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DiabetesWatch

A publication of the PHILIPPINE DIABETES ASSOCIATION, INC. for the Filipino diabetic patient

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Eating the proper diet is of utmost importance to diabetic patients. Taking not only the right type but also the right amount of food should be considered. Hypoglycemic drugs (drugs which lower blood glucose) and insulin are not enough. They should go hand in hand with the right diet.

"Darak," the lowly bran which is removed from the rice kernel during milling and commonly referred to as "pig chow" is now well known for its efficacy in lowering blood glucose. At the PGH, diabetic patients were quite hesitant at first to mix "darak" with their food and eventually eat it, often associating it as unfit and degrading for human consumption. But the desire to get well won over this negative attitude. Incorporating "darak" in the regular table fare is quite easy. No special culinary skill is needed. Here's how:

1. Buy "darak" only from

rice mills. This will assure you that it is new and free from impurities.

2. Sift the "darak" for three times or until impurities are removed. Store in dry plastic containers with cover. "Darak's" shelf-life is two weeks.

3. Measure 10 level tablespoons of "darak." This will supply 8 grams of crude fiber to the patient's diet. Distribute these into the meals of the day. For example: 2 tablespoons for breakfast, 3 tablespoonfuls for lunch and supper, and

a tablespoonful each for morning and afternoon snacks.

4. "Darak" may or may not be cooked. It can be mixed as it is to cooked foods like boiled rice and vegetable "guisado" or stirred in fruit shakes and beverages. It can also be combined with other ingredients in making omelettes, meat balls, hamburgers and croquettes. It can also be added in sauces and fillings.

The Filipino diet usually contains about 4 grams of crude fiber. This comes from

the vegetables and fruits we eat. The 8 grams of crude fiber which is supplied by 10 level tablespoonfuls of darak will increase a day's fiber intake to about 12 grams. It is a fact that a high fiber diet is a must for diabetics. Diabetics, however, must be aware of their total caloric requirement per day. Physicians and/or dieticians must be consulted about this.

"Why darak?" this is oftenly asked. "Darak" is very cheap (a kilo costs about ₱2.50), safe to eat and high in fiber. It is also rich in water soluble vitamins (particularly the B complex vitamins) and minerals like iron, calcium and phosphorus.

Problems like bitter after taste and grainy texture in foods may be encountered. But these are very minor in comparison with the benefits "darak" bestows. It's just a matter of getting used to it.

*UP-PGH — University of the Philippines — Philippine General Hospital

Here's how:

PREPARATION OF FOODS INCORPORATING "DARAK"

Problems are minor in comparison to the benefits bestowed.....

JO ANN MARIE R. VERDADERO, R.N.D.
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"Coney Island SUGAR-FREE ICE CREAM"

....is it really sugar-free?

Birthdays, graduation days, promotions, and other happy occasions are almost always celebrated with cake and ice cream. Thus, when one is diagnosed as diabetic, and is asked to refrain from taking all sugar-containing products like ice cream, the common reaction is disappointment. To the delight

of many, one food company came up with a sugar-free ice cream: Coney Island. But... is it really sugar-free?

The Coney Island sugar-free ice cream has all the basic ingredients of a regular ice cream (milk, flavorings, stabilizers, etc) except for the sweetener: sorbitol and aspartame are used

in place of table sugar. It is, therefore, table-sugar free but not free of sugar from chocolate (glucose-containing) and fruits (made up of fructose and glucose). Diabetic patients therefore, who are on controlled diets, those who are overweight, or those who are poorly-controlled should not

be taking it. Furthermore, note that:

1. Certain foods increase blood glucose at higher levels than others (glycemic index of foods). Fruits like mango belong to the high glycemic index foods. Mango is used as flavor in one of the varieties avail-

(Continued on page 2)

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Coney Island . . .

(from page 1)

able.

