

The image features a central yellow map of Malaysia with a wavy, irregular border. The map is surrounded by several black ants of various sizes, some of which are crawling on the map's edges. The background is white, and the entire composition is framed by a red border.

**LIVING
WITH**



MINISTRY OF HEALTH MALAYSIA

LIVING WITH

DIABETES

BASED ON THE BOOKLET
LIVING WITH DIABETES
BY HEALTH EDUCATION UNIT
DEPARTMENT OF MEDICAL AND HEALTH
SERVICES, JOHOR.

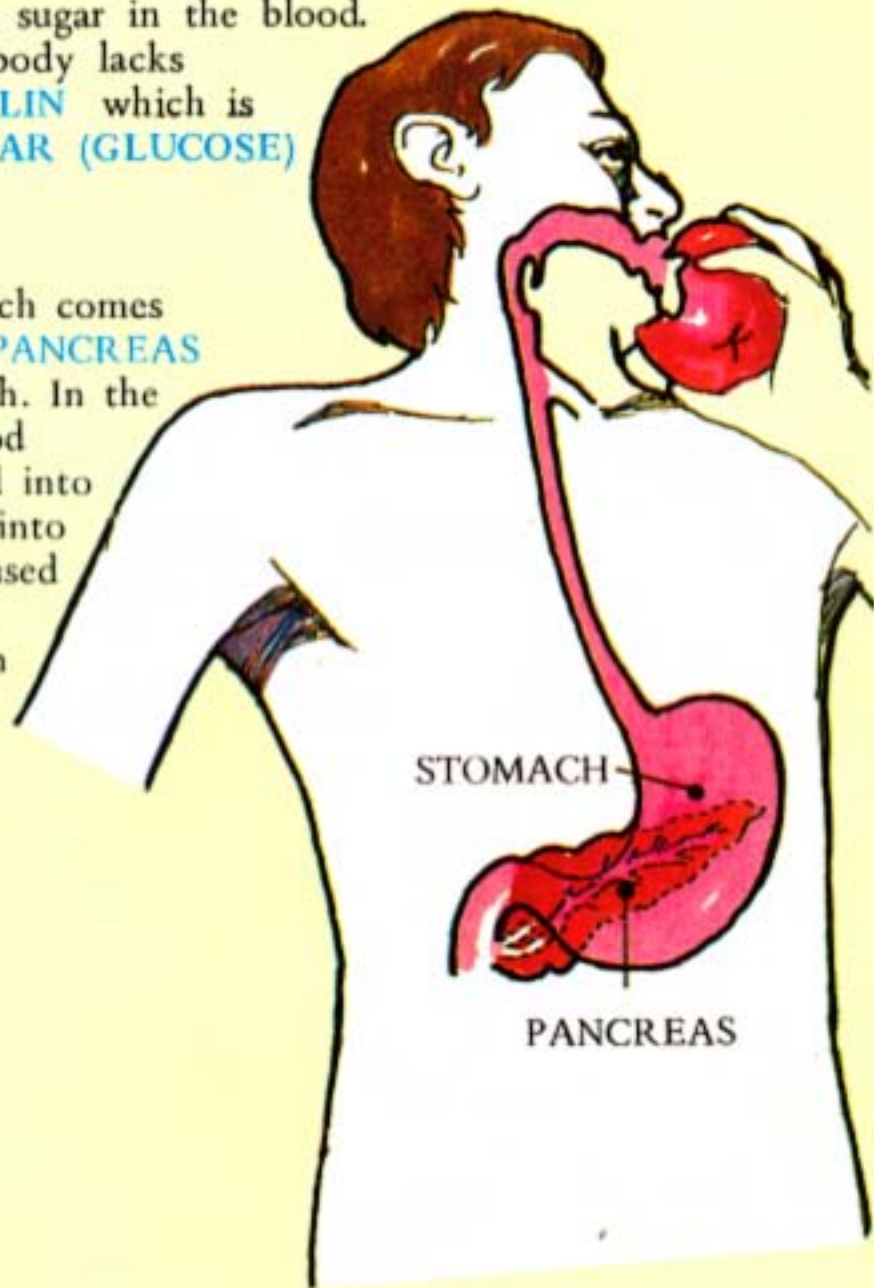
Ministry of Health Malaysia

What is diabetes?

