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DiabetesWatch

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July 22, 1993



PRESIDENT PROCLAIMS DIABETES AWARENESS WEEK

PROCLAMATION 213 ASSIGNS WEEK OF JULY 29 YEARLY
TO HIGHLIGHT DIABETES RECOGNITION AND PREVENTION

His Excellency, Fidel V. Ramos
President of the Republic

**SCHEDULE OF ACTIVITIES FOR
THE WEEK IS ON PAGE 2**

The Teaching Teams

Handling the various seminars for the Diabetes Awareness Week the physician specialists in diabetes (diabetologists), teaching nurses and dieticians, have divided themselves into four teams, with bases in each of the four participating hospitals in Metro Manila. The teams are especially trained for diabetes education and information.

Team A

Veterans Memorial Medical Center

Dr. Ma. Honolina S. Gomez,
coordinator

Dr. Jocelynna Anel-Quimpo

Dr. Segundo Lansang

Dr. Rosa Allyn Sy

Dr. Teresa Plata-Que

Dr. Marie Fuentes

Dr. Concepcion P. Noche

Ms. Nora Macalintal

Ms. Chits Angeles, *members*

Team B

Philippine General Hospital

Dr. Cynthia Chua, *coordinator*

Dr. Mary Anne Lim-Abraham

Dr. Ruby T. Go

Dr. Guillermo Manalo

Dr. Dolores N. Octaviano

Dr. Zon C. Borlongan

Ms. Lizaflor Ibay

Ms. Emelita Ong, *members*

Team C

Rizal Medical Center

Dr. Roberto C. Mirasol,
coordinator

Dr. Buena V. Domingo-Sapang

Dr. Susan Yu

Dr. Lina Lantion-Ang

Dr. Eduardo Aquino

Dr. Ruben G. Rasala,

members

Team D

Makati Medical Center

Dr. Josephine Carlos-Raboca,
coordinator

Dr. Augusto D. Litonjua

Dr. Aurora Villegas-Cinco

Dr. Tommy Ty-Willing

Dr. Allan Hernandez

Dr. Elizabeth Islao

Dr. Ma. Teresa Isaguire

Ms. Susan Trinidad

Ms. Ma. Imelda Q. Cardino,

members

President Fidel V. Ramos will sign the proclamation declaring the week of July 29 every year as 'Diabetes Awareness Week.' The ceremonies will take place at Malacanang Palace at 4:00 in the afternoon of July 29, before a group of businessmen, the teaching teams of the Diabetes Center, and the officers and members of the Diabetes Center and the Philippine Diabetes Association.

Activities, held conjointly with the Department of Health and the Department of Education, Culture and Sport, will be held in 4 participating hospitals in Metro Manila and in 4 high schools.

A highlight of the week will be two performances of the Young Symphonic Ensemble of the New York based Children's Orchestra Society on July 30 and 31, 8:00 P.M., at the Nicanor Abelardo Tanghalan of the Culture Center of the Philippines. At the forefront of this concert for a cause is the First Lady, Mrs. Amelita Ramos who is also chairperson of the Diabetes Center (Philippine Center for Diabetes Education Foundation, Inc.). Mrs. Lovely Romulo, civic minded wife of Senator Alberto Romulo, chairs the event.

The teaching activities of the

week will be in three forms:

a. Lectures to the public - these will focus on the recognition of symptoms of diabetes, the role of diet and exercise in the control of the blood sugar, care of the various organs of the body, and blood sugar testing. After the lectures, a urine testing program will ensue, followed by blood sugar tests for those who test positive for sugar in the urine. Drugs at 10 - 20% discount from the list price will be available to the attendees.

b. Lectures to Rural Health Unit personnel - these will focus more on the recognition and methods of diagnosis of diabetes mellitus, and the care of patients with diabetes at the rural health level.

c. Lectures to Science teachers will emphasize the pathophysiology of diabetes and the preventive measures that can be taken to ward off the appearance of the disease.

It is expected that the chapters of PDA will also participate in the celebrations of the Week in their respective communities.

Participating companies are: Eli Lilly, Novo Nordisk, Ames, Boehringer Mannheim, Med Asia/Servier, Hoechst, E. Merck, Farmitalia Carlo Erba, Becton Dickinson, Bayer and others.

DIABETES AWARENESS WEEK
 July 29 to August 4, 1993

SCHEDULE OF ACTIVITIES

All week TV and radio talk shows

July 29	4:00 PM	Malacanang Palace	Signing of proclamation declaring the week of July 29 of every year as 'Diabetes Awareness Week'	His Excellency, Pres. Fidel V. Ramos
July 30	8:00 PM	Phil. Gen. Hosp. M. Marcos HS	Lectures for rural health unit personnel	Team B.
	1:00 PM	Phil. Gen. Hosp.	Lectures to Science teachers	Team D.
	8:00 PM	CCP, Main Theater	Lectures to public, diabetes testing, Concert	Team B. Children's Orchestra Society
July 31	8:00 PM	CCP, Main Theater	Concert	Children's Orchestra Society
August 2	8:00 AM	Vet Mem'l Med Ctr Manila Science HS	Lectures for rural health unit personnel	Team A
	1:00 PM	Makati Med Ctr	Lectures to Science teachers	Team B
			Lectures to public, diabetes testing, 'botica'	Team D
August 3	8:00 AM	Makati Med Ctr R Magsaysay HS	Lectures for rural health unit personnel	Team D
	1:00 PM	Rizal Med Ctr	Lectures for Science teachers	Team A
			Lectures to public, diabetes testing, 'botica'	Team C
August 4	8:00 AM	Rizal Med Ctr	Lectures for rural health unit personnel	Team C
	1:00 PM	Jose Rizal College Vet Mem'l Med Ctr	Lectures for Science teachers	Team C
			Lectures to public, diabetes testing, 'botica'	Team A

