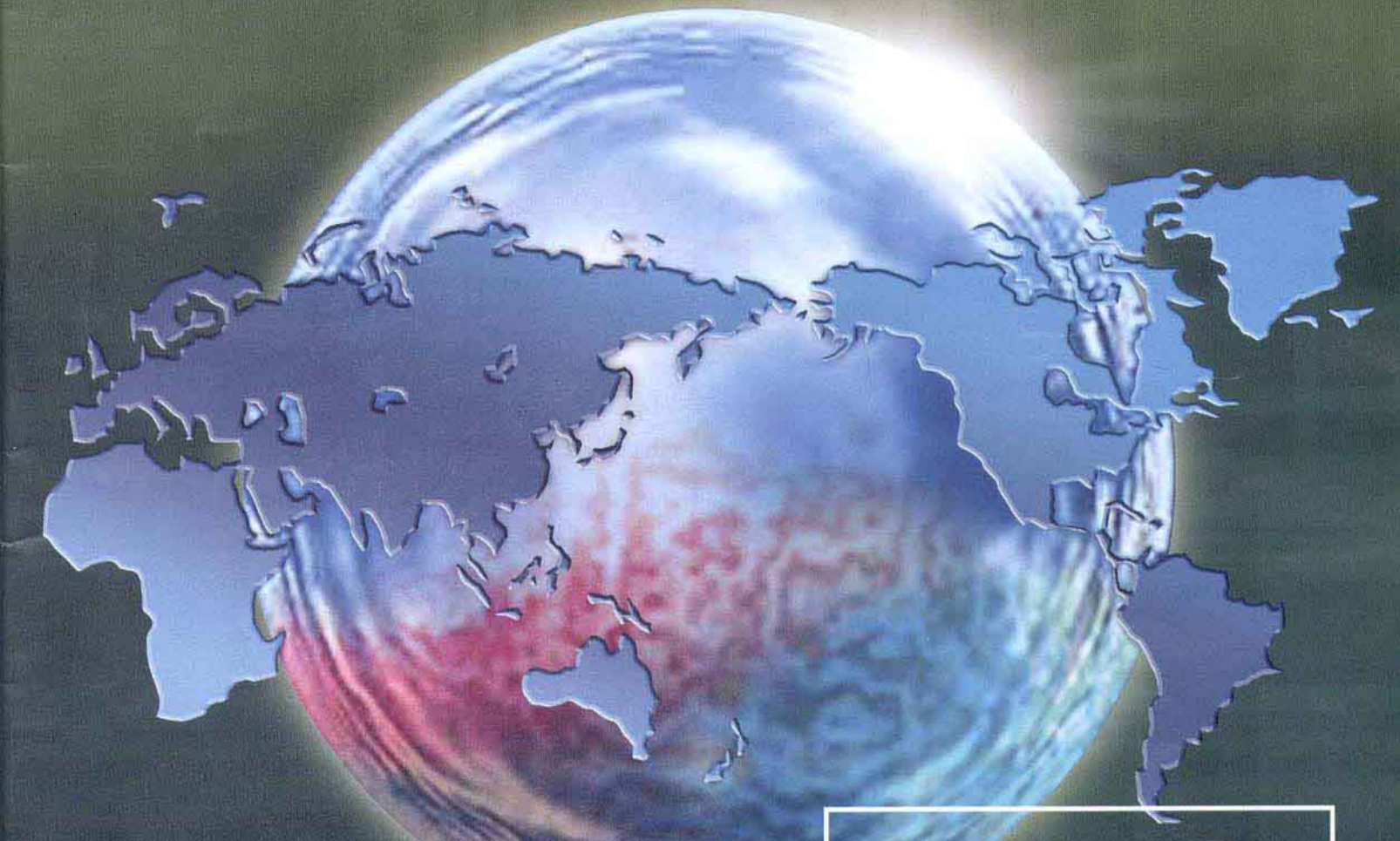
Member, International Committee of Diabetes Magazines, International Diabetes Federation (IDF), A Publication of the Philippine Diabetes Association, Inc.

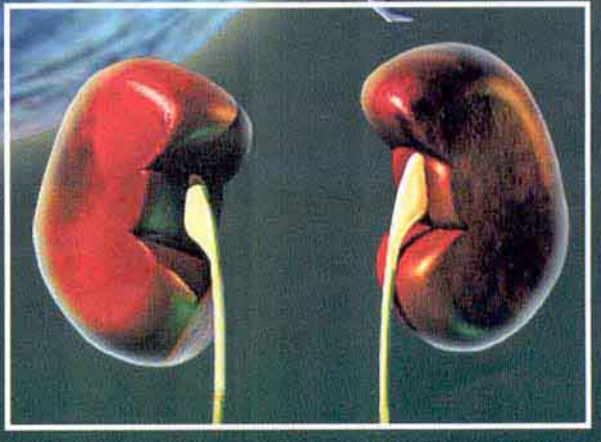
DiabetesWatch

JULY-DECEMBER 2003

YEAR XX, NO. 2

DIABETES: STOP THE RISE!





World Diabetes Day: Take Care Of Your Kidneys

Lifestyle Changes Can Prevent Diabetes

Postmeal Sugars Are Important

In our local setting, although *ampalaya* is among the herbs considered as an alternative medicine in the early 1990's, it's adjunctive role as treatment to diabetes had not been established by wide-scale trials. According to Secretary Dayrit, there was only one study on *ampalaya* done locally which had only 27 subjects and showed decrease in glycosylated hemoglobin (average blood sugar for the past 3 months) but not the fasting blood sugar. Safety is of paramount interest to everyone and it is true that *ampalaya* would not cause any untoward side effects (we all have eaten ampalaya at one time or another). The danger is when diabetics consider this herb their sole treatment for diabetes and stop taking their regular anti-diabetic regimen. They should be guided that due to lack of scientific evidence, *ampalaya* is only considered as a food supplement and not as standard nor alternative treatment. A supplement does not intend to prevent or treat any form of illness. Thus, diabetics should not withdraw their actual oral hypoglycemics if taken concominantly with *ampalaya*-based concoctions.

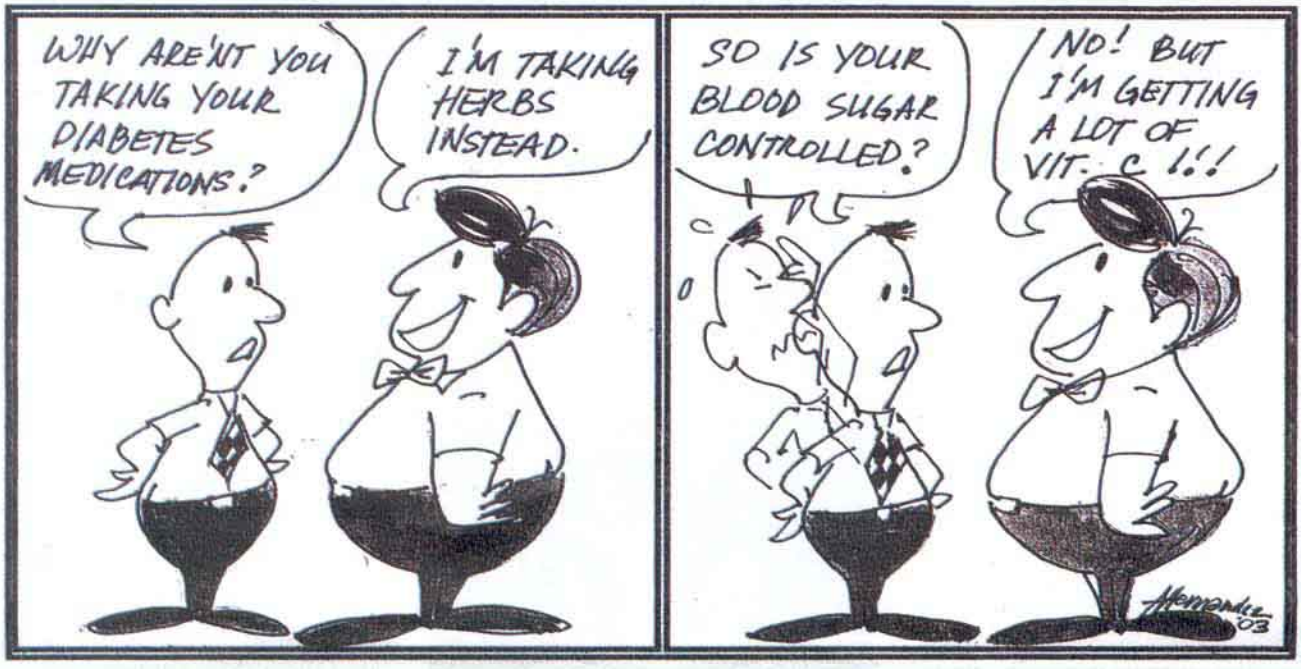
Some diabetics may claim they switch to ampalaya preparations since they are more affordable. This may not be so. One capsule of this ampalaya preparation costs almost the same as one tablet of our first line drugs for diabetes. Can they use it as a combination with other anti-diabetes drugs? Why spend more when they have no proven therapeutic benefit?