2. As of yet, no study has been conducted on the effect of the sugar-free ice cream on blood glucose levels. Three patients who monitor their blood glucose at home claim they noticed a significant increase in their readings after eating the sugar-free ice cream. Elevation in blood glucose will of course be affected by the amount of food eaten, among other things. These patients admitted they did consume a lot.

3. The sugar-free ice cream is **not** calorie-free. It contributes approximately half of the calorie contributed by regular ice cream. It will have to be computed as part of the total calorie intake for those with prescribed energy intake.

4. Sorbitol and aspartame are the alternative sweeteners used in the sugar-free ice cream. Sorbitol is a kind of sugar alcohol usually obtained from corn. It contributes 4 calories per gram. When sorbitol is metabolized in the body, it forms fructose, a simple sugar. Fructose is used to synthesize glucose in the body.

Most of the glucose formed from fructose is stored as glycogen and has little effect on blood glucose concentration in **non-diabetic individuals** and in **well-controlled diabetic patients receiving sufficient insulin**. If, however, the patient is severely deficient in insulin, the glucose is released and the **plasma glucose rises**. Results are seen over a short term and long term effects are unknown. Sorbitol has also been found to cause diarrhea because it is poorly absorbed from the gastrointestinal tract. Vomiting may also occur if amounts in excess of the recommended are taken. The maximum amount of sorbitol taken on a day to day basis should not be more than 50 grams (30 to 50 grams are considered safe). The Joslin Diabetes Center recommends that sorbitol be used with caution.

Aspartame, an artificial sweetener 200 times as sweet as table sugar, is made from a combination of phenylalanine (an amino acid) and aspartic acid. The kilocalorie content is very small and its use in moderate amounts is regarded as safe. However, there is some controversy concerning its use during

	CALORIE PER no. 20 scoop (65 gm/scoop)	SORBITOL CONTENT/ SCOOP	MAXIMUM CONSUMPTION PER DAY
CHOCO MOUSSE LITE . . . 77 8.33 gm 6 scoops (chocolate ice cream with chocolate ribbonette and cashew nuts)			
VANILLA MARBLE LITE . 61 8.33 gm 6 scoops (vanilla ice cream with chocolate ribbonette)			
BLUEBERRY LITE 66 10 gm 5 scoops (cheesecake ice cream with blueberry ribbonette)			
SWISS MOCHA LITE 60 8.33 gm 6 scoops (mocha ice cream with chocolate ribbonette)			
APPLES N' CREAM LITE 65 8.33 gm 6 scoops (apple cream cheese with cinnamon caramel ribbonette)			
MANGO-COCO LITE 63 4.54 gm 11 scoops (mango ice cream with buko shreds)			
CHOCO CREAM LITE . . . 51 4.17 gm 12 scoops (chocolate ice cream)			

pregnancy because of certain risks involved. In the United States, the acceptable daily intake for aspartame has been set at 50 mgs per kg body weight. To illustrate, a 25 kg child should not consume more than 7 cans of sugar-free soft drinks a day (amount did not consider aspartame taken from other foods eaten).

In summary, the Coney Island sugar-free ice cream is indeed free of table sugar, but will contribute significantly to the total carbohydrate intake.

It may be taken occasionally and in controlled amounts provided blood glucose control is good. Those on calorie-controlled diets should note the calorie contributed by the ice cream. Those with poorly-controlled diabetes, pregnant diabetics, and the very young diabetics must secure the "blessing" of their physicians before indulging in these. For added information, a tabulation of the calorie content of the various flavors is presented.

LESS RISK

Here are six steps to reduce your risk for heart disease:

1. Eat a diet high in fiber and low in total fat, saturated fat, and cholesterol.

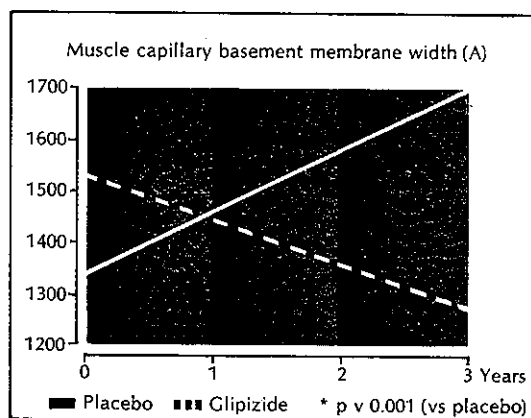
2. Avoid smoking.



