

diabetesWATCH

A Publication of the Diabetes Philippines

philippines

January - June 2013

YEAR MMX13, NO. 1



Diabetes and the Heart

- How to screen for heart disease
- Frequently asked questions about cholesterol
- The deadly duo of diabetes and hypertension
- Primer on antiplatelet therapy
- The heart –healthy diet

What's the verdict on fish oil?

Correcting the history **of diabetes**

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From the EDITOR'S DESK



Heart Smart

The best and most beautiful things in the world cannot be seen or even touched.

They must be felt with the heart.

~Helen Keller

Just how vital is the heart?

The average heart beats 72 times a minute. That comes to 100,000 times a

day, and about 38 million times a year! With every beat, the heart pumps about 70 milliliters of blood. Therefore, each minute, it drives 5 liters of blood, or 7,200 liters per day. All this to nourish, oxygenate and detoxify different parts of the body.

With all that hard labor, it's no wonder then that the heart could break down so easily...much more so if one has diabetes. Adults with diabetes have 2 to 4 times the risk of having heart disease or stroke compared to those without. And cardiovascular disease is the number 1 killer and disabler of diabetic folk.

For those of you who care for diabetes-sweetened hearts (yours or someone else's), read on for loads of heart smart tips in the pages that follow. Get the lowdown on omega-3s, cardiovascular screening, antiplatelet therapy, high blood pressure, cholesterol and more.

May you and your loved ones enjoy many beautiful heartfelt moments this Valentine's and in the years to come!

Joy
Joy Arabelle C. Fontanilla, MD
Editor-in-Chief



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We serve patients, pursue education and conduct research with zeal and without regard for personal gain. Honesty and transparency rule our behavior in relating with fellow members, partners, supporters and other stakeholders of our organization.

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Your **P**RESIDENT SPEAKS



It is with a grateful heart that I accept the challenge to lead the Diabetes Philippines for the next two years. The next two years will see our organization go through a metamorphosis leading to a stronger and more focused society. In this process, we hope that we could count on both health care professional and lay members to be active participants. Show where your heart truly lies.

For this issue of Diabetes Watch, we are focusing on the heart - one of the more vital organs of the body. Unfortunately, for people with diabetes the heart is a cause of a lot of concern. It has often been said that most people with type 2 Diabetes will die from cardiovascular cause and that type 2 diabetes mellitus is a cardiovascular disease. Thus, for the first issue for 2013 which encompasses the month of hearts, February, it is apt that we talk about this important subject. The editorial team could not have picked a better theme. So, let us learn more about the heart, particularly the diabetic heart.

For people with or without diabetes, take care of your heart. Learn how to relax....stop and smell the flowers...count on your blessings...savor your moment with family and friends. Happy Heart month!!!!

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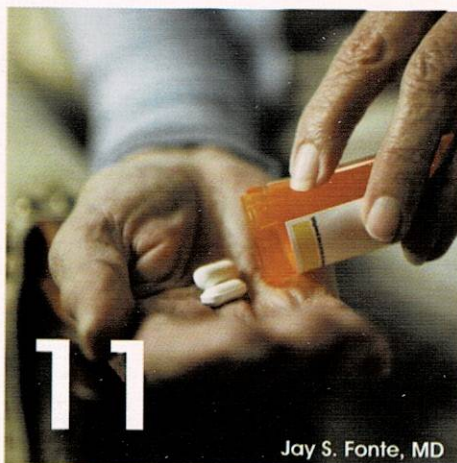
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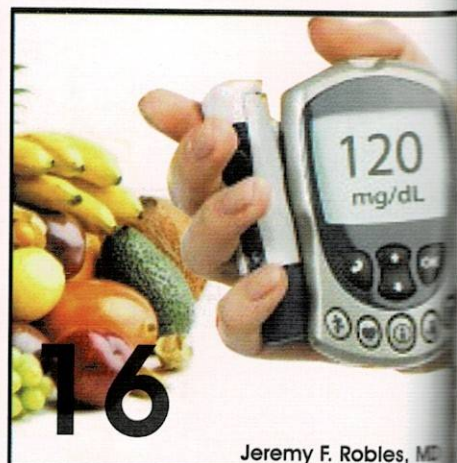
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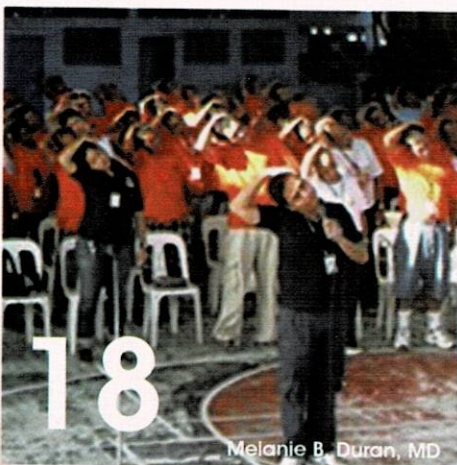
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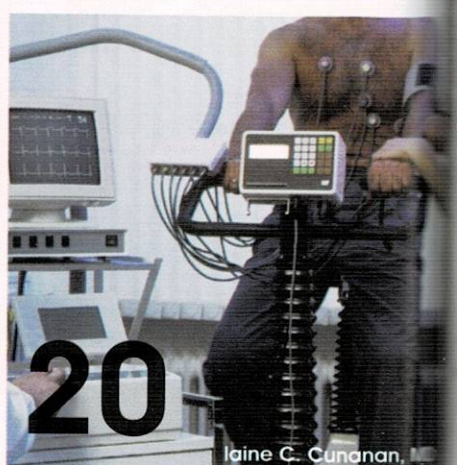
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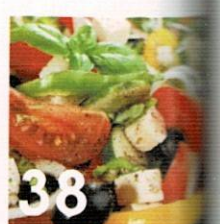
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MEANDERINGS

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The History of Diabetes - Its Discrepancies?

The discovery of the life-giving hormone, insulin has been solely attributed by generations after them to Frederick G. Banting and Charles Best. In fact, Institutions on diabetes research and care have been named after one or the other. But some history books tell a different story.

In 1916 - 5 years before Canadian researchers in Toronto (Banting, et al) began their work, - a brilliant Romanian scientist named Nicolae Paulescu had prepared an aqueous pancreatic extract which he named "pancreine". This normalized the blood sugars levels of diabetic dogs after injection. His work interrupted by war, but after its end he published four papers wherein he reported the isolation of the anti-diabetic pancreatic hormone. These were in the Romanian Section of the Society of Biology in Paris. Subsequent activities included the publication of extensive paper on the role of pancreatic hormone in the assimilation of food (*Archives Internationales de Physiologie*, 1921) and the procurement of a patent for his method of manufacturing pancreine from the Romanian Ministry of Industry and Trade.



In 1921-1922, Banting and Best authored a report on the successful use of pancreatic extract for normalizing hyperglycemia of diabetic dogs. The work omitted the contributions of the Chairman of Physiology of Toronto University, John Macleod and the distinguished chemist James Collip who assisted them (Banting and Best). They misquoted Paulescu's work, taking the credit for an original discovery.

When Banting and Best had the opportunity to use their pancreatic extract on a child with diabetes, the patient developed severe allergic reactions. It was only after Collip

produced another extract that this enabled the 2 doctors to use the extract on human patients without allergic manifestations. Little is known about this aspect of insulin use.

Banting and Macleod were awarded the Nobel Prize for the discovery of insulin. The story goes that Banting shared his prize with Best, while Macleod did so with Collip.

Banting, in later years, made public his regret that "there was error in our translation of Professor Paulescu's article..." partly blaming his poor French for that mistake.

**Sir Frederick Banting****J.J.R. Macleod****Charles Best****James Collip**

The award of the Nobel Prize to Banting et al raised questions since announcement. Some have opined that Paulescu, and even Joseph Von Mering and Oskar Minkowski "would have been as worthy, perhaps worthier, laureates for this prize."

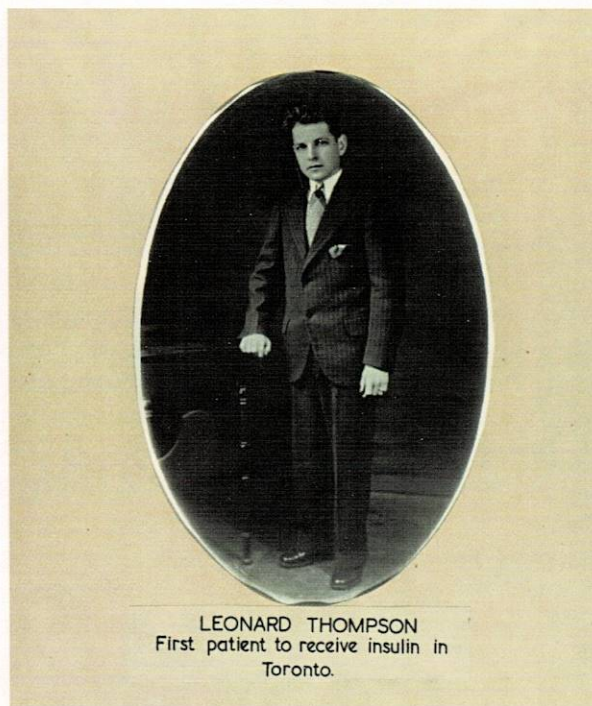
Has history been corrected?

Some Vignettes:

1. Leonard Thompson was the first patient to receive insulin for his diabetes. It was he who developed allergy from Banting and Best's pancreatic extracts. Twelve days later, he received a second dose of extract, purified by Collip, - and this enabled him to have his blood sugar normalized. He lived for 13 more years with insulin, dying at the age of 27 from complications of diabetes.

2. One of the other first recipients of pancreatic extracts was Theodore Ryder, who later moved from Toronto to Vermont where he died at more than 80 years of age - outliving all the personalities who were associated with the discovery of insulin. He never married - rumor has it that he was Mama's boy. ○

Reference: Savona - Ventura and Mogensen: History of Diabetes Mellitus, 2009, Elsevier Masson.



LEONARD THOMPSON
First patient to receive insulin in
Toronto.

DIABETES QUERIES

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The heart is one of the important organs affected by diabetes. Experts say that most of the cardiovascular diseases are secondary to diabetes. Screening, treatment and monitoring the heart and related conditions such as high cholesterol or blood fats brought by diabetes require vigilance. Nobody can precisely predict when a heart attack would occur in a diabetic patient. Adherence to diet, regular intake of medications and adapting a healthy lifestyle all have equal share in preventing a "diabetic heart".

I've had diabetes for 10 years, and I get frustrated everytime I see my doctor because she keeps on adding medications to my regimen. At present I am taking 9 tablets which covers for my diabetes, hypertension, high

cholesterol and numbness.

This is a common reaction from patients. As much as your doctor would want you to have less prescriptions, this seems to be far from truth among diabetic patients. It is usually a "holistic" approach. We cannot just treat your blood sugar and ignore your blood pressure. All of your medications have their own targets. One medication cannot cure all your conditions. The only compromise that you can have with your physician is to lessen the dose or the frequency of your medications once your signs and symptoms get better.

My cholesterol and triglycerides have always been elevated no matter how I avoid fatty foods and maintain a strict exercise routine. I have been taking an anti-cholesterol drug for the longest time. I am concerned if this can have an adverse effect on my liver.

High blood sugar and high blood fats usually is the pair to beat! It always seem that they follow the same track everytime. There are some individuals who have "familial dyslipidemia". Meaning their cholesterol and triglycerides become elevated every time despite diet and intake of medications. It is a condition which they have inherited, in terms of defects in metabolism of blood fats. Having too much fats in the system especially in the arteries won't be good, they can get clogged. Likewise, if fats are deposited in the liver, it can also lead to complications. Taking medications for these conditions for a considerably long duration warrants monitoring of your liver function. Some physicians modify the dose if patient needs to take it continuously to avoid the blood fats from coming back. Please don't forget, diet and exercise are still very important. Seek consult with a dietitian for the best low fat diet for you. Diet can sometimes save you from taking too many medications for your high cholesterol and triglycerides.

I am 45 years old, female, diabetic for 8 years and on insulin. I experienced chest discomfort a week ago and when I sought consult with a cardiologist, he wanted me to undergo several tests for the heart like echocardiography and stress test. Are all of these tests necessary when my electrocardiogram was actually normal?

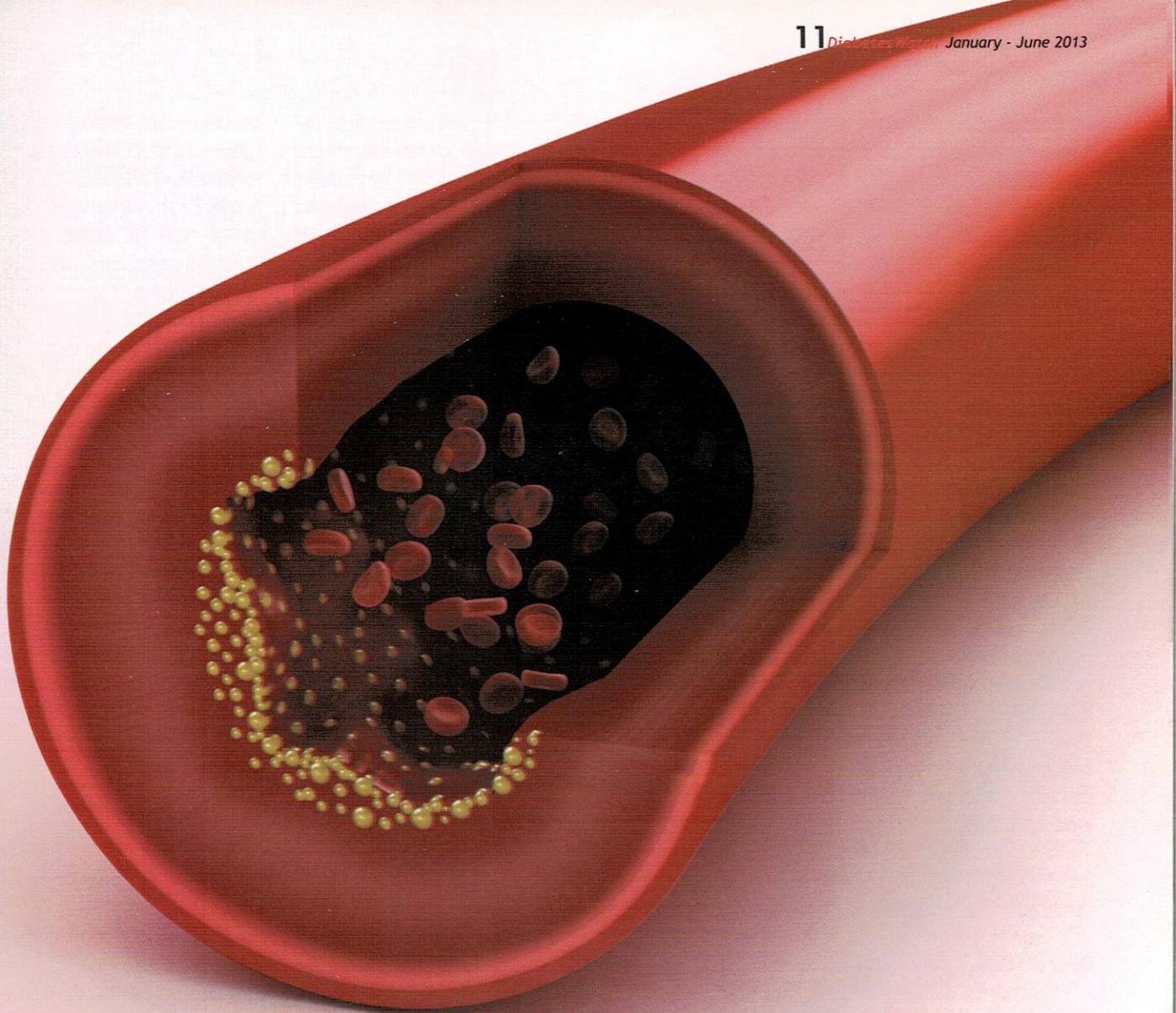
Diabetic patients have the predisposition to have "silent ischemia". It is just like a silent heart attack. Having diabetes for several years and a requirement for insulin, are possible clues that your cardiovascular system already has some form of neuropathy. Chest pain sometimes cannot be perceived by diabetic patients. A normal electrocardiogram cannot totally rule out an existing heart condition and this is the reason why your cardiologist would want to examine you further with other more specific tests.