Diabetes is one of the oldest diseases known. In the 17th Century, diabetes was known as 'the pissing evil' because affected people passed abnormally large quantities of urine.

Diabetes is a condition where there is an abnormally high level of sugar in the blood. This arises because the body lacks a hormone called **INSULIN** which is needed to convert **SUGAR (GLUCOSE)** into energy.

Insulin is a hormone which comes from a gland called the **PANCREAS** found behind the stomach. In the stomach and intestine food which is eaten is changed into sugar (glucose) and goes into the blood stream to be used by the body to produce energy. Sugar is our main source of energy.



In a normal person, insulin helps the blood glucose to enter the body cells and be turned into **ENERGY**.

In a diabetic (person who has diabetes) the pancreas does not produce enough insulin or the insulin that is produced fails to act normally.

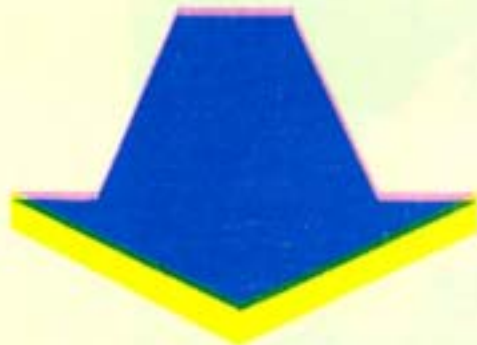
As a result, glucose (sugar) cannot enter the body cells. Instead it collects in the blood giving rise to a high blood sugar level and then spills over into the **URINE**.

Without insulin, the body's cells become starved of sugar, despite the high level in the blood, and thus the body lacks energy.

CARBOHYDRATE



GLUCOSE



ENERGY

What are the signs and symptoms of diabetes?



↑ Passing lots of urine frequently



↑ loss of weight in spite of good appetite



↑ always thirsty



◀ hunger



▶ always tired



◀ itch, particularly in genital area

If some of these symptoms do occur together and persist, the person should see a doctor immediately to find out whether he or she is having diabetes.

At the clinic or hospital, simple urine and blood tests are carried out to confirm if the person has diabetes.

Who gets diabetes?

Anyone can develop this disease.

BUT people who

- come from families with a history of diabetes
- are in the older age groups (40 & above)
- are overweight

have a **GREATER RISK** of getting **DIABETES**

What is the treatment for diabetes?

Before 1921, the only treatment was a rigid starvation diet as no medicines were available.

Nowadays there are medications available which can control the disease and thus together with diet enable the diabetic to live a normal life.

Treatment for diabetes is through:

A. **DIET**

The food you eat plays an important part in the control of diabetes. Dietary regulation in some form is important in every case of diabetes. Some mild cases can be controlled by diet alone.

B. **MEDICATION**

In addition to diet control, most patients require medication to keep their diabetes under control. The medication can be either

I. INSULIN INJECTIONS

II. ORAL ANTI-DIABETIC DRUGS

These drugs can be taken by mouth in tablet form, unlike insulin which can only be given by injection. They help the body use sugar and thus keep the diabetes under control.

Certain people with diabetes **REQUIRE** insulin injections while others can control their diabetes through tablets.

Your doctor, after examining you, will tell you whether you need **INSULIN INJECTIONS** or **TABLETS** to keep your diabetes under control.

Since no two cases of diabetes are exactly alike, the treatment your doctor prescribes for you may not be the same as he prescribes for somebody else.



**IT IS IMPORTANT
TO SEEK EARLY
TREATMENT!**

EARLY TREATMENT will:

- relieve symptoms
- prevent or reduce complications
- enable the diabetic to live a normal life span.

Will the injections or tablets cure me of diabetes?

The insulin injections or tablets that you take will **NOT CURE** you of diabetes, but can help to **CONTROL** the disease and thus enable you to enjoy living a **NORMAL AND PRODUCTIVE LIFE**.

Presently, there is **NO CURE** for diabetes. It is a **LIFE-LONG CONDITION** that the person must live with. Normally, a diabetic patient will have to continue taking medication for the rest of his or her life.