4. Control high blood pressure.
5. Control blood glucose levels.
6. Minimize your insulin dose with attention to diet and exercise.

From Diabetes Forecast, December, 1988, page 67

MINIDIAB®
(GLIPIZIDE*)
**REVERSAL OF EARLY
DIABETIC MICROANGIOPATHY**



In a controlled long term study, patients with chemical diabetes, taking low-dose glipizide (2.5 mg/day) showed a reversal to normal values of muscle capillary basement width, while in patients taking placebo a thickening progression was observed.

(Camerini-Davalos R.A. et al, 1983)

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Metropolitan Hospital

Is Urine Testing for Glucose Outmoded?

With the advent of self-monitoring of blood glucose (sugar), a person with diabetes can find out at a moment's notice what his or her actual blood glucose level is. Because self blood glucose test results are so precise and so timely, the goal of "tight" control — blood glucose consistently in or near the normal range — has now come within reach for many. Although self monitoring of blood glucose is now well established and is of proven value, we must accept that self blood glucose monitoring is neither universally desirable nor feasible. Expense is and will remain a major consideration, so that worldwide, many diabetic patients will continue

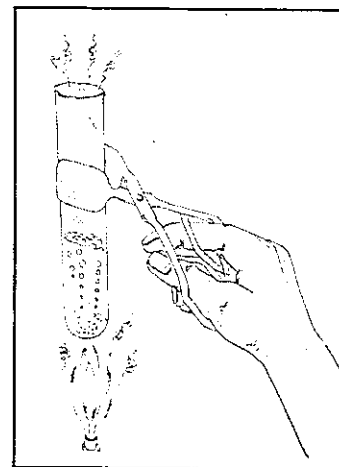
to monitor their control by testing their urine. Urine test for glucose can still provide useful, and in some cases, even crucial information if physicians are aware of their limitations and if patients are educated to interpret them and respond appropriately to the results.

There are many preparations used for the estimation of urinary glucose content: Clinitest, Diastix, Diabur, and Testape. The Clinitest tablet color change results from the reduction of cupric acid to cuprous oxide. This reaction can occur with any reducing agent, among which are lactose, galactose, fructose, pentose and vitamin C. These agents may

cause a false positive (positive result not due to glucose) result in the urine glucose test. A false negative (glucose present, but test negative) test is usually a result of tablet deterioration. The other three preparations (Diastix, Diabur and Testape) employ an enzymatic method, which is specific for glucose (glucose oxidase) and will not react with other reducing substances. This method is specific and sensitive, false-negative results are rare and may be caused by large amounts of vitamin C, tetracycline and salicylates. A false positive result may occur if the urine container is contaminated with detergents, hypochlorite or peroxides.

The great advantage of blood glucose self testing is that it tells you your precise blood glucose level at the moment of the tests. But in a sense, this pinpoint precision can also be a disadvantage. A single blood test says nothing about what your blood glucose level was an hour earlier or will be an hour later. Urine tests, by contrast, can carry a "memory" of increases (but not decreases) in blood glucose that occur over a period of an hour. If your blood glucose was high enough to spill into the urine say two hours ago, the urine glucose will still be high now, even if your blood glucose is back to normal. Because of this "memory" for high glucose level, urine tests can help give you an idea of what your blood glucose control was like during the gaps between blood glucose tests.