Go ahead and see your doctor for your workups. It may also be necessary to have additional medications to prevent a heart problem.

My mom has diabetes and hypertension. She is 65 years old and is still very active especially with her community work. There was an instance that she came home not feeling well and when I checked her blood sugar it was okay but her blood pressure was up to 200/100 mmHg! She admitted that she missed doses of her antihypertensives. She takes 3 tablets for her hypertension. Is there a simpler dose that she can take?

This scenario is not uncommon for diabetic persons. Polypharmacy or having several medications in one's pillbox can sometimes be an exhausting site for patients. Remember that control of blood pressure is very important to prevent heart attack and stroke. Maybe it's the number of tablets that she is taking which leads to her non-adherence with her regimen. There are now fixed-dose combinations which offer the same efficacy but less number of tablets to take, hence patients tend to be more compliant. Bring her to her doctor who can prescribe a combination to fit her lifestyle. ○

For more queries and suggestions, feel free to email the writer at xygrenc@yahoo.com



Frequently Asked Questions About Cholesterol and What the Guidelines Say

Jay S. Fonte, MD
UST Hospital

Diabetes mellitus is not just about elevated blood glucose levels. Glucose, derived from carbohydrate-containing foods, is the body's primary source of energy. However, in the case of diabetes, lack of insulin, or decreased responsiveness of our body to its action, leads to inability to use glucose as source of energy. To

compensate for this, our body will utilize fats and protein from adipose (or fat) tissues and skeletal muscles, respectively, as alternative sources of energy. In the process of mobilizing energy from adipose tissues, "bad" fats increase leading to increased cholesterol levels. This is the primary (but not the sole) reason why a person with diabetes often has elevated

cholesterol levels.

Elevated cholesterol in the blood eventually gets deposited and builds up as cholesterol plaques on the blood vessels. This is known as atherosclerosis - the most common cause of heart disease (or cardiovascular disease) in a person with diabetes. Cholesterol plaques can break off from blood

vessels and trigger formation of a blood clot. A clot can block blood flow and prevent oxygen from getting to vital organs such as the brain and heart leading to stroke and heart attack, respectively. Thus, diabetes mellitus increases the risk of an individual to develop cardiovascular disease - the leading cause of morbidity and mortality in diabetic patients. This is the reason why treatment of abnormalities in cholesterol (dyslipidemia) is as important as treating elevated glucose levels in the diabetes.

In April 2012, the American Association of Clinical Endocrinologists (AACE) came up with guidelines for the management of dyslipidemia and prevention of atherosclerosis among diabetic patients. Based on this guideline, this article answers the most frequently asked questions of diabetic patients and their caregivers about dyslipidemia.

What are the sources of cholesterol?

Despite adherence to healthy diet, it is commonly observed that diabetic patients have elevated cholesterol. This is due to the fact that there are 2 sources of cholesterol: our body, specifically the liver (endogenous), and our diet (exogenous). The endogenous production increases especially when blood glucose is elevated as stated above. Furthermore, there are certain conditions that can increase cholesterol levels such as hypothyroidism, nephrotic syndrome, and use of certain medications such as steroids, and even some anti-hypertensive medications.

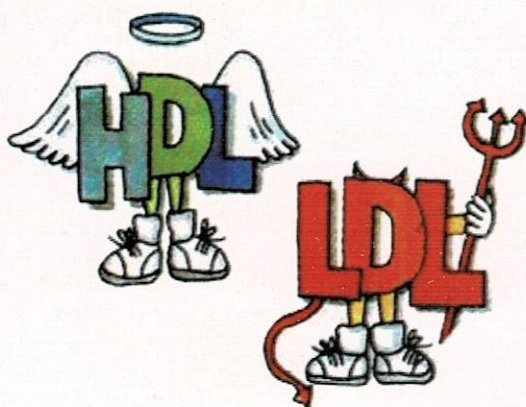
How do we screen for abnormalities in cholesterol level?

The test used to determine abnormalities in cholesterol level is termed "lipid profile." The AACE recommends measurement of fasting (no calorie intake for 10-12 hours) lipid

profile. A lipid profile consists of measurement of 4 parameters: total cholesterol, low-density lipoprotein cholesterol (LDL-C), triglycerides, and high-density lipoprotein cholesterol (HDL-C).

What is the meaning of the different components of the lipid profile?

The LDL-C is often termed as "bad cholesterol" because it is the one most commonly associated with increased



risk of atherosclerosis and cardiovascular disease. This serves as a vehicle carrying cholesterol in the blood that will be eventually deposited into blood vessels. The HDL-C is otherwise known as "good cholesterol" because high levels were found to be protective of developing cardiovascular disease. Compared to LDL-C, HDL-C carries cholesterol in the blood back to the liver for excretion in the bile. Triglycerides are derived from meals containing fats and from the breakdown of adipose tissues. Just like LDL-C, an elevated triglyceride level is a risk factor for cardiovascular disease. Therefore, a patient with abnormal cholesterol level or dyslipidemia is anyone who has: elevated total cholesterol, elevated LDL-C, elevated triglycerides, and low HDL-C.

How do we interpret lipid profile result?

Interpretation of lipid profile requires

assessment of the overall risk of a patient to develop cardiovascular disease. This requires the help of a physician who will determine the presence of other risk factors for cardiovascular disease such as hypertension, cigarette smoking, family history of coronary artery disease, advancing age, and obesity among others. Based on these factors, patients are categorized into very high risk, high risk, moderately high risk, moderate risk, and low risk to develop coronary artery disease. A lower LDL-C is desired for patients classified as "very high risk" than for those classified as "low risk." Thus, although laboratories provide normal values for the different components of the lipid profile, interpretation as to whether the result is elevated requires a discussion with the physician after a thorough investigation of all risk factors.

What is the risk of a diabetic patient to develop cardiovascular disease?

It has been shown that diabetes increases the risk for cardiovascular disease by 2-fold. People with diabetes have a higher chance to develop a heart attack than those without, and have equal chance to develop the disease as a person without diabetes who has had a heart attack. In the presence of dyslipidemia, the risk for cardiovascular disease increases 4-fold. If the patient has diabetes, hypertension, and dyslipidemia, the risk increases 6-fold. Hence, diabetes per se, without other risk factors is already considered as "high risk" whereas diabetes plus 1 or more additional risk factors is considered as "very high risk."

How often should screening for dyslipidemia be done?

In general, lipid profile should be done annually among diabetic patients. For those who receive drug treatment, reassessment is done 6 weeks after

initiation of therapy and again at 6-week intervals until the desired level of cholesterol is achieved.

What are the blood lipid goals for patients with diabetes?

Lipid goals for diabetics are shown in Table 1. Treatment is initiated if

cholesterol levels are above these levels, titrated up if treatment is insufficient to achieve these levels, or maintained if the target goals are achieved.

Table 1. Blood Lipid Goals For Patients With Diabetes Mellitus

Lipids	Goals
Total cholesterol	Below 200 mg/dL
LDL cholesterol	Below 100 mg/dL, for high risk Below 70 mg/dL, for very high risk
HDL cholesterol	Greater than 40mg/dL for both men and women
Triglycerides	Below 150 mg/dL

What is the treatment for dyslipidemia?

Treatment recommendations for dyslipidemia consist of increasing physical activity, medical nutrition therapy, smoking cessation, and pharmacologic therapy. Physical activity consists of both aerobic (at least 30 minutes, 4-6x weekly) and muscle-strengthening activities (at least 2 days a week).

What is the recommended diet to treat and prevent dyslipidemia?

The AACE recommends a reduced-calorie diet. Intake of saturated fats, trans fats, and cholesterol should be

limited. Saturated fat is found mainly in animal products such as high-fat red meats, bacon, sausage, and also from butter, whole milk and cheese, coconut, and palm oil. Trans fat is made when hydrogen is added to vegetable oils. It increases cholesterol levels even more than saturated fats. It is found mainly in commercially baked goods, stick margarines, fried food, and other processed foods. Patients are advised to choose a diet high in fruits, vegetables, whole grains, and fat-free or low-fat diet. They are also advised to bake, broil, grill or steam rather than fry foods.

What are the drugs for the treatment of dyslipidemia?

There are different drugs used for the treatment of dyslipidemia as shown in Table 2. The choice of drug depends on the abnormality found in the lipid profile. Statins are the drug of choice for elevated LDL-C. Lowering LDL-C with statins has been shown to reduce mortality and prevent cardiovascular events such as heart attack and death. Fibrates are the drug of choice for patients with elevated triglycerides. Niacin is the preferred drug for low HDL-C. Other agents used for the treatment of elevated LDL-C are bile acid sequestrants and cholesterol absorption inhibitors. Omega 3 fish oil is an adjunct therapy for elevated triglycerides.

Table 2. Drug Therapy for Dyslipidemia

Drug	Primary Indication	Examples
Statins or HMG-CoA reductase inhibitors	Lower LDL-C	Atorvastatin Rosuvastatin Simvastatin Pravastatin
Fibrates or Fibric Acid	Lower triglycerides	Fenofibrate Gemfibrozil
Nicotinic Acid	Increase HDL-C	Niacin
Bile acid sequestrants	Lower LDL-C	Cholestyramine Colestipol
Omega 3 fish oil	Lower triglycerines	
Cholesterol absorption inhibitor	Lower LDL-C	Ezetimibe



How are patients on drug therapy monitored?

Liver function test (SGOT or AST and SGPT or ALT) is assessed before and 3 months after statin or fibric acid treatment initiation. Liver abnormalities most commonly occur within 3 months of treatment initiation. The decision to start or stop a drug based on abnormal liver function test depends on your physician. Measurement of creatine kinase is recommended for patients complaining of muscle pain or weakness while on statin treatment.

How long should patients be maintained on drug therapy?

The guideline, unfortunately, did not mention specifically the duration of therapy. Majority of diabetic patients would request their physicians, or vehemently discontinue the medications themselves once the target

cholesterol is achieved. However, studies have shown that the benefit of drugs for cholesterol is observed only with prolonged use. Thus, physicians recommend continuing these medications even when cholesterol levels are within acceptable levels.

What are the other parameters to assess risk for heart disease?

Aside from the traditional measurement of lipid profile, the AACE guideline recommends measurement of apoprotein (apo) B. Apo B is the main component of LDL-C and is required for LDL-C to be recognized by different tissues in the body. High levels of Apo B can lead to atherosclerotic plaques and atherosclerosis. There is considerable evidence that levels of Apo B are a better indicator of heart disease risk than total cholesterol or LDL-C. Unfortunately, this test is not widely available. The desired level for a

diabetic patient is less than 90 mg/dL but for those who have 1 or more additional risk factors, apo B of less than 80 mg/dL is desired. Highly sensitive C-reactive protein (hs-CRP) is another marker used to predict risk of developing heart disease. It is produced by the liver and increases during inflammation. Hence, elevated levels are associated with increased risk for heart disease. Blood levels of hs-CRP is requested when the overall risk assessment of the patient is borderline to develop cardiovascular disease or when the LDL-C is less than 130 mg/dL.

Management of diabetes mellitus requires a holistic approach. This means treatment of other risk factors to develop cardiovascular disease such as dyslipidemia and hypertension. If you have diabetes, and your cholesterol is high, it's time to take action. Lowering your cholesterol can reduce your chance of suffering a heart attack or stroke. ○