VENUES
Hospitals

 Veterans Memorial Medical Center
 Quezon City
 at the Basilio Valdez Hall

 Rizal Medical Center
 Pasig, Metro Manila
 at the Training Center

 Philippine General Hospital
 Manila
 at Central Block and ER Complex

 Makati Medical Center
 Makati, Metro Manila
 at the Ledesma Hall

High Schools

 Manila Science High School
 Taft Avenue, Manila

 Jose Rizal Colleges
 Shaw Blvd., Mandaluyong, M. Manila

 M. Marcos High School
 Sta. Ana, Manila

 Ramon Magsaysay High School
 Espana, Manila

First Training... (From page 4)

tes Center; and Dr. Augusto D. Litonjua, president, Diabetes Center.

Dr. Rosemarie Erben, Regional Adviser in Health Promotions, World Health Organization, was the guest speaker at the closing ceremonies. She praised the efforts of the Center as in line with the principles and thrusts of the WHO worldwide in training personnel to promote health in the century.

One of the teams was from the Diabetes and Lipid Center, Cipto Mangunkusumo General Hos-

pital of the Faculty of Medicine, University of Indonesia, and was composed of Dr. Liana Sidharta, physician; Ms. Kandace Napitupulu, nurse and Ms. Kartini Sukardji, dietician.

The other teams were composed of:

Philippine General Hospital - Dr. Concepcion Pizarro, Mrs. Lizaflor Ibay, nurse and Ms. Emelita Ong, dietician.

Albay Provincial Hospital - Dr. Lina de los Reyes-Asido, Ms. Merlyn L. Bernal, nurse and Ms. Blessilda S. Bermas,

dietician.

Gov. Celestino Gallares Memorial Hospital, Bohol - Dr. Bienvenido M. Omo, and Ms. Bernardita Villas-Almonical, nurse and Ms. Purita Castrodes Matig-a, dietician.

Davao Doctors' Hospital - Dr. Marie Ann Co-Villegas, Ms. Nanette B. Gaurano, nurse, and Ms. Lillibeth O. Ancheta, dietician.

The Doctors Clinic and Hospital, South Cotabato - Ms. Eve R. Gonzales, nurse and Ms. Alma B. Bernil, dietician.

The Teams have pledged to set up educational clinics in their communities and in turn train physicians, nurses and dieticians for their respective provinces.

Lecturers for the course were: Dr. A. D. Litonjua, Dr. M. A. Lim-Abraham, Dr. Lina Lantion-Ang, Dr. Tommy Ty Willing, Dr. Ruby Go, Dr. Ma. Honolina S. Gomez, Ms. Imelda Q. Cadino, Ms. Susan Trinidad, and Dr. Susan Yu Gan. Other lecturers were: Ms. Nelly Sagun and Ms. Grace Francisco.

The Second Course is slated for the last week of October, 1993.

Second MidYear Confab Tackles Controversies in Diabetes Therapies

The second mid-year convention of the Philippine Diabetes Association (PDA) was held on Sunday, July 18, 1993 at the VIP Hotel in Cagayan de Oro City, with simultaneous professional and lay programs in the morning, and a combined program in the afternoon. Eighty five physicians and 78 lay persons attended the whole day affair.

Dr. Karen Lam, chief of the Division of Endocrinology, University of Hongkong was the guest lecturer. Her trip was sponsored by Farmitalia Carlo Erba. She spoke on the current status of oral hypoglycemic drugs - a resume of events after the University Group Diabetes Program Study in the late sixties, a

controversial multi-center research in the United States which wrongly depicted sulfonylurea drugs as the culprits in the greater mortality in diabetic patients from coronary artery disease. The erroneous conclusion of the study is borne out by the greater increase in usage of the drugs, and the greater number of them in use today all over the world.

Acting as Convention Chairmen were Dr. Ruby T. Go, Dr. Wilhelmina Galupo, Dr. Ma. Antonietta Sison and Ms. Odeth Magno.

Supporting the Convention were: Ames, Bayer, Becton-Dickinson, Boehringer Mannheim, Bristol Myer Squibb,

Program of the Second Mid Year Convention

Sunday, 18 July 1993,
Cagayan de Oro City at the VIP Hotel

Morning Simultaneous Sessions:

1. Professional

- a. Are sugar substitutes safe? -Dr. Mary Ann Lim Abrahan
- b. Experience with oral hypoglycemic drugs: two decades after the UGDP Study -Dr. Karen Lam
- c. Pancreatic transplantation: role in the management of diabetes -Dr. Teresa Plata -Que

2. Lay

- a. Meal plan for the diabetic, and special diets for patients with dyslipidemia, renal disease, and meals for dining out -Ms. Ma. Imelda Q. Cardino
- b. Recreational drugs: caffeine, nicotine, alcohol. What to do in Ramadan? -Dr. Ma. Honolina S. Gomez
- c. Exercise and work-outs for the diabetic -Dr. Allan Chang
- d. Skin and foot care -Dr. Ma. Antonietta Sison
- e. Danger signs: when do I see my doctors -Dr. Araceli Panelo
- f. Home glucose monitoring: use and misuse -Dr. Ma. Antonietta Sison

Afternoon Combined Session:

Special Problems in the Management of Diabetes Mellitus

- 1. The Obese Diabetic -Dr. Araceli Panelo
- 2. The Normal Weight Diabetic -Dr. Lina Lantion-Ang
- 3. The Underweight Diabetic -Dr. Ruby T. Go
- 4. The Elderly Diabetic -Dr. Augusto D. Litonjua

Eli Lilly, E. Merck, Farmitalia Nordisk, Parke-Davis, Med Asia
Carlo Erba, Hoechst, Novo and Wyeth- Suaco.