However, urine glucose testing is limited by the renal threshold. Glucose doesn't be-



gin to show up in the urine until the level in the blood has first risen to a crucial point, known as the "renal threshold." Normally, glucose does not spill into the urine until the level in the blood is about 160-180 mg/dl. But the normal range for blood glucose is about 60-120 mg/dl. This means that, generally, urine tests will not detect glucose in the urine until the blood glucose is already higher than normal. If the urine glucose test is negative, the blood glucose level could be anywhere from 0-180 mg/dl. To make matters worse, not everyone has a normal renal threshold. Many people, for example, don't start to spill glucose into the urine until the level in the blood is already higher than 200, while others have low threshold — they might spill glucose even though their blood glucose is in the normal range. Another problem with urine glucose testing is the lag time. When glucose shows up in the urine, you cannot always be sure when it got there.

Blood and urine glucose testings are both tools for achieving the best possible control of your blood glucose. They are not in competition with each other. Rather, they are complementary tools to use as needed to get the most information possible for making management decision.

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RICARDO E. FERNANDO, M.D.
Diabetologist
St. Luke's Medical Center

Current efforts at minimizing or preventing diabetic complications are focused on near-perfect control of blood glucose levels twenty-four hours a day. This appears to be the only rational approach to treatment in the early stages of diabetes. In order to get near to this objective it is essential to make use of monitoring devices available for close follow-up of blood glucose fluctuations through out the whole day. Urine glucose tests are inadequate for such purpose. Frequent venous blood extraction does not seem practical. Fingerprick blood glucose monitoring strips appear to be the best answer at the moment.

However, the proliferation of capillary blood glucose strips has brought in new prob-

.....The proliferation of capillary blood glucose strips has brought in new problems that many times nullify the worth of such strips.....

A VIEW OF BLOOD GLUCOSE STRIPS

lems that many times nullify the worth of such strips. For doctors, nurses, paramedical personnel, patients and their relatives hardly undergo any training, and much more, re-training, for using such strips. Studies abroad have shown that 3 months after the initial instructions, nearly half of the people are not doing it properly anymore. It becomes a serious responsibility on the part of whoever issues an order for home blood glucose monitoring (or hospital/clinic monitoring) to train and retrain people

using these glucose test strips.

How do you take care of the glucose test strips? The test strips are not to be unduly exposed to the atmosphere. Once a strip has been taken from the can, the can should be closed very tightly to prevent air from getting in. In this connection, if 25 strips in one can are a problem, 100 strips to a can pose a much bigger problem. The strips are not supposed to be cut into halves. Let the veterans do it. But the neophyte — the newcomer in the art — should always start with the whole strip. Otherwise he could be compared to one who is just learning how to drive a car doing it with one hand only. Again, as patients try to economize by splitting the strips, many have made the mistake of taking out all of the 25 strips from the can, spreading them on top of the bed and cutting them one by one before returning all of them back to the can. Before the end of the procedure, the strips would have deteriorated by that much. The worst practice one can see occasionally is for the pharmacist to sell these strips in plastic containers "for use during the next 3-5 days."

Cleaning the finger. Alcohol has been the traditional "antiseptic" used in cleaning skin for injections, and now for fingerpricks. But soap and water can do a lot more than alcohol. Besides, alcohol can make the skin leathery and thick after some time of use. Betadine may be better. One can always

settle for hands washed carefully with soap and water. An occasional operator will forget to wipe off the alcohol and allow blood to mix with the alcohol while performing the test. Then, too, many people still prick the finger at the very tip when the instruction is to use the sides of the finger because there are less pain nerves there.

The use of automatic pricking devices is a bit more expensive compared to the crude practice of using pins/needles and horrible lancets. But the requirement is for a good drop of blood and this is hardly met with the use of the cruder ways which incidentally are more painful. Many operators do not realize the value of the size of the drop of blood. I once had to rush to answer an early morning emergency hospital call. The patient was said to be having hypoglycemia with a strip test of 2.2 mmol/l. In the center of the test strip was a very tiny drop of blood. It was the strip and not the patient that was suffering from hypoglycemia!