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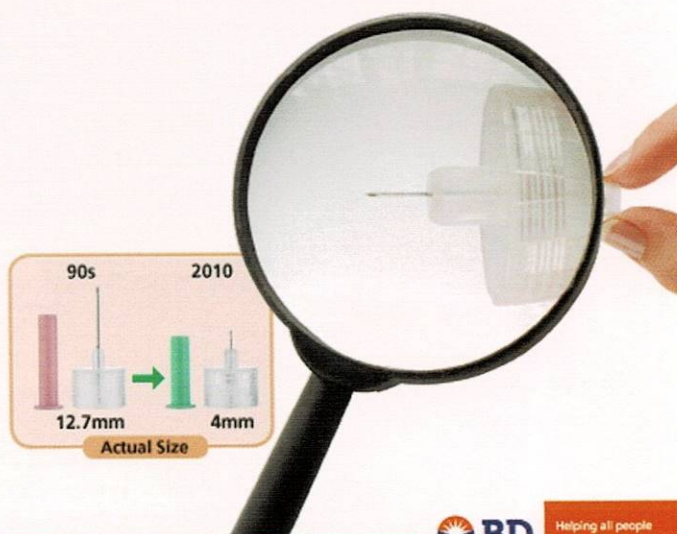
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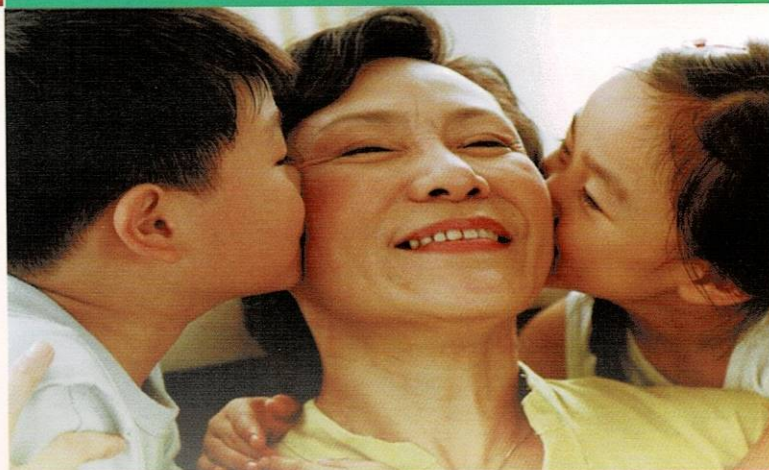
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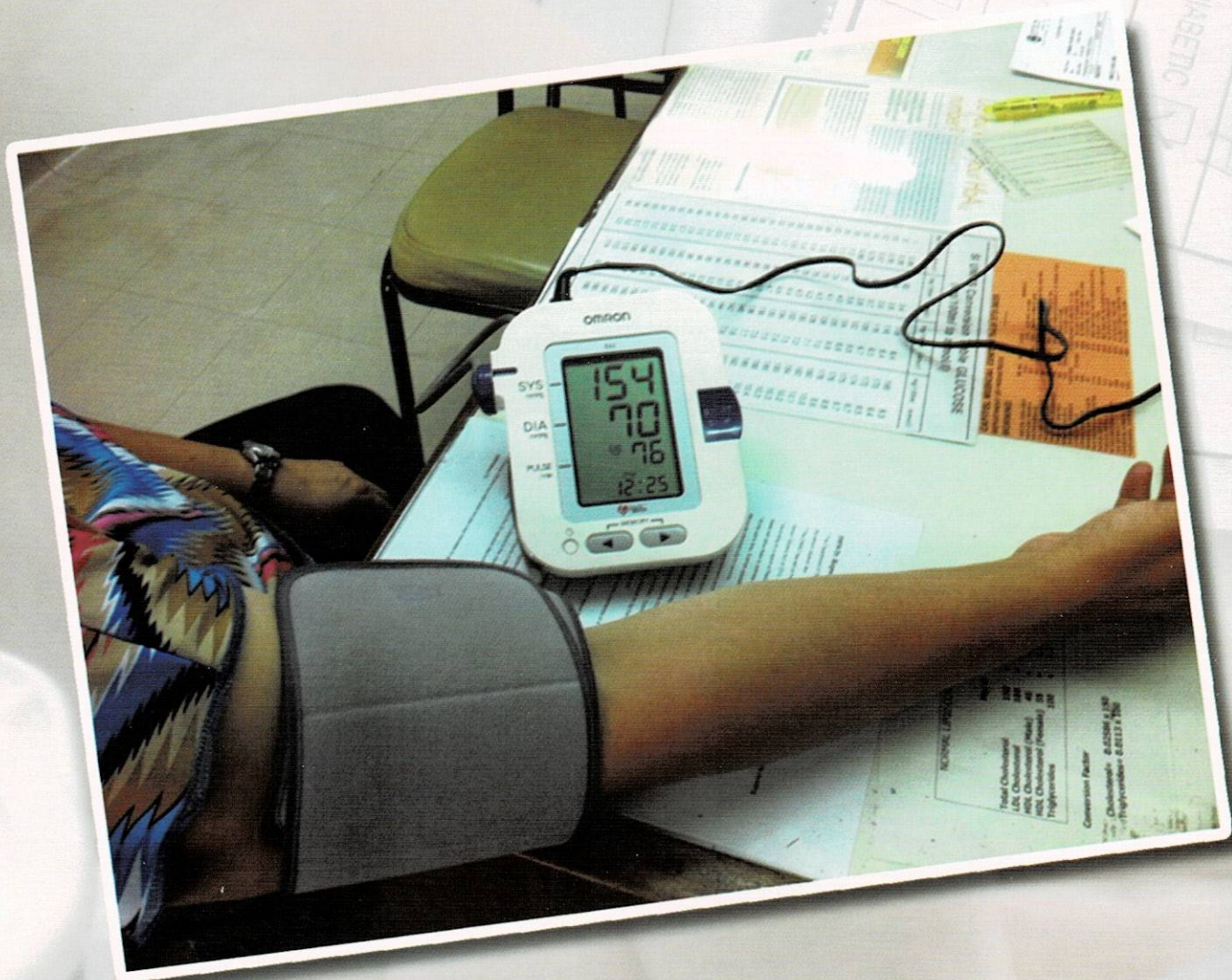
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Diabetes & Hypertension: *In a relationship . . .*

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Cebu Velez General Hospital

As separate entities both diabetes and hypertension rank high among the common diseases that affect Filipinos. These are lifestyle diseases that come about as a result of how we eat and how we take care of our body. Genetics also play a major role in the development of these diseases. So if it runs in your family, then you have to be on guard early.

The relationship of diabetes & hypertension is bidirectional, they can co-exist and both can contribute to the morbidity of the other. Among people with diabetes, hypertension can develop as a consequence of both autonomic and endothelial dysfunction. This means it is more difficult to treat hypertensive diabetic patients because microvascular and macrovascular complications are amplified

proportionately with increase in blood pressure and blood sugar levels.

The American Diabetes Association (ADA) publishes their Annual Diabetes Standards of Care in January of each year. These guidelines provide a comprehensive summary of how we should manage patients with diabetes. They recommend that blood pressure should routinely be measured on every

visit and proper technique should be done. The patient should be rested for at least 5 minutes and seated with feet on the floor and the arm supported at the heart level. The cuff size should be appropriate for the upper arm circumference.

The new target systolic blood pressure should be < 140 mm Hg while diastolic blood pressure should be < 80 mmHg.

This was adjusted from a previous systolic BP target of < 130 mm Hg because recent trials have shown that there was no further benefit for lower achieved systolic BP. This is consistent with the general recommendation to keep systolic BP below 140 mmHg regardless of any clinical condition. However, for the younger patients there may be benefit in keeping the blood pressure lower to prevent chronic complications such as nephropathy, retinopathy and neuropathy that occur predictively as diabetes progresses.

Glycemic goals for diabetic patients include keeping the glycosylated hemoglobin below 7% with ideal capillary blood glucose prior to meals between 70-130 mg/dL while post-meal values 1 to 2 hours after eating should not exceed 180 mg/dL. Each patient will need to be evaluated thoroughly and treated individually. Emphasis is placed on self-monitoring

of blood glucose and self-management education and support.

The role for lifestyle therapy is still very significant particularly for patients with mildly elevated BP. Recommendations include reduced sodium intake below 1500 mg/day, increased consumption of vegetables of 8-10 servings per day, low-fat dairy products of 2-3 servings per day, more fruits and avoiding excessive alcohol consumption with no more than 2 servings for men and 1 serving for women. Adult diabetics should spend 150 minutes per week of moderate intensity aerobic physical activity spread over at least 3 days a week with no more than 2 consecutive days without exercise. Progressive resistance training improves insulin resistance and may be done at least twice a week if there are no contraindications. Consult your doctor for proper guidance on what activities you can do.

There are several options for antihypertensive medications that can be used for diabetic patients. Generally, Angiotensin Converting Enzyme (ACE) inhibitors, Angiotensin Receptor Blockers (ARB) and Calcium Channel Blockers (CCB) are your top choices. In most cases however, more than one drug may be needed to control the BP so patients need to work

closely with their physicians to ensure adequate BP control. Lipid disorders and obesity are other dilemmas that need to be addressed in patients with glycemic disorders. Collectively known as Metabolic Syndrome (MetS), they are morbidities that significantly play a role in the outcome of cardiovascular disease. Each component needs to be identified and aggressively treated.

The International Diabetes Federation (IDF) estimates that in 2012 the Philippines ranked #4 with 4.3 million diabetics among the countries in the Western Pacific including China, Japan and Indonesia. The Philippine Society of Hypertension (PSH) estimates that there are > 7 million hypertensive Filipinos (2003). Both are global problems that all of us will have to deal with. Lifestyle modification is difficult to implement because is always hard to let go of old bad habits so pharmacologic intervention may be necessary to keep these diseases in check. Get expert advice, stay focus and don't lose hope. Discuss with your doctor these diseases and understand the problem. Know your limits and accept you fate. You are not alone and you will need help. Let your family be your support group because they will play an important role in the management of your disease. ○



BLAZING A TRAIL THE BUCOR'S DIABETES CARE TEAM AND BIDA (WINNER OF THE GLOBAL DIABETES WALK CAMPAIGN)

Melanie B. Duran, MD

Diabetes Care Team of New Bilibid Prison

(by the Diabetes Care Team of New Bilibid Prison: Melanie B. Duran, MD; Hasmin P. Sescar, RN, MAN; Elena S. Morales, RN; Marie Amjoneffe H. Battad, RND; Milagros M. Muning, MD; Mercedita N. Sevilla; Ann Maureen Navarro; BIDA President Vicente Santiago; in collaboration with Brit Larsen of WDF)

Armed with a vision that every inmate with diabetes be free of complications while inside the prison so that he will still be economically productive once he is set free or returns to his community, the Diabetes Care Team (DCT) under the New Bilibid Prison Hospital was formed in 2006 and adapted the team-approach system of health

management. Subsequently, the BuCor Inmates Diabetes Association (BIDA) was born to take care of the needs of fellow inmates with diabetes through a strong support system. Together, they conceived and developed the Diabetes Education Program in Prisons (DEPP) designed to have a sustainable and adaptable program that would meet the needs and challenges of this

relentless, dreadful, and lifelong disease called diabetes. Likewise equipped with a mission to empower inmates with diabetes through adequate education towards self-care, the goal of DEPP is to reduce mortality and morbidity rate due to diabetes within ten years.

Six years after they were organized,



According to Brit Larsen, current GDW

awareness about diabetes".

it should not hinder our desire to spread confined within the walls of prisons, believe that even though we are complications of the disease. We unite to fight against the dreaded against each other; that we should "We are at war with diabetes and not The DCT has always emphasized that

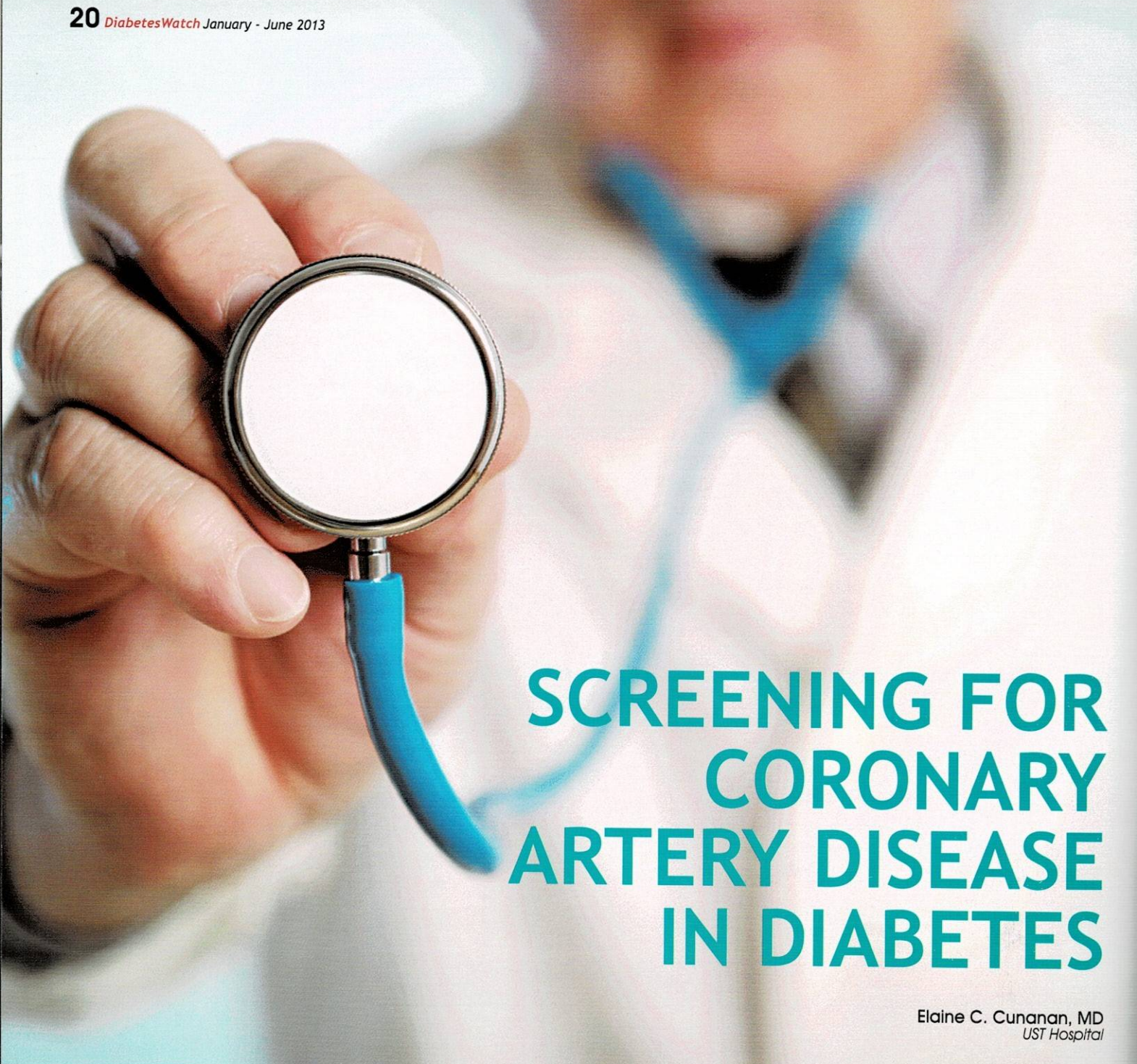
DCT.

one gang to belong to: BIDA", says the diabetes management, there is only to certain gangs, when it comes to Though inmates with diabetes belong of 1,000 inmates joined the GDW 2012. community. An overwhelming crowd different gangs in the prison force between and among the 13 14th gang, BIDA becomes the uniting Security Compound. Also known as the organized the walk inside the Maximum November 14th. For 2012, BIDA during the World Diabetes Day every annual event is celebrated globally (GDW) campaign for 2012 (Category 1-Best Awareness and Advocacy). The winning the Global Diabetes Walk by representing the Philippines and added another feather on their caps the Diabetes Care Team and the BIDA

With several risk factors that could Out of 13,000 inmates, 1,000 or 7.6 % are currently diagnosed with diabetes. Award for category 1, WDF wants to Care Team and BIDA, the 2012 GDW Directors): "By awarding the Diabetes and member of the WDF Board of Ms. Ida Nicolaisen (noted anthropologist And as stated by another jury member, of Directors.

also the Chairman of the WDF Board member, Prof. Pierre Lefebvre, who is our sincere appreciation", says jury throughout the world and they deserve show an example worth replicating organizations behind this campaign for diabetes. The nurses and the carrying the global message of uniting the blue circle is a beautiful way of inmates and uniting 14 gangs to lift difficult context: "Mobilizing 1,000 the rest as being original in a very Care Team and BIDA stood out above the walk organized by the Diabetes submitted to this year's GDW award, among some very strong campaigns coordinator, the WDF jury found that

team projects that the number of inmates with diabetes will rise to 4,000 or 20% prevalence in the coming years. This is the rationale for having a continuous training of Lay Educators every 2 years. The health system inside the New Bilibid Prison, with its limited resources, has to meet the demands and cannot ignore the urgency of a chronic disease such as Diabetes. The DCT and BIDA collaborated with the different organizations such as Association of Diabetes Nurse Educators of the Philippines (ADNEP), Philippine Association of Diabetes Educators (PADE), and Institute for the Studies on Diabetes Foundation, Incorporated (ISDFI), and Consortium of Government Diabetes Clinics (CGDC) to make the event a successful and remarkable one. As frontrunner of the Walk, the DCT and BIDA were awarded with a certificate and a plaque, plus a prize-grant worth 7,500 USD, which will be expended in the celebration of GDW for 2013. With high hopes of expanding the program throughout the other prison and penal farms in the Philippines, they shall continue the walk and wage war against diabetes!