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First Training Course For Diabetes Educators Held



The Diabetes Center held its first training course for diabetes educators at the Makati Medical Center April 26 to 30, 1993. The Diabetes Center is the acronym for the Philippine Center for Diabetes Education Foundation, Inc. - a group of civic spirited citizens and physicians whose main thrust is the education of

diabetes trainers. Trainers are a team of physician, a nurse and dietician. The first batch of graduates are shown in the picture with Dr. Mary Ann Lim-Abraham, chairperson of the Medical Bureau, Diabetes Center; Mrs. Remy C. Fournier, internal vice-president, Diabe-

(Continued on page 2)

Sixth Diabetes Workshop An Echoing Success !

The 6th Diabetes Workshop was held in Cagayan de Oro City July 15 to 17, 1993. Eighty physicians registered for the course, although only sixty one were credited with having fully attended the entire proceedings, and were therefore the only ones certified as full-fledged participants.

The Diabetes Workshop was started by the Philippine Diabetes Association (PDA) in 1990, and is held twice a year in various parts of the archipelago in conjunction with the PDA chapters. The Sixth Workshop was held in cooperation with the PDA

chapter of Cagayan de Oro City-Misamis Oriental. Coordinating the Workshop were Dr. Lina Lantion-Ang, Dr. Ma. Honolina S. Gomez, Dr. Ma. Antonieta Sison, and Dr. Wilhelmina Galupo, president of the Cagayan de Oro-Misamis Oriental chapter.

The Workshop was held at the VIP Hotel, Cagayan de Oro City.

Lecturers were: Dr. Ricardo E. Fernando, Dr. Lina Lantion-Ang, Dr. Honolina S. Gomez, Dr. Mary Ann Lim-Abraham, Dr. Ruby T. Go and Dr. A.D. Litonjua.

Participants to Sixth Diabetes Workshop

Abastas Cecilla
Abragan Ruby
Arante Carmelita
Bacal Megdonio
Barba Ma. Mercedes
Bautista Leticia
Benito Raquelina
Bertulfo Ferminita
Busico Teresita
Cabahug Jovencio
Chang Allan
Caliso Lell
Corona Hedy
Diamante Jessie
Dy Bernardita
Dy Nice
Ebana Virginia
Echaves Marites
Edmilao Fe
Fernandez Agnes
Fianza Vicente
Frias Reuel
Florendo Leah
Galagmara Fernando
Galupo Wilhelmina
Garcia Royce
Go Faith
Kamlan Janeth
Lao Mary Lilly
Lazo Philip

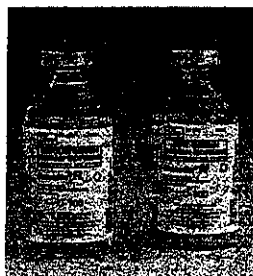
Legaspi Sulpicio
Libetario Elizabeth
Libetario Manuel
Lozada Nilda
Mag-isa Rosemarie
Magsayo Evelyn
Mapupuno Anisa
Medina Alice
Mejia Fernando
Nakila Daisy
Obenza Jose
Padero Josefa
Painaga Herbert
Palacio Jose
Punay Nestor
Rivera Alma
Roa Jaime
Salcedo Ligaya
Salubre Nena
Saranggani Noronisa
Sena Corona
Sorrera Fe
Sison Ma. Antonieta
Tabique Velle
Tan Lewis
Valdez Gloria
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Veloso Jose
Wongmarcon Bonifacio
Yanez Florencia
Yap Jenny

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Home blood glucose monitoring (HBGM) was introduced in the late 1970's and is now employed by over a million diabetics worldwide. The aim is to involve the patient and his family as active partner in the management of his treatment, and to determine whether the agreed therapeutical goal (set by the doctor and the patient) is being achieved.

The primary use of HBGM technology, the American Diabetes Association (ADA) says, should be the management and evaluation of diabetics. If properly used, the available technologies are sufficiently accurate for patient management. So HBGM allows the patient to take control of his therapy (under the supervision of a knowledgeable physician) and his life, and is highly recommended for all diabetics.

Home blood glucose monitoring allows the patient to:

- monitor blood glucose ups and downs throughout the course of a day.

- agree, with the doctor, regarding target blood glucose levels to strive for in treatment.

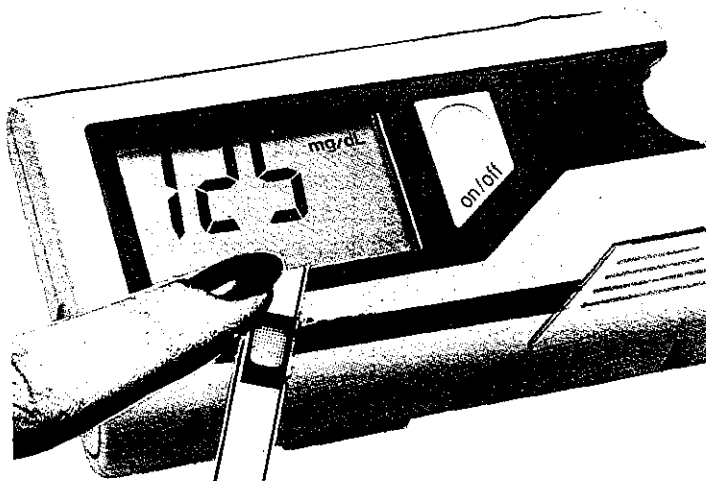
When a patient incorporates this technique in his management plan, it is important that he be given a definition of blood glucose goals suited for a particular patient. So a treatment plan should include a target value for each patient, a schedule for blood glucose testing, a plan for data collection and use and instruction for procedure to be followed during illness and emergencies.