Timing is of utmost importance from the very very start. This is many times neglected by operators relying only on the sweep-second of their watches. A few operators can do the test without any help, but many many really need assistance from a second person. It matters a lot whether you are using only your eyes or a meter.

Meters have a lot of advantages although they are more expensive. Deciding results on the basis of color vision brings in the problem of color blindness, gross and partial. Gross color blindness may be easier to detect compared to partial color blindness where subject has difficulty telling different shades of color. Then you may be stuck with only one

(Continued on page 5)

Diabetes Management the tailored concept from Boehringer Mannheim

Diabetes Management requires more than just diet and medication. It is a complex system and Boehringer Mannheim covers all the requirements of

- screening (urine test strips)
- diagnosis (with dry or wet chemistry)
- treatment (oral antidiabetic)
- monitoring (blood glucose test strips)
- information (diabetes education program)



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A view of.....
(from page 4)

reading for different shades of green. Whoever tests for color blindness anyway, before allowing a person to use any of these blood glucose test strips?

So one can now see how very dependent the test strips are on the reliability of the operator. And many times the fate of the patient hangs on this sort of balance.

Finally, these glucose test strips were not meant for diagnosis. They were conceived as adjuncts in the control of blood glucose levels of confirmed diabetics. If they ever are used in screening drives, they should have the back-up of a standard laboratory that does routine blood sugar tests in the conventional ways. This means that any one who is "caught" in a screen should have the benefit of confirmatory tests (FBS, 2hPPBS, OGTT) done in the standard laboratory before he is labeled a diabetic. Otherwise such a person might be "condemned for life" on the basis of very flimsy evidence.

Blood glucose strips are very valuable adjuncts in the treatment of diabetes. But their ultimate value depends entirely on the way they are handled and used by competent (well trained and retrained) personnel. Adventurers do not have a place in the circle of people concerned with the care of diabetics.

Doctors depend a great deal on blood glucose fluctuations as guides in the adjustment of dosages of insulin or pills. At times, the patient's very life depends on the accuracy of the strip test. The operator of such tests must therefore be extremely careful in the way the material is stored, handled and used.

Reprinted from Diabetes Forecast, December, 1988 is this interesting article by MYRLEN A. STATEN, M.D.

You have non-insulin-dependent (type II) diabetes, and you are very overweight. You have a meal plan, perhaps some medication, and your doctor is urging you to lose some weight. You've been told that even a few pounds might make a difference.

Everyone knows that the surest way to lose weight is to eat less food. Indeed, the fastest and most reliable way to lose weight is to reduce caloric intake. Your meal plan no doubt is aimed at guiding you to a lower daily number of low-fat, well-balanced calories. Is there anything you can do to help the process along? Is exercise worth the effort?

Combined with cutting back on calories, exercise will cause significant weight loss. People who exercise regularly tend to maintain lower body weights than those who do not. Also people who have lost weight tend to regain fewer pounds if they continue to exercise regularly. When weight loss is done through combined dieting and exercise, less lean tissue and more fat is lost although total weight loss may not be different from diet alone.

In addition, exercise may have specific benefits for the overweight person who has diabetes. Regularly performed aerobic exercise (walking, swimming, bicycling) improves the heart's ability to contract and may help protect against coronary heart disease by increasing high density lipoprotein (HDL) cholesterol (the "good" cholesterol). Exercise reduces stress levels for many people and for some helps relieve depression. Contrary to popular belief, exercise does not increase appetite and for many actually

Me Exercise

If you're very
overweight, a
modest weight loss
can make a health
difference. Exercise
can help.

suppresses it for a few hours.

For people with diabetes (both type I and type II) regularly performed aerobic exercise improves the muscles' ability to respond to insulin and thus causes the muscles to take up more sugar. For people with insulin-dependent (type I) diabetes, improved insulin action may or may not lead to improved blood-sugar control. For people with type II diabetes, preliminary evidence suggests that regular aerobic exercise might improve blood-sugar control. Another effect of exercise is to decrease insulin secretion. This might be a benefit to people with type II diabetes who are making large amounts of insulin (hyperinsulinemic).