SCREENING FOR CORONARY ARTERY DISEASE IN DIABETES

Elaine C. Cunanán, MD
UST Hospital

Diabetic persons have a higher prevalence of coronary artery disease (CAD), and are more likely to suffer from a myocardial infarction (MI). The increase in risk is due both to diabetes and to the frequent presence of other risk factors such as dyslipidemia and hypertension.

Type 2 diabetes is considered to be a CAD equivalent. This is due to the

observation that patients with type 2 diabetes without a prior MI have the same risk for MI and cardiac death as patients without diabetes who had a prior MI.

Type 2 diabetic patients also have a high rate of asymptomatic coronary artery disease compared to the general population. Asymptomatic CAD includes lesions that are insufficient to produce ischemia and those that can produce

ischemia (e.g., with exercise or pharmacologic stimulation), but may not be appreciated by the patient. Some diabetic individuals have a blunted appreciation of ischemic pain, which may result in atypical anginal symptoms or even silent ischemia and infarction. This is thought to be caused in part by autonomic denervation of the heart.

These observations raise the possibility

that there might be value in screening asymptomatic diabetic patients for CAD.

Assessing asymptomatic CAD

The incidence of asymptomatic CAD in patients with diabetes has been evaluated in a variety of ways. These include the following:

Coronary artery calcification - The presence and extent of coronary artery calcification (CAC) on electron beam CT scan can noninvasively predict the presence of coronary artery atherosclerosis. CAC scanning estimates total atherosclerotic burden, but is not necessarily predictive of significant coronary artery stenosis.

Stress testing - When stress testing is performed, experts recommend standard exercise ECG testing if the resting ECG is normal, since the exercise response will be an important factor in determining prognosis. If the resting ECG has abnormalities that will interfere with interpretation during exercise or if localization of ischemia is expected to be important, an exercise test with imaging can be performed (e.g., echocardiography or radionuclide myocardial perfusion imaging using thallium). For patients who cannot exercise, pharmacologic stress testing can be performed.

Exercise stress testing, if possible, is preferred, since the response to exercise itself has prognostic value. Bad prognostic signs include poor exercise capacity (<5 METs); exercise-induced angina; abnormally low peak systolic blood pressure (<130 mmHg) or a fall in the systolic blood pressure during exercise; and chronotropic incompetence.

Noninvasive coronary angiography - Noninvasive coronary angiography can be performed with either CT or MRI techniques. At present, neither is an alternative to invasive coronary angiography and neither is recommended for screening asymptomatic patients. Furthermore,

the higher rate of extensive coronary calcification in patients with diabetes interferes with the interpretation of stenosis severity.

Coronary angiography is still the gold standard for defining coronary anatomy. However, because of its invasive nature, it is never used as an initial screening test. Instead, it is reserved for patients who have evidence of ischemia on a stress test or for further assessment of the coronary anatomy in patients with a negative stress test who continue to have symptoms (suspected false negative results).

Purpose of screening

The primary purpose of screening would be to identify patients whose prognosis could be improved with medical therapy or myocardial revascularization. The screening of asymptomatic patients, however, remains controversial. Since diabetes is considered a coronary equivalent, the results of screening will not change medical therapy since aggressive prevention measures, such as control of blood pressure and lipids and low-dose aspirin, would already be warranted. Intensive medical therapy that would be indicated anyway for diabetic patients at high risk for CAD seems to provide equal outcomes to invasive revascularization.

A recent randomized observational trial (DIAD study) demonstrated no clinical benefit to routine screening of asymptomatic patients with type 2 diabetes and normal ECGs. Despite abnormal myocardial perfusion imaging, cardiac outcomes were essentially equal (and very low) in screened compared with unscreened patients.

Although asymptomatic diabetic patients found to have a higher coronary disease burden have more future cardiac events, the role of these tests beyond risk stratification is not clear. Their routine use leads to radiation exposure and may result in

unnecessary invasive testing. The ultimate balance of benefit, cost, and risks of such an approach in asymptomatic patients remains controversial, particularly in the modern setting of aggressive CVD risk factor control.

Major society guidelines

The American Diabetes Association (ADA) does not recommend routine screening for CAD in patients with diabetes as screening has not been shown to improve outcomes compared with aggressively treating risk factors (e.g., hypertension and dyslipidemia) alone.

They recommend additional cardiac testing only for those with 1) typical or atypical cardiac symptoms, 2) an abnormal resting ECG, 3) history of peripheral or carotid artery disease.

A recent ADA consensus statement indicated that even though new imaging techniques for early detection of CAD have become available (calcium scoring and noninvasive coronary angiography with computed tomography), diabetes has already been recognized as a cardiovascular disease equivalent, which warrants optimized medical therapy, therefore, screening for atherosclerosis using these techniques will not alter treatment.

The 2002 American College of Cardiology/American Heart Association (ACC/AHA) guidelines for exercise testing made a more limited conclusion that the weight of evidence favors evaluation only in asymptomatic patients with diabetes who plan to begin a vigorous exercise program.??

If stress testing is performed, either radionuclide myocardial perfusion imaging or echocardiography with ECG monitoring is recommended. Exercise stress testing is preferred because the response to exercise itself has prognostic value. If the patient cannot adequately exercise, pharmacologic

stress testing may be done.

In all patients with diabetes, cardiovascular risk factors should be assessed at least annually. These risk factors include dyslipidemia, hypertension, smoking, a positive family history of premature coronary disease, and the presence of micro- or macroalbuminuria. Abnormal risk factors should be treated. Patients at increased CAD risk should receive aspirin and a statin, and ACE inhibitor or ARB therapy if hypertensive, unless there are contraindications to a particular drug class. Although clear benefit exists for ACE inhibitor and ARB therapy in patients with nephropathy or hypertension, the benefits in patients with CAD in the absence of these conditions are less clear, especially when LDL cholesterol is concomitantly controlled.

When discussing options with patients, remember to consider the emotional and behavioral impact that screening and subsequent results, negative or positive, may have on them. Positive results may have adverse effects including depression and anxiety. Negative results may lead to the mistaken belief that lifestyle changes are not indicated. There is also the issue of cost.

Patients with diabetes are considered at high risk for cardiovascular events and mortality. Therefore, regardless of the results from any screening, aggressive treatment and management is imperative to prevent or delay the onset of vascular complications. ○

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A Promise for Life

Antiplatelet - Antithrombotic

Richard Elwyn Fernando, MD
St. Luke's Medical Center

Everyone must have suffered a cut, however small it may be. The sight of bleeding is the usual cause of panic. Notice how a clot is formed to effectively seal the wound. This is how beautifully nature prevents us from exsanguination just because of small cuts. The clotting process is a seriously important process to save the individual.

Platelets (also called thrombocytes) are small blood components made in the bone marrow and stay in the circulatory system. In the event of a cut, they stick to the lining of blood vessels near the injury. More platelets and other blood components clump together forming a clot and protecting underlying tissues as they heal.

Many factors may cause platelets to

initiate clot formation (or thrombosis) even without a cut. These include unhealthy lifestyles, concomitant chronic diseases, and even some medications. Clotting in blood vessels without cuts is the most common cause of stroke, heart attack and limb amputation. If you have had a stroke or a heart attack before, you may benefit most from antiplatelet agents, one of which is aspirin.

Medications that inhibit or reduce the activity of platelets, besides aspirin, include clopidogrel, cilostazol, dipyridamole and beraprost. Most are oral preparations intended as maintenance medication. A few are for intravenous use in emergency cases. These belong to an important class of medications. All of them must be taken under the supervision of your doctor.

Because of their action, they should be discontinued several days before a planned surgical or dental procedure. Be certain to notify your doctor that you are taking an antiplatelet to avoid unnecessary bleeding during and after the operation. Your doctor will also inform you when it is safe to resume antiplatelet therapy which is usually 3-5 days after a successful procedure.

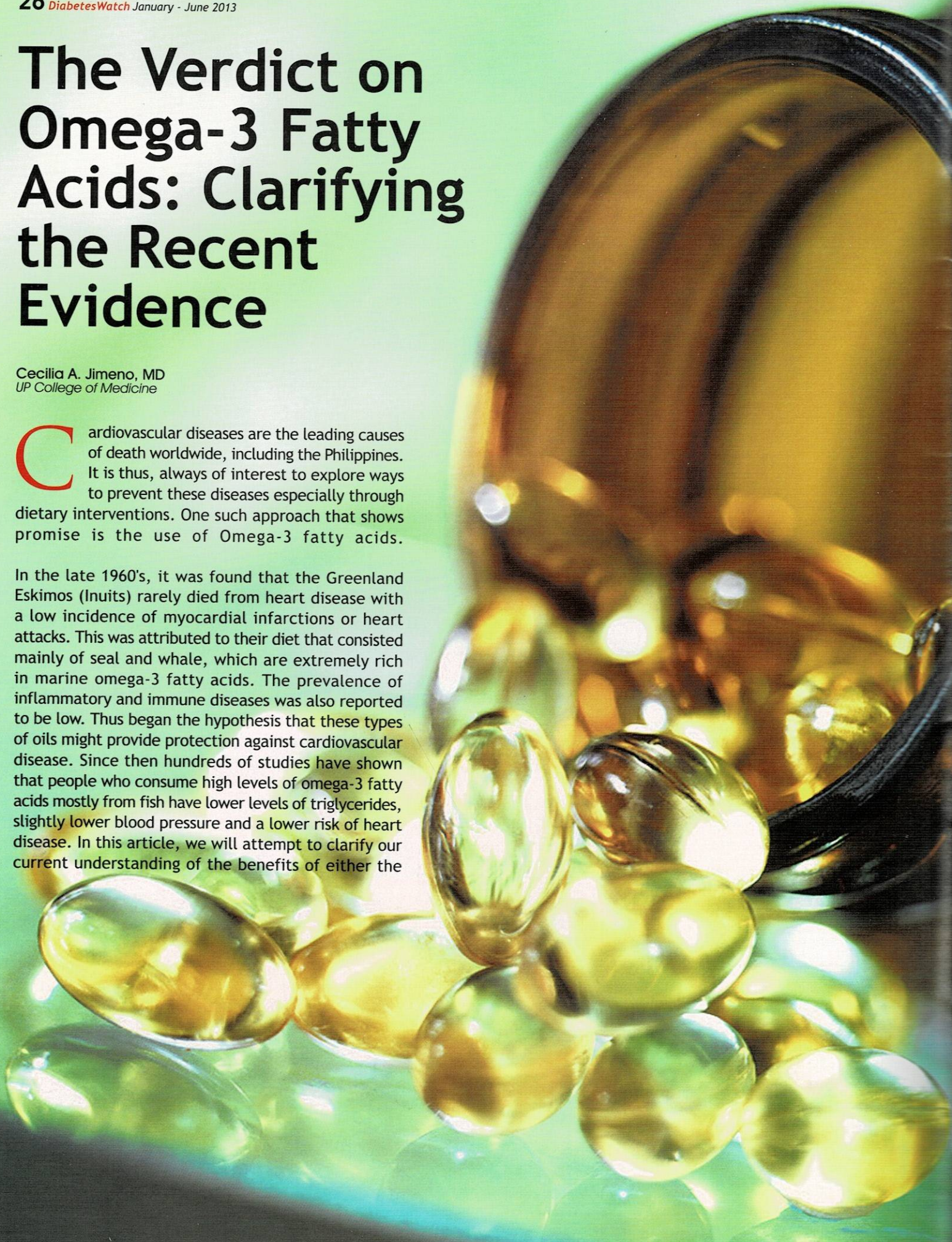
When taken properly, antiplatelets have been shown to reduce the risk of suffering another heart attack or stroke (cerebro-vascular accident or brain attack). We know that subsequent attacks tend to be more severe. Preventing them with antiplatelets will surely improve lifespan as well as quality of life. ○

The Verdict on Omega-3 Fatty Acids: Clarifying the Recent Evidence

Cecilia A. Jimeno, MD
UP College of Medicine

Cardiovascular diseases are the leading causes of death worldwide, including the Philippines. It is thus, always of interest to explore ways to prevent these diseases especially through dietary interventions. One such approach that shows promise is the use of Omega-3 fatty acids.

In the late 1960's, it was found that the Greenland Eskimos (Inuits) rarely died from heart disease with a low incidence of myocardial infarctions or heart attacks. This was attributed to their diet that consisted mainly of seal and whale, which are extremely rich in marine omega-3 fatty acids. The prevalence of inflammatory and immune diseases was also reported to be low. Thus began the hypothesis that these types of oils might provide protection against cardiovascular disease. Since then hundreds of studies have shown that people who consume high levels of omega-3 fatty acids mostly from fish have lower levels of triglycerides, slightly lower blood pressure and a lower risk of heart disease. In this article, we will attempt to clarify our current understanding of the benefits of either the



intake of fatty fish or the use of Omega-3 fatty acid supplements in the light of new evidence.

What are Omega-3 fatty acids?

According to Wikipedia, Omega-3 fatty acids (also called ω -3 fatty acids or n-3 fatty acids) are fats commonly found in marine and plant oils. They



are considered essential fatty acids, meaning that they cannot be synthesized by the human body but are vital for normal metabolism. Though mammals cannot synthesize omega-3 fatty acids, they have a limited ability to form the long-chain omega-3 fatty acids including eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and α -linolenic acid (ALA).

These oils are essential for building cell membranes, or the outer cover of all cells; for maintaining connections between nerve cells in the brain; and may reduce inflammation, which is now being recognized as a cause of chronic diseases including cardiovascular diseases or atherosclerosis. Due to our limited capability to produce the omega-3 fatty acids, we must obtain them from food or supplements.

The two most important kinds—EPA

and DHA—are primarily found in fish such as salmon, sardines, tuna and herring; a third kind, ALA, is found in walnuts, flaxseed, canola (rapeseed) and soybean oil, and some green vegetables, including Brussels sprouts and spinach. According to the American Heart Association, ALA appears to be less potent than EPA and DHA.

What is the mechanism of action of Omega-3 Fatty acids for reducing CVD risk?

Since these oils are incorporated into the cell membrane, they can help stabilize the charges or membrane potentials across cardiac cells and decrease the risk for arrhythmias or heart beat irregularities that can lead to sudden cardiac death. They also affect coagulation or blood clotting, decreasing the risk for thrombosis or blockage of arteries that can lead to heart attacks and strokes. Other effects include a decrease in triglyceride content at doses of 3 gms/day; a change in the buoyancy of the LDL- (bad) cholesterol decreasing the amount deposited and decreasing the rate of growth of atherosclerotic plaques; slight lowering of blood pressure; and a reduction of inflammatory responses. Many believe that inflammation of the inner lining of the arteries is the initial insult that

triggers atherosclerotic or fatty plaque formation.

