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DiabetesWatch

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Diabetes & Obesity: AN

Edith Dalisay-Arceo, MD
UERM-MC

Excess body fat is associated with an increased risk of a number of health problems which include type 2 diabetes mellitus, hypertension, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, and certain cancers. The health risks in obesity are seen in all population.

The risk for type 2 diabetes as BMI increases has been shown by some epidemiological studies. In particular, the Nurses Health Study has reported that a greater risk of diabetes was seen in patients with a BMI as low as 22 kg/m^2. In patients with a BMI of 31 kg/m^2, the risk of type 2 diabetes increased by more than 40-fold. In addition, the study also reported that changing body weight is also a strong risk factor for diabetes. When compared with women of stable weight, women who gained 20 kg or more during adulthood demonstrated a 12-fold increase in risk for type 2 diabetes. In another study, this time involving male health professionals in the USA, the relative risk of diabetes in men with a BMI P 35 kg/m^2 was 42 tiroes higher than that of men with a BMI < 23 kg/m^2 The change in weight was also a risk factor in these men as men who gained 15 kg or more after the age of 21 years had a 3.4 times risk as compared to the men who stayed within 2 kg of the weight they were at age 21.

Available data suggested that obesity - and in particular central, or abdominal obesity - causes insulin resistance with hyperinsulinemia and this is believed to play a primary role in the development of type 2 diabetes. Although alterations of muscle-fuel metabolism are central in insulin resistance related to obesity, all other major glucose regulatory tissues including liver and fat cells are also affected. It is believed that obesity-induced insulin resistance is mediated in part by high levels of free fatty acid and tumor necrosis factor alpha released by excess adipocytes. The elevation of free fatty acid levels can inhibit muscle glucose utilization, increase hepatic glucose output, and stimulate insulin secretion from pancreatic beta cells, causing hyperinsulinemia, and in persons with a genetic susceptibility, overt hyperglycemia. The elevated levels of tumor necrosis factor also inhibit muscle glucose utilization compounding the problem of insulin resistance.

IDF Adopt / Sponsor A Child with Diabetes Project

Recently, the Philippine Center for Diabetes Education Foundation Inc., (The Diabetes Center) successfully organized the special meeting of Prof. Martin Silink, MD with the different key organizations of the country involved in diabetes care.

Prof. Martin Silink, MD, chairman of the IDF Consultative Section on Childhood and Adolescent Diabetes and president of ISPAD (International Society for Pediatric and Adolescent Diabetes) was recently assigned to chair the "Adopt a

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PDA Foot Council: *National Consensus Assembly*

The National Consensus Assembly meeting of the PDA Foot Council held last February 12, 2000 at the Shangri-La Hotel was a success. The participants were endocrinologists, diabetologists, diabetes nurse educators, podiatrists, and physical therapist from regions 1 to 11 of the country. The meeting tackled the implementation of the International Consensus Guidelines on the Diabetic Foot and its adaptability to the local setting. Also present during the

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All-New PDA ANNUAL CONVENTION

The annual convention of the Philippine Diabetes Association will be held on December 5 and 6, 2000 at the century Park Sheraton. This year, the convention will take on a new format in order to provide a wider scope of topics. Concurrent symposia will be conducted simultaneously: a research oriented session which would include topics directed towards possible future therapies and a more clinically oriented session that will provide

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Una C. Lantion-Ang, MD
PDA, President

Watch that waist!

In the last few months, we have seen the intense campaign of the PNP (Philippine National police) in waist reduction among its elite officers and men. Their hierarchy believes that a physically and mentally fit member of their organization makes a more effective and efficient guardian of peace and order in that he is more agile, quicker to respond to emergency situations and hopefully, lives longer to serve the Filipino community.

We, the providers of Diabetes Care in the Philippines have long been guardians of that waist - full figure among our diabetic population. The renewed call is for simple but effective measures to keep that waist more shapely among our diabetic patients.

Why the waist? It is easily noticed. It is very accessible to measure and more importantly it is a marker for serious medical events if left unguarded.

Indirectly the waist reflects the source of "bad fat" from the abdominal region that feeds the heart and its tributaries, contributing to the increased incidence of heart attacks, strokes and clogging of the blood vessels commonly seen in diabetic patients.

What simple measures can we suggest for better patient compliance?

1. Measure that waist every week. The waist is the smallest circumference midway between the lower ribcage and the upper hipbone.

For females, the target figure is 32 inches.

For males, the target figure is 36 inches.

(Recall the resounding number 34!!)

Invest in a tape measure and check that waist every Monday, (after a weekend bout).

2. Master the Filipino food pyramid guide, where complex **carbohydrates** are to be eaten most and fat the least.

3. Exercise everyday. For those who are unable to do whole body exercises, seating down exercises where arms and hand movements are utilized for exercise are effective in burning those extra calories.

4. Be consistent in doing steps 1, 2, and 3.

While we do not wish to sound regimented, **discipline** is the key to a healthy and beautiful waistline.

To all providers of Diabetes Care, Filipino diabetic patients and their families, let us outshine those men in uniform!

MEANDERINGS.....

To be Obese is to Risk Being Diabetic

Augusto D. Litonjua, MD, Editor Emeritus

Obesity is defined as having 33-35% of the body weight as fat, if you are a woman. Males are considered obese if 30% of their body weight is made up of fat.

Obesity is defined as having a body mass index (BMI) of 28 or over in the Asian population. The BMI is obtained by dividing the weight in kilograms by the height in meter squared. The normal BMI is 22.9 or under, whereas a BMI of 23 to 27.9 is considered overweight.

