Diets & Diabetes over the Decades

Dr. Edwin A. Locke's book of food values has been of much value in making up these diets. The following shows the successive steps in building up a diet for a patient who starved six days before

		Grams Protein	Grams Fat	Grams Carbohydrate	Total Calories
Day	1	2	+	5	30
"	2	. 15	12	4	189
"	3	23	18	8	294
"	4	36	30	11	471
"	5	. 18	48	9	560
"	6	51	44	17	688
"	7	52	51	15	750
"	8	46	51	19	740
"	9	49	78	20	1008
"	10	. 50	101	21	1230
"	11	49	123	19	1422
"	12	. Starve	d because	e sugar came	through
"	13	15	12	3	185
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June 1914

The treatment of diabetes became easier because of undernutrition. Discovered that most cases of diabetes are preventable by avoiding excess weight. Found undernutrition and conservatism increased diabetes survival to 6 years. The "Starvation Diet" emerged where doctors believed their patients needed to be starved in order to become "sugar free". (1,9)



Early 1920's

Insulin invented in the early 1920's with the average insulin dose being 21 units per day (1). Professionals recommended the "line ration diet" where the aim was to have the same amount of carbs, protein, and fat everyday. Black portions were carbcontaining foods and red portions included protein and fat. Early on, it was common to give equal portions of black and red portions. This provided about 1500 calories and 100g of carbs. (4)



Table 4. Comparison of nutrient composition of 1950's diet with 1990's die

		1950s diet (15 black portions; 10 red portions)	1990s diet (BDA recommendations	
Nutrition	nal value	-		
per day:	Calories	1710	1710	
	Fat	90 g	57 g	
	Protein	75 g	64 g	
	СНО	150 g	235 g	

Late 1920s

As insulin became more available, more black portions were given than red. For those on insulin, the starting diet was 15 black, 10 red portions. In 1929 RD Lawrence was the first to describe diet as the keystone of diabetes treatment. Found that diet alone often restored good health.(4)

1950s

Low carb, prescriptive diet of 15 black portions, 10 red portions was used well into the 1970's. Canadian Diabetes Association, now Diabetes Canada, founded in 1953.(4)

1980s

Abandoned carb restrictive diets for diabetics, focused instead to limit fat intake and increase complex carbs and dietary fibre. Weight reduction was primary therapy for those with type 2 diabetes. Diabetic diet now described by health professionals as "healthy eating" Individualization and flexibility of each person's diet was encouraged.

(8)





Strategies for normalizing blood sugar in diabetic patients

Type I diabetes

Approximate frequency in the U.S.: 90% cases Approximate frequency in the U.S.: 10% cases

Synchronize food intake and Obese, approximately 80% Frequent meals and snacks recom

Consistency of eating time and meal composition emphasized for conventional therapy Fiber-containing foods may minimize postprandial blood

Regular exercise encourage

Small meals Fiber-containing foods may reduce postprandial blood Regular exercise encouraged. I

(sufficient endogenous insulin for survival; treatment focuses

Weight reduction is primary

Hypocaloric diet, low in

saturated fat

insulin treated the strategies for type I apply

1990's

Prior to 1914

Believed conservatism

was the most effective

diabetes treatment. If

the patient was doing

well, they were left

alone. Thought that

changes in diet and

Treated this way, a

could live about 5

(1)

person with diabetes

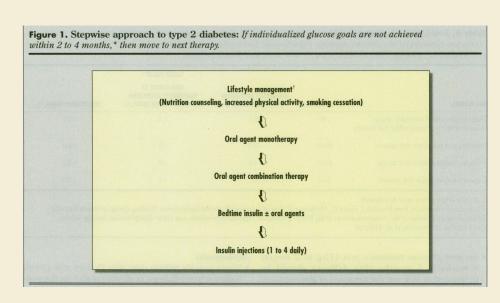
years. Type 1 diabetes

was a death sentence.

a sooner death.

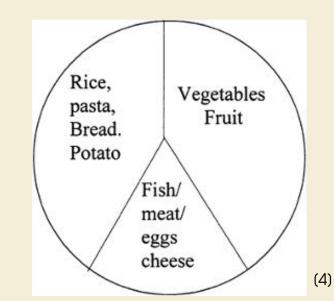
lifestyle would result in

Regular food intake emphasized, including carbs at each meal. Maintained focus on reducing fat and increasing complex carbs. Simpler method known as "plate model" was suggested. Found that the formal carb exchange systems were unnecessary in initial stages of diabetes. In 1992, the Canadian Diabetes Association developed the first Clinical Practice Guidelines. Dietitian's became able to expand their role to that of a diabetes educator. The 1998 Practice Guidelines state that all people with diabetes should be referred to a dietitian and that nutritional recommendations are the same as the general public: having a variety of the four food groups and reducing saturated fat intake to less than 10%. (2,4)



2000s

Main focus on reducing progression of diabetes through lifestyle modifications including low-calorie, low-fat diet, 150 minutes of activity per week, and moderate weight loss.(5)



2010s

Strong emphasis on individualized nutrition therapy. Now included alternative dietary patterns as options. (6)

Today

Nutrition therapy with a Registered Dietitian is recommended and has been found to reduce A1C ~1-2%. Significant focus on replacing high Glycemic Index (GI) with lower GI carbohydrates, as well as encouraging regular carbohydrate consumption. (7,8)

1970s

Protein and fat

became less

effect on

urine/blood

containing foods

restrictive as the

sugars appeared

to be minimal. (4)