What can I do to keep my diabetes under control?

To stay **HEALTHY** and continue living a **NORMAL** and **ACTIVE** you will have to take steps to **CONTROL** your diabetes. To control diabetes means keeping the level of sugar in the blood within the normal range for as much of the time as possible.

You should pay careful attention to the following:

- **MEDICATION**
- **DIET**
- **MAINTAINING NORMAL WEIGHT**
- **EXERCISE**
- **PREVENTING INFECTIONS**

Medication

- Follow your doctor's instructions regarding medication, whether you are on insulin injections or tablets.
- Don't stop taking medication just because you feel well and think medication is not necessary. It is very **DANGEROUS** to stop taking medication without your doctor's advice as it could lead to complications due to uncontrolled diabetes.
- Keep all your appointments with your doctor.
- Regular check-ups, including urine and blood tests are important.



Diet

- Control of diet is very important in the treatment of diabetes.
- Follow your doctor's or dietitian's advice regarding diet.
- The diet that you should eat will depend on your weight, age, activity, occupation and the severity of the diabetes. The diet should be a well balanced one, that is, it should contain all the nutrients that your body requires to stay healthy and provide energy for your daily activities.

A BALANCED DIET should have foods containing



CARBOHYDRATES
(eg. rice, bread, potatoes)



PROTEINS
(eg. meat, fish, eggs, peas, peanuts, milk etc.)

FATS

(eg. palm oil, margarine)



VITAMINS & MINERALS
(eg. fruits & vegetables like
spinach, tomato, papaya,
carrot, lime)



- Foods containing **SUGARS AND STARCHES** should be eaten sparingly. These are called **CARBOHYDRATE FOODS**.
- Eat less foods which contain a lot of **FAT** like butter, coconut oil, deep fried food, coconut milk (curry) etc.

Food guide

FOODS TO AVOID

Sugar*
Glucose
Glucodin
Barley Sugar
Sweets of all kind
Lollies
Chocolate
Jam
Marmalade
Honey

Golden syrup
Treacle
Ice-cream
Sweetened Coffee Essence
Assorted sweet biscuits
Cakes
Puddings
Sweet breads
Sweet Pastry

Sugar coated cereals
Canned fruits in syrup
Glazed, candied or crystallized
fruits jellies
Sweetened condensed milk
Yoghurt sweetened with syrup
Drinking chocolate
Glucose Drinks
Sweetened aerated drinks



*SPECIAL NOTE

If you have an insulin reaction – hypoglycaemia – take sugar or sweets in any form (a lump of sugar, glucose tablets, barley sugar or soft drink).

FOODS TO TAKE IN CONTROLLED AMOUNTS

Rice
Bread
Bread rolls
Potatoes
Sweet Potatoes
Yam

Tapioca
Thick soups
Fruit juices
Dried fruits
Noodles

Fruits
Nuts
Legumes
Flour
Milk

FOODS ALLOWED

Protein food – Lean meat, lean chicken, fish, tauhu (average serves)

Condiments and Flavourings – pepper, paprika, mustard, spices, vinegar, vegemite, marmite, vanilla and almond essence, curry powder, artificial sweeteners.

Fluids – water, soda water, tea, coffee, tomato and lemon juice, clear soup, beef tea, Bovril, Oxo cubes, chicken cubes.