It is now recognized that obesity imparts to the individual a great risk for developing type 2 diabetes mellitus. Other diseases that are associated with the obese person are: gallbladder disease, lipid disorders, breathlessness and sleep apnea.

Obesity also increases the risk of the individual to have heart disease, high blood pressure, osteoarthritis of the knees and hips, as well as gout.

Cancer of the breast in the postmenopausal woman occurs 1-2 times greater in the obese, as well as cancer of the endometrium and cancer of the colon. Menstrual abnormalities occur with greater frequency in the obese premenopausal woman.

In the forefront of the epidemic of type 2 diabetes worldwide is the Asia Pacific region. It has been determined that this has occurred in parallel with the increasing rates of obesity.

Why does obesity predispose one to having diabetes? The answer lies in the fat mass previously considered inert but is in reality a very active organ which produces a lot of hormones and other substances. Considered products of the fat mass which are directly involved in the causation of diabetes in the obese person are the following: the non-esterified fatty acids or NEFA; an inflammatory product called tumor necrosis factor alpha or TNF alpha; and leptin, another hormone-like substance.

NEFA interferes with cell freely, and when their concentration in the muscles and liver rise, they prevent glucose or sugar from being metabolized properly and ultimately bar the glucose from entering the cell. Glucose then rises in the blood.

TNF alpha is a direct inhibitor to the insulin receptor, a structure on the cell wall of tissues like the cl which normally provides the venue by which insulin enables glucose to enter the cells and be metabolized With the insulin receptor inactive, glucose again rises in the blood

Leptin may also increase the resistance to insulin action through some ways which are

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To Be Obese...

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not quite clear at this time. However, it is known that leptin increases the transformation of fats into glycogen, which is then broken down by the liver to glucose and finally released into the circulation to raise the blood glucose.

The increase in fatty acids is also injurious to the beta cells of the pancreas. The beta cells are the sources of insulin, and if non-functional would result in the decline of insulin for the person's use.

Verily, there are a lot of evidences which link obesity to j type 2 diabetes mellitus. It is time to put an end to our unhealthy eating habits and increase our physical activity to avert gaining too much weight. In this way we can prevent the prevalence of type 2 diabetes from getting out of hand.

IDF Adopt...

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Child with Diabetes" project of the IDF, which was unanimously endorsed by the IDF board of Management, IDF-WPR Council and the chairman of the region. The main objective of this project is to address the plight of children and adolescents with diabetes in developing countries. This program is grafted onto the back of an established, reputable childhood sponsorship programme conducted by non-government organizations (NGOs). The 2 NGOs that have accepted the concept are World Vision Australia and HOPE Worldwide.

The Philippines, among other developing countries, was considered as one of the possible pilot sites. His recent visit to our country was to assess the needs of our diabetic children and at the same time, gather views of the key people and organizations which will help draft the requirements of a program particularly suited for the Philippines. All information gathered during this special meeting was presented during the workshop on March 24th-25th held in Sydney, Australia. This workshop was attended by IDF Board of Management, World Vision Australia, HOPE Worldwide, ISPAD, Diabetes Australia, and the pharmaceutical industry. The aim of the workshop was to promote the concept, determine the processes, identify pilot sites and determine appropriate measures. During this workshop, the Philippines, Fiji and Indonesia were chosen as the pilot sites for the project.

The special meeting held last March 12, 2000 at the City Garden, Ortigas Center, Pasig was attended by Drs. Augusto D. Litonjua (President, Diabetes Center), Ricardo Fernando (President, ISDFI), Lina Lantion-Ang (President, PDA), Ruby Go (Vice-President, PDA), Mary Ann Lim-Abrahan (Chairman, Medical Bureau, Diabetes Center), Leticia Buenalez (President, PPSME), Carmelita Domingo (Chief, Pediatric Endocrinology Section, UP-PGH), Cynthia Manabat (President, PSEM), Elizabeth Paz-Pacheco (Vice-president, PSEM), Cynthia Chua-Ho (Immediate Past President, PSEM), Roberto Mirasol (Camp Cope Coordinator), Elizabeth Ann Fernando (Rainbow Camp Coordinator, ISDFI), Mrs. Baby Dysangco (President, JDF Philippines), and Mrs. Rhodora Villanueva (President, DIACARE), Zenaida Mascarinas (VP,

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Diabetes Camping Conference 2000 in touch

Jose Carlos S. Miranda, MD
Camp Cope

The Third International Diabetes Camping Conference was held at Camp Winona, Florida last February 16 to 20, 2000. This year's conference was well attended and represented by different countries who want to learn more and share about diabetes camping. So what is this all about?

The DCA or Diabetes Camping Association was founded in 1996 when a group of camping professionals spent a weekend discussing the many challenges that face all of us as we look toward camping in the 21st century. The first two conferences reinforced the belief

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Letter from CAMP COPE

Dear Mom and Dad,

By now, you must have heard about the wonderful time we all had at Forest Club, Brgy. Puypuy, Los Baños, Laguna for Camp COPE (Children Overcoming Diabetes Problems Everywhere). It's no joke we had a blast! We had fun all the way from the first day to our last day of camp. For once, there were more insulin dependent diabetics than those without. The daily rigor of checking our blood sugars, injecting insulin, watching what we eat, trying to become active didn't seem to matter. It was the "in" thing to do in the camp. We had so much fun we never became homesick (at least most of us). Tito Joey (Miranda), with the counselors did a great job in putting a very tight program of actives, less actives and rap sessions. We had tree planting,

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Diabetes Center Holds a 2-Day Update ror Diabetes Educators

On December 3 and 4, 2000, the Philippine Center for Diabetes Education Foundation, Inc. (Diabetes Center) will hold its Annual Update for Diabetes Educators. This year, there will be a 2-day session with no less than the International Diabetes Center (Minnesota) faculty and the medical bureau conducting the review/update. Ms. Ellie Strock, proponent of Stage Diabetes Management, mentioned that the data on the impact of diabetes educators using SDM (Staged Diabetes Management) to support primary care is exciting, cost-effective and shows significant improvement in outcomes. She will tell us more about this information as well as strategies for implementation of SDM during our update. This update will also give our educators a chance to review for next year's certification exam. Passing the exam (both oral and written) will confer the successful educator the title "Fellow in Diabetes Education." Anyone who is interested may please contact Mrs. Susan B. Trinidad at telephone number 893-6070 or visit us at Room 366 Makati Medical Center Monday thru Friday from 8-5 pm. This very special program is educator-helping educators in the fight against diabetes through EDUCATION.