Easy Does It

If you are an overweight person with diabetes, your first step in incorporating exercise

into your everyday life is a visit with your physician. He or she may want to check your cholesterol level and do an exercise stress test to determine whether your heart is at risk during exercise and to identify the heart rate you should work toward during exercise. In addition, your eyes should be checked for retinopathy, and your feet and hands checked for neuropathy so precautions can be taken to prevent damage from the exercise.

Once you have your doctor's approval, how do you get started? Think tortoise, not hare. Slow and steady wins the race. Anyone who has not been exercising needs to begin gradually. This is especially true for very overweight individuals. Our joints are designed for bodies of normal weight. All those excess pounds stress the weight-bearing joints—the hips, knees, and ankles—especially during exercise. Start slowly, do not push until it hurts, and you will keep exercising. Go quickly, get sore or damage a joint, and regular exercise will be an elusive goal.

With your doctor's help, select an aerobic exercise that appeals to you and fits into your lifestyle. Walking, swimming, walking in water, in-pool aerobics, or cycling are all good forms of aerobic exercise that are not too hard on the joints.

Limit your exercise sessions in the beginning. For those who are very obese, three- to five-minute sessions to start are fine. Plan to exercise three to five days a week. This allows a day or two a week for your body to rest. Learn to take your pulse and monitor your heart rate while exercising. Ask

(Continued on page 6)

Me exercise

(from page 5)

your doctor for advice on your target heart rate zone for exercise.

To begin, a very overweight person might simply walk slowly for three to five minutes. Take your pulse. If your heart rate is not in the target range, you'll need to walk a little faster tomorrow. If it's too high, you'll need to slow down. Every three days, add a minute or two to your walk. When you can walk 10 to 15 minutes without stopping, try this simple program:

- Walk slowly for several minutes.
- Take your pulse. Are you in your target range? If not, speed up or slow down.
- Continue walking 10 to 15 minutes.
- Take your pulse.
- Cool down by walking slowly for two to three minutes.
- Take your pulse. Your heart-beat should be below 100 beats per minute. If it's not, continue to walk slowly and then take your pulse again.

Gradually increase the time you walk by a few minutes each week until you are walking for 20 to 30 minutes, non-stop, five days a week.

Exercise and Medications

With type II diabetes, you may be treated by diet only or diet and medications. You may even be taking insulin. If your treatment is diet only or medi-

cations, timing of exercise is easy. Exercise about an hour or two after a meal when your blood sugar is elevated. If your diabetes is fairly well controlled, exercise will help lower your blood sugar. (Check before and after exercise to show this to yourself.)

With insulin injections the timing of exercise is more difficult. Talk to your doctor for specific advice, but in general, you should not exercise when your insulin is peaking (at its strongest) and usually not more than three hours after eating. Any insulin-treated individual needs to check his or her blood sugar before exercising and eat a small carbohydrate snack if it is low.

Blood-glucose monitoring before and after exercise is the surest way to know how activity affects your blood-glucose level. If you are in poor control or if your blood sugar is 250 mg/dl or above and ketones are present, postpone exercise until you are in better control. Insulin-treated people who plan to exercise should consult a diabetologist or clinical diabetes educator.

Keeping On

How do you pull yourself into those exercise clothes when you're just too tired? When you're too busy, too stressed, too hot? When there's no one to exercise with? Think ACTIVE!

Ask yourself if you really want to exercise.

Commit yourself to a minimum number of exercise sessions each week.

Take measurements to mark your progress.

Include family, friends, or pets in your activities.

Vary the type of exercise you do to prevent boredom.

Ensure you have fun, not injury.

First, ask yourself whether you are really serious about health and exercise. If your answer is yes, then face those excuses for what they are. Admit to yourself that if you don't get moving, you are not taking care of your health.