- get immediate information about the blood glucose level, letting the patient take action if the level seems to be approaching the limits you have set for it. Thus, reacting immediately to emergency situations such as impending diabetes ketoacidosis and hypoglycemia.

- provide data base relating to

SUSAN BERNAL-TRINIDAD, R.N.
Diabetes Educational Clinic
Makati Medical Center

USE AND ABUSE OF HOME BLOOD GLUCOSE MONITORING



characteristics of the individual's blood glucose profile.

In addition, HBGM is also used as a training tool to enhance understanding of diabetes by patient and their families.

Any diabetic can benefit from HBGM, but it is absolutely essential for the patient, who is:

- insulin dependent
- on intensive insulin therapy
- undergoing a period of physical or psychological stress.
- brittle, with recurrent swings in blood glucose.

Also it is strongly recommended for the patient, who:

- wants good routine management of insulin/non-insulin diabetics
- takes unusually high doses of insulin
- have kidneys that are unusually sensitive to blood glucose levels
- suffers from non-healing wounds.

The choice of a self-monitoring program depends on five main factors:

- type of diabetes - close monitoring is needed for an insu-

- lin dependent diabetics
- therapeutic modality
- degree of metabolic control required to attain the agreed therapeutic goal
- patients willingness and capacity to participate
- availability of material resources.

Patients should be encouraged to express any reservation they may feel about self-monitoring so that the diabetes educators can take them into account when explaining the short and long term advantages of the increased independence that self monitoring will give.

To be succesful, this technique (either visually or with use of a meter) requires skill on the part of the user. Patients should be properly trained by a well - trained health care professional.

There are no standards for adequate training. However, the training procedure usually in-

(Continued on page 6)

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Use and Abuse... (From page 5) cludes an explanation and demonstration of the proper procedure, a return demonstration by the learner, and a check of the learner's ability to accurately perform the testing procedure. It should also ensure meticulous performance and precise interpretation of the tests by the patient, especially those on visual testing. These initial testings should be performed under the supervision of a trained nurse until the patient has acquired the competence necessary to carry them out independently. The program should be tailored to fit the patient's pace of learning and adequate motivation should be given to make sure that it could be done on permanent basis.

However, the patients report of blood glucose measurement must be viewed with caution with regard to accuracy. Accu-

racy may be compromised by errors in technique, equipment failure, or overt misrepresentation.

If there is any discrepancy between patient generated blood glucose values and results of glycosylated hemoglobin, it must be further investigated rather than labelling the patient as cheater. If the patient is really presenting false data, tactful, non-judgemental discussion must be employed to uncover the causes. Non-acceptance of the disease may be the root of the trouble aggravated by the feeling of being alone with nobody to turn to (lack of social support system).

Patient must always be aware that doctors have various ways of evaluating results using parameters of blood glucose control such as glycosylated hemoglobin and periodic check of blood glucose measurement

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Dietary Tips:

MARIA IMELDA Q. CARDINO, R.N.D., M.S.F.N.
Diabetes Educational Clinic, Makati Medical Center

**RICE BRAN LENDS ITS "MAGIC"
TO GLUCOSE CONTROL**

The University of the Philippines and the Philippines General Hospital focused a study on the rice bran sometime ago. Rice bran is very high in fiber content and is relatively cheap so this study was undertaken. When subjects were fed bran-containing foods, an improvement in blood glucose levels were noted. Results were very promising so the Makati Medical Center Diabetes Educational Clinic recommended the addition of rice bran to patients' meals. Patients who did comply showed much improved blood glucose levels.

How to prepare the bran as diet supplement is very easy. First strain the first class rice bran, using either a fine strainer or a flour sifter. Then put it in a pan and Roast over medium flame, stirring occasionally to prevent burning. Let it cool off then store in dry containers. If you want longer shelf life (meaning if you want your supply to keep for months) store the toasted bran in the freezer. You can distribute the recommended daily consumption of 6 tablespoons of rice bran among your meals. However, because the bran promotes bowel movement, start off with just a tablespoon per meal and increase intake gradually as tolerated. The bran may be eaten as is and followed by your allowed beverage.

The rice bran has done wonders for the many users who tried it and are presently taking it. For those of you who haven't tried it, why don't you start now and let the bran do its "magic" ?

with a reference laboratory method.

A lot has been mentioned regarding the use of home blood glucose monitoring, however, some patients may abuse its use.

Listed below are the things that patients should not do to prevent them from abusing the usefulness of HBGM techniques:

1. Do not use HBGM to escape going to doctors.
2. Do not use any monitoring gadgets which fail in quality control.

3. Do not use expired or discolored strips.

4. Do not cheat the doctors with false results. The doctor is not the one cheated, it is the patient.

5. Do not let the monitoring gadget force the patient to become an overnight "doctor."

6. Do not use the technique to diagnose diabetes.

And lastly, do not let "normal" blood glucose values taken at home encourage the patient to cheat in their diet.

Announcement

Annual Convention of the PDA, Tuesday, December 7, 1993 at the Century Park Sheraton Hotel

REGISTER EARLY!