Diabetes Experts Agree...

Susan Bernal-Trinidad
Executive Officer, Diabetes Center

Everyone will agree with me that the key to successful management of Diabetes is EDUCATION. Education is now considered the 4th prong of treatment in the management of diabetes-afflicted patient.

Last April 8, Diabetes Educators gathered at the New World Hotel to attend a very interesting symposium on Diabetes Care and Education. A very prominent educator, Dr. Trisha Dunning, from Australia, shared her expertise on motivating patients and tips on becoming an effective educator.

Back to back with each topic was a panel discussion composed of healthcare professionals from different disciplines; mostly doctors, nurses, dieticians, and patient-psychologists from both the government and the private sectors who collaborate in the care of individuals with diabetes. It was an informative and exciting encounter where members from various organizations communicated with each other under common, agreed-upon therapeutic goals.

Everyone agreed with Dr. Dunning that Diabetes education does not exist on its own but is integrated into the total diabetes management plan. The overall affected outcome of diabetes education is to increase knowledge, to build skills and to develop attitudes that lead to improvements in metabolic status, quality of life, reduction in or prevention of complications, and facilitation of the responsibility, decision-making and self-care of people with Diabetes.

Diabetes Camping...

(From page 5)

that DCA can be an effective voice for "Quality Camping" for children and their families who are living with diabetes.

This year's 3-day conference was successful. Certain topics/problems were presented in interactive sessions. Some of the topics included: multiple session and year round camps, working with challenging behavior, camps for families, siblings, grandparents, and friends, adolescent camping issues, etc. Sessions were done within the camping grounds so that we could get the "feel" of camping.

Each representative from different diabetes camps was also encouraged to share their ideas on dealing with problems encountered during camps.

Some of the highlights of the conference were the lecture on "Beyond the Traditional Camp" by Dr. Sam Wentworth, the new president of DCA; the inspirational talk by Ms. Nicole Johnson, a diabetic on insulin pump who is Miss America; the Monte Carlo party; and of course, the campfire.

What impressed us the most in this conference is the dynamism and enthusiasm of the officers and members of the association. To think, most of them are not in the medical field! Still, their interest in improving and uplifting the lives of diabetic children through camping never fades. It's global and it's a good thing that we are a part of it, keeping in touch to improve the lives of our own diabetic children.

Weight loss guide.

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Key 3. A healthful, low calorie diet is the only good way to take off pounds.

Key 4. An active lifestyle helps lost pounds stay lost.

Key 5. If you have a lot of weight to lose, modern medicine has some extra help to offer.

Key 6. Your weight-loss program must coordinate with your diabetes care.

Key 7. Permanent weight loss requires that you change your lifestyle for good. Good health habits help you most when you practice them everyday.

These elements may be easier said than done but with conscious effort from the physician and determination from our patients, obese diabetics can certainly achieve a healthier and longer life that is free of complications.

Letter...

(From page 5)

fishing, hiking, trekking, swimming, running, singing, dancing, cooking, stretching, cheering, drawing, painting, praying (phew!), and a lot more. We had a day trip to Lipa and saw how coffee is planted and cultivated. The magic of flower arrangement was introduced to us (the boys slept through this!). We went to a dairy farm to see how milk is extracted from the cow (yes, Mom... they actually squeeze the tits!). Our dietician, Tita Liza (Mallari) gave us all a special treat - ice cream. (I guess we can only do this if we are active as we are in camp!) Our bus had a minor problem but was fixed in no time. By this time, it was raining hard we were practically drenched. Don't worry, Dad, Tita Susan (Trinidad) had all the right medicines. Our campfire was put off because of the rains but we had fun anyway with games. Our water Olympics was a huge success. Our creativity was tested with our T-shirt painting and the art competition sponsored by Johnson and Johnson. By now, you would think we were pretty tired but our energies were up for a balloon party where all of us had hats and balloons. We had so much fun we were singing, dancing, and drinking (OOPS... diet colas of course) all through the night. We just can't get enough of each other, we went for a swim... We had to practically beg Tito Bobby (Mirasol) to allow us. We learned a lot here in camp. Tita Beth (Pacheco) and all the other docs' rap session were pretty cool and informative. We all had fun cooking for our guests the next day, showing off how happy we were at camp. But we had to go home (we missed you, too!).

Mom and Dad, please allow me to come back next year. I promise to be good. I will see to it that my sugars are good and have my regular follow up with Dr. Litonjua. Just let me come back. Please...

Love from your son,

B.

PDA Foot Council...

(From page 1)

meeting were Dr. William Lavadia, representing the Philippine Orthopedic Society, as well as Ms. Sandy Dean and Isabelle Henry of the International Diabetes Institute, Melbourne, Australia.