Evidence from epidemiologic, observational and clinical studies

In 25 studies involving a total of 280,000 participants, there was an inverse association between fish consumption and morbidity or mortality from coronary heart disease. Meaning, the greater is the consumption of fish, the less is the risk of heart disease. Since the earliest observations among the Inuit Eskimos, this has been subsequently confirmed in natives of Northern Canada and Alaska who were living traditionally, and in Japanese, Western, and Chinese populations.

Although the ideal amount to take is not firmly established, evidence from prospective secondary prevention studies suggests that intakes of EPA+DHA ranging from 0.5 to 1.8 grams per day (either as fatty fish or supplements) significantly reduced the number of deaths from heart disease as well as nonfatal heart attacks and strokes. The patients in these studies are those who already have background heart disease such as survivors of heart attacks (Diet and Reinfarction Trial [DART], GISSI-Prevenzione trial), patients with heart failure (GISSI-HF), or those with very high cholesterol levels (Japan Eicosapentaenoic Acid Lipid Intervention Study or JELIS study). The evidence though is not as clear for primary prevention e.g., those who have only elevated cholesterol or other risk factors but who have not yet had any cardiovascular events.

Recommendations of medical groups

On the basis of these evidences from many studies, various medical societies released recommendations regarding the intake of Omega-3 fatty acids. The 2000 American Heart Association Dietary Guidelines recommended the following:

(1) That all adults eat fish (particularly

fatty fish) at least twice a week, as well as vegetables containing plant-derived n-3 fatty acids (ALA).

(2) That persons with documented coronary heart disease consume approximately 1 g of EPA and DHA (combined) per day, from oily fish or fish-oil capsules (after consultation with a physician).

(3) EPA-DHA supplements may be useful in patients with severe hypertriglyceridemia (>500 mg of triglycerides per deciliter [5.6 mmol per liter]), for whom effective doses are higher: 2 to 4 g of EPA-DHA per day to lower triglyceride levels by 20% to 40%.

(4) Exercise caution with respect to contaminants as some types of fish may contain significant levels of methyl mercury, polychlorinated biphenyls (PCBs), dioxins, and other environmental contaminants. Levels of these substances are generally highest in older, larger, predatory fish and marine mammals. Many more species of fish though are low in methyl mercury and generally, fish-oil supplements are free of methyl-mercury.

Some clinical guidelines are more specific, including those of the **European Society of Cardiology (ESC)**, which recommends omega-3 polyunsaturated fats, either through supplements or dietary changes, after MI. For more than 10 years, these recommendations were uncontested though always considered controversial due to the lack of consistent evidence, until recently.

The controversial 2012 meta-analyses

In September 12, 2012, a meta-analysis written by Kwak, et al was published in the *Journal of the American Medical Association*. Of 1007 articles retrieved, 14 randomized, double-blind, placebo-controlled trials (involving 20,485 patients with a history of CVD) were included. The authors concluded, "Our

meta-analysis showed insufficient evidence of a secondary preventive effect of omega-3 fatty acid supplements against overall cardiovascular events among patients with history of cardiovascular disease." The study appeared to show that the supplements have no effect on hard clinical outcomes, including all-cause mortality, cardiac death, sudden death, MI, or stroke. There was a trend toward benefit in the prevention of sudden death, but the reduction failed to reach statistical significance, a finding the researchers believe refutes any supposed antiarrhythmic-mediated effect of omega-3 fatty acids.

At face value, this seems to be the final nail on the coffin and would finally lay to rest all the controversies about fish oil so that people would stop using it. It was published in a reputable journal, with a large number of papers and with many patients included. Since its publication though, many international cardiovascular groups as well independent researchers have contested the findings of the meta-analysis.

One of the most lucid arguments is perhaps a letter to the editor published in the *Archives of Internal Medicine* a month after the publication of the meta-analysis. The author of the letter, Dr. DiNicolantonio stated the following criticisms: (1) The meta-analysis mainly included trials comprising only 50 to 550 patients with just 2 years or less of follow-up in 10 of the 14 trials; (2) Large studies such as the DART (over 2,000 patients randomized), the GISSI-Prevenzione trial (N=over 11,000 patients) and JELIS (N=18,645 patients) were NOT included in the meta-analysis; (3) Most of the included trials were not powered to detect a difference in cardiovascular outcomes. He concludes by saying, "the meta-analysis performed by Kwak, et al is significantly flawed by the inclusion of negative, poor quality, short term studies, while excluding positive larger and longer term studies... the findings of this meta-analysis should be interpreted with caution."

Before the controversy had even waned, another meta-analysis on omega-3 fatty acids was published in the *JAMA* (Rizos et al). Of the 3635 citations retrieved, 20 studies of 68,680 patients were included, reporting 7044 deaths, 3993 cardiac deaths, 1150 sudden deaths, 1837 myocardial infarctions, and 1490 strokes. And it had the same conclusions, "Overall, omega-3 PUFA supplementation was not associated with a lower risk of all-cause mortality, cardiac death, sudden death, myocardial infarction, or stroke based on relative and absolute measures of association". And the criticisms are similar: (1) Out of over 3600 clinical studies and citations retrieved, ONLY 20 were used in this "analysis." (2.) The absence of statistically significant association in these 20 studies between omega-3 and cardiovascular disease (CVD) endpoints does not prove that a significant reduction of CVD with omega-3 does not occur since many studies were missed out. (3) The 20 studies were not adequately powered to detect changes in the CVD endpoints with omega-3 long-chain-PUFA, even if they were in fact present; (4) And these 20 studies were on a diseased population that were already using multiple cardiovascular drugs such as beta-blockers, statins, niacin, fibrates, resins, and anti-thrombotics - all of which clearly confound outcomes/endpoints of interest to dilute and wash-out effects of long-chain omega-3 polyunsaturated fatty acids (PUFA). Fish oil at this low dose was likely "too little, too late" to show any statistically significant benefit.

Experts, critics, medical societies seem to agree that these 2 meta-analyses are flawed and should be interpreted with caution. Where then do we stand on the issue? As Facebook would say- "Status? It's complicated." Given the evidence from epidemiologic studies and the large randomized controlled trials (RCT's) on patients with background CVD (secondary prevention), it does not seem reasonable to conclude that omega-3 fatty acids whether as diet or as

supplements do not work. We need more data as to which patients could potentially be harmed by these supplements especially at higher doses of 3-4 grams where some bleeding tendencies and hyperglycemia or high blood sugar may occur especially among those already with diabetes.

Directly inferring from the RCT's, these then are the patients who might benefit from omega-3 fatty acid supplementation:

- o Those with systolic heart failure (i.e., EF <50%), already receiving state-of-the-art care.
- o Those with low baseline omega-3 tissue levels (e.g., who don't eat oily fish twice a week)
- o Patients with acute MI who have not undergone coronary revascularization or are not receiving optimal secondary prevention care, especially statin therapy.
- o Diabetics, or those with metabolic

syndrome, and/or high triglycerides, possibly a reduced risk for non-fatal coronary events with relatively high doses (i.e., 2-4 g/day).

For the meantime, there appears to be little harm in taking this supplement and thus, it could still be recommended for secondary prevention as there is direct data from RCT's on this issue. ○

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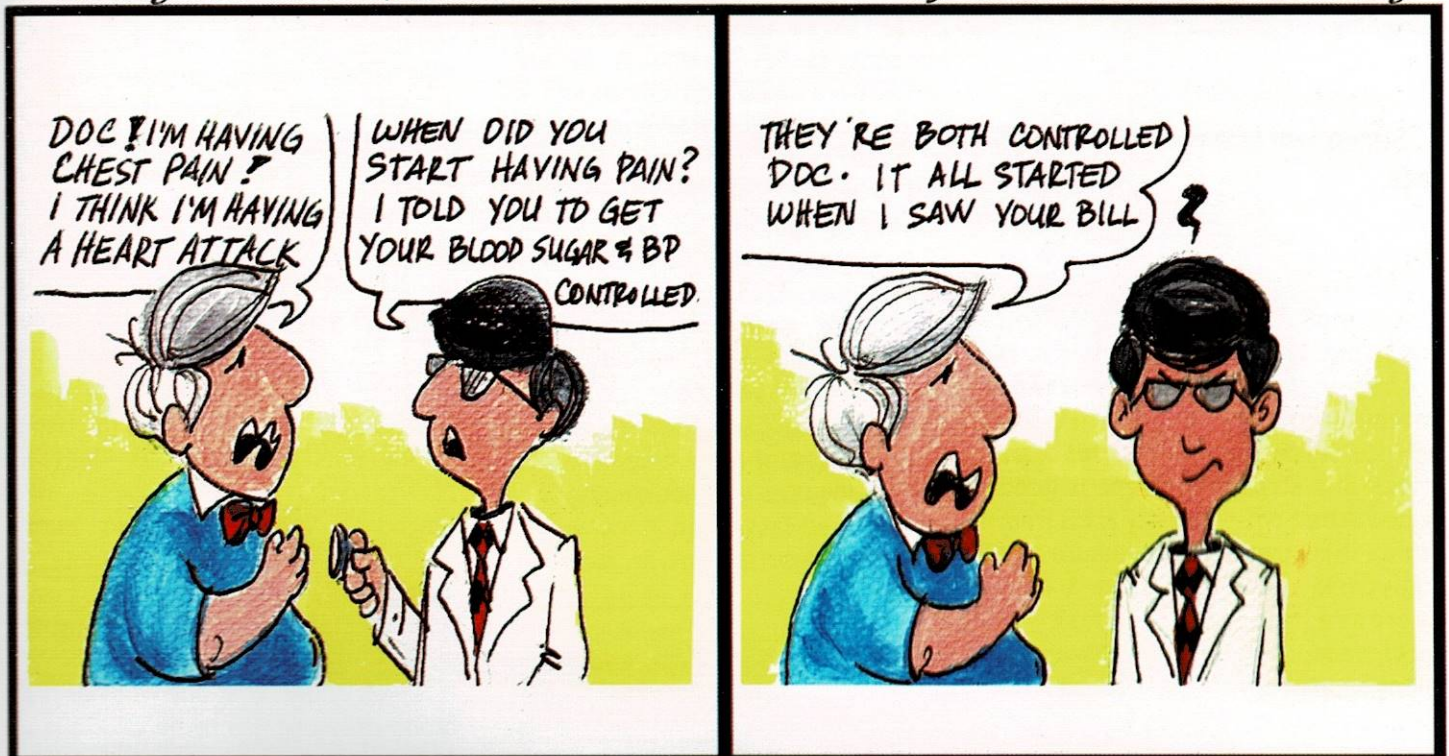
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The Lighter side of Diabetes

by Dr. Allan Hernandez



KITCHEN CORNER

HEART-HEALTHY DIET TIPS

Ma. Imelda Q. Cardino, MSFN
Diabetes Philippines

The heart stands for.... and means ... a lot of things: the center, nucleus, affection, love, care, the core.... and since it is the core... the whole body gets affected when it ails.... and so the focus on caring for the symbol of care: **THE HEART!**

The sad fact is that when the heart is already ailing, as the saying goes, one cannot move back the hands of time. The excellent step to take therefore is to care for our one and only heart the best we could.... and the time is **NOW!**

Societies all over the world offered practical, doable tips and their recommendations are similar: the Mayo Clinic (USA), the American Heart Association, and the Australian Heart Foundation. For easy recall, let us limit ourselves to 6 tips.

1. Serve/use the more "healthy" fats.

The internet is so full of materials on saturated fat, trans fat, and "bad" cholesterol. Over and over you will read that cutting out trans fat is probably the most important improvement in the diet that can significantly decrease the risk for heart attack and strokes. There is good evidence that omega-3 fatty acids from fish oil may lower blood pressure and triglyceride levels. Omega-3 may decrease the overall risk of cardiovascular disease. However, taking supplements at very high levels may increase the risk of hemorrhagic strokes. Therefore, do not take supplements unless they are

prescribed. Eating fatty or oily fish at least two times weekly is therefore the more recommended way of getting omega-3. Flaxseed oil is also a good source of omega-3. Here are selected FRESH fish sources and their omega-3 content per 100 grams:

- ➔ Salmon - 230 mgs
- ➔ Sardine - 220 mgs
- ➔ Herring - 160 mgs
- ➔ Tuna - 160 mgs
- ➔ Milkfish belly - (approximately 6 times more than salmon)
- ➔ Tilapia has 2-3 times more omega-6 than omega-3 so not considered as a good source of omega-3 where the ratio should be 1:1 (meaning one part omega-3 to one part omega-6).

Other sources of "healthy" fats are those rich in monounsaturated fats: almonds, cashews, peanuts, pecans, and butters made from these nuts, as well as avocados, are all great sources of "good" fat. The American Food and Drug Administration recommends eating a handful of nuts daily (1.5 ounces, or 42.5 grams of 1.5 ounces, or 42.5 grams of nuts mentioned above plus some pine nuts, pistachio nuts, hazelnuts and walnuts). This will help reduce the risk of heart disease if this is done as part of a heart-healthy diet. Just eating nuts and not cutting back on saturated fats found in many dairy and meat products won't do your heart any good.

Please do not forget to read labels on any prepared foods you buy. The product should not contain trans fat or at least should be less than 1 gm

per serving.

2. Choose low-fat protein foods.

Low fat protein foods mean sources that do not contribute the "unhealthy" fat such as the visible fat from meat and poultry (skin, fatty portions, etc). Examples of low fat protein foods are low fat yoghurt, legumes and all kinds of beans, tofu and similar products, and low fat dairy. Some may find these products bland so be creative. Play with flavors such as vanilla, lemon, etc or sprinkle some cinnamon. Cinnamon not only lends a zesty flavor to the food but being a fiber source, cinnamon may help in bringing down the glycemic index of the meal and thus may effect a lower post prandial blood glucose.

Egg whites, egg substitutes, skim or 1% milk, low-fat or nonfat cheeses or yogurt are also good sources of calcium as well.

3. Steer clear of processed foods and too much salt.

Filipinos are known to love salty foods such as "tuyo" and dried "daing/dilis/balbakwa" as well as "sawsawan" on the table like "bagoong", "patis", "toyo" and "buro". For many, "sinigang" and "tinola" is savory only when there is "patis" with kalamansi on the table.

It is well-known that one who has high blood pressure has to be cautious as to the amount of daily salt intake. High

blood pressure is a major risk factor for cardiovascular disease. If one has kidney problems or has edema, the daily salt intake is more often limited to a certain level.

Very popular cup soups and noodles are high in salt content. However, because of convenience, these are often served as a meal or snack not only in offices but also in schools. Again, take time to read the labels, noting the sodium content. If one cannot avoid taking these cup soups, at least use only half of the **condiment sachet**. To make them more palatable, add spices and herbs instead. Shredding some of your favorite vegetables and adding them to the soup will definitely improve not only the taste but its nutrient content as well. You may pack these shredded vegetables (pre-steam them if necessary) in a small container and just add them when you are ready to take the soup.