MARIA IMELDA Q. CARDINO, R. N. D., M. S. F. N.
Diabetes Educational Clinic, Makati Medical Center

TWELVE DIETARY TIPS TO KEEP YOU A-OK

Keeping blood sugar within the normal level is easy if you keep your diet and do exercises your doctor recommends. If you are not overweight, there is no need to limit caloric intake. The following general guidelines may be helpful, though. Take note, however, that these are just *general tips* and *individual needs/requirements* would modify these guidelines.

1. EAT A HIGH FIBER DIET.

Fiber, whether soluble (as in gelatin sweetened with aspartame or equivalent) or insoluble (as in wheat bran or rice bran) has been found to help maintain glucose levels within normal limits. These fiber sources may be added to meals in moderation as tolerated. Presently, the Diabetes Educational Clinic of the Makati Medical Center recommends the addition of the first class rice bran to daily meals (about 2 tablespoons each breakfast, lunch, and supper).

2. LIMIT THE INTAKE OF FRUITS TO A MAXIMUM OF ONE SERVING PER MEAL.

Fruits are simple carbohydrates. They are called simple because they are easily digested to yield glucose. Hence, limiting fruits in the diet will be very effective in maintaining blood glucose within normal limits. Fresh fruits, however, are better choices than juices because, generally speaking, fresh fruits would have a higher fiber content than juices.



Illustration from Diabetes Forecast, March, 1993, page 33

3. AVOID SIMPLE SUGARS such as table sugar, honey, corn syrup, molasses, and others.

Simple sugars appreciate blood sugar very rapidly and at high levels so these should be avoided in the daily diet. One is allowed to take simple sugar, however, when the blood sugar drops below normal.

4. WHEN EATING OUT, SELECT FOODS WITH MINIMAL FAT AND WITHOUT SUGAR.

Watch out for sweet relishes and catsup in sandwiches, sugar in spaghetti sauce, sugar in *asado* and sweet/sour dishes, sugar in *lechon* sauce or "Thousand Island Dressing," etc.

5. EAT MEALS AT ABOUT THE SAME TIME EVERYDAY ESPECIALLY IF YOU ARE ON INSULIN THERAPY.

Because injections are timed with the meals, you must keep a regular eating schedule. It is up to you to form your own meal schedule but this must be kept uniform for better sugar control.

6. NEVER SKIP MEALS.

It is important that you eat when you have to. This will prevent you from having low blood sugar. Your snacks are just as important because these in-between meals will prevent you from going into hypoglycemia before your next meal is due. Your snacks, however, must be part of your computed meal plan.

(Continued on page 8)

Twelve Dietary...

(From page 7)

7. EAT MORE COMPLEX, HIGH FIBER CARBOHYDRATES.

Unpolished rice, corn-on-the-cob, oatmeal, rootcrops like gabi and camote are examples of complex carbohydrates. These are better choices than bread and cornflakes which tend to increase blood glucose to higher levels.

8. SERVE LEGUMES AND LENTILS AS OFTEN AS POSSIBLE.

Monggo, red beans, white beans, and others have been found to have minimal effect in elevating blood glucose. Serve them as often as possible.

9. SERVE VEGETABLES LIBERALLY - THE MORE LEAFY OR FIBROUS, THE BETTER.

Vegetables are excellent sources of vitamins and minerals. They also contribute to fiber intake. Eat plenty of them.

10. LIMIT, OR BETTER STILL, AVOID SORBITOL- AND MANNITOL-CONTAINING FOODS.

Sorbitol and mannitol are examples of sugar alcohols which are alternative nutritive sweeteners. Their caloric content is equivalent to that of sugar. Sorbitol is used locally as a sweetener in a sugar free-ice cream product. This substance can cause nausea and vomiting if ingested in large amounts.

11. KEEP THE INTAKE OF ANIMAL FAT SOURCES AT A MINIMUM.

Animal fat sources are rich in cholesterol, a fat substance linked with cardiovascular problems. It is prudent to trim off the fatty

The Mid Year Convention...



The photos above were taken at the second mid-year convention of the PDA at the VIP Hotel in Cagayan de Oro City. The upper picture shows Convention Chairman Dr. Ruby T. Go moderating the open forum with speakers Dr. Karen Lam and Dr. Mary Ann Lim-Abraham getting ready to answer questions from the big audience of doctors seen in the lower photo.

GLIPIZIDE MINIDIAB

MINIDIAB pharmacokinetics are more advantageous than those of other sulfonylureas

Drugs	Time (hr) to peak effect	Half-life, T 1/2 (hr)	Duration of action (hr)	Metabolites	Overall excretion
Chlorpropamide	8-10	30-60	22-65	4 (active)	100% in 10-14 days
Glibenclamide	2-5	10-16	16-24	6 (partially active)	59% in 1 day 95% in 5 days
Gliclazide	2-6	10-12	4-24	8 (inactive)	98% by renal route in 48 hr
Glipizide	1.0-2.5	2.4-4	6-24	4 (inactive)	97% in 1 day 100% in 3 days

- "Glipizide evoked a more pronounced and more rapid increase of plasma insulin and correspondingly greater and faster blood glucose reduction than did glibenclamide."
- Thus, likelihood of hypoglycemia is minimized "As glipizide (Minidiab) is rapidly eliminated, and as there is no evidence that its metabolites are significantly active, the risk of long-lasting hypoglycemia should be small when using glipizide. In contrast, glibenclamide has provoked serious, and even fatal hypoglycemia in several cases; it is possible that this risk is increased in patients with renal insufficiency due to accumulation of an active polar metabolite. A similar risk is well recognized in the case of chlorpropamide."

portions of beef and pork, limit the intake of bacon and chicharon and remove the skin from the chicken. Vegetable oils and corn oil base-margarine are better choices for fat needs.