Also, the Foot Council has started its Foot Lecture series. Recently, it held two meetings as part of its Foot Lecture series. There were 2 lectures for the first meeting held at the PDA office last January 27: "The Anatomy of the Foot" by Dr. Emil Tablante, Foot and Ankle Ortho Surgeon, St. Luke's Medical Center and "Biomechanism" by Dr. Jose Rafanan, Rehab Med, UP-PGH. Last May 16, the second Foot Series Lecture featured Dr. Marita Dantes, Head, EMG-NCV unit, UP-PGH, who gave a talk on the "EMG-NVC: Indications and Interpretation in Diabetic Neuropathy".

Coming Soon!!...

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current clinical approaches to diabetes management. Such topics as gene and islet cell therapy, diabetic intrauterine environment and PPAR transcription factors will be presented. Screening and detection of macrovascular and microvascular complication, landmark clinical trials in diabetes and the use of alternative treatment such as herbal medicine as well as the role of angioplasty in peripheral vascular diseases will also be discussed. International and local experts have been invited to this year's annual convention. To provide interactions between the expert and the participants, the convention will end with the Meet the Expert sessions on the second day. For further information regarding this event, interested parties may contact Cecile at the PDA office at 531-1278.

IDF Adopt...

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DIACARE)- Also present during the meeting are the officers and directors of the Philippine Diabetes Association and Philippine Society of Endocrinology and Metabolism, the members of the working group for the Study of Childhood and Adolescent Diabetes of the Diabetes Center - Drs. Rosa Allyn Sy, Edith Dalisay-Arceo, Josephine Raboca, Siok Sua Cua, and Gigi Crisostomo and Mrs. Susan Trinidad. Mrs. Cathy Santillan (Board, JDF Phils.), and Mr. Eddie Ang (Country Manager, Novo-Nordisk Phils.) were also present.

This meeting was coordinated by Drs. Rosa Allyn G. Sy and Siok Suan Cua and Mrs. Susan Trinidad thru the generous support of Novo-Nordisk Phils.

Everything...

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rent illness.

What are the biochemical characteristics? The blood sugars are lower in Type 2 than in Type 1. Of course insulin levels are higher in Type 2, as well as the C-peptide. Patients in Type 1 can go into ketosis but is generally milder in Type 2 DM.

How are we going to diagnose? Testing criteria is that of an elevated overnight fasting plasma glucose with any 2 of the following risk factors: Family history of Type 2 DM in first or second degree; race or etnicicity (American Indians, African Americans, Latino, etc.). signs or conditions associated with insulin resistance (Polycystic Ovary Syndrome, hypertension, dyslipidemia, acanthosis nigricans).

How is treatment different? Treatment and management of these kids with Type 2 diabetes is the same and is centered on the weight, eating a healthy diet and getting regular exercise. These children can be screened regularly for diabetes related complications. It is recommended that oral medications are preferable to insulin and metformin has been used to treat these cases. The insulin sensitizers could be used theoretically but its use should be studied further in children.

DM Type 2 in children is a disease, which we need to be aware of. With the majority of Filipino children gaining more weight, following a higher fat and carbohydrate diet, we will see more of this disease. We hope that with this issue. I was able to answer some of your nagging questions. T

We welcome your comments, suggestions, and queries. Please fax at 723-3341.

Laura Trajano-Acampado, MD, UP-PGH

We had the privilege of attending the IDF WPR Diabetes Education Leadership Workshop last November 28-29, 1999 at Bangkok, Thailand. Mrs. Susan Trinidad, our diabetes nurse educator from Makati Medical Center, and I were fortunate to have been chosen to represent our country in this worthwhile endeavor.

We were excited to attend the workshop but we knew it was not going to be all fun. Just by basing it on the communications we received from the organizers prior to the workshop, we knew we were in for some serious business.

Before attending the workshop, we were requested to submit an information sheet, which contained overview of health care, DM problem and DM education in the Philippines. Likewise, we were requested to prepare a poster and bring relevant materials regarding diabetes education in the country. Add to that some advance reading we had to do before proceeding to the workshop.

The first day was a breeze. We arrived late in the afternoon in time for the registration and official welcome and a short introduction to the workshop and its objectives. The rest of the evening was spent getting to know each other in the cocktail reception.

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Everything you always wanted to know about

Roberto C. Mirasol, MD
St. Luke's Medical Center

This issue of Diabetes Watch, we are going to answer your questions on this explosive, increasing phenomenon seen among children that of Type 2 Diabetes Mellitus. In recent times, we see an increasing prevalence of Type 2 diabetes among children. Researchers have reported a tenfold increase. This bad news is scary, so we need to learn more about this disease.

Why is there an increasing prevalence of this condition? The exact answer at this time is elusive, however, they blame obesity as a major culprit. In studies they have found a 54% increase in obesity and a 98% increase in super obesity. Heredity seems to play a major role as well. The American Diabetes Association recommends that all overweight children, ages 10 and older, be tested for diabetes every two years at the onset of puberty. The risk escalates if the child has family history of Type 2 diabetes, or show signs of insulin resistance, high blood pressure and high cholesterol levels.

What are the clinical characteristics of Type 2 DM in children? They have found preponderance in minority children - African-American, Latino children, Pacific islanders. Age at diagnosis usually at 13.5 years, majority of which are in midpuberty. There is preponderance for female by a ratio of 3:1. Their BMI is usually 30-38. Very important is to detect acanthosis nigricans. Family history is strong for diabetes mellitus. Patients may present ketoacidosis - 50% of the time.

What is acanthosis nigricans? This is the darkish, coarse, leathery, pigmentation at the creases of the skin. Usually seen at the nape or at the back of the nape- sometimes showing up as a ring around the neck. However, it has also been found on armpits, knuckles, elbows and knees. This has been associated with insulin resistance. Some parents have mistaken the dark patches as dirt and have resorted to scrubbing their children's necks in an attempt to remove the marks.