Commit yourself to a minimum number of exercise sessions—two or three—per week. Set your goals low so you'll always succeed. Pull yourself out to exercise when you're "exhausted" after a hard day at work and discover that the stress-reducing effect of exercise gives you more energy at home!

Take measurements of your chest, waist, hips, and thighs and watch them shrink, giving you new motivation to keep moving. Every few weeks measure your resting heart rate and feel pride as it slows, a definite sign that you are becoming more fit. Take notice of how many calories you are burning. If you walk at a pace of about three miles per hour, you burn 0.03 X (your body weight in pounds) calories per minute. For a 200-pound person that equals 6 calories a minute. If you walk slower, you would burn fewer calories per minute.

Include other people in your exercise regimen. Take the family pet for a walk. Ask your children or spouse to join you. Walks can give you a special time to talk, because there are no televisions or telephones to interrupt. Do you have a friend you'd like to spend more time with? Try going for a bike ride or taking an in-pool exercise class together. Also try to include extra exercise in your everyday activities. Park a little further from the store. Instead of taking the elevator, walk up one flight, down two.

Vary the type of exercise

you do to prevent boredom. For instance, alternate walking around the neighborhood with walking in shopping malls or in the pool. Try taking a class when your motivation is lagging. There are a variety of water exercise programs that are easy on the joints. Some communities also offer aerobics classes designed specifically for the overweight person who is new to exercise.

Ensure that injuries are avoided. Increase the amount and intensity of exercise slowly. If an exercise hurts, don't do it. Get professional help on why that exercise hurts and ways to avoid pain while exercising. Dress properly for exercise. Select a good pair of well-fitting athletic shoes. Consider talking to a podiatrist knowledgeable about diabetes and sports before making your shoe choice. Wear loose-fitting, light-colored, lightweight clothes when it's hot, and coat, gloves, and hat when it's cold. If your thighs rub together wear tights over your thighs or apply a thin coat of petroleum jelly over the areas that chafe.

Avoid the temptation of rewarding yourself for exercise by increasing your caloric intake. Although exercise burns calories (between 100 to 400 calories each time you work out), one fast food hamburger (500 to 600 calories) quickly makes up the deficit.

Exercising regularly does take effort. But if you balance a little sweat, soreness, and a few extra blood-sugar checks against all the benefits regular exercise brings—you'll want to start being ACTIVE.

MYRLENE STATEN, an endocrinologist, is assistant professor of internal medicine at the Washington University School of Medicine in St. Louis, Missouri.

**FIGHT
DIABETES**

SHOE TIPS

1. Select shoes that are shaped for the human foot, preferably ones that lace up, have rounded toes, and soft leather uppers.
2. Wear shoes that are of adequate length, width, and depth. Shoes should not compress the toes or foot. The uppers should be of soft leather, preferably kidskin or deerskin. The outer sole material should be resilient rather than hard and thin.
3. Check that the ball of the foot rests in the widest part of the shoe.
4. Wear new shoes around the house on carpeting for about an hour and then check for any hot spots or any problem areas.
5. Replace your shoes regularly. Have at least two pairs of well-fitting shoes to alternate so that shoes can dry between wearings.
6. Have your feet measured every time you purchase a pair of shoes.
7. People prone to diabetes-related foot problems should not wear a new pair of shoes for more than two hours without checking their feet for pressure areas. Five hours should be the maximum length of wear for one pair of shoes.

From Diabetes Forecast, December, 1988, page 55

Warning Signs Of Insulin Reactions

Blurred Vision, Confusion, Headache



Pale Moist Skin, Sweating

Mood change, Irritability



Extreme Hunger, Weakness

Dizzy, Shaky, Nervous

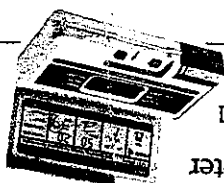


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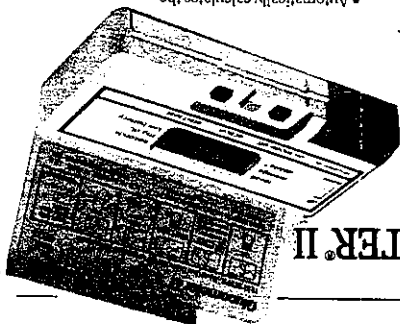
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- Perform the entire procedure with the STEP-BY-STEP guide and audiocassette included at no extra charge.
- Calibrate the instrument in seconds for use with each new batch of test strips.