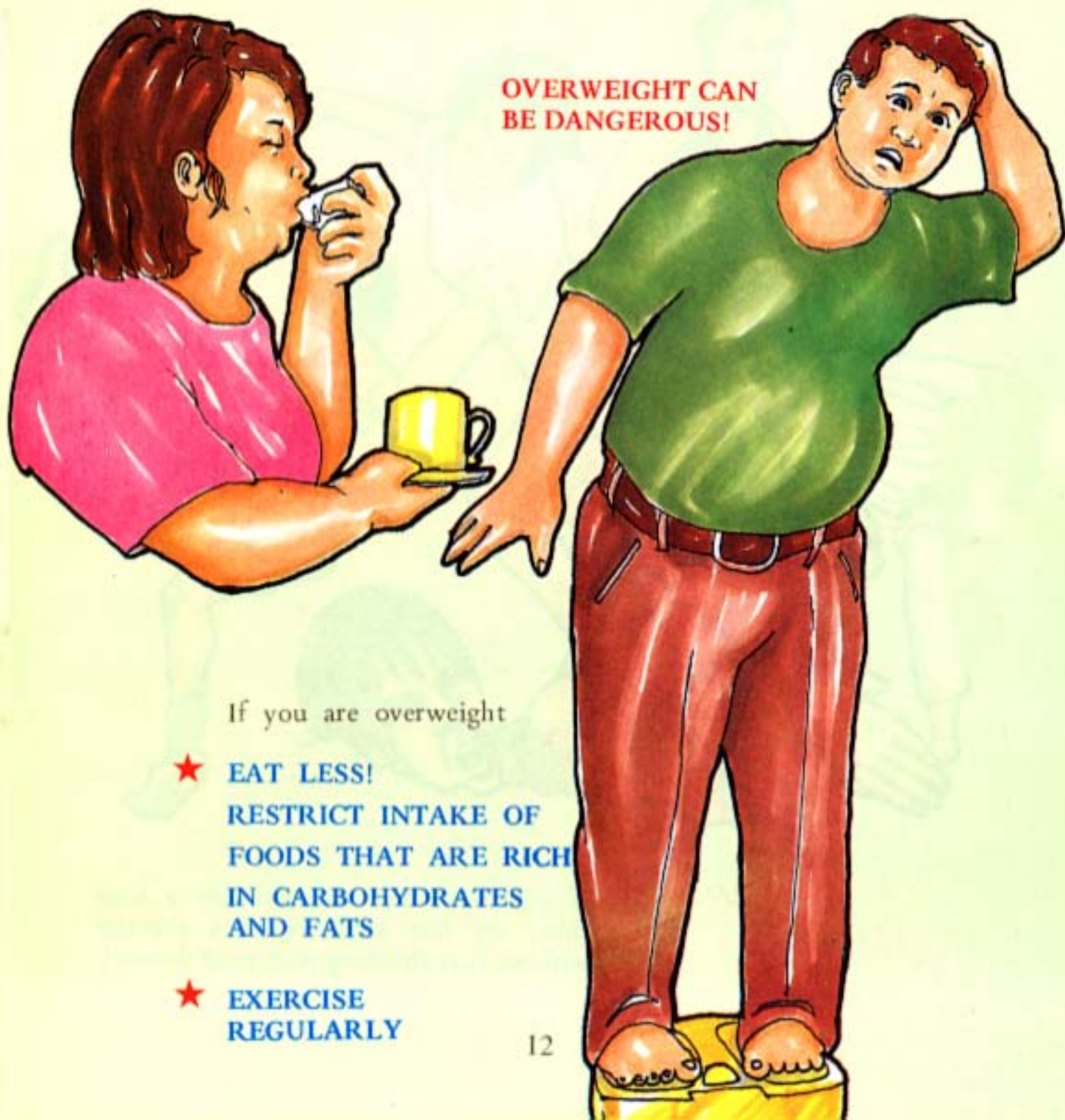
Vegetables – beans (French), broccoli (flower only), cabbage, celery, chookoes, cucumber, lettuce, mushrooms, onions, peppers, radishes, spinach, tomatoes and tomato puree, white turnips, watercress, cauliflower, ladies fingers, brinjals, bitter gourd. These are low carbohydrates vegetables and may be included as extras with meals or between meals or they may be used in soups, stews and casseroles.

FOODS TO TAKE SPARINGLY

All fats and oil, and salt.

Maintaining normal weight

- Diabetes occurs more frequently in people who are **OVERWEIGHT**. Insulin seems to work less effectively in people who are overweight.
- In order to keep blood sugar under **CONTROL**, it is very important for the diabetic to keep his/her weight within the normal range for his/her height.