If this is Type 2 DM, why is there ketoacidosis? Ketosis may or may not be present at diagnosis, similar to Type 2 diabetes in adults. This could present later during intercur-

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10 Good Reasons Why You Should EXERCISE

(...especially if you are diabetic and obese)

Rosa Allyn G. Sy, MD
Cardinal Santos Medical Center

Oftentimes, we tell our patients to increase their physical activity and to exercise to become fit. Being fit is to be sound physically and mentally, to be healthy and adaptable to every new condition that come into their lives. Exercise makes this possible for a number of reasons. Here are 10 good reasons why you should get yourself a good pair of exercise shoes and get started:

1. It lowers your blood sugar level. With exercise, glucose is taken out of your blood by the muscles and used for energy during and after exercise.

2. It improves insulin resistance. In the recent 10th European Congress on Obesity, new research presented showed that insulin resistance at the muscle level is due to the presence of intramyocellular fat. Its presence impairs glucose utilization by the muscle cells. With exercise these fat particles marbled in our muscles are reduced leading to the increase in insulin sensitivity and eventually improvement in glucose utilization.

3. It helps prevent the development or progression of the Type 2 DM in predisposed individuals. Large clinical studies done in the U.S. such as the Diabetes Prevention Program showed that (preliminary data) regular exercise and lifestyle change could significantly delay or prevent the onset of overt diabetes mellitus in individuals with impaired glucose tolerance.

4. It helps prevent or delay blood vessel and heart diseases. With regular exercise, you increase your HDL-C (good cholesterol) and decrease your LDL-C (bad cholesterol) and triglycerides, which help prevent blockage of the big and small arteries.

5. It decreases your blood pressure. Daily exercise improves your circulation and strengthens your heart leading to better blood pressure control.

6. It decreases mortality in men with Type 2 diabetes. In a recent article published in the Ann. of Internal Medicine (2000; 132: 605-611), it was suggested that low cardiorespiratory fitness and physical inactivity are independent predictors of all-cause mortality in men with Type 2 DM. Physicians are therefore reminded to encourage patients with Type 2 diabetes to participate in daily physical activity and improve cardiorespiratory fitness.

7. It helps you manage your weight better. Patients who are overweight and are on a diet can lose weight faster with exercise by preventing muscle mass loss during the weight reduction process thereby prevents slowing down of their metabolism. With regular exercise, you will be able to maintain most of the weight you have lost and prevent weight regain.

8. It improves your flexibility. Exercising regularly makes your joints more flexible and

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Weight Loss Among Overweight Diabetics: **Is It** Achievable?

Susan T Yu-Gan, MD
Metropolitan Hospital

Although people now are more conscious about their weights, thanks to the efforts in increasing the awareness of the health hazard it brings, a lot still can't lose weight and maintain the loss. A long-lasting weight reduction is therefore a challenge to both the doctor and the patient. Following are some tips to help overcome this challenge.

First of all, we need PATIENT MOTIVATION. Some people have irrational drives like for example: they are afraid to lose weight because people might think that they are undergoing an economic crisis. Personal habits and various psychological problems are also hindrances to weight loss. Possible methods to improve patients' motivation are: 1. defining a goal from the start; 2. stressing that weight loss will result in improvement in their diabetes, hyperlipidemia, hypertension, back pain and other joint pains; 3. the possibility of lowering their medication doses; 4. removal of an independent cardiovascular risk factor; and 5. they can dress better and look better. The use of drugs to decrease appetite or food consumption cannot be a permanent solution but can be useful to motivate some patients, to show them that losing weight is indeed possible.

The second part is COUNSELLING on weight loss. If the patient admits to eating excessively, the easiest way to start is cutting every portion by half. If he does not agree, the task is more difficult. A possible start is the use of a food diary for a few days. It is best if the patient writes down everything he or she eats immediately after in a pocket diary rather than using the recall method. Other useful advice: don't skip breakfast; have one or two small snacks; never get second helpings: eat slowly and sit down to cat; eat with somebody who eats very little: do not skip a meal because you may tend to binge afterward; check body weight weekly (target: lose 0.5 to 1 kg); seek help of relatives and friends; do not hesitate to leave something on your plate; eat a snack before a party and before shopping for food; brush your teeth immediately after each meal to avoid eating again. And most importantly, DO NOT STOCK JUNK FOODS AT HOME.

The most difficult task is maintenance of results. This should be explicitly considered right from the beginning. The fact that these behavioral changes are "forever" is often overlooked. These include a) weekly check of body weight, b) daily exercise (e.g. 1 hour's brisk walk), and c) healthy eating habits (less protein and saturated fat, more fiber and complex carbohydrates).

Just this morning, I read in the newspaper about a weight loss center that charges two thousand pesos for every pound you lose. Well, weight loss need not be that expensive but it definitely must be a lifetime habit and commitment.

INSULIN SENSITIZERS IN THE TREATMENT OF TYPE 2 DIABETES

Cynthia Halili-Manabat, MD, PhD
Assoc. Professor, UP College of Medicine

The pathophysiology of type *2* Diabetes Mellitus involves defects in three main organ systems, which together contribute to hyperglycemia, i.e., increased hepatic glucose production, impaired insulin secretion and increased peripheral insulin resistance.

Insulin resistance is defined as reduced responsiveness to normal circulating concentrations of insulin. Many studies have indicated that insulin resistance may be the primary defect in type *2* diabetes since it can be detected long before deterioration of glucose tolerance occurs, even at a time when insulin secretion is increased. Also, in many population groups, insulin resistance and hyperinsulinemia precede the development of type *2* diabetes.