Turning to the lighter side of diabetes, let's not forget that diabetes treatment is not limited only to these oral tablets. Proper nutrition & exercise are still first line and an integral part of diabetes management. And they are offered for FREE! Education on proper dietary therapy would help attain optimal glucose control, acceptable lipid (fat) profile and good blood pressure control. Diabetics just have to eat the right kind and amount of food in the right time.

Exercise is an important factor in maintaining overall health. Being a diabetic does not hinder one from doing daily exercise. Improving physical activity helps maintain accepted blood sugar levels, cardiovascular fitness and a healthy weight. It can also lower stress which can elevate blood sugar.

The dispute between anti-diabetic agents and medicinal claims of ampalaya-based products may go on for years. Diabetics should realize that they have other options to help maintain good glucose control and prevent end organ damage. Education and awareness backed by non-pharmacologic adjuvants such as diet and exercise would definitely help maintain acceptable blood glucose levels.

The Lighter Side of Diabetes — *by: Dr. Allan Hernandez*



AMPALAYA

~~better~~ ...the bitter cure for diabetes?

FLORENCE AMORADO-SANTOS, M.D.
Fellow, UST Section of Endocrinology and Metabolism

The demotion of ampalaya *(Momordica charantia)* from a scientifically-validated herbal medicinal plant to folklorically-validated herbal medicinal plant by the Department of Health thru Department circular no. 196-A s. 2003, triggered a great out cry not only from the Association of Municipal Health Officers of the Philippines (AMHOP) but from the Chamber of Herbal Industries of the Philippines, Inc. (CHIPI) as well. All the more so with the growing number of Filipino diabetics currently using these ampalaya supplements as part of their anti-diabetic regimen.

When Secretary Manuel Dayrit reclassified *ampalaya* to a folklorically validated herbal plant, it was tagged as "anti-poor" and "contradictory" to the studies done in the past on the efficacy of ampalaya as an herbal medicine.

Politics may or may not be behind all these qualms and it's high time that we put things in their proper perspective.

We all want to fight diabetes. Patients themselves are aware of the complications brought by this disease. Diabetes education, which is now being implemented in most hospitals all over the country, is one big step in order to make people (diabetic and non-diabetic alike) aware of the increasing number of diabetics and to be conscious of their lifestyle. Be it due to environment, poor diet or sedentary lifestyle, everyone knows that no one can be totally free from the risk of diabetes.

What comes after diagnosis of diabetes mellitus? A mere pen stroke can easily scribble a pharmacologic prescription. All drug for diabetes claim to have their own efficacy. All these drugs went through a series of clinical trials which were based on evidence. Intensive research are conducted to prove their effectiveness & safety through blinded, randomized, placebo-controlled with acceptable sample size trials. All drugs go through a least 4 phases during a clinical trial. Oral hypoglycemics are no exception to this process. They go through standardized trials before being accepted as a treatment regimen. Hence, an anti-diabetic drug should be effective enough to control rising blood sugar, must have a good safety profile and must be able to deter chronic complications of diabetes such as damage to the kidneys, eyes, heart & blood vessels.

Various anti-diabetes medication in the market have their respective scientific claims in controlling fasting or postprandial blood sugar and decreasing insulin resistance. Then the bitter *ampalaya* came into the sweet scene.

Ampalaya also known as "bitter melon" or "bitter gourd," a part of the typical Filipino meal, is now claiming to have a role in the control of diabetes mellitus. According to O'Connel, several compounds have been isolated from bitter melon that are believed to be responsible for its blood-sugar-lowering properties. These include charantin and an insulin-like protein referred to as polypeptide-P, or plant insulin. It is believed that bitter melon acts on both the pancreas and in nonpancreatic cells, such as muscle cells.

There are no well-designed studies using bitter melon in humans. Most studies have not used controls or placebos, and those that have did not always randomly assign people to treatment groups. These precautions are needed to ensure that the results obtained are real and not merely due to chance. Most of the studies are also short-term studies.

An open letter to the diabetic patients:

The true story about the ampalaya issue...

ELIZABETH PAZ-PACHECO, M.D.
Immediate Past President, PSEM

After all is said and done, after all the various interpretations of this story, let me tell you how this issue actually evolved from the perspective of your diabetes doctors.

Early part of 2003, during a meeting that gathered various doctors of diabetes in one setting, a discussion on various issues affecting diabetes patient care was carried out. One of the issues that arose was the increased use of *ampalaya* preparations among diabetic patients. It seemed that almost 90 percent of patients consulting was on one kind of preparation or another. Sad to say, many of them would discontinue their prescribed medications with the thought that the *ampalaya* preparation would take care of the diabetes. As diabetes doctors taking care of these patients for many years, we have seen the rise and fall of a variety of nutriceuticals that our vulnerable patients would readily accept in the hope that this would be a cure and relieve them of their life-long restrictions. These supplements are not inexpensive and would disrupt their care, leading to episodes of poor blood sugar control. Being aware of this and seeing that ampalaya was leading to the same scenario, the various presidents of the associations addressing diabetes issues namely, The Philippine Society of Endocrinology and Metabolism, The Philippines Diabetes Association, The Philippine Center for Diabetes Education and the Institute for the Study of Diabetes Foundation signed and circulated the position statement that is hereby enclosed.

> **"We are not against *ampalaya*. We are not against herbal medicine. All we are saying is that at the present time, there is not enough evidence to attest to the efficacy and safety of these preparations for use in the prevention and treatment of diabetes mellitus."**

Allow me to straighten out the misinterpretations:

We are not against *ampalaya*.

We are not against herbal medicine. All we are saying is that at the present time, there is not enough evidence to attest to the efficacy and safety of these preparations for use in the prevention and treatment of diabetes mellitus.

We were not influenced in any way by the pharmaceutical industry in making this statement.

We have a responsibility to our patients and making our stand in their interest is our everyday goal. To date, there are only four medicinal herbs that have proven therapeutic benefit. Unfortunately, *ampalaya* is not yet one of these. It is therefore urged that the appropriate bodies conduct these studies so that we may know if it may be used in this setting.

We do not discourage usual intake of *ampalaya* in the diet and do not discourage our patients from using these supplements if they are willing to carry the extra cost.

We, as Filipinos, would be very happy should *ampalaya* or any other herbal medicine that is grown in our backyards be able to help in the prevention and treatment of this disease that brings about devastating complications and financial burdens to our patients. There are ongoing studies to give us the answer and we, your diabetes doctors, do hope that these herbal medications, particularly *ampalaya*, would prove useful to you, our diabetic patients.