Tips:	Reasons:		
Eat three meals per day at regular times and space meals no more than six hours apart. You may benefit from a healthy snack.	Eating at regular times helps your body control blood sugar levels.		
Limit sugars and sweets such as regular pop, desserts, candies, jam and honey.	The more sugar you eat, the higher your blood sugar will be. Artificial sweeteners can be useful substitutes.		
Limit the amount of high-fat food you eat such as fried foods, chips and pastries.	High-fat foods may cause you to gain weight. A healthy weight help with blood sugar control and is healthier for your heart.		
Eat more high-fibre foods such as whole grain breads and cereals, lentils, dried beans and peas, brown rice, vegetables and fruits.	Foods high in fibre may help you f full and may lower blood sugar an cholesterol levels.		
lf you are thirsty, drink water.	Drinking regular pop and fruit juic will raise your blood sugar.		
Add physical activity to your life.	Regular physical activity will impro your blood sugar control.		
Limit alcohol consumption.	Alcohol can affect blood sugar leve and cause you to gain weight.		

			Food L	ist for Di	abetes			
0	ő					The same of the sa		How to use the Nutrition Place Mat
Write your m	neal or daily targets	for each food choice	in the section below,	Plan your meals by ch	oosing foods you like t	rom this Food List to	r Diabetes.	1. Develop on
Starch & Bread	Fruit	Milk	More Carbos	Vegetables	Meat	Fat	Free Foods	with your Registered
Bagel, 4 oz, 1/4 Baare, dy, Cooked, 1/2 oup Bread, 1 slice Cereal, cooked, 1/2 oup Corn, 1/2 oup Plant, 1/2 Hamburger or Hot Dog Bun, 1/2 Plantburger or Hot Dog Plantburger or Hot Dog Bun, 1/2 Plantburger or Hot Dog Plant	Apple, 1 small Apricot, 4 whole Apricot, 4 whole Blanche, 1 small Blackberrier Blancher, 34 cup Canned fruit in juice or wide: 1/2 cup Dried hut, 114 cup Fruit juice, 1/3 to 1/2 cup Fruit juice, 1/3 to 1/2 cup Grapethrut, 1/2 large Grapes, 17 small Kine, 1 Mango, 1/2 small Miller, 1/2 cup cubes Noctarrie, 1 small Orange, 1 small Peach, medium, fresh, 1 Peach, small Peach, medium, fresh, 1 Peach, medium, fresh	Butternik, 1 cup Esisposited skim, 12 cup Good's milk, 1 cup Good's milk, 1 cup Kidif, 1 dup Kidif, 1 du, 1 cup Norfalt, dy, 1 dl cup Soy milk, 1 cup Yogurt, plain, supartere, last-free, 27 cup Yogurt, bust Articulary severand, 314 cup	Clave, no loing, 2° square, 1 piece consultation of the disk, 12 cap consultation of consulta	One serving is 1/2 cup cooked or 1 cup raw *	MEAT Beef, 1 oz. Chicken, no skin, 1 oz. Fish, 1 oz. Ham, 1 oz. Ham, 1 oz. Lamb, 1 oz. Posk, 1 oz. Seabod, 1 oz. Seabod, 1 oz. Weal, 1 oz. MEAT SUBSTITUTES Cottage cheese, 1 dz. Egg, 1 Egg, 2 Cheese, 1 oz. Egg, 1 Cheese, 1 oz. Egg, 1 Egg, 1	Avocado, med., 2 Totap Bacon, 1 silice (20 silib) Butter, sick, 1 tap Cream cheese, regular, 1 Totap, Cream cheese, low fat, 1-1/2 Tosp Cream cheese, low fat, 1-1/2 Tosp Assignment, replace, 1-1/2 Tosp Margarine, replace, 1-1/2 Tosp Margarine, replaced fat 1 Tosp, Margarine, replaced fat 1 Tosp, Clist 1 Tosp, Salad desaing, replaced fat, 2 Tosp, Salad desaing, replaced 1 Tosp, Salad desaing, replaced 2 Tosp, Salad desaing, replaced fat, 2 Tosp, Salad cesaing, replaced 2 Tosp, Salad cesaing, replaced 3 Tosp, Salad cesaing, replaced 3 Tosp, Salad cesaing, replaced 3 Tosp, Salad cesaing, Replaced Salad	UNLIMITED USE - Equation & terrors - Cube looks - Equation & terrors - Cube looks - Equation bear of the control of the c	individualized meal plan with your Registered Dictition, Nurse, Physician or Health Educator. 2. Write your meal plan targets in the space below the food pictures. 3. For your upcoming meal or snack, circle the food item on the list that you will eat. To stay on your meal plan, eat only the total number of items allowed. 4. When your meal is completed, simply wipe off the laminated Nutrition Place Mat with a tissue! 5. Use the Nutrition Place Mat to help follow healthy surrition guidelines and portion control. The food
I serving contains approximately: C = 15, P = 3, F = 0-1, and everages 80 calories.	I serving contains approximately: C = 15, $P = 0$, $F = 0$, and averages 60 calories.	1 serving contains approximately: C = 12, P = 8, F = 3 (for 1% mik) and averages 100 calories.	I serving contains approximately: C = 15 with seriable amounts P. F. and colories, depending on food choice.	f serving contains approximately: C+5, P+2, F+0, and averages 25 calories.	I serving contains approximately $C+0$, $F-7$, $F-3$ d (for lean to medium for means), and averages 75 contries	1 serving contains approximately: C = 0, F = 0, F = 5, and averages 45 calories.	Depending on tood choice, there will be variable amed amounts of C. P. & P in these tood choices. Most contain negligible calonies.	you visualize well- balanced meals!

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