Therefore, pharmacological measures which target insulin resistance or which improve insulin sensitivity, i.e. "insulin sensitizers", have great therapeutic potential for the treatment of type *2* DM. At present, there are *2* classes of drugs, which specifically target insulin resistance, i.e., biguanides and thiazolidenediones.

Biguanides. Metformin is the only drug in this class currently available. It counters insulin resistance by improving sensitivity to insulin in both the liver, where it inhibits glucose production, and in peripheral tissues, where it increases glucose uptake and its utilization in skeletal muscle. Specifically, in the liver, metformin induces a fall in glucogenic precursors leading to suppression of gluconeogenesis and a reduction in glycogenesis. It also reduces the liver response to glucagon. In the skeletal muscle, metformin improves insulin action by increasing tyrosine kinase activity of the insulin receptor. Amplification of tyrosine kinase signal leads to improved translocation of the GLUT 4 transporters and facilitated uptake of glucose into the muscle fiber, where it can subsequently be used for glycogenesis or glycolysis.

Metformin has been shown to reduce fasting plasma glucose (FPG) by 50-70 mg/dl and the HbA 1c by 1.4-1.8%. Hypoglycemia is not a danger with metformin monotherapy. Its use is not associated with weight gain and it can even improve the lipid profile, producing an increase in HDL cholesterol and a reduction in triglycerides, LDL cholesterol and total cholesterol.

However, it should not be used in patients with renal insufficiency (creatinine > 1.5mg/dl) because lactic acidosis is more likely to occur in these patients. It should also be withheld from patients undergoing contrast studies, surgery, or other stressful conditions such as severe infections, congestive heart failure, stroke, and MI.

Thiazolidenediones (TZD). Rosiglitazone is currently the only TZD available in the Philippine market. An earlier TZD, triglitazone, was voluntarily withdrawn by its manufacturer from the market, while an upcoming one, pioglitazone, is not yet available.

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Kitchen Corner!

Who says that when you're trying to lose weight you can no longer eat good food? Here are some samples of non-fattening and delicious dishes which you can enjoy while maintaining normal blood sugar and losing weight from Robyn Webb (ADA).

Teriyaki Pineapple Chicken

Sweet pineapple rings lop hot grilled chicken.

1 garlic gloves, minced
1/2 cup unsweetened pineapple juice
3 Tbsp Worcestershire sauce
1/4 cup teriyaki sauce
2 tsp hot pepper sauce
1 1/2 lb boneless, skinless chicken breats

1. Combine all marinade ingredients in a plastic bag. Add the chicken breasts and marinate in the refrigerator at least 1 hour.

2. Prepare an outside grill with an oiled rack set 4 inches above the heat source. On a gas grill, set the heat to high. Grill the chicken breasts for 3-4 minutes on each side until the chicken is cooked through.

6 Servings/Serving Size: 3-4 oz.
Exchanges:
4 Very Lean Meat

Calories	*156*
Calories from Fat	*28*
Total Fat	*3 g*
Saturated Fat	*I g*
Cholesterol	*73 mg*
Sodium	*309 mg*
Carbohydrate	*3 g*
Dietary Fiber	*0 g*
Sugars.	*2g*
Protein.	*27 g*

Preparation time: 15 mins

Orange-Glazed Swordfish

These moist swordfish steaks are scented with ginger.

1 1/2 lb fresh swordfish steaks
1/2 eup fresh orange juice
1 Tbsp grated fresh ginger
2 tsp sesame oil
2 Tbsp lite soy sauce
1 Tbsp cornstarch or arrowroot powder
2 Tbsp water

1. Combine the swordfish with the orange juice, ginger, sesame oil, and soy sauce and marinate for 30 minutes. Prepare an outside grill with an oiled rack set 6 inches above the heat source. On a gas grill, set the heat to medium.

2. Drain and reserve the marinade. Grill the swordfish for about 6-7 minutes on each side until the swordfish is opaque in the center.

3. Place the reserved marinade in a saucepan and bring to a boil. Mix together the cornstarch or arrowroot powder with the water. Add to the sauce and cook for 1 more minute until thickened. Serve the orange sauce with the swordfish steaks.

6 Servings/Serving Size: 3-4 oz.
Exchanges:
4 Very Lean Meat
1 Fat

Calories	*167*
Calories from Fat	*55*
Total Fat	*6 g*
Saturated Fat	*I g*
Cholesterol	*44 mg*
Sodium	*304 mg*
Carbohydrate	*4 g*
Dietary Fiber	*0 g*
Sugars	*3 g*
Protein.	*23 g*

Preparation time: 10 mins

Creamy Vegetable Soup

This soup is great with crusty bread and fresh salad on a cool spring everting.

1 Tbsp olive oil
3 garlic cloves, minced
1 cup chopped cauliflower
I cup chopped brocolli
1/2 cup chopped carrot
1/4 cup chopped celery
1/2 cup chopped onion
1 10-oz can low-fat, low-sodium chicken broth
2 Tbsp Dijon mustard
Fresh ground pepper and salt to taste
1 12-oz can evaporated fat-free milk
1 Tbsp minced fresh dill
2 tsp minced fresh parsely
1 Tbsp cornstarch or arrowroot powder
2 Tbsp water
1/4 cup Parmesan cheese

1. Heat the oil in a stockpot over medium heat. Add the garlic and saute for 30 seconds. Add the next five ingredients and saute for 10 minutes. Add in half the can of broth and bring to a boil. Simmer for 10 minutes. Add in half the can of broth and bring to a boil. Simmer for 10 minutes. In batches, puree the contents of the stockpot in the blender. Set aside in a separate bowl.