4. Rekindle home cooking.

Everybody is rushing so time is essential and so a large number of the working class eat out. Not only is fast food affordable, it also saves the person a great deal of time preparing meals for office or school. In fact, the Department of Health has said that fast food eating is so popular 50% of those who eat out eat in fast foods. Of course you do not need statistics to know this. Just look around you. In fact, when a very popular local hamburger chain recently opened a branch in Singapore, it is said that people queue for as long as 3 hours or so just to be able to eat there. Majority of course are Filipinos. Eating in fast foods is so popular that even at home you bring in "fast food" either as "pasalubong" or through delivery. Cooking at home is no longer "in" and a lot of hassle. After a hard day's work you'd want to put your feet up and relax, probably in front of the television, munching on something. Why sweat it out going to market, preparing and slicing fresh ingredients,

spending time cooking. However, if you yourself prepared the food, you can select the foods you'll cook such that the essential nutrients you and your family need are there. You can vary your meals, whip up your favorite, cut out the "unhealthy" fats, limit the salt you add, perk up the flavor with spices and herbs that you like, be in command! After all, it is **YOUR HEALTH** and that of your family at stake. Isn't this worth all the trouble and sacrifice?

All it takes is a little planning and doing.... So **DO IT!** Health is priceless.

5. Focus on high-fiber foods.

Fiber in any form, whether soluble (such as gelatin and pectin) or insoluble (as in the case of cellulose, etc), is beneficial. Fiber promotes good bowel movement, makes the meal satisfying and filling, and lowers the glycemic index of a meal. Soluble fiber in particular is believed to help in the elimination of the "bad" cholesterol. This is the reason why high-fiber foods are generally considered as "heartfriendly".

Let your dining table burst with color: choose all colors of vegetables and fruits ---- green, orange, red, violet, white, yellow and let your mouth savor all flavors. Throw in some whole grain cereals, breads, mountain rice, legumes, and pasta made from whole grains.

6. Control portion size-and your weight

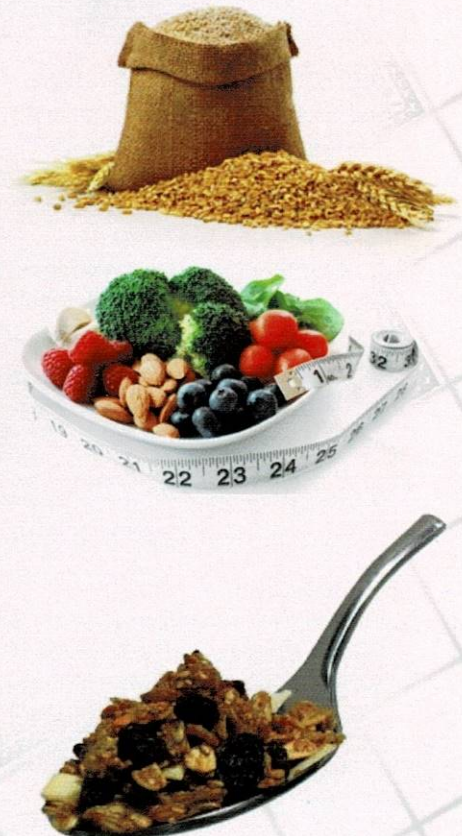
Maintaining your weight within the recommended range is good not only for your heart but also in your overall well-being. Your heart does not get overworked, your extremities do not carry excess burden, and you feel light. Of course a key to maintaining weight in addition to appropriate nutrition is moving your body: **EXERCISE!** Remember that suitable nutrition and fitting physical activity are partners in

keeping you fit and trim. Unfortunately there is no short cut to maintaining your weight within the acceptable range.

"Healthy" meals need not be monotonous or bland. Play around with various food flavors and texture to make dining an interesting and appealing experience not only for you but for the whole family as well.

If you are currently overweight, try cutting your meal sizes in half and do some walking or any physical activity you would like to do such as dancing, biking, and running. To get that feeling of fullness, load yourself with lots and lots of leafy and watery vegetables prepared with minimal fat. Salads with vinaigrette as dressing or vegetables served in broth are good. Try these recipes and experiment with others.

Remember, taking care of your heart....and your whole being as well.... need not be heart-rending.... rather it should be heart-warming! 



Salmon Roasted with Tomatoes & Olives



SOURCE: DIABETES INFO

From EatingWell: Fall 2002, *The EatingWell Diabetes Cookbook* (2005)

Ingredients:

2 pounds ripe plum tomatoes, stem ends trimmed, cut into thin wedges
 1/2 medium onion, peeled and cut into thin wedges
 2 strips orange zest, cut into thin slivers
 2 cloves garlic, minced
 1 tablespoon extra-virgin olive oil
 1/3 cup pitted Kalamata olives, coarsely chopped
 1 tablespoon chopped fresh rosemary
 1/4 teaspoon salt
 Freshly ground pepper, to taste
 1 1/4 pounds salmon fillet, (about 1 1/2 inches thick), skin removed (see Tip), cut into 4 portions

4 servings

Active Time: 20 minutes

Total Time: 1 hour 20 minutes

Preparation:

Preheat oven to 400° F. Combine tomatoes, onion, orange zest and garlic in a large roasting pan or on a large baking sheet with sides. Drizzle with oil and toss to coat.

Roast, uncovered, stirring occasionally, until the tomatoes and onion are tender and beginning to brown on the edges, about 45 minutes. Remove pan from the oven. Increase oven temperature to 450°.

Add olives and rosemary to the pan; season with salt and pepper. Clear four spaces in the pan and place a salmon piece in each. Spoon some of the tomato mixture on top.

Roast until the salmon is opaque in the center, 10 to 15 minutes, depending on the thickness.

Nutrients Per Serving:

372 calories; 20 g fat (3 g sat , 6 g mono); 90 mg cholesterol; 14 g

carbohydrates; 0 g added sugars; 34 g protein; 3 g fiber; 585 mg sodium; 1281 mg potassium.

Nutrition Bonus: Vitamin C (40% daily value), Potassium (37% dv), Vitamin A (25% dv), Folate (18% dv).

Carbohydrate Servings: 1

Exchanges: 2 vegetable, 5 lean meat, 1 fat (mono)

Dietitian's tip: Serve this easy Mediterranean spread with warmed whole-wheat pita bread. For a different taste you can substitute white, butter or lima beans for garbanzos and 1 teaspoon toasted ground cumin seeds for the paprika.

Ingredients:

2 cans (16 ounces each) reduced-sodium garbanzos, rinsed and drained except for 1/4 cup liquid
 1 tablespoon extra-virgin olive oil
 1/4 cup lemon juice
 2 garlic cloves, minced
 1/4 teaspoon cracked black pepper
 1/4 teaspoon paprika
 3 tablespoons tahini (sesame paste)
 2 tablespoons chopped Italian flat-leaf parsley

Directions:

In a blender or food processor, add the garbanzos. Process to puree. Combine the olive oil, lemon juice, garlic, pepper, paprika, tahini and parsley. Blend well. Add the reserved liquid, 1 tablespoon at a time until the mixture has the consistency of a thick spread. Serve immediately or cover and refrigerate until ready to serve.

Nutritional Analysis (Per Serving):

Serving size: 2 tablespoons

Calories 48 Cholesterol 0 mg
 Protein 2g Sodium 106 mg

Carbohydrate	6 g	Fiber	2 g
Total fat	2 g	Potassium	15 mg
Saturated fat	< 1 g	Calcium	15 mg
Monounsaturated fat	1 g		

HUMMUS RECIPE BY MAYO CLINIC STAFF



Nutrition Facts Per Serving:

Servings: 9 servings
 Calories 150
 Total Fat (g) 3
 Saturated Fat (g) 1
 Cholesterol (mg) 8
 Sodium (mg) 126
 Carbohydrate (g) 28
 Fiber (g) 4
 Protein (g) 3
 Vitamin A (DV %) 0
 Vitamin C (DV %) 0
 Calcium (DV %) 0
 Iron (DV %) 0

Diabetic Exchanges

Fruit (d.e.) 1
 Other Carbohydrates (d.e.) 1
 Fat (d.e.) .5

Ingredients:

- 4 cups sliced, peeled fresh peaches
- 1/4 cup cold water
- 3 packets of Sucralose (ex. Splenda)
- 4 teaspoons cornstarch
- 1 tablespoon lemon juice
- 1/4 teaspoon ground allspice, cardamom, or cinnamon
- 1 recipe Biscuit Topping (see recipe below)
- 2 cups fresh strawberries

Preparation:

1. For filling, in a medium saucepan, combine peaches, the water, sucralose, cornstarch, lemon juice, and allspice, cardamom, or cinnamon. Let stand for 10 minutes.
2. Meanwhile, preheat oven to 400°F. **Prepare Biscuit Topping.**
3. Cook and stir the peach mixture over medium heat until thickened and bubbly. Stir in the strawberries. Heat through, stirring gently. Transfer the hot filling to a 2-quart round or square baking dish.
4. Immediately drop the Biscuit Topping into small mounds onto the hot filling.
5. Bake about 20 minutes or until browned and a toothpick inserted into topping comes out clean. Serve warm.

Makes 9 servings.

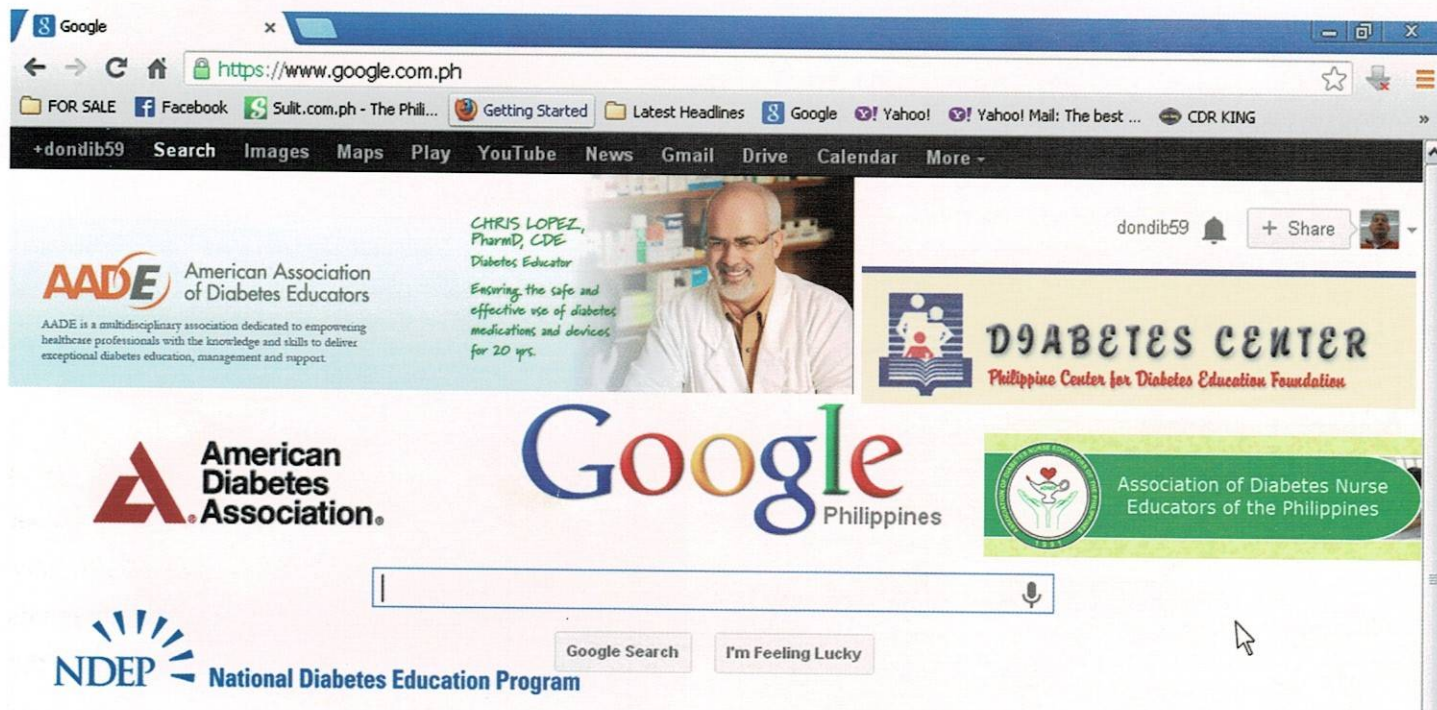
Biscuit Topping: In a medium bowl, combine 1 cup all-purpose flour; 6 packets of sucralose (ex. Splenda); 3/4 teaspoon baking powder; 1/4 teaspoon baking soda; 1/4 teaspoon ground allspice, cardamom, or cinnamon; and 1/8 teaspoon salt. In a small bowl, stir together 1/3 cup plain low-fat yogurt; 1/4 cup refrigerated or frozen egg product, thawed, or 1 egg, beaten; and 2 tablespoons butter or margarine, melted. Add egg mixture to flour mixture, stirring just until moistened.

Peach-Berry Cobbler
 from:



Navigating the Net: Educating the Diabetes Educators

Cecille R. dela Paz, MD
East Avenue Medical Center



Diabetes educators are our important partners in diabetes care. They are health care professionals who have undergone training and are certified to teach people with diabetes how to manage diabetes. In our country, any allied health professional can take special courses offered by the Philippine Center for Diabetes Education Foundation to become a diabetes educator.

To keep up with the latest in diabetes education, it would be helpful to look at the following websites:

1. Philippine Center for Diabetes Education Foundation (<http://www.diabetescenter.org.ph>) The site has a list of feature articles on different aspects of diabetes, including diabetic retinopathy, diabetes foot care, and obesity.

2. Association of Diabetes Nurse

Educators of the Philippines (<http://www.adnep.org>)

The site has downloadable slides on different topics including wound care, diabetes and the elderly, diabetic nephropathy, insulin administration, diabetes in children, and therapeutic communication.

3. American Association of Diabetes Educators (<http://www.diabeteseducator.org>) The site has resources available for health care professionals. Some of the available documents that can be accessed include the Guidelines for the Practice of Diabetes Self-Management Education and Training, Competencies for Diabetes Educators, Position Statements on various issues of diabetes care including vaccination, disabilities, physical activity, healthy eating among others, and Scope and Standards of Diabetes Education.

4. National Diabetes Education Program

(<http://ndep.nih.gov>)

The site has different educational materials available for review including videos, podcasts, webinars, fact sheets and articles on different aspects of diabetes. For health professionals, clinical practice tools and patient education materials can be accessed for free.

5. American Diabetes Association (<http://diabetes.org>)

The site has online professional resources including clinical practice guidelines, slides library and journal articles related to diabetes. Online self-assessment programs are also available for topics such as exercise and diabetes, microvascular complications and management of patients with advanced type 2 diabetes, and personalizing diabetes goals and care in type 2 diabetes. ○

diabetes *ON THE MOVE* philippines

Joy C. Fontanilla, MD
Asian Hospital & Medical Center

DAY 1



DP Annual Convention 2012

EDSA Shangri-La Hotel
Mandaluyong City
November 14-16, 2012

The 29th Annual Convention of Diabetes Philippines (DP) and 8th Course on Diabetes and Vascular Disease was successfully held at EDSA Shangri-La Hotel in Mandaluyong City on November 14-16, 2012. About 980 health care professionals and other individuals interested in diabetes attended the conference themed *Mastering Basic Diabetology, Improving Outcomes: Bringing the Basics to the Clinics*.