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY
San Lazaro Compound, Rizal Avenue, Manila
Tel. No. 743-83-01 to 23 loc 1125-1126

23 June 2003

DEPARTMENT CIRCULAR
No. 196-A s 2003

Title: **Amending Department Circular No. 168-A S. 1995**
Re: **Reclassification of Ampalaya (Momordica charantia) from Scientifically-Validated Herbal Plant Medicinal Plant to Folklorically-Validated Herbal Medicinal Plant**
To: **All Concerned**

In accordance with more recent developments, Ampalaya is hereby reclassified from Scientifically-Validated Medicinal Plant to Folklorically-Validated Herbal Medicinal Plant. Department Circular No.168-A s. 1995 is accordingly modified and/or revised to the extent as herein provided. The reclassification is instituted in the light of lack of evidence on the clinical efficacy of Ampalaya against Diabetes Mellitus. The information generated from studies of Ampalaya has been based on animal studies and a few small studies on humans with diabetes mellitus. These studies showed a significant decrease in blood sugar concentration and improvement in glucose tolerance. A local open-label crossover study which enrolled 27 subjects showes a signifcant decrease in HBA1C, but not of fasting blood glucose. Due to sample size limitations and open nature of the study, the findings have not been able to establish Ampalaya as truly beneficial and even as adjunctive treatament to diabetes mellitus. To date, no large clinical trial has yet been published on any type of preparations of Momordica charantia.

PENDING FURTHER INVESTIGATION, ALL CONCERNED ARE STRONGLY ADVISED TO CEASE, DESIST, AND DISCONTINUE ANY ENDORSEMENT OF AMPLAYA AS AN ALTERNATIVE TREATMENT OF DIABETES MELLITUS.

For guidance and immediate compliance.

MANUEL M. DAYRIT, M.D., MS
Secretary of Health

now call Self Management Training Camps for Adult Diabetic.

Their yearly challenge is to provide new experiences for the campers. Campers who attended this year's Rainbow Camp had a taste of wall climbing, abseiling, and the slide for life. They also went into directing and producing their own video clips once again showing that diabetics can do nearly anything his normal counterpart can do. And because of his disciplined way of life, he can even do better.

"Diabetes is a chronic ailment that afflicts not only the elderly but also the very young. Because it is lifetime condition, it is imperative that the very young grows up empowered to cope with the requirements that the may face in growing up with diabetes.

Children and adolescents have special needs. Children and adolescents with diabetes have ever more special needs. Rainbow Camp hopes to address some of those needs.

In the end, what a child becomes is what we make them. Children learn what they live."

RAINBOW CAMP

ELIZABETH V. FERNANDO, M.D.
St. Lukes Medical Center

Holy Week 2003 marks the 21st year of diabetes camping in the Philippines. The first camps were held by the Juvenile Diabetes Foundation with the leadership of Dr. Lourdes Mabanta, herself a diabetic and Dr. Ricardo E. Fernando. Fellows, residents, diabetes teaching nurses, and nutritionist-dieticians from Mary Johnston Hospital and St. Lukes's Medical Center took care of their medical/diabetes educational needs while the foundation raised the money to fund the camps.

The objectives of the first camps were simple. Teaching the children to live with diabetes was the primary issue. Teaching them now to have longer lives was the next, and finally, to improve the quality of their lives.

In 1998, a couple of doctors, Dr. Francis Pasaporte and myself and a handful of diabetes nurse educators (Archie Entienza, Rhea Oarga, Neri Llanza, Josefina Florendo and Leyden Florido) came together and organized what is now known as Rainbow Camp. They were joined by volunteer nutritionist-dieticians from PUP (Carmela Dellova), Veteran's (Josephine P. Jamon, Antonette E. Ramirez, Ma. Milagros Corate, Ma. Lea C. Garcia, Cecilia P. Hererra and Hezil S. Nerpid), St. Luke's (Juvy Martillos, Michelle Malicden, Eliosa Villaraza), UE-ISD (Marietta Glinogo) and UST. They also had psychologists (Betty Merit and Christine Garay), and a dentist (Dr. Ed Ofilada) on their team. They remained faithful to the original camp objectives but they wanted more for the kids. Their vision is to have empowered campers in terms of diabetes self-management and their mission is to provide both educational and recreational experience for diabetic clients and their significant others, and to equip them with the knowledge, skills and attitudes in coping with their day to day living.

It is for this reason that they have started holding camps for diabetic children and their families. They have also started facilitating adult (type 2) camps or what they

Self monitoring blood glucose in non-insulin requiring type 2 diabetes mellitus

-A META-ANALYSIS-

JESUS N. SAROL JR., PH.D,
NEMENCIO A. NICODEMUS JR., MD
KATHRYN M. TAN, B. SC.,
JOHN VINCENT PG FLORES, MD, M. SC.

The costs and the physical discomfort that come with self-monitoring of blood glucose (SMBG) are reasons often cited by patients for not complying with self-monitoring prescriptions. However, results of a recent study indicate that the benefits of SMBG may outweigh the challenges associated with this procedure. In this study, results from different clinical trials were summarized to come up with an overall estimate of the effect of including SMBG in the management of patient's blood sugar levels. The study demonstrated that SMBG as part of a multi-component treatment strategy provides significant additional clinical benefit in patients with non-insulin-requiring type 2 diabetes.

The indicator used to measure the effect of SMBG was the amount of hemoglobin A1c (HbA1c) in the red blood cells of patients. This particular component of a person's red blood cells has been found to be a useful indicator of the average blood sugar levels of a person for the past two to three months. It is not readily influenced by day-to-day variations in a more stable measure of blood glucose levels. Analysis of the data obtained showed that on the average, reduction in HbA1c levels in the SMBG group was 0.42 percent greater than those in the non-SMBG group. In relative terms, this indicates that SMBG tends to double the reduction of HbA1c compared to a non-SMBG regimen. Previous studies have already shown that a lower HbA1c level directly corresponds to a reduced risk for developing complications related to diabetes. By applying these findings to the results of the present study, it could be said that a 0.4 percent greater reduction in HbA1c would mean a 12 percent additional reduction in risk for complications.

It is important to emphasize however that SMBG per se is not a cure for diabetes. This method is meant to raise a patient's awareness of their blood glucose levels to empower them to make the necessary treatment adjustment by way of diet and behavioral modifications to stay fit. Medications can likewise be adjusted optimally but this approach can only be done through the guidance of a health care professional-as it may be hazardous for patients to titrate medications on their own.

Even though SMBG may be perceived to be burdensome, this is one of the ways by which patients can effectively and actively participate in the management of diabetes. Together with regular consultation with a health care professional, patients are on the road to better living and prolonged lives.

TIPS FROM THERMOGENESIS

The common sense guide to weight loss

ROSA ALLYN G. SY, M.D.

The explosion of information on the health risk of obesity has led many people to try anything and everything just to lose weight and be healthy. Unfortunately, not all of the methods available are safe and effective. What is then a scientifically safe and effective way to lose weight?

Here are the seven crucial elements of weight loss for people with diabetes written by Dr. Barbara Caleen Hansen, Ph.D. and Dr. Hauna S. Roberts, Ph.D. which are certainly applicable to non-diabetics as well. These keys share a common theme: *You can improve your life by improving your health.*

Key 1:

Choose the right target weight for you. Choosing the right target weight will make the difference between success and failure. Since everyone is different, your target weight must be different too. Be yourself! Select your healthy target weight goal with your doctor or your dietitian. A healthful lifestyle will certainly help you achieve your goal and prevent many ailments. It may also help improve afflictions you already have.

Key 2:

The best way of measuring your weight-loss progress is by tracking your health and not just your weight. You can also measure your body mass index, waist circumference or waist to hip ratio and percentage body fat.

Key 3:

A healthful, low-calorie diet is the only good way to take off pounds. Follow the healthy food pyramid guide for your choices and decrease the quantity eaten per meal. Diets come and go, but one thing doesn't change: Cutting calories is the best way to lose weight. Try to learn to enjoy a wide variety of healthful foods with you family. Restricting your diet can still be enjoyable if done as part of a healthful lifestyle.

Key 4:

Keeping an active lifestyle helps lost pounds stay lost. Becoming more active can make you feel better both mentally and physically. Easing into new exercise habits gets you started on a lifetime of fitness. It takes less exercise than you think to reduce your risk of disease, make you stronger and improve your blood glucose control and blood pressure control.

Key 5:

If you have a lot of weight to lose, modern medicine has some extra help to offer. However, not all anti-obesity medicine may be suitable for you. Consult your doctor before starting on one.