12. KEEP THE INTAKE OF ARTIFICIAL SWEETENERS IN MODERATION.

In general, the young diabetics are allowed half the dose recommended for adults. However, the safe levels for the very young diabetics haven't been established. If the intake of artificially-sweetened cola drinks

(diet cola) cannot be avoided or if the use of the artificial sweetener in cereals cannot be avoided (to improve acceptability of the diet), at least keep the total amount ingested on a day-to-day basis at a minimum. Since diabetes is a life-long disease, intake of artificial sweeteners will take years. It is therefore prudent not to overuse them.

With these guidelines, it is hoped that you will realize that a diet isn't really that awful, after all. It is just basically avoiding sugars and sweets and choosing more nutritious foods.

The term elderly refers to people older than 65 years of age. The development of medical problems, including diabetes and its complications should never be considered as an inevitable consequence of aging.

In active, elderly individuals, an age related increase in fasting blood glucose is demonstrated. This increase in blood glucose is about 1 mg/dl or 0.6 mmol/L per decade and a more significant increase of 5 mg/dl or 0.28 mmol/L per decade in response to a standard glucose tolerance test. The possible causes for this glucose intolerance are: changes in body composition, diet, physical activity and insulin secretion and action. There is a decrease in lean mass and an increase in body fat in elderly people. The percentage of body fat correlates positively with fasting levels of serum glucose, insulin and glucagon (hormones in the body). Diet poor in nutrients and diminished physical activity are contributory factors. But more significantly is the decrease in insulin-mediated uptake of glucose in the peripheral tissues.

Diabetes affects 17% of persons over 65 years of age and mostly are Type II or non-insulin dependent diabetics. Diagnosis is difficult because symptoms are non-specific such as body weakness, fatigue, weight loss or minor infection. Newly presenting diabetes in the elderly, can be asymptomatic for long periods because of the high renal threshold for glucose (blood glucose level at which glucose spills into the urine) which protects against the osmotic effects of glycosuria or sugar in the urine.

While the increased frequency of diabetes is not clearly associated with an increased mortality, diabetes in the older age groups has significant morbidity espe-

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Diabetes in the elderly: Is it different ?



cially from complications. Diabetics who survive to enter the elderly age group are at particular risk of the duration-related small vessel (microvascular) complications, especially retinopathy, and of age-related acceleration in atherogenesis.

Many factors affect the control of diabetes mellitus in the elderly. They are as follows:

Altered senses- decreased vision, decreased smell, altered taste perception, and decreased proprioception.

Difficulties in preparation and consumption of foods, tremor, arthritis, poor dentition, and alterations in gastrointestinal function and nutrient absorption.

Altered recognition of hunger and thirst.

Altered renal and hepatic function.

Effects of other diseases-acute: infections; chronic: systemic, neoplasia.

Decreased exercise and mo-

bility.

Drugs- other medication, alcohol.

Neuropsychiatric problems- bereavement, depression, and cognitive impairment and dementia.

Social factors- inadequate education, poor dietary habits, living alone, and poverty.

Acute complications of diabetes in the elderly arise from difficulties in glucose control. Diabetic ketoacidosis (DKA) is a rare occurrence and is treated similarly to DKA in young diabetics. In contrast to ketoacidotic coma, hyperosmolar non-ketotic coma, is a diabetic complication, characteristic of the elderly population. Most patients suffer from an "underlying chronic disease," which had been cured with potentially diabetogenic drugs (e.g. steroids), or poorly controlled diabetes may deteriorate because of an acute disease, mostly infections. The extremely

high mortality rate of hyperosmolar coma may be related to old age, as it mostly develops in the elderly population.

An elderly diabetic, whether treated with insulin or oral hypoglycemic agents, is at an increased risk of developing hypoglycemia. Sustained hypoglycemia is a potential problem particularly with the use of long acting sulfonylureas. Seltzer in 1975 found that age was one of the major factors predisposing to hypoglycemia with sulfonylureas. The reason for this risk include age-related alterations in pharmacokinetics, drug interactions, decline in the autonomic nervous system function with aging, and social settings in which hypoglycemia may not be detected. Elderly patients usually take many different drugs some of which may potentiate the sulfonylurea action including salicylates,

(Continued on page 10)

NEWS FROM THE INTERNATIONAL DIABETES FEDERATION (IDF):

Release Date: 3rd May 1993

**NEW DIABETES FINDINGS
SUPPORT PLEA FOR WHO
UNIT**

The International Diabetes Federation (IDF) made a statement today, in support of continued funding for Diabetes Unit, part of WHO Division of Noncommunicable Diseases. The IDF's plea comes in the wake of a new survey from the Diabetes Unit which found that "in most communities at least 20 percent of diabetes cases were unknown...and in many communities over 50 percent were previously undiagnosed."

The survey is the first of its kind to produce directly comparable global estimates of the prevalence of Diabetes Mellitus in adults. It concludes that the survey results "...may be considered rather alarming, especially for developing countries and for the ethnic minorities in industrialised countries."

The IDF estimates that 100 million people worldwide suffer from diabetes, although WHO's survey could prompt a re-examination of this figure.