...blood glucose monitoring for people on the go

- Simple to use—easy to learn.
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- You can calibrate the instrument in seconds for use with each new batch of test strips.
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Introducing the
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With the right meter for your lifestyle

NEWS

PDA Chapters

Two more chapters of the PDA were established in late 1988, — Tarlac and Palawan. Governing the two chapters are the following officers:

Tarlac Chapter: Dr. Romulo S. Batenga, president; Dr. Jesse L. Bautista, vice-president; Ms. Lerma G. Santos, secretary; Dr. Soledad H. Veloso, treasurer; and Ms. Erlina S. Lagonilla, PRO. Aside from the officers, the following constitute the Board of Directors: Dr. Vladimir Liwanag, Dr. Ernesto D. Cunanan, Dr. Ricardo P. Ramos, Dr. Virgilio Vinluan, and Ms. Senen Balmaceda.

Palawan Chapter: Dr. Belinda Palao, president; Dr. Diomedes R. de Guzman, vice-pres-

ident; Ms. Belinda Botongon, secretary; Dr. Avelina C. Martinez, treasurer; and Dr. Manuel R. Bilog, PRO. Included in the Board of Directors are: Dr. Teogenes C. Alfonso, Dr. Alejandro Santiago, Dr. Juanito V. Duenas, Mr. Cesar Ponce de Leon, Ms. Emily Ang and Ms. Felisa Torres.

Interactions with Prof. Assal

Prof. J.-Ph. Assal, past president of the Diabetes Education Study Group of the European Association for the Study of Diabetes visited Manila and Cebu to interact with the teaching teams of the various chapters of PDA. Prof. Assal is considered one of the foremost authorities on diabetes education in the world.

Prof. Assal interacted with the Manila and some Luzon teams at the Makati Medical Center, while the venue for the

Visayas and Mindanao teams was in the Diabetes Clinic of the Sacred Heart Hospital in Cebu, on March 30 and 31, respectively.

Diabetes Foundation

Plans are afoot to set up a foundation to provide funds for the educational thrusts of the PDA. Meeting at the La Tasca Restaurant for the initial conceptualization and planning stage were: President Peter S. Dee of the China Banking Corporation, President Aloysius T. Lipio of Armel Plastic Co., President Rolland R. Thompson of Amalgamated Specialties Corporation for the businessmen's side; and Pres. Litonjua, Board Member Ty-Willing and Atty. Angel Sepidoza for PDA. The PDA is to submit its requirements for a Diabetes Teaching Center to set a goal for the fund-raising. Ms. Remedios Fournier is to draw up the costings of the Center.



DiabetesWatch

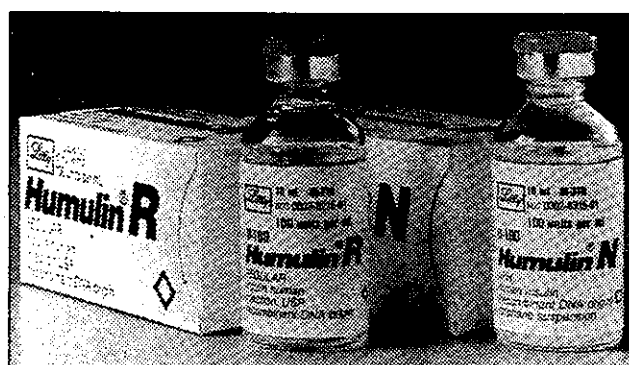
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