Key 6:

Coordinate your weight-loss program with your physician. Constant communication with your physician will help ensure that everything is done safely and properly.

Key 7:

Permanent weight loss requires that you change your lifestyle for good. Human biology and psychology both predict you'll have lapses. But there are ways to triumph in the end. Everyone can learn new behaviors...and so can you. Remember constant practice makes perfect.

You have what it takes to take weight off. You can do it!

Thermogenesis is a weight management clinic for overweight patients with medical conditions and includes an endocrinologist, nutritionist and behavioral psychologist a part of the staff. For more info call 6337537.

(the average body mass index is 34 for this group, so these were really heavy subjects!). Their age range was 25 to 85 years, average of 51. They were at high risk for diabetes because of excess body weight and mild increase in blood sugars at the fasting state and after meals. The subjects were then randomly assigned to one of the following groups:

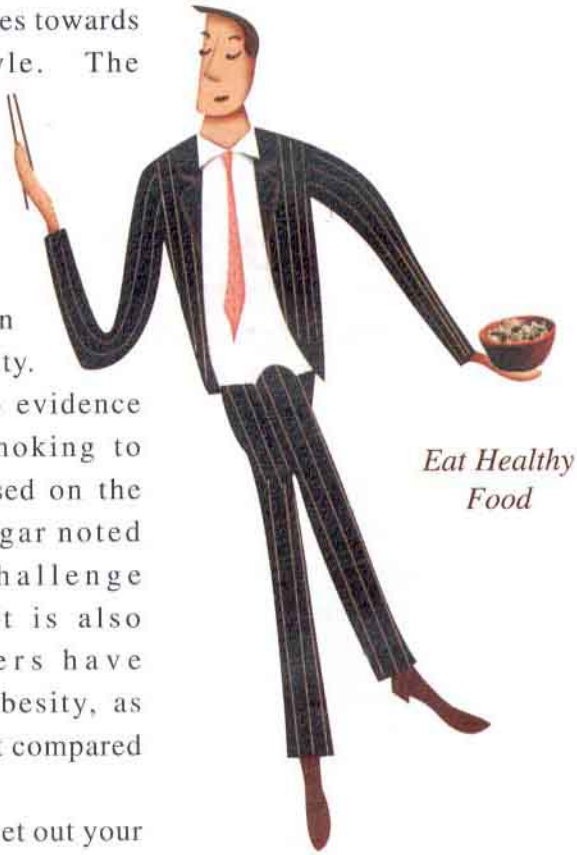
-Intensive lifestyle changes with the aim of reducing weight by 7 percent from baseline through a low fat diet and exercise of 150 minutes per week.

-Treatment with Metformin (850 mg BID) plus information on diet and exercise.

-No medications plus information on diet and exercise (called the placebo group).

The diet and exercise group lost an average of 15 pounds (lbs), that is, 7 percent of their weight in the first year. Most of them were able to maintain their weights for the duration of the study. At an average follow-up of 3 years, fewer patients in the diet and exercise group developed diabetes:14 percent versus 22 percent (metformin) and 29 percent (placebo). This landmark study therefore showed that lifestyle intervention was effective in men and women in all age groups and in all ethnic groups.

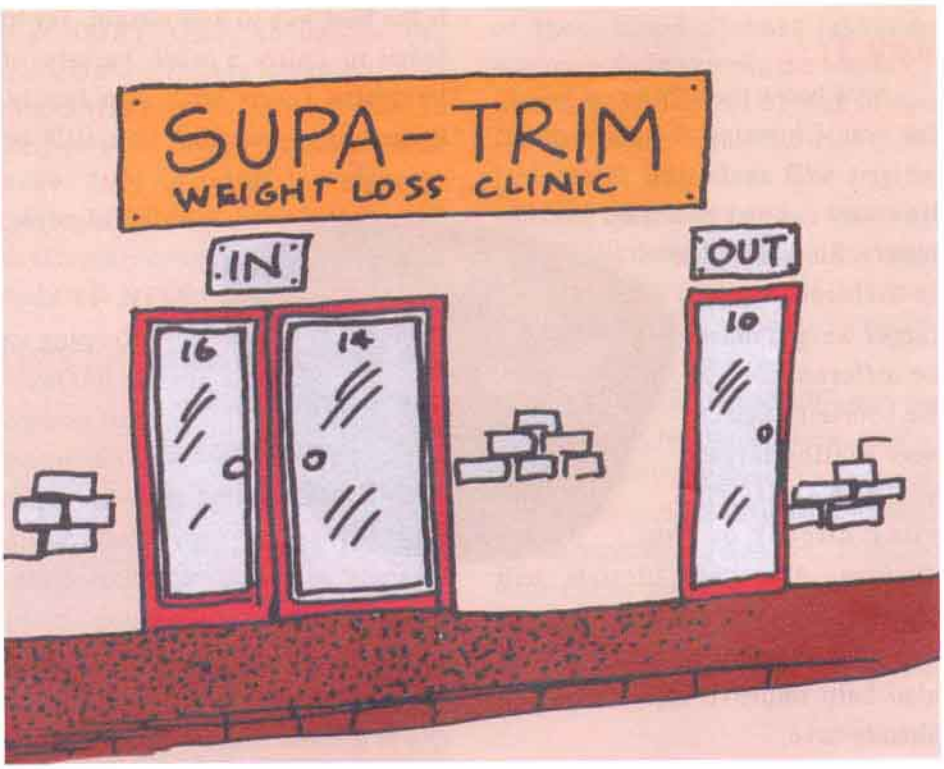
These results were also duplicated by other subsequent studies. The importance of these factors can be clearly seen in certain societies that have undergone rapid changes towards a Western lifestyle. The prevalence of IGT and Type 2 Diabetes increased greatly and is brought about by lifestyle changes leading to weight gain and less physical activity.



Eat Healthy Food

There are also evidence linking cigarette smoking to diabetes. This is based on the increase in blood sugar noted during a glucose challenge among smokers. It is also noted that smokers have greater abdominal obesity, as shown by greater waist compared to hip circumference.

So, get up and get out your comfy sofa or that addicting computer! Go on a walk or bring our your bike. Better yet, pick up a sport. Drop the junk foods and quit smoking! Even in this new age of high technology, it appears that the only answer to preventing diabetes is the lifestyle our forefathers knew and practiced all along. No magic! Let's look forward to a world without diabetes!



Lifestyle changes can prevent diabetes

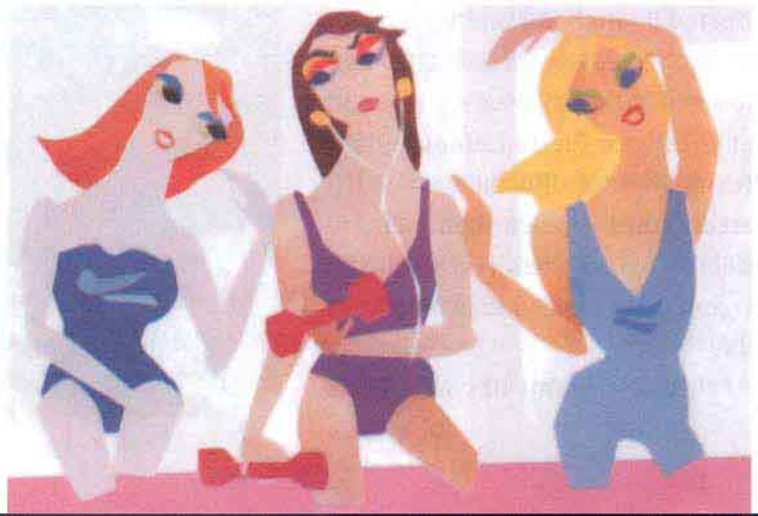
ELIZABETH PAZ-PACHECO, M.D.
Endocrinologist, The Medical City

It is estimated that Type 2 Diabetes occurs 5-10 years before the onset of symptoms. It is now well known that complications can occur way before the diagnosis is made. About 20 percent of these individuals may have heart attacks, strokes, kidney failure, foot amputation and blindness as the initial presenting symptom. The rise in diabetes is in epidemic proportions, both worldwide and in the Philippines. Despite the numerous advances in the treatment of this chronic illness, complete cure remains to be elusive. Management of the disease is at best inadequate and is costly to the patients and his family.