Convention highlights included the plenary lecture on stem cell therapy by Dr. Augusto D. Litonjua; the 6th Dr. Augusto D. Litonjua Endowed Lectureship given by Prof. Antonio Ceriello from the University of Udine, Italy; and the 6th Dr. Ricardo E. Fernando Endowed Lectureship delivered by American Association of Clinical Endocrinologists past president Dr. Yehuda Handelsman.

DAY 2



DAY 3



ELECTION OF OFFICERS



The election of a new set of officers and board of directors was also held. The newly elected were Drs. Agnes T. Cruz, Editha Arceo-Dalisay, Grace K. Delos Santos, Richard Elwyn V. Fernando, Joy Arabelle C. Fontanilla, Francis I. Pasaporte, Rima T. Tan, Mrs. Ma. Imelda Q. Cardino, and Ms. Leyden V. Florido.

DP AT THE IDF-WPR CONGRESS AND AASD MEETING

Kyoto, Japan

November 24-27, 2012

Diabetes Philippines actively participated during the 9Th International Diabetes Federation Western Pacific Region (IDF-WPR) Congress and 4Th Scientific Meeting of the Asian Association for the Study of Diabetes (AASD) held in Kyoto, Japan on November 24-27, 2012. The conference theme was Exploring Diversity Of Diabetes In The WPR; Science Navigated Care and Education.

The IDF-WPR has the largest population among all the IDF regions. Its member associations are mostly from East Asia, the South-East Asian Peninsula and Oceania. Its populace is deemed by the idf to be "THE MOST DIVERSE ECONOMICALLY, POLITICALLY AND CULTURALLY."

The AASD, on the other hand, was launched in 2009 to promote diabetes

research in Asia. Twenty diabetes-related societies and associations from East and South East Asia, as well as individual members (scientists, healthcare professionals, and students the world over interested in diabetes and related subjects) comprise the AASD.

DIABETES PHILIPPINES (DP) DELEGATES PARTICIPATED IN THE CONGRESS IN MORE WAYS THAN ONE.

The convention speakers included past DP president Dr. Tommy Ty Willing who lectured on diabetes education; past DP board director Ms. Sanirose Orbeta who taught about combining global nutrition guidelines with local cuisine in the treatment of filipino diabetics; DP board director Dr. Rima Tan who presented complementary and

alternative medicine use in the Philippines; past president of the Philippine Association Of Diabetes Educators Dr. Ronaldo Toledo who talked on the diabetes conversation map program in the Philippines; and DP board director Dr. Joy Fontanilla who spoke on the metabolic syndrome: which definition suits the Philippines best?.

Past DP board director Dr. Gabriel Jasul presented a poster on effect of insulin switching on a1c in inadequately controlled Asian Pacific diabetes patients. Various symposia were also chaired by past DP presidents, officers or members such as father of Endocrinology Dr. Augusto D. Litonjua, Drs. Susan Yu-Gan, Ruby Lim, Joy Fontanilla, Rima Tan and Mary Anne Lim-Abrahan. ○



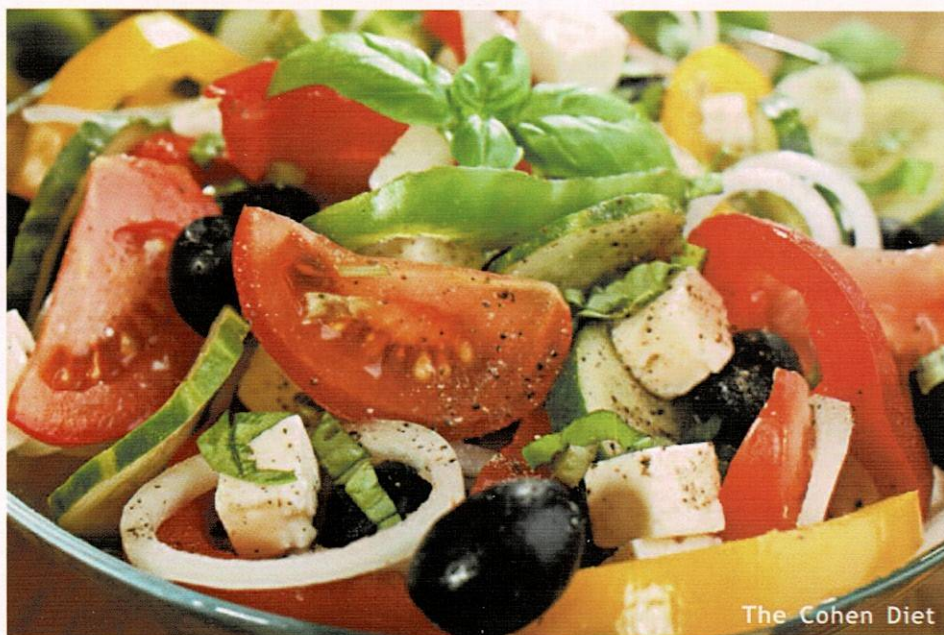
The Popularity of FAD Diets Continues!

Sanirose S. Orbeta, FADA
Consulting Clinical and Sports Nutritionist, Meralco Magallanes Village

At the recent annual convention of the Philippine Association for the Study of Overweight and Obesity (PASOO), we discussed with great alarm the growing number of overweight children and obese adults not only in the Philippines but worldwide. So big were the numbers that the Task Force on Obesity of the World Health

Health Care Professional is ignored. 4. Recommended 5-10% weight loss at starting baseline is too little but reduction of 32% is the unrealistic expectation.

Here are a few examples of the latest dieting craze:



The Cohen Diet

Organization has called it a "global epidemic of disastrous proportion." To convince the public to do something about this, certain guidelines have been given by many scientific bodies. Are they being followed? Some people want quick weight loss at any cost even if its life threatening and unscientific!

Common Reasons Why People Select Popular Fad Diets

1. Promises instant results on looks, appearances and physical effort.
2. Medical or health reason is secondary.
3. Weight suggested by Doctors or

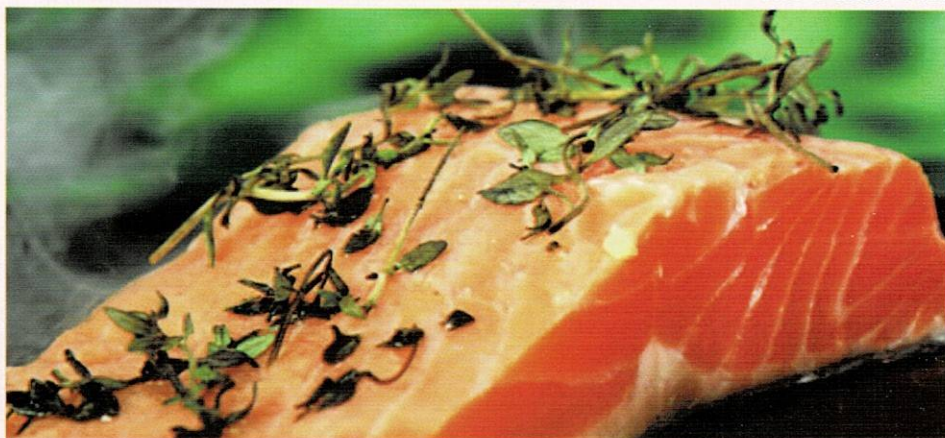
- The Cohen Diet
• High Pro - Low CHO, Low Sugar Diet. Examines your personal Blood profile to give you a personalized Meal Plan.

- Meals are strictly measured in grams. 50 gm-150 gm of CHO.
- Basic Cal. - 600 cal. Diet - 1600 cal per day

- The Dukan Diet
• Protein Based - To redesign your eating habit to include a 4-phase program.
• Phase I. - Attack phase
• Phase II. - Cruise stage
• Phase III. - Consolidation phase
• Phase IV. - Stabilization phase

- The Zone Diet = protein intake may be a bit high.
- The New Atkin's Diet Revolution = pushes proteins and restricts carbohydrates.
- The Sugar Buster = claims low fat diets don't work, but avoiding sugar does.
- The Blood Type Diet = eat according to your blood type.
- The Warrior Diet = fast all day, binge at night
- The Cabbage Soup Diet = vats and vats of cabbage soup
- The Rehash Fit for Life = foods should not be eaten in combination because the stomach cannot digest food effectively.
- The 3-day Diet = a strict rigid 3 day diet with regimen of food to be followed exactly.

The Dukan Diet



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References: 1. FIELD Study Investigators. Effects of fenofibrate treatment on cardiovascular disease risk in 9,795 individuals with type 2 diabetes and various components of the metabolic syndrome (FIELD Study). Diabetes care 32:493-498. 2. FIELD Study Investigators. Effects of fenofibrate on the need for laser treatment for diabetic retinopathy (FIELD Study): a randomised controlled trial. Lancet 2007;370:1687-97, published online November 6th, 2007. 3. FIELD Study Investigators. Effects of fenofibrate on amputation events in people with type 2 diabetes mellitus (FIELD STUDY): a prespecified analysis of a randomised controlled trial. Lancet 2009;373:1780-88. 4. Sergio Fazio, Macrae F Linton. Fenofibrate and risk of minor amputation in diabetes. Lancet 2009;1740-41. 5. FIELD Study Investigators. Effects of long-term fenofibrate therapy on cardiovascular events in 9,795 people with type 2 diabetes mellitus (the FIELD Study): randomised controlled trial. Lancet 2005;366:1849-61.

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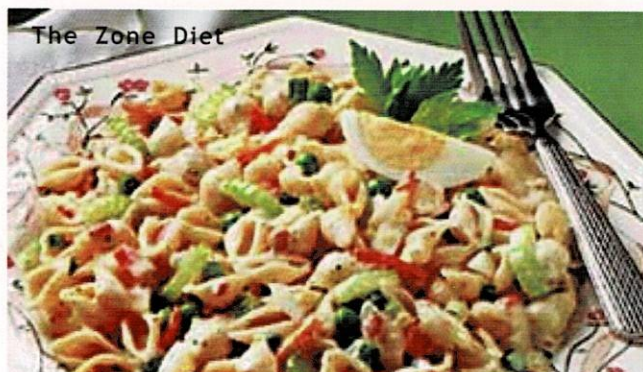
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(Atkins, Sugar Buster, Carbohydrate Addicts). Eicosanoids, for example, is a hormone involved in body processes (like in the Zone Diet) is supposedly called the "Super Hormone". The Zone Diet leads to weight loss not because of a magical formula but because the

diet provides only 1,100 calories per day.

3. Advertised fad diets quote convincing testimonials from highly satisfied

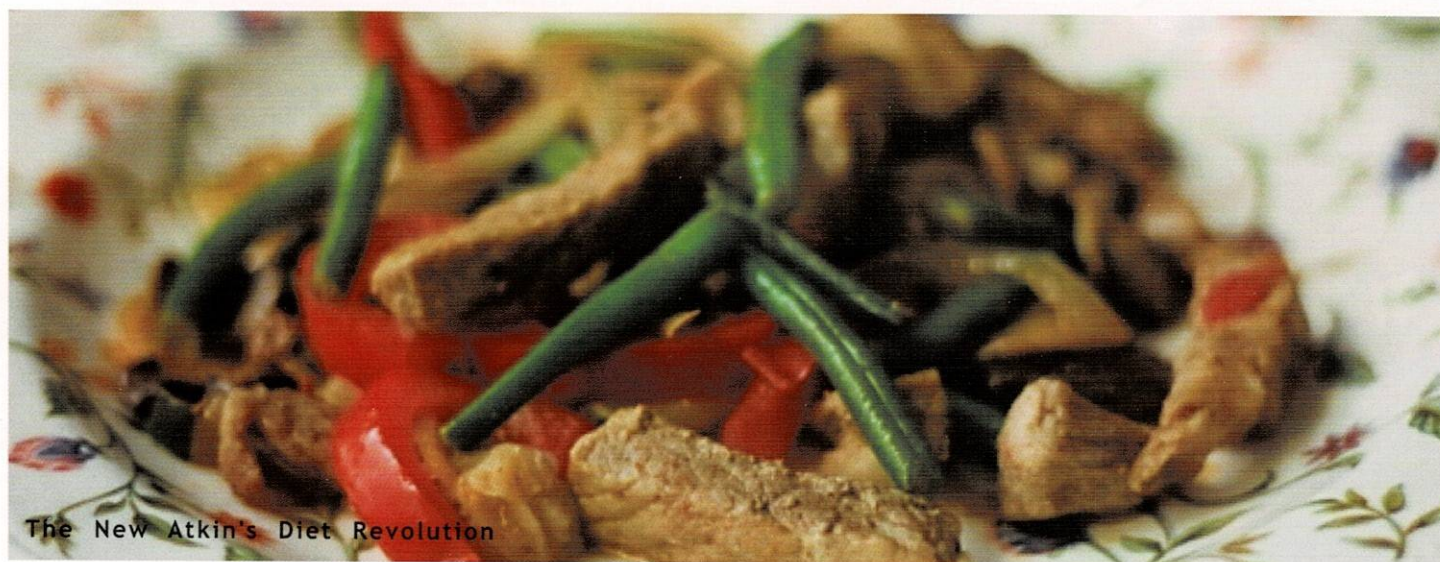
4. Fad diets are quick in promise and may even deliver the results as a short-term solution. How can you not lose weight on just eating grapefruit to melt the fat, or those hotdog and orange combinations? These will deliver fast results, but not sustainable, healthy change.

5. Don't believe big words like Metabolic Miracle or the Ultimate Balance or Revolutionary Approach in dieting. They are empty words which mean nothing. However, they do attract customers because of sheer flash and endless promises.

High Protein FAD Diets

Goals:

- Rapid weight loss at all cost
- Fast weight loss minimizes health problems



- Eating plenty of meat and protein products is easy, cheap and always available

customers, but the euphoria comes only from brief peak satisfaction. Follow these people up after six months when the weight is likely to come back, but the ads don't say so.

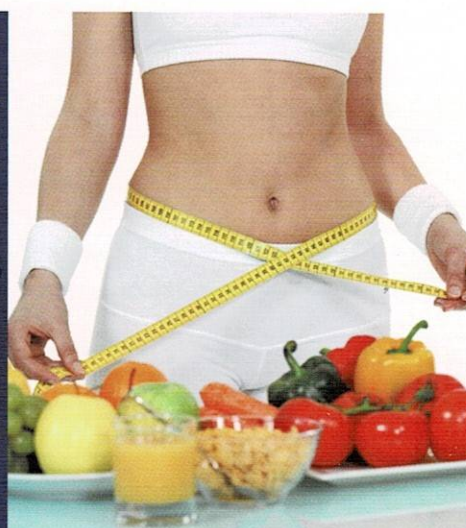
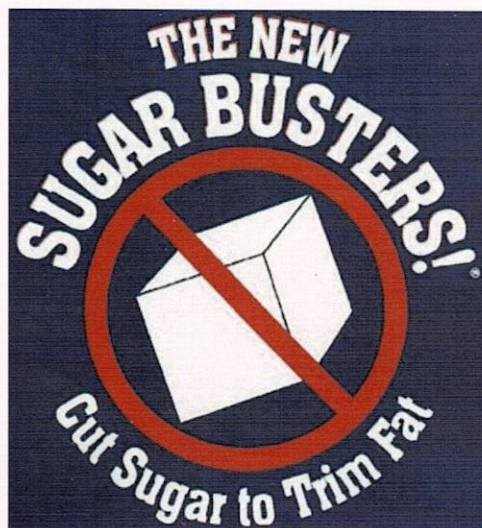
Protect Yourself

You may squander time, money and your health on all these nutritional

Red Flags for FAD Dieting

1. Watch out for diet gurus who profess to understand nutritional science but reject conventional thinking. These prevailing views are misguided. Be suspicious of unconventional claims to truth which ordinary mortals cannot perceive. Such notion easily attracts the desperately fat.