2. In the same stockpot, heat remaining broth with the mustard, pepper, salt, and evaporated milk. Bring to a gentle simmer. Add the pureed vegetables and simmer on low for 5 minutes. Add the herbs and simmer for 2 more minutes. Mix together the cornstarch or arrowroot powder and the water. Add to the soup and cook for 2 minutes until thickened. Serve soup in bowls, garnished with Parmesan cheese.

6 Servings/Serving Size: 1 cup
Exchanges:
I Starch
I Monosaturated Fat

Calories.	*128*
Calories from Fat	*39*
Total Fat	*4 g*
Saturated Fat	*1 g*
Cholesterol	*5 mg*
Sodium	*275 mg*
Carbohydrate	*15 g*
Dietary Fiber	*2 g*
Sugars.	*9g*
Protein	*9 g*

Preparation time: 30 mins

Insulin...

(From page 13)

TZDs act by directly enhancing insulin sensitivity without any effect on insulin secretion. They interact with a family of nuclear receptors called PPAR (Peroxisome proleferator activated receptor). PPAR exists in a heterodimer with another nuclear receptor, RXR (retinoic acid). The binding of TZD to PPAR can induce the interaction of the complex with specific DNA sequences in TZD-responsive genes, such as lipoprotein lipase, resulting in enhanced transcriptional activity. The interaction with PPAR may also induce the expression of genes that encode for proteins that are the target of insulin action, such as the glucose transporters.

Rosiglitazone is associated with a reduction of FPG of 50-70 mg/dl, reduction of HbA1c of 1.2-1.5% and an increase in HDL cholesterol. Monotherapy is associated with weight gain, but hypoglycemia is not typically experienced.

Rosiglitazone is indicated as monotherapy in type 2 DM, or in combination with metformin, sulfonylurea or insulin.

Apart from targeting one of the primary pathophysiologic defects in type 2 DM, insulin sensitizers have the potential benefit of preserving pancreatic islet cell function. In addition, treatment of prediabetic individuals with a drug that can ameliorate insulin resistance has the potential of preventing the eventual development of type 2 DM. Ongoing clinical studies will tell us whether these drugs can provide a safe and effective means of preventing type 2 DM as well as treating nondiabetic syndromes associated with insulin resistance.

WEIGHT Loss GUIDE FOR PEOPLE WITH DIABETES

Grace delos Santos, MD
FEU-NRMH

Diabetes and Obesity is a deadly combination! It brings about multiple health problems and if left untreated can lead to multi-organ compSications. However, since diabetes and obesity are both lifestyle diseases, behavioral modification is important for successful management i.e.. blood glucose control and weight reduction.

Dietary modifications and exercise had been the mainstay ir the treatment of these 2 diseases. For many people, obesity results from over-eating which is often attributed to poor eating habits acquired through many years. To achieve good glycemic control in our obese diabetics, we have to control their weight To control their weight, it is therefore important to identify these eating habit problems and changing them into new and more positive ones.

It has been shown by several studies that incorporating behavioral modifications into the regimen improve induction of weight loss by 14-16% as against 10% weight loss if such regimen is not used. Furthermore, a 10% weight maintenance is also acnieved if one receives behavioral modification intervention. For these reasons, behavior therapy has become a standard treating modality in most program in the last several years. Its goals are to help patients modify their eating habits, increase their physical activity and to incorporate such changes in their daily routine helping them to make healthier choices.

To succeed in their behavior therapy, it is important to first identify patients' expectations (rate of weight loss, degree of weight loss, health or fitness, physical appearance, psychological benefit) and to identify concrete goals which will increase their success rate. Since all behavior is produced by various stimuli or cues we have to teach our patients to differentiate appropriate cues (headache, hunger, stomach pains, dizziness) from inappropriate cues of eating (depression. boredom. TV watching). Once cues or stimuli for eating habits are identified, eating behavior can be better controlled by consciously manipulating the events around them or by changing the rewards and activities associated with it. Some techniques in manipulating eating cues are the following: eating from a smaller plate, staying away from easy reach of junk foods, keeping yourself busy, shopping from a list and helping the party host in serving and entertaining guests. I also want to share with you the 7 (seven) crucial elements of weight loss for people with diabetes written by Drs. Barbara Hansen and Shauma Roberts of the ADA which will surely put some sense to the whole idea of weight reduction.

Key 1. Choosing the right target weight can make the difference between success and failure. Remember everyone's different, so target weight might be different, too.

Key 2. The best way of measuring your weight-loss program is by tracking your health (not just your weight). Your glucose level is your first and best measure of program.

(Topage 7)

10 Good Reasons...

(From page 11)

strengthens your muscles. Hence, it protects you from frequentmusculoskeietalaccidents.

9. it improves your immune system. Again, during the 10th ECO held in Belgium recently, it was suggested that moderate intensity exercise done regularly (3-5x a week) increases your natural killer cells acutely hence, improving your immune response. However, it was suggested that chronic, prolonged and strenous bouts of exercise could lower one's immune system by depressing one's natural killer cells and other inflammatory cytokines.

10. It delays the effect of aging. With regular exercise, stress is lessened and is believed to be due to the release of opoid-like substance during each exercise session. With proper handling of stress you can therefore delay the effects of aging.

These are the 10 good reasons why you should exercise! Indeed, exercise and fitness are key ingredients in diabetes care. To top it all, exercise is fun! When you increase your fitness. you improve your health and appearance and definitely feei better about yourself... So do something good for yourself! Get up and get moving!

IDF WPR...

(From page 9)

Day 2 and Day 3 were very busy, but definitely worthwhile, with sessions starting at 8:30 am and ending at 5:00 pm.