Because of this important information, what appears to be the best solution is not to allow the disease to happen. Is this possible? This answer is definitely YES!!!

How can Type 2 Diabetes be prevented? Let me show you the evidence. Three factors have been evaluated in an attempt to prevent type 2 diabetes. These are exercise, weight loss and drug therapy. Quitting smoking may also be important.

The Diabetes Prevention Program conducted in the United States is a trial that included over 3000 obese individuals



some communities have to be devoted to diabetes and its long-term complications."

Type 2 diabetes constitutes about 85 percent to 95 percent of all diabetes in developed countries, and accounts for an even higher percentage in developing countries. It is a result, for most countries, of rapid cultural and social changes, ageing populations, increasing urbanization, dietary changes, reduced physical activity, and other unhealthy lifestyle and behavioral patterns. The change in lifestyle is a worldwide phenomenon, occurring in both developed and emerging nations, where it is most prevalent in urban areas.

The risk of developing type 2 diabetes is also clearly linked to an increasing prevalence of obesity. Recent reports from the World Health Organization (WHO) and International Obesity Task Force (IOTF) indicate that about 58 percent of diabetes cases globally can be attributed to body mass index above 21 kg/m2. However, there are indications that in western countries, around 90 percent of type 2 diabetes cases are attributed to weight gain.

"It is disturbing to note that the greatest number of people affected by diabetes and IGT are in the economically productive age group of 40 to 59 years," pointed out Professor Pierre Lefèbvre, IDF President-elect. Further, about 10 percent more women than men are affected by diabetes and about 20 percent more women than men have IGT.

A new trend has also been noted of increasing cases of type 2 diabetes in children worldwide, with some as young as eight years of age being affected. Whereas previously type 2 diabetes affected only individuals in older age groups, there is now growing recognition that type 2 diabetes in children is becoming a global public health issue with potentially serious health outcomes.

Recent studies have shown that type 2 diabetes may be prevented in some cases by change in lifestyle or drug treatment. "We are running out of time." Said Prof Lefèbvre, "if action is not taken now to stop the rise in diabetes, there is a significant risk that governments and social security systems may fail to ensure the appropriate care to the millions who will be affected by diabetes in 2025. Moreover, by promoting diabetes prevention, we will ensure that those millions who already have diabetes will not face the nightmare of a regression in the quality of care they deserve while, on the contrary, there is a great need in many parts of the world to improve it."

DID YOU KNOW THAT.....

*** There are currently over 190 million people with diabetes and the figure is expected to escalate to over 330 million in 2025?**

*** Two thirds of people with diabetes are in the developing countries, where the numbers will continue to rise rapidly?**

*** A new report on impaired glucose tolerance (IGT), a condition associated with diabetes incidence, shows that more than 300 million people today are at risk of developing diabetes?**

*** In some countries diabetes care represents as much as 245% of the healthcare budget?**

***Diabetes education could save costs but is unavailable due to lack of funding in many countries?**

*** Type 2 diabetes could be prevented in many cases?**

Diabetes STOP the rise!

Diabetes Stop the Rise is the title of the Press Conference at the 18th IDF Conference, Paris France. The speakers were Prof Paul Zimmet, Professor of Diabetes, Director of International Diabetes Institute, Melbourne, Australia, Prof Rhys Williams, Professor of Clinical Epidemiology, Swansea, UK, Dr. Linda Siminerio, Director- Diabetes Institute, Pittsburgh, USA and Mr. Bjornar Allgot, General Secretary Norwegian Diabetes Association. Prof Sir George Alberti, President of IDF, and Chair Prof Pierre Lefebvre, President-elect of IDF headed the conference.

MORE then 300 million people are currently at risk of developing diabetes according to a new report published in the Diabetes Atlas, released by the International Diabetes Federation (IDF) at a press conference today. Some 314 million people worldwide, or 8.2 percent in the adult population, are estimated to have impaired glucose tolerance (IGT), a state which often precedes diabetes.

Sir George Alberti (IDF President) at the conference.

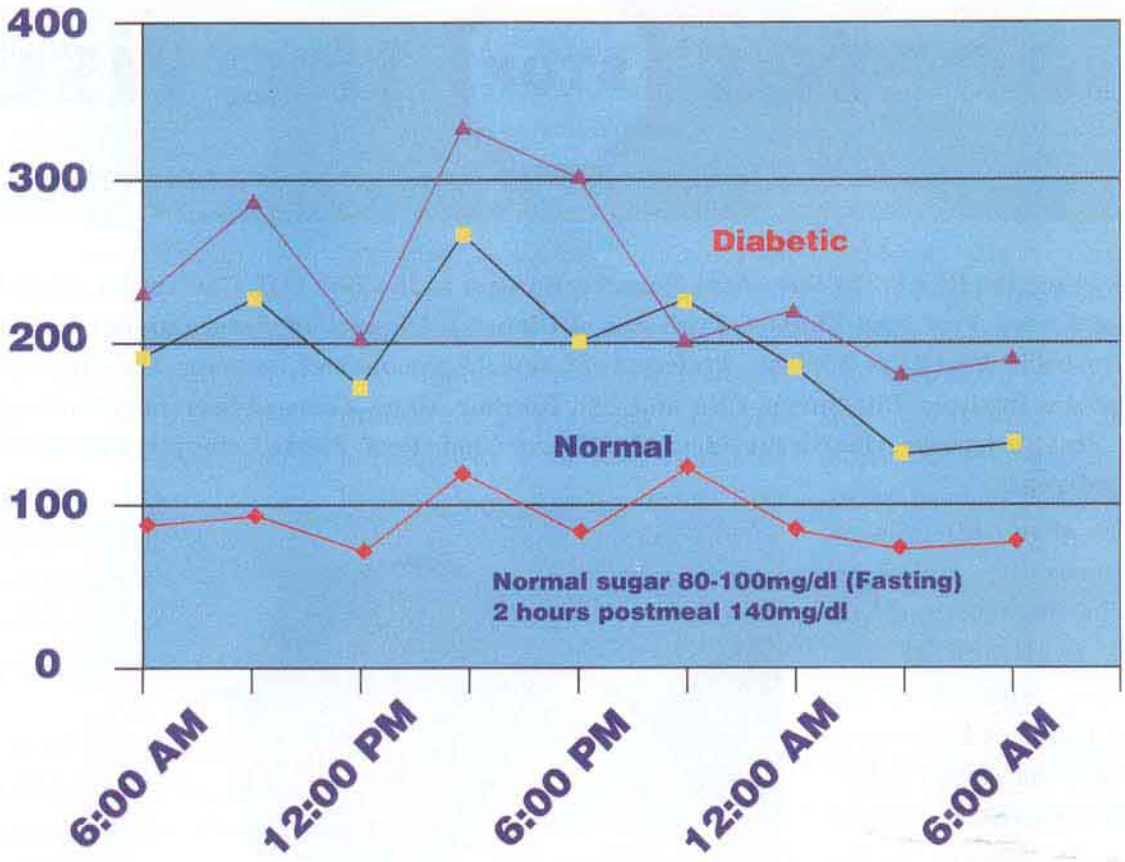
"This is the first time that worldwide data on impaired glucose tolerance have been collected together," said Prof Sir George Alberti, IDF President. "These figures provide us with a better picture of the likely diabetes burden; and stress that we are heading for one of the biggest health catastrophes that the world has ever seen."

People with IGT are at high risk of progressing to type 2 diabetes, and of developing cardiovascular disease. About 70 percent of those with IGT usually go on to develop diabetes. Further, projections indicate that the number of people with IGT is expected to jump to 472 million, or 9 percent in the adult population, by 2025. "The IGT figures add to the already alarming diabetes situation," noted Sir George.

Some 194 million people worldwide, or 5.1 percent in the adult population, have diabetes and this is expected to escalate to 333 million, or 6.3 percent, by 2025, according to figures in the new report. About two-thirds come from developing countries, where the numbers are expected to rise rapidly.