2. Beware of any dieting regimen suggesting the key to weight loss lies not in controlling calorie intake but in tinkering with the body level of a single hormone or chemical such as insulin



non-sense. Protect yourself by:

- Being an informed food consumer. The healthy eating index of global nutrition strategy still confirms and affirms that your nutrient majority and your dietary priority are still the carbohydrates (rice, pasta, bread, noodles, corn, root crops, cereals, fruits and vegetables) and your dietary minority are assorted proteins of lean meat, chicken, seafood, eggs, low fat dairy products. Use fat for taste and flavor.

- Develop personal skills in controlling binges or stress eating.

- Stock up your fridge and pantry with the correct foods like fresh fruits, veggies, Jell O, yogurt and juices, even sherbet and popsicles.

- Tasting and balancing the pleasure of your eating choices is part of a good eating plan.

- Any weight loss program that does not include a physical activity as part

of the recommendation is not a good program.

Common Sense Prevails

Successful weight loss means losing weight and keeping it off for at least 3-5 years or longer. What is important is making positive and total healthy lifestyle changes in both eating and living habits with behavior modification. If you are a clinician or a health care professional dealing in weight management, you should keep in mind the following:

- Stay informed about the latest diet craze or fad dieting practice. Share your findings about the safety and potential harmful effects of such practices.

- Work with your clients and patients to establish good, healthful eating habits and sustainable physical activity all year round.

- Goals of weight loss should be to

decrease your total health risks rather than conforming to societal standards of beauty - "Thin is healthy, thin is beautiful, and thin is sexy!!"

- Recommend individualized dietary approach to any weight loss program. Base on blood chemistry, are they diabetic or hypertensive. Every person has a different need.

- Emphasize total calorie reduction rather than nutrient specificity such as high protein, low carbohydrate, high fiber, or low fat, etc.

- Help clients understand the importance of portion control, variety and moderation. Emphasize foods at the bottom of the Pyramid Food Guide to help minimize fats and oils, Maximize the flavor and aroma of assorted vegetables, crunchy salads and fresh fruits. Explore the enjoyable variety of grains, pasta, noodles, bread and cereals. But be cautious on how much you eat of them.

Conclusion

Some of the Current Popular FAD Diets

Acceptable	Questionable
1. Traditional Food Guide Pyramid	1. Cohen Diet
2. Weight Watchers Dieting with the Duchess	2. Dukan Diet
3. Mediterranean Diet	3. HCG Diet
4. Volumetrics	4. Paleo Diet
5. Eat More, Weigh Less	5. 17 Days Diet
6. Choose to Lose	6. Negative Calorie Diet
	7. Hollywood Diet
	8. Sacred Heart Diet

The Verdict of Science

High-protein diets which ban carbohydrate are a danger to your health and should be avoided. It is not advisable for diets that go for a single specific nutrients or food components. Furthermore, weight loss was predicted by total calorie intake, diet duration but not by carbohydrate (CHO) content alone according to George Bray, MD.

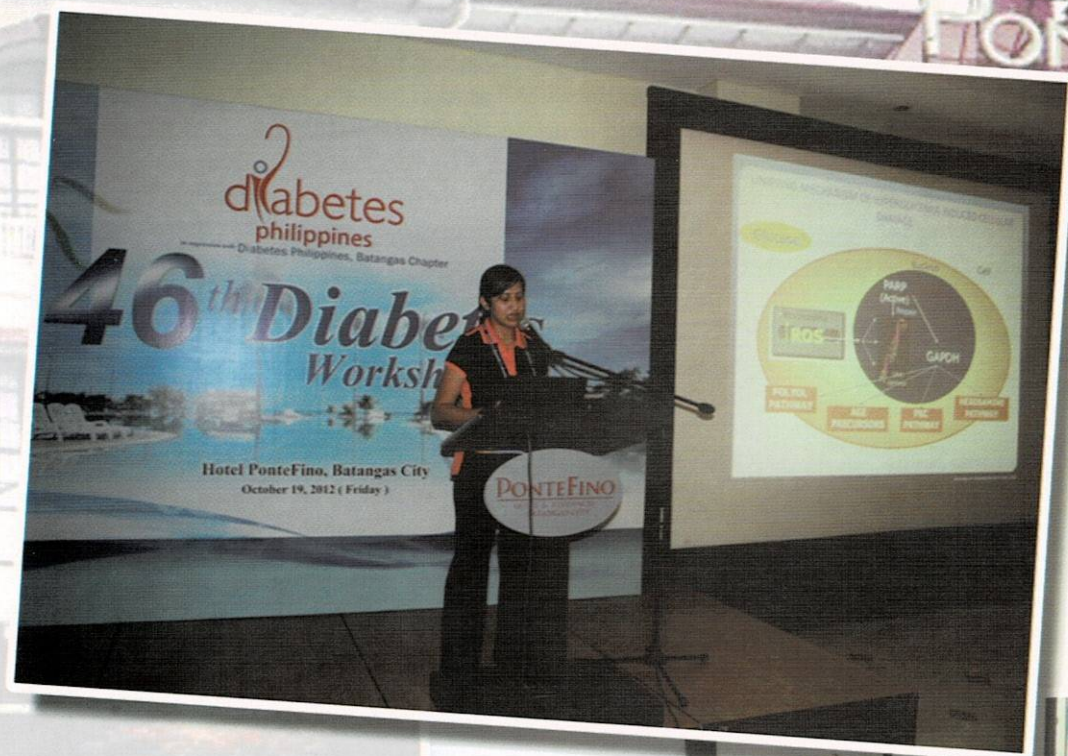
Based from the Efficacy and safety of Low-Calorie Diets, a systematic review by Bravata, Sanders, Huang et. al., diets that restricted calorie intake, used longer in duration were associated with weight loss rather than CHO intake.

According to Freedman, King and Kennedy that had a scientific review of popular diets, short term high-fat, low-CHO causes a great loss of body

water rather than body fat. When these diet ends water weight is regained. On the other hand, all reduced calorie diets results in body fat loss if sustained in long term.

Remember what kind of food and how much you eat all year long. This awareness is what will ultimately give you good, bad, or desirable weight. Stay lovely! 

DP Batangas Chapter Hosts Diabetes Workshop and Forum



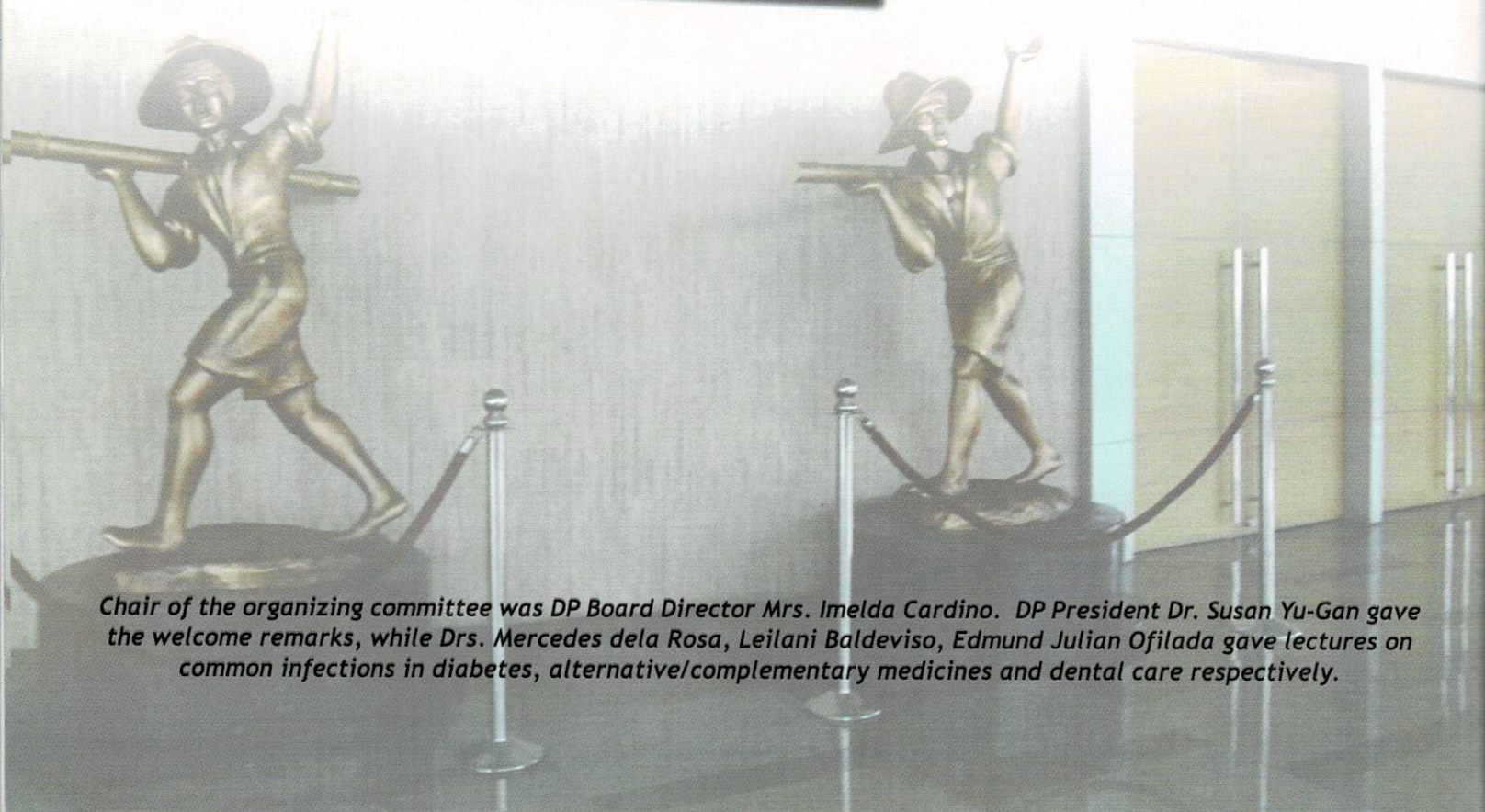
The 46th Diabetes Workshop and 11th Diabetes Forum was held on October 19-20, 2012 at the Hotel PonteFino in Batangas. It was well-organized by the Diabetes Philippines Batangas Chapter officers led by its President, Dr. Carolyn Narvacan-Montano, Dr. Apolonia Livia M. Villarez (Vice-President), Dr. Florence A. Santos (Secretary) and Dr. Dulce L. Ronquillo (Treasurer), as well as its Board of Directors: Drs. Minie Nicolas, Simon Malijan, Eric Tenorio, Ellen De Jesus and Debbie Joson.



GIMIK DIABETES 2012

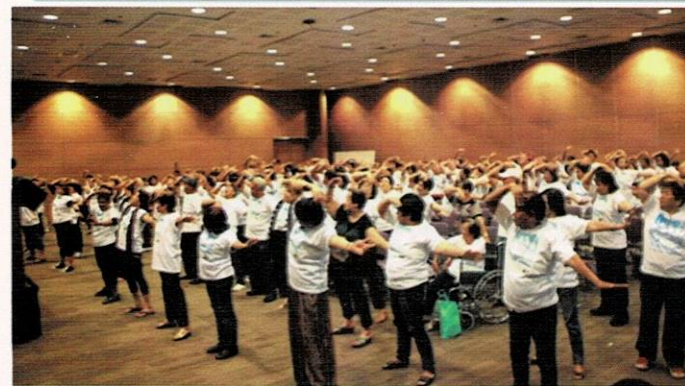


The Diabetes Philippines' (DP) 6th Lay Annual Convention and World Diabetes Day Celebration dubbed GIMIK DIABETES was held on November 10, 2012 at the Unilab Bayanihan Hall in Pasig City.



Chair of the organizing committee was DP Board Director Mrs. Imelda Cardino. DP President Dr. Susan Yu-Gan gave the welcome remarks, while Drs. Mercedes dela Rosa, Leilani Baldeviso, Edmund Julian Ofilada gave lectures on common infections in diabetes, alternative/complementary medicines and dental care respectively.

GIMIK DIABETES Year 6





diabetes philippines

2013 SCHEDULE OF ACTIVITIES

47th DiabetesWorkshop and 12th Diabetes Forum
Garden Orchid Hotel, Zamboanga City
May 24, 2013 (Friday)
Scientific Chairperson: Dr. Richard Elwyn V. Fernando
Coordinator: Dr. Fatma Ibba-Tiu

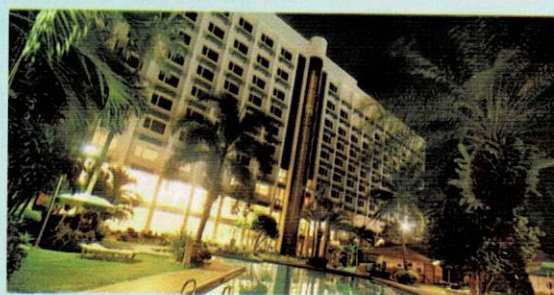
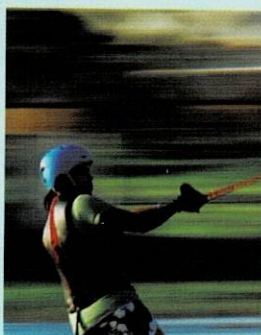
48th DiabetesWorkshop and 13th Diabetes Forum
Villa Caceres Hotel, Camarines Sur
August 23, 2013 (Friday)
Scientific Chairperson: Dr. Richard Elwyn V. Fernando
Coordinator: Dr. Joseph Bongon

49th DiabetesWorkshop and 14th Diabetes Forum
Hotel Roma, Tuguegarao City
September 13, 2013 (Friday)
Scientific Chairperson: Dr. Richard Elwyn V. Fernando
Coordinator: Dr. Magnolia B. Reyes

30th Annual Convention of Diabetes Philippines
THEME: "FORGING AN ALLIANCE TO STOP DIABETES"
EDSA Shangri-La Hotel, Mandaluyong City
November 21 - 22, 2013 (Thursday-Friday)
Scientific Chairperson: Dr. Richard Elwyn V. Fernando

Gimik Diabetes Year 7
THEME: ("ISULONG: KONTROL NG DIABETES")
World Diabetes Day Celebration/Lay Annual Convention

Venue: Star Mall, Mandaluyong
November 16, 2013 (Saturday)



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