the one fruit which is unrestricted.

SIMPLE ECONOMICAL REDUCING DIET

The following diet has been compiled for African patients, and is also available in Xhosa:

Diets do not have to be expensive. This diet is healthy and cheap.

Important Rules

(i) Take *no sugar*. Instead use the white sweetening pills (saccharin) which you can get from the clinic.

(ii) '*Cool drinks*' contain sugar and are forbidden.

(iii) *Condensed milk* contains sugar and should not be eaten. Some brands of skimmed-milk powder are cheaper and better. Mix the powder in a cup with a little cold water to form a smooth paste. Fill the cup up with hot water. Pour this on your porridge and take it with your tea and coffee at meals.

(iv) *Bread*. The thickness of the slice, either brown or white or toast should fit into the measure drawn here (half-an-inch is drawn actual size).

(v) If you leave home early in the morning, always try to have your porridge before you go.

(vi) It is better to have at least a small piece of meat or

fish every day than a lot on one day and none for the rest of the week.

(vii) Try to eat at least one piece of fruit or some raw vegetables every day.

(viii) Bantu beer (400 calories per pint) and *marewu* (240 calories per pint) are seldom allowed, but ask your doctor about these.

The following foods are forbidden:

Sugar, glucose, jam, honey, syrup, sweets, chocolates, flour, buns, cakes, sweet biscuits, pastries, puddings, custards, ice cream, oil, fried foods, tinned fruit, beer, stout, 'cool drinks', and sausages.

Eat as much as you like of:

Clear soup, meat extract (Oxo, Bovril, etc.), tea, ground coffee (not coffee essence), soda water, lemon juice, vinegar, salt, pepper, mustard, cloves, cinnamon, nutmeg, curry powder, cabbage, cauliflower, celery, cucumber, green beans, lettuce, marrow, spinach, mushrooms, onions, pawpaw, pumpkin, radishes, rhubarb, squash, tomatoes, turnips, and unsweetened pickles. Sweeten with the saccharin pill where necessary.

Fruit: You may take fresh fruit *instead* of the apple allowed in the diet as follows:

1 medium pear, apricot, nectarine, peach, grenadilla, mango, plum, quince or orange or two guavas, a thin slice of pineapple, a thin slice of melon, a teacupful of grapes, or a medium slice of watermelon.

Instead of one slice of bread, you are also allowed to take a large banana or two medium potatoes or a small helping of sweet potatoes or 'uintjies' or three tablespoons of rice or mealie-rice.

Daily Allowance (1,000 Calories)

Breakfast

Soft mealie meal porridge — 1 cupful cooked
Milk (fresh, sour or powder—skimmed is best) — half a cupful for porridge and coffee
Fruit — 1 apple or other fruit on list

Lunch

Bread (brown or white or toast)—1 slice, thinner than the measure given
Fish or egg or lean meat — boiled
Milk — to have with coffee
Margarine or lard — *thin* scraping

Dinner

Samp or dried beans or mealie-rice or potato or sweet potato — 1 small cupful (can be added to your stew)
Meat, fish, tripe, mince, liver or other meat without fat — $\frac{1}{2}$ cupful boiled or stewed with *very little fat*
Vegetables — as much as you like from list

If you are very fat, it may be necessary to take *less* than this. Your doctor will tell you.

In particular, eat less bread than you do now, eat less mealies, eat no sugar, drink no 'cool drinks', and eat no fried food, fat or oil.

HIGH-CALORIE DIETS

Naturally, when a patient is underweight the cause of the condition is an important feature in treatment. However, after diagnosis several general principles should be taken into consideration in planning the diet:

(i) There should be frequent small and concentrated meals.

(ii) The patient should not drink water before or during meals.

(iii) Meals should be eaten in calm and pleasant surroundings.

(iv) Fibrous bulky foods should be included in the minimal amounts needed for peristalsis.

The following foods should be encouraged:

Milk, cereals (macaroni, rice, bread), honey, syrups, chocolate, salad dressings and mayonnaise, sauces, puddings, cookies, cakes and pastries. *Lactose* may be added in small quantities to beverages for extra calories. It does not impair the flavour.

Approximately 500 calories in excess of daily needs should effect a weekly gain of 1 lb.

High-calorie Milk Recipe

Whisk together the following and serve cold:

1 pint of milk
1 large tablespoon of full-cream milk powder
1-2 teaspoonfuls of sugar

Colouring (e.g. cochineal, orange) and flavouring (e.g. vanilla, cocoa).

POSTGASTRECTOMY DUMPING SYNDROME

This is one disorder in which the considerations listed above for high-calorie diets are not applicable.

This syndrome is caused by the absence of the normal gastric reservoir for food, with the result that food is rapidly delivered to the upper jejunum. The rapidly digested carbohydrates produce a hyperosmolar solution which results in the attraction of fluid and electrolytes from the blood, and symptoms such as giddiness, light-headedness, unsteadiness and an overpowering desire to lie down soon after a meal, occur. A less common type is the late or hypoglycaemic syndrome, occurring 2-3 hours after a meal. These symptoms frequently subside when carbohydrates—especially concentrated types such as sugar and sweets—are restricted and the calorie intake is mainly derived from protein and fat. Saccharin may be used to replace sugars for sweetening. It is often advisable to try to determine whether specific foodstuffs cause the syndrome to become manifest, since symptoms may disappear with the omission of one offending food.

Further weight loss is likely to occur on a restricted carbohydrate diet, and care should be taken to ensure that the patient consumes an adequate amount of protein and fat.

Owing to the restricted capacity of the small stomach remnant, small meals are desirable and may be taken 6 times daily in preference to 3 larger, bulky meals. The meals are eaten 'dry', i.e. the patient is instructed to take no liquids within 30-45 minutes of eating. Vitamin and mineral supplements are usually necessary, and iron is particularly important in this respect.

Sample Menu for the Postgastrectomy Dumping Syndrome

Breakfast

2 scrambled eggs
 $\frac{1}{2}$ slice of toast
 $\frac{1}{2}$ oz. of butter
11 a.m.
1 oz. of cheese
 $\frac{1}{2}$ a thin slice of bread
 $\frac{1}{2}$ oz. of butter
1 banana
1 p.m.
Medium helping of meat

Small helpings of low-calorie vegetables, such as carrots, pumpkin, squash or cauliflower tops
 $\frac{1}{2}$ oz. of melted butter over vegetables
Stewed apple, sweetened with saccharin
4 p.m.
 $\frac{1}{2}$ a thin slice of bread
 $\frac{1}{2}$ oz. of butter
Peanut butter

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7 *p.m.*

Medium helping of fish
— either baked or grilled
with butter sauce

$\frac{1}{2}$ a thin slice of toast

$\frac{1}{4}$ oz. of butter

Baked custard, sweetened

with saccharin

1 oz. of cheese

9.30 *p.m.*

$\frac{1}{2}$ a thin slice of bread

$\frac{1}{4}$ oz. of butter

$\frac{1}{2}$ a medium avocado pear

Calories—approximately 2,700; protein—120 G.; fat—180 G.

Between meals, at least one pint of milk should be taken.

Grateful acknowledgement is made to the physicians at Groote Schuur Hospital who have read and assisted with the script. A dietetic bibliography will appear with the last article in this series.