"The financial and social burden of the disease will be intolerable if governments do not sit up and take notice now," said Sir George. "We know that as much as 25 percent of acute sector health expenditures in

Normal and diabetic 24 hour glucose profile



Most of the 24 hour period is post prandial.

Phenotype" of type 2 diabetes described in the DECODA Study. It says that among Asians the primary phenomenon seen in type 2 diabetes is reduced beta-cell function and that postprandial hyperglycemia is a key diagnostic finding. Most of the time, at diagnosis of type 2 diabetes, the FBS is normal and the diagnosis is made through an unequivocally high 2-hour PPG. Thus, in this population, control of postprandial glucose is central to the management.

However, the ill effects of elevated PPG is not only seen among people with diabetes. It can also be seen among normal individuals, several studies prove this. In the Honolulu Heart Study, the 1 hour PPG predicted death risk within 12 years. The higher the 1 hour PPG, the higher the death risk within 12 years. This was also seen in the DECODE study which again showed that the PPG and not the FBS which predicted death within 7 years. In this study, they computed that 21 percent of deaths can be prevented in asymptomatic people with PPG of 7.8 mmol/L or higher if the PPG is lowered by 2 mmol/L. In asymptomatic individuals with PPG of 11.1 mmol/L or higher, 29 percent deaths can be prevented by lowering the PPG by 2 mmol/L.

In interventional studies, the control of PPG leads to better outcomes. In a study among gestational women published in the *New England Journal of Medicine,* gestational women whose blood glucose management was based on postprandial monitoring fared better in terms of maternal and neonatal outcomes. In the STOP-NIDDM, the control of PPG in patients with IGT lead to significantly fewer heart attacks and new onset of hypertension.

In summary : 1. PPG has a direct toxic effect on the endothelium. 2. PPG contributes to overall glucose load. 3. We spend most of our time in the postprandial state. 4. PPG, not fasting glucose is a powerful risk factor for cardiovascular risk. 5. Intervention targeting PPG leads to improved outcomes.

The problem of postprandial hyperglycemia

EDITHA I. ARCEO-DALISAY, M.D.
UERMMMC

There are over 190 million people with diabetes worldwide and this is projected to increase to 330 million in 2025. The impact to health care cost is staggering especially

when we realize that diabetes is associated with microvascular and macrovascular disease. The association of better metabolic control with reduced microvascular complications have been well established by the UKPDS.

In assessing metabolic control, what do we usually measure; FBS? PPG? Or HbA1c? FBS is the level of blood sugar eight hours after the last meal. This can be checked both at home and in the clinic and is usually used as a guide to therapy in most guidelines. Postprandial glucose is the level of glucose in the blood two hours after a meal. This is usually not routinely done and is rarely used as a guide to therapy in most guidelines. HbA1c is the total glucose level over 3-4 months and is usually used as a guide to therapy in most guidelines.

In the natural history of type 2 diabetes, a patient progresses from normal glucose tolerance to impaired glucose tolerance to type 2 diabetes. In the stage of impaired glucose tolerance, both the HbA1c and FBS are normal. However, the PPG is already elevated. At this stage, there is already an increased risk for macrovascular disease. This is borne out by several studies. One of these is the RIAD Study which showed that the PPG predicted intima media thickness, independent of FBS and HbA1c. At any level of FBS and HbA1c, if the PPG is >8mmol/L, there is significant increase in the intima media thickness. The possible mechanisms which could explain the increased cardiovascular risk in people with hyperglycemia include: endothelial dysfunction, dyslipidemia, increased thrombogenesis and increased adhesion molecules.

If we review the 24-hour period, we realize that most of it is actually postprandial. For example, after breakfast, the immediate 4 hours is considered postprandial to be followed by the postabsorptive state. But while we are in the postabsorptive state for breakfast, we are already eating lunch and therefore become postprandial. The only truly fasting state in the 24 hour period is from 4 am up until we eat our breakfast.

In a recent study by Monnier published in the *Diabetes Care* 2003, he showed the relative contributions of FBS and PPG to different levels of HbA1c. In a HbA1c of less than 7.3 percent, the contribution of PPG is 70 percent and FBS 30 percent. This means that if we want to attain a HbA1c of less than 7.3 percent (which should be our goal for all our patients!) we should control the PPG.

Another interesting observation is the so-called "Asian

The workshops were helpful to your staff at Diabetes Watch and we look forward to implementing changes to the magazine over the next year.

The Nutrition Council had its first workshop, "Eating with Taste & Style," at the Robinson's Galleria suites in July in cooperation with Abbott Laboratories. The coordinator was Dr. Editha Arceo-Dalisay, and the excellent program drew 68 attendees.

The annual kick off to Diabetes Awareness week at the Glorietta was cancelled due to unforeseen events: the takeover of Oakwood Hotel in Glorietta on the morning of the program. Most of the PDA board were at the Mandarin hotel the evening before, ready to get an early start for the program. Monitoring the event, Dr. Rosa Sy, in consultation with Dr. Augusto D. Litonjua and the rest of the board, aborted the program in consideration of the safety of all concerned.

The closing program at Alabang Festival Mall on August 3, 2003, went on as scheduled however, with many participants.

PDA was also involved in World Heart Day in September at the Ultra Sports Center in Pasig, and the Healthy Lifestyle Summit at Megamall in October. On both occasions, free blood sugar monitoring was provided by Abbott laboratories for the first 100 participants. PDA also distributed awareness & membership flyers, posters, bookmarks and postcards.

As a service activity to its members, the PDA together with the Philippine Society of Endocrinology and Metabolism (PSEM) had an ICD 10 Workshop at the Club Filipino in August. This workshop was made possible through a grant from Bayer Philippines, had 30 participants on a rainy Saturday night. The echo workshop was conducted by UST endocrine fellow-in-training, Dr. Mark Udarve.

We've had a busy year. You can expect more of the same from your PDA board in 2004.

Bottom left: Dra. Lina Lantion Ang, 26th Diabetes Workshop Cebu
Top right: Philippine delegation at the IDF Paris International Village, Philippine Booth.

PDA, off to a running start

PATRICIA GATBONTON, M.D.

PDA has had, as usual, a busy year. Spearheaded by the dynamic leadership of president Dr. Rosa Allyn G. Sy, the board barely had time to shake off the hangover of the holidays before plunging into work.

Three diabetic workshops spread out through the year were conducted in Bulacan, Bohol and Cebu with a total of 482 participants exposed to the comprehensive 2-day meetings.

In between, in order to spur interest in research in various aspects of diabetes, the Board partnered with our supportive pharmaceutical corporate partners for four research grants together with Abbott, Aventis, GSK and Pfizer. Each grant is for Php 100,000. The Memorandum of Agreement was signed at the Club Filipino in April. Thirteen papers have been received for consideration, the top 7 papers will undergo an oral presentation at the PDA convention, and the prize winners announced after the session.

The board also invited the presidents of the different chapters throughout the country to a Chapter meeting at the Galleria Suites in May. The Chapter of the Year award will be announced during the annual convention. It is an incentive for the various chapters to increase both membership and awareness of diabetes in their respective locales.

The red ribbon campaign for the Diabetes advocacy campaign in cooperation with the PDA, the Diabetes Center and Johnson and Johnson Philippines was launched in May. These distinctive ribbons are shaped in the letter D for diabetes, and colored red, to signify life's blood. The "Red D" connotes hope that life can be lived without limits with the proper management of diabetes.

Chapter President Meeting, *Galleria Suites*

These ribbons were popular souvenirs at the Philippine Booth at the IDF convention held in Paris, France, in August. PDA members (board and non-board) alike took turns going on duty at our distinctive and colorful booth. Situated in the International Village in the Western Pacific region, our immediate neighbors were the booths from Thailand, Hong Kong, and New Zealand. We were fortunate to have IDF President Sir George Alberti visit the booth, he also received a D pin, and displayed it prominently on his coat lapel for the rest of the congress. Incoming IDF president Professor Pierre Lefevbre, also stopped by, was pinned and naturally, was asked to pose for a souvenir photo!