Day 2 started with an overview of the structure and function of IDF, the iDF Education Foundation, and the IDF WPR. This was followed by short presentations by the different country representatives on the status of diabetes education in their respective countries. After listening to the representatives of the less developed nations. we were happy to note that we were not doing so badly with regards to diabetes education in the country. On the other hand, listening to colleagues from more developed nations made us more inspired to do better.

After our presentations, we had very interesting sessions on being an effective diabetes educator, developing a diabetes education program and presentation skills.

In the evening, the participants were treated to a nice dinner and social programme.

Day 3 was just as hectic and interesting. There were several sessions, which include: Diabetes Education in me WPR. Introduction to Techniques on Critical Matrix. Barriers to Learning and Diabetes Education, etc.

The final session was devoted to the review of critical issues matrix, individual country plans for in-country education activity and future developments in diabetes education for the WPR.

Based on the final session. you can see that our work did not end with the closing ceremonies. in fact. it had just begun. We are expected to come up with an action plan based on the critical issues we have identified and of course implement it.

The workshop was truly a worthwhile experience. It reinforced our belief on the importance of diabetes education in diabetes management.

Susan and I would like to take this opportunity to thank the faculty of the IDF WPR Diabetes Education Leadership Workshop: Dr. Trisha Dunning, Prof. Clive Cockram, Prof. Martin Silink, Ms. Rebecca Wong, Ms. Eva Kan. and Mrs. Lorna Mellor for the workshop, who from start to finish, made our stay a most pleasant and rewarding one

The Western Pacific *Declaration* On Diabetes

June 4, 2000

We, the World Health Organization regional Office for the Western Pacific (WHO/WPRO), the International Diabetes Federation, Western Pacific Region, and the Secretariat of the Pacific Community, the signatories of this document, unite to highlight the serious nature of diabetes, currently estimated to affect at least 30 million people in the Region. We, on behalf of people affected by diabetes, jointly call upon governments, organizations and individuals in the Region to undertake the following actions, according to the needs of each country:

1. Recognize the personal, public and economic burden of all types of diabetes and establish diabetes as priority health concern.

2. Develop and implement national strategies and programmes to prevent and control diabetes and reduce its risks.

3. Work towards universal access to quality care, training, essential diabetes medications and other supplies and support for all people with diabetes.

4. Encourage a strategic alliance among governments, international and regional development agencies, health and non-health sectors, mass media, industrial partners, non-governmental organizations and other stakeholders involved in the prevention and care of diabetes.

5. Recognize and promote the importance of education for people affected by diabetes, health professionals and the general public in the prevention and management of diabetes.

6. Integrate diabetes activities with those of other non-communicable diseases in order to promote healthy lifestyles and environments for the prevention and control of diabetes and its complications.

7. Recognize and address the problem of discrimination against people with diabetes.

8. Encourage research to advance and apply knowledge about the effective prevention, delivery of care, and management of diabetes.

Manila Declaration
Five-Point Principles of Diabetes Care
July 21, 2000

The Philippine Center for Diabetes Education Foundation Inc. (Diabetes Center) in collaboration with the Philippine Diabetes Association, the different Medical Societies and pharmaceutical companies involved in the care of the patient with diabetes:

1. Strongly believe in the fundamental right of people with diabetes to good diabetes management and quality of life;

2. Commit ourselves to facilitate the individual's access to information, education and skills acquisition in the management of diabetes;

3. Support all means to achieve the goal of preventing and controlling diabetes to reduce its risks;

4. Recognize the importance of early detection of diabetes through nationwide screening of selected populations and through awareness programs;

5. Commit ourselves to help alleviate the suffering of people with diabetes and eventually reduce its morbidity and mortality as well as cost of diabetes care.

Diabetes Center Granted IDF Recognition

The Philippine Center for Diabetes Education Foundation, Inc. or better known as the Diabetes Center was granted recognition from the International Diabetes Federation Consultative Section on Diabetes Education (DECS).

The major objective of the DECS is to improve the knowledge of health professionals, policy makers and the community, in order to improve the management and education of people with diabetes.

The training courses, open to doctors, nurses and dietitians provides an overview of the treatment and educational methods culled from various prestigious institutions. It is being conducted by the Medical Bureau of the Center-mostly trained in renowned Centers of Europe and the Americas, namely: Mary Ann Lim-Abrahan, M.D., Laura Trajano-Acampado. M.D., Lina Eantion-Ang, M.D Thelma Dimalanta-Crisostomo, M.D., Susan Yu-Gan, M.D., Ruby Go, M.D., Cynthia Chua-Ho, M.D., Augusto D. Litonjua, M.D., Cynthia Halili-Manabat, M.D., Roberto C. Mirasol, M.D., Elizabeth Paz-Pacheco, M.D., Josephine Carlos-Raboca, M.D., May Ortiz-Sison, M.D., Tommy Ty Willing, M.D., Rosa Allyn Sy, M.D. and Mrs. Susan Bernal-Trinidad.

One specific requirement for acceptance into this week-long course is that the participants should render service to their community/province for 5 years. And they should assist in the setting up of a diabetes educational clinic in their locality.

Philippine Diabetes Association, Inc.

Unit 25, Facilities Centre
548 Shaw Boulevard
Mandaluyong City
1501 Philippines
Tel./FaxNo. (632) 531-1278
Infopage No. 1277-94661

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Editor-in-Chief, Emeritus
Augusto D. Litonjua, M.D.
Editors
Rosa Allyn G. Sy, M.D.
Patricia Gatbonton, M.D.
Members
Roberto C. Mirasol, M.D.
Allan S. Hernandez, M.D.

V

The Lighter Side of Diabetes

by Dr. Allan S. Hernandez