Speaking to the Committee A at the World Health Assembly, IDF President, Mr. Wendell Mayes, Jr. said: "...it has become obvious that diabetes is increasing in every part of the world. In Northern countries there has been up to a 50 percent increase in the incidence of insulin-dependent diabetes, but more alarming has been the global increase in non-insulin dependent diabetes, particularly in rapidly industrializing countries in the developing world..."

"Up to a third of the adult population have diabetes in certain countries, with an average 6 percent afflicted worldwide....Diabetes in all its forms

is a costly disorder...it has been calculated that in developing countries it could easily absorb up to 10 percent of the health budget it left unchecked."

"The presence of diabetes officer at WHO in Geneva has had a major beneficial effect...we feel strongly that continuation of the post is critical to efforts world wide to control and prevent diabetes and its complications."

The IDF statement coincides with the announcement of two further initiatives by the Federation. These include the announcement of the first ever IDF Education Foundation, which will offer doctors and health care specialists around the world the chance to share and improve their understanding of diabetes and its treatment.

Release date: 3rd May 1993

**FIRST EVER DIABETES
EDUCATION FOUNDATION
GOES OFFICIAL**

The International Diabetes Federation, (IDF), today announced the formal ratification of the first ever IDF Education Foundation.

Divided into a variety of special grants, the new Foundation will provide doctors and health care specialists around the world with the chance to share and improve their understanding of diabetes and its treatment. Diabetes Mellitus affects an estimated 100 million people worldwide but the foundation will give specific emphasis to developing countries, which currently face steep rises in the incidence of the condition.

News of the Foundation comes in the wake of a new survey by the World Health Organization which shows that "in most communities at least 20 percent of diabetes cases were unknown...and in many communities over 50 percent were

previously undiagnosed". The first of its kind to produce directly comparable global estimates of the prevalence of diabetes, the survey concludes that its results "...may be considered rather alarming, especially for developing countries and for ethnic minorities in industrialised countries."

The IDF Education Foundation will fund Short Training Fellowships, Leaderships or Health Care Delivery Courses and fact finding visits between professionals. The Lilly Fund, provided by Eli Lilly and Company is to provide a substantial sum towards research and education programmes. The Short Training Fellowships will be funded by a special contribution from the Wendell and Mary Jane Mayes Fund, a new grant, named in honour of IDF President, Wendell Mayes, Jr. and his wife.

The first ever President of the new body will be Professor P. J. Lefe'bvre, MD, PhD, current President of the Belgian Diabetes Association and of the European Association for the Study of Diabetes between 1989 and 1992. Professor Lefe'bvre accepted his appointment shortly after the Foundation was formally ratified in Heidelberg in late 1992.

Commented Professor Lefe'bvre: "I am delighted to preside over this excellent initiative. The complexities of the diabetic condition are enormous and the more support that can be given to professionals in treating it the better."

The Foundation's Vice Chairman will be Professor Jak Jervell, currently President-Elect for the International Diabetes Federation, who said: "We are extremely proud to have formalised the new Foundation and hope that it will be useful to

Diabetes in the elderly...

(From page 9)

sulfonamides, phenylbutazone, etc. The impairment in the autonomic nervous system function and the decline in the beta adrenergic receptor function may lead to decreased sense of hypoglycemia and less counter regulatory response during hypoglycemia. The effect could be fatal, e.g., heart attack, stroke, coma and death. If oral hypoglycemic agents are necessary to control symptoms or prevent microvascular complication, the shorter acting sulfonylureas are to be preferred. Most elderly diabetics would need insulin therapy because of persistent weight loss symptoms, profound weight loss and failure of maximal doses of tablets to control high blood sugar.

The entire patient's therapeutic regimen needs to be reviewed from time to time to determine if drugs such as thiazides, beta-blockers and steroids being used are essential. Assessing control of diabetes in the elderly requires a practical approach. A rigorous home testing should be avoided, instead a fasting or preprandial blood glucose level can be checked at required intervals. Urine testing should not be done. The doctor who attends the elderly diabetic, must steer a middle path between the over-zealous pursuit of tight metabolic control and the complacent attitude of minimal therapeutic intervention. No patient, whatever the age, should be denied the maximum benefits of logical treatment.

everyone, particularly those in developing countries."

The deadline for the first year's applications is November 15th, 1993 and should be made to the IDF Executive office, 40 Rue Washington, 1050 Brussels, Belgium.

leakage of fatty acids.

Others don't produce insulin to overcome the resistance. The result is high blood sugar: dia-

Fat Cells Follow Suit

betes.

Fat cells store energy for the

body. The body prefers to use

glucose for fuel, but when glu-

ucose levels are low, the body

breaks down and releases two types

of molecules, fatty acids and

glycerol, into the bloodstream to

be used as energy by other cells.

A fat cell doesn't react directly

releasing fatty acids.