Diabetes Watch Editor-in-chief, Dr. Tippy Que and Assistant Editor Dr. Tish Gatbonton, represented the Philippines at the ICDM meeting in Versailles, outside Paris, a few days before the congress. The convenor of the meeting, Sue Luener, from South Africa, made the whole group welcome, as did the IDF staff Maguey, Phil and Andrea. The two-day meeting involved magazine editors from more than 40 IDF member countries. We had several workshops on various aspects of publication over the two-day period. IDF also imported Keith Elliot, an Englishman who runs courses for editors, journalists and publishers in London, to run a workshop on news.

Everything you always wanted to know about diabetes (but were afraid to ask...)

ROBERTO C. MIRASOL, M.D.
St. Luke's Medical Center

Diabetes problems or complications happen if you have too much sugar in the blood for a long time. This high blood sugar can damage may parts of the body. It can damage your heart and your blood vessels. It can even damage your kidneys. It can affect your eyes and could cause blindness. Diabetes problems are scary, but there is a lot you can do to prevent them or delay the progression. Studies have shown that these complications are preventable. One part of your body which is affected by diabetes is you skin.

Q How can diabetes hurt my skin?

A When your sugar is high, your body loses a lot of fluids. You frequently pass a lot of water. You become thirsty. With less fluid in your body, your skin can get dry. Dry skin can be itchy and if you scratch your skin can become sore. Dryness could also lead to cracks. These cracks allows germs to enter and could cause infections. Skin could be particularly dry in your legs, feet, elbows and other places in your body.

Q Why are we more prone to skin problems?

A Anyone can have skin problems but because of your high blood sugar they could lead to infections. Fungal infections are common. It is itchy. Germs could make these fungal infections worse. Athlete's foot is another fungal infection. The cracks between the toes allow the germs to get into the skin. The infection could affect the toenail and make them thick, yellow and hard to cut. Always look at your feet for signs of redness, soreness or infections.

Q My feet are always dry. Is there a way to keep them soft and moist?

A The dryness in your feet is because of neuropathy (nerve damage). The nerves in your legs and feet do not get the message to sweat. You can keep them moist by using a lotion or cream after bathing or washing your feet. Your doctor will be able to suggest one. You need to drink a lot of fluids to keep your skin moist and healthy.

Q I have brownish discoloration in my shin. I see these often among my friends who also have diabetes. Is this a concern?

A These are often seen in persons who have diabetes for a long time. It is s sign of poor control. These usually are of no immediate concern unless they become infected.

The man behind the monofilament

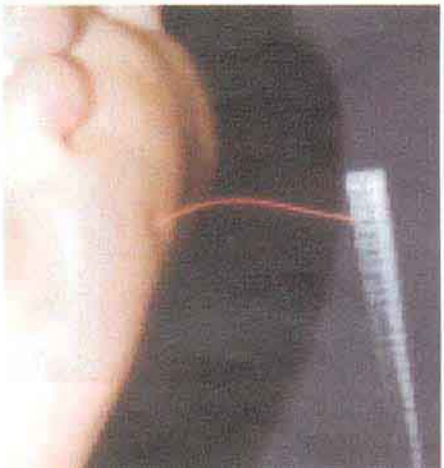
MA. TERESA P. QUE, M.D.

An eager young patient caught my eye as he struggled across the edge of the courtyard on crutches, holding his bandaged leg clear off the ground. As I watched, this man tucked his crutches under his arm and began to run on both feet with a very lopsided gait, waving wildly to get our attention

I could tell from the man's gait though that something was badly wrong. Walking toward him, I saw that the bandages were wet with blood and his left foot flopped freely from side to side. By running on an already dislocated ankle, he had put far too much force on the end of his leg bone, and the skin had broken under the stress. He was walking on the end of his tibia and with every step that naked bone dug into the ground. I knelt beside him and found that small stones and twigs had jammed through the end of the bone into the marrow cavity. I had no choice but to amputate the leg below the knee.

Thus wrote Dr. Paul Brand in his book "The Gift of Pain" as he writes about the horror of insensitive feet. Born and raised in the mountains of India by British missionary parents, and later on taking up medicine and orthopedics in Great Britain, Dr. Paul Brand gained world renown as a hand surgeon and leprosy specialist. His work with leprosy patients, first in India and then in Carville in the United States, convinced this remarkable physician that pain is truly one of God's great gifts to us. Dr. Brand broke the stigma of the disappearing flesh in patients with leprosy and exposed to the light the simple reality that the infected, non-healing ulcers in leprous patients were mainly due to trauma because of the lack of pain sensation. After nearly 20 years in India Dr. Brand and his family moved to the leprosy institute in Carville Louisiana where he conducted numerous researches funded by the government investigating the hazards produced by insensitivity to pain. The discoveries from this research eventually were extended to insensitive feet in diabetic patients which afflicts millions in the United States compared to the few thousand leprosy patients. Dr. Brand showed that there are at least 3 basic ways in which danger constantly presents itself to the pain insensitive person: direct injury, constant stress and repetitive stress. He also devised a simple gadget known as the monofilament, which would be able to single out patients who had totally lost all pain sensation in the feet and therefore were at great risk of ulceration, infection and limb amputation. This nylon filament which was attached to a plastic handle delivered a force of 10 gms when applied to the skin at the point of buckling. Inability to feel this pressure identifies the patient to have loss of protective sensation and therefore should be put on a program of surveillance for ulcer prevention.

Dr. Brand was called home by his maker last July at the age of 89 after a life well lived. His life work leaves behind a legacy and an inspiration to all.



infertile.

The consideration of fat distribution has therefore become more relevant in determining one's health. Because, patients with even moderate obesity can have a great risk for diabetes and heart disease if their waist circumferences are beyond the norms of what are considered healthy. In the management of an overweight or obese patient attention must therefore be placed on not only the total body weight but where that weight is mostly located. The adage that the longer the belt line, the shorter the life line is no truer than these recent findings which focus on the health hazards of the visceral or intraabdominal fat.

MEANDERINGS

WATCH THAT WAIST!

AUGUSTO D. LITONJUA, M.D.
Emeritus Editor

Increasing body weight bodes ill for many persons, because it increases their risks for other diseases, such as type 2 diabetes mellitus and heart disease, among others. This body weight is usually measured in terms of the body mass index, which is the weight in kilograms divided by the height in meters squared. Using the Asia Pacific Guidelines, when this index reaches 25 kg/m2, then the person is termed obese. Obesity also means that if you are a woman, 33-35 percent of the weight is fat; whereas if you are a man, being obese means that 30 percent of your weight is fat.

But way back in 1984, a group of Scandinavian physicians headed by Larsson showed that the only aspect of a person's weight that correlated with the risk for heart disease and other diseases of such nature, was the waist-hip ratio, or simply, the waist circumference. This showed that the location of fat in the body is more important than the degree of overweight itself (as determined by the body mass index, or BMI) in predicting one's susceptibility to have other diseases.

Since then, other studies have proven that, indeed, it is the fat located inside the abdomen which is also called, visceral or intra abdominal fat, that is the strongest correlate to diabetes mellitus, heart disease and other chronic diseases. The amount of visceral or intra-abdominal fat can be gauged by simply measuring the waistline. This is independent of the total body weight, meaning that even if the BMI is close to normal, one's susceptibility to having type 2 diabetes mellitus ands heart disease is increased if the waist line is above the healthy values. Thus, following the Asia Pacific Guidelines again, the healthy waist is below 31.5 inches for women and below 35.5 inches for men.

Why is this so? The fat cells inside the abdomen have been found to be no longer just mere repositories of excess energy, but are active endocrine cells which produce a lot of substances or hormones contributing to the susceptibility to having other chronic diseases. Thus, the visceral fat cells produce "inflammatory cytokines" - substances that mimic by-products of inflammatory reactions that can make the muscles and other fat cells unresponsive to the effects of insulin. This produces the state of insulin resistance, which is one of the factors responsible for type 2 diabetes mellitus. Other substances produced by the visceral fat cells make the blood more prone to clot formation inside the blood vessels predisposing to heart attack or stroke.

Visceral fat cells also alter the way other hormones are metabolized. Thus, hormones from the ovaries -female sex hormones- are routed to pathways that make the menstrual cycles irregular or contribute to the woman's being

Your President speaks

ROSA ALLYN G. SY, M.D.

Living with Diabetes isn't easy especially in a world where a sedentary lifestyle is so tempting. The influence of computers, television, cars, *Coca-Cola*, fast foods and worsening eating habits make the diabetes challenge huge and demanding. Unawareness, ignorance and lack of understanding about diabetes certainly increase the burden of diabetes further. The frightening, exponential increase in the number of people afflicted with diabetes here and abroad, indeed calls for national programs that should intercept this epidemic. Our association, the Philippine Diabetes Association, for the last many decades has continued to do its share. Our public awareness campaigns through the annual celebration of the Diabetes Awareness Week in July and the World Diabetes Day in November have certainly made and are continuing to make a difference in the lives of our diabetic patients and their families. Our association is an active member of the newly formed coalition of the Department of Health, the Philippine Heart Association and other associations continuously advocating for a HEALTHY LIFESTYLE. I am indeed proud that we are active players in this worthy campaign. The recently launched diabetes advocacy campaign of Diabetes Center, Philippines, J&J Philippines and PDA through the "D" pin is expected to further increase awareness of our fight against diabetes and its complications. The creation of this broader cooperation between the different non-government diabetes organizations and the government, and the continuing networking will definitely open more opportunities for improvement in the care of our diabetic patients.

Continuous education and counseling of our patients make real achievements possible. In this issue, Diabetes Watch will focus on some of the practical matters we, healthcare providers and our patients encounter daily. The knowledge gained from the different articles will surely equip us to overcome and survive the challenges and burden of the disease. Our annual lay forum is a venue of interaction and more learnings. This year, our forum will focus on complications and healthy cooking. For our doctors and allied professionals our scientific annual convention will certainly be interesting as experts here and abroad will share with us the strategies to optimize treatment of diabetes mellitus.

I hope to see all of you in these very important activities of our association. I would like to take this opportunity to invite our patients with diabetes and their families or anyone interested in diabetes to sign up, be a member and enjoy the many benefits of being a member of our association.

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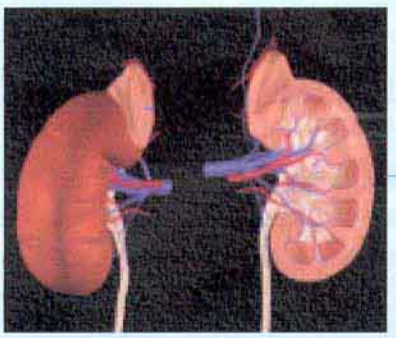

From the Editor's Desk

Christmas cheer is all around us. Festive lights, holiday ditties, Christmas trees are once more part of the mall atmosphere. Sparkling lights adorn our streets. As December approaches we anticipate tables laden with ham, *lechon, morcon,* salads, cheese, nuts, fruits, wine and the warmth of family gatherings.

Behind the festive scene a menace lurks. Feeding on lustful appetites, sloth and ignorance, it robs people of good health and finances and can maim, kill and destroy. Already it has threatened health systems and governments all over the world. This menace is **diabetes! Sound the alarm!**

We must bring the news to all and sundry that this menace can be licked and vanquished. Much has to be done and private sectors and government agencies must move hand in hand. Read on and find out how we can stop the appearance of the predicted millions of diabetics who will soon populate this globe. Diabetes can be prevented and its rapid spread can be stopped. Read on. Will a change in paradigm be the key? Will a return to lifestyles in times past be the answer? Read on and act now!

THE PHILIPPINE DIABETES ASSOCIATION INC.

"an affiliate society of the Philippine Medical Association" (PMA)

"an affiliate society of the Philippine College of Physicians" (PCP)

"a member of the International Diabetes Federations" (IDF)

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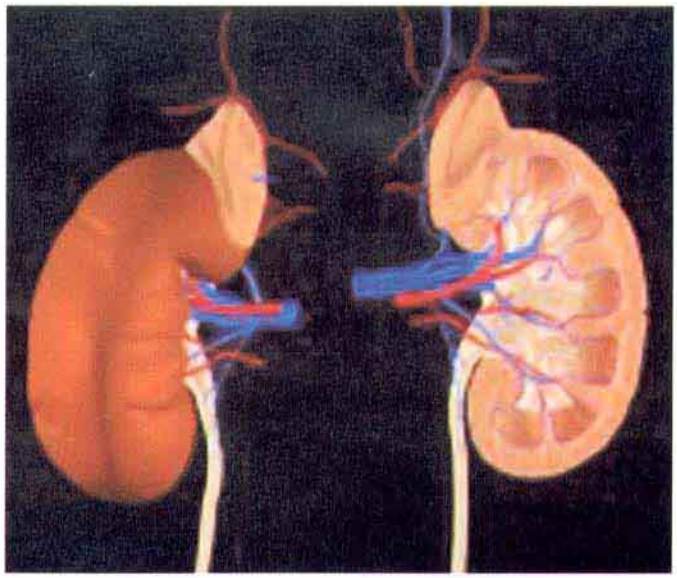

MAJOR MA. NILA B. LOPEZ, M.D.
Nephrologist, AFP Medical Center

Kayo ba ay may diabetes at palagi na lang naiinis? Gumagamit ng insulin at galit ng tusukin! Mag isip mabuti bago sabihin at ipag walang bahala ang inyong diabetes.

Sa kasalukuyang panahon patuloy na dumarami ang mga Pilipinong may diabetes. Hindi makakaila na ito ay isang karamdamang nababalot sa gastusin. Subalit higit na malaking suliranin kung pababayaan dahil magdudulot ng napakaraming komplikasyon.

Isa sa pinangingilagang komplikasyon ng diabetes ay ang pagkasira ng mga bato o kidneys. Ang ating mga bato ay mahalaga. Ang bawat tao ay may dalawang bato. Ito ang nagtatanggal ng lahat ng lason o duming hindi nararapat maiwan sa ating katawan. Ang lason o duming ito ay nalalaman sa pamamagitan ng pagkuha ng dugo at pagsukat sa tinatawag na "serum creatinine".

Ang ating mga bato ay tumutulong din sa tamang pag kontrol ng ating presyon, may kinalaman din ito sa pagsasaayos ng bilang ng ating pulang dugo at balanse ng tubig sa ating katawan.

Kapag ito ay nasira ang buo nating katawan ay maaapektuhan, sa huli ay mauuwi sa tinatawag na "hemodialysis." Ang hemodialysis ay isang paraan ng paglilinis ng dugo ng isang pasyenteng may sakit sa bato.

Ang sakit na diabetes ay tunay na nakakasira ng mga bato. Ang ganitong komplikasyon ay nakikita sa mga pasyenteng higit kumulang na sampu (10) hanggang labing limang (15) taon ng may diabetes. Lalo na kung ang pag kaapula ng asukal sa dugo ay hindi wasto.

Ang mga ilang sintomas at senyales ng sakit sa bato ay pagkakaroon ng manas, pagtaas ng presyon, pamumutla o pagbaba ng bilang ng pulang dugo at pagkakaroon ng protina sa ihi.

Ang pagkasira ng mga bato ay isang matinding kumplikasyon ng diabetes. Tiyak na maglulugmok sa isang mabigat na gastusin ang may sakit sa bato.

Subalit maari rin naman maiwasan ng isang diabetiko ang kumplikasyong ito sa pamamagitan ng pagkakaroon ng maayos na kontrol ng asukal sa dugo. Ito ay maisasagawa sa pagsunod sa mga alituntunin at payo ng inyong manggagamot sa pag-inom ng gamot at maayos na pagkain. Kailangan ding umiwas sa pagkain ng maalat at mataba.

Higit sa lahat huwag kalimutan ang regular na pagsangguni sa inyong manggagamot.

Kung tama ang asukal sa dugo makakaiwas sa pagkasira ng bato at iba pang kumplikasyon dulot nito.