But a fat cell requires fewer

molecules of insulin to keep it

from releasing free fatty acids

than a muscle cell requires to

take in glucose. A person whose

muscle cells are insulin-resist-

ant, but whose pancreas oblige

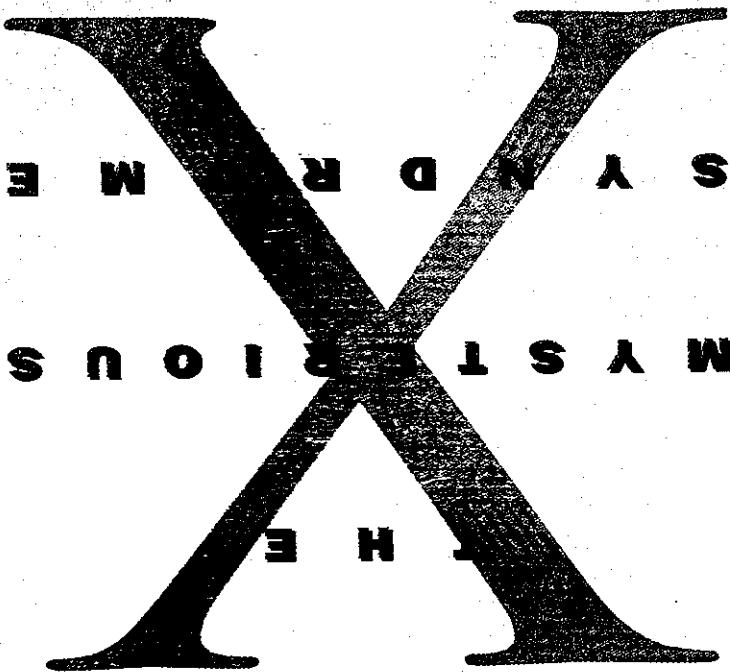
by putting out more insulin, of-

EVER WONDER WHY SO MANY PEOPLE WITH

TYPE II DIABETES ALSO HAVE HIGH BLOOD

PRESSURE AND HIGH BLOOD FAT LEVELS? MAYBE

IT'S ALL ONE DISEASE. BY MARIE MCCARREN



MYSTERY DIABETES

Feeling The Pressure

that does kill.

Meanwhile, the free fatty acids hook up with glycerol molecules to form dreaded triglycerides. High levels of certain types of triglycerides are part of dyslipidemia (too much of the bad blood fats, too little of the good fats). Dyslipidemia contributes to the development of coronary artery disease. And

people."

"High sugar doesn't acutely kill

Not great, but as Reaven notes,

out. Result: high blood sugar.

extra glucose the liver is dishing

amount needed to deal with the

won't be able to put out the

fatty acid release, it certainly

put out more insulin to suppress

liver. If the pancreas couldn't

denly got extra glucose from the

ant to insulin, and now it's sud-

glucose because they're resist-

cells that don't readily take up

So here's a body with muscle

leakage more glucose into the

bloodstream.

Then the liver gets sucked in

to this charade. The liver nor-

mally releases glucose when the

body needs it. High levels of free

fatty acids cause the liver to re-

lease more glucose into the

bloodstream.

So here's a body with muscle

cells that don't readily take up

glucose because they're resist-

ant to insulin, and now it's sud-

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The Mysterious...

(from page 11)

the kidneys to reabsorb sodium, and the water that clings to it. This could raise blood pressure.

Insulin may also raise blood pressure by affecting the nervous system, which causes blood vessels to constrict, raising blood pressure.

Although many studies show an apparent link between high insulin levels and high blood pressure, a link doesn't prove cause and effect. Some scientist think insulin is getting a bad rap; others think the theory of syndrome X, and in particular the insulin resistance-high blood pressure link, may not hold true for all ethnic groups, for example, Black Americans.

Changing Odds

Insulin resistance is very common. About 25 percent of the people who don't have diabetes are insulin-resistant, but they

don't all end up with high triglycerides and high blood pressure. How come? A few good genes may soften syndrome X.

"You might have insulin resistance," Reaven says, "but also have the most powerful natural triglyceride disposal system known to man. In that way, you would overcome this one side effect of insulin resistance.

"There are many genetic factors, and many powerful environmental factors, that can modify-either make better or worse-the effects of insulin resistance or hyperinsulinemia (high insulin levels).

"Weight control and activity levels are incredibly important. You can improve all these things-high blood pressure, high triglycerides-by exercising and decreasing weight. And the heavier you are and the less active you are, the more insulin-resistant you will be, no matter

what your genetic makeup."

Why did insulin resistance evolve in the first place? Reaven speculates: "It was useful to have insulin resistance in the old days, because we lived under the constant threat of starvation. The brain needs sugar. If we didn't have enough food, we would break down our muscles to get sugar to feed our brains. If you don't have any muscle left, you can't look for food.

"Let's say both of us need 25 grams of sugar for our brains. My muscle cells are insulin resistant, so more sugar is left in the bloodstream for the brain to use. I don't break down more muscle to feed my brain.

"Eventually, I'll find a deer, and you won't. So back then, being insulin resistant was terrific."

Marie McCarren is associate editor of *Diabetes Forecast*.



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NEWS FROM THE I.D.F.

Release Date: 26 April 1993

WINNERS ANNOUNCED FOR WORLD DIABETES DAY '92 POSTER COMPETITION

Three winning entries have been chosen for the 1992 World Diabetes Day poster competition. First place is given to the entry from the National Committee for Diabetes Associations in Italy, submitted on behalf of all of the Italian members. Second place is given to the Portuguese Diabetic Association and third to the entry from the Argentinian Diabetes Society.

Organized to celebrate the 1992 World Diabetes Day events, entries were judged at the IDF offices in March 1993. The judging panel included, Dr. Stein Vaaler, Editor in Chief of the IDF Bulletin, Dr. J. Thiery, from World Diabetes Day sponsors, Boehringer Mannheim,

GmbH, and Hilary Williams, IDF Executive Director.

The winning entry is by 39 year old Marongiu Giosue' from Cagliari in Italy. A full time artist, Mr. Giosue' regularly shows his work at public exhibitions and also has his own gallery.

In 1991 he founded the cultural periodical, "Sogni", which contains a special column dedicated to problems and issues that are of public interest. Called "Solidarity" this column has featured information supplied by the Italian Association for Juvenile and Infant Diabetes. It is through this connection that he became aware of, and entered the World Diabetes Day poster competition.

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