**OVERWEIGHT CAN
BE DANGEROUS!**

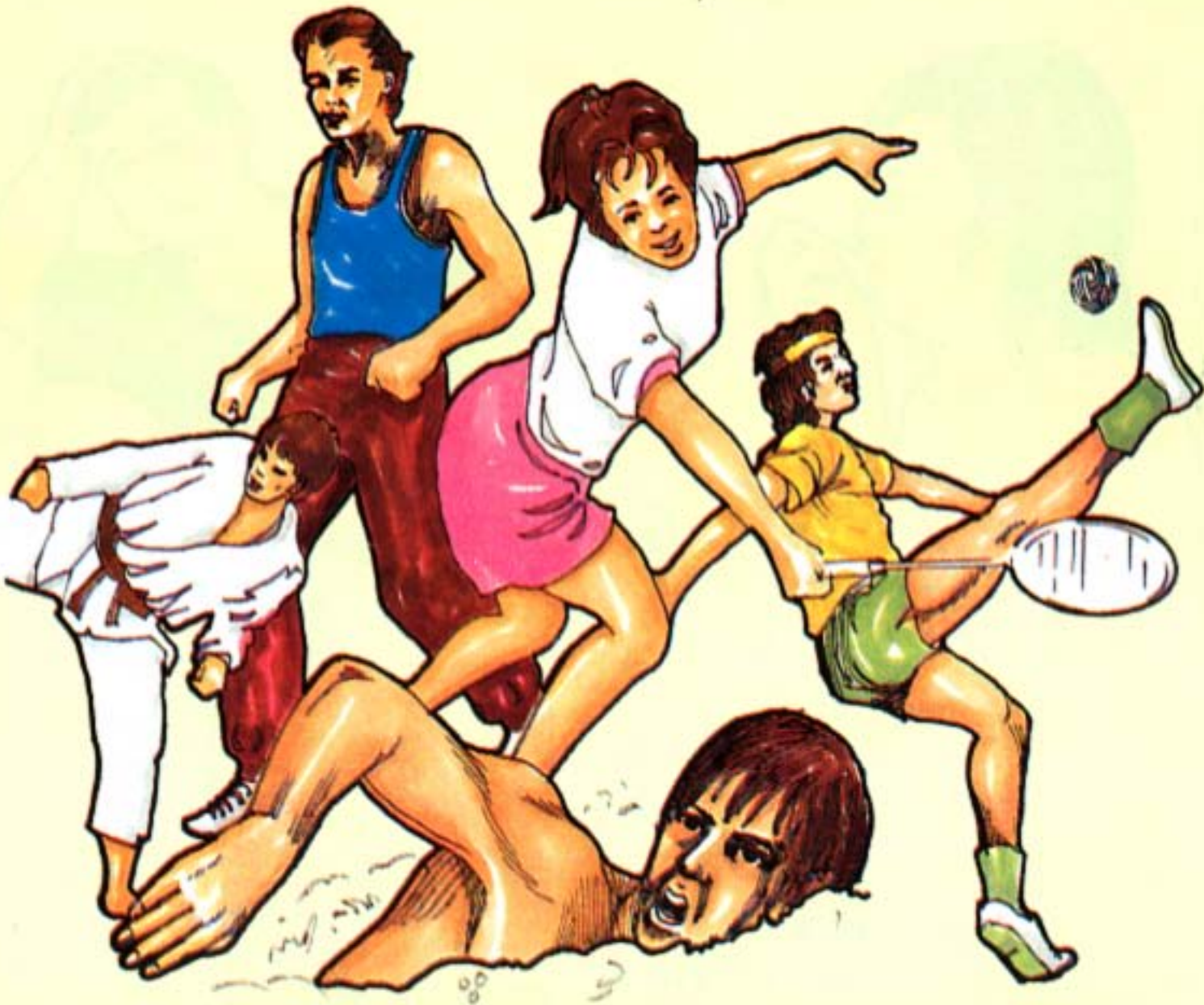
If you are overweight

★ **EAT LESS!**
**RESTRICT INTAKE OF
FOODS THAT ARE RICH
IN CARBOHYDRATES
AND FATS**

★ **EXERCISE
REGULARLY**

Exercise

- Do some form of exercise daily such as walking and gardening
- **REGULAR EXERCISE** is especially good for diabetics as it helps to **REDUCE** the sugar content in the blood stream and improve blood circulation.



A WORD OF CAUTION: If you have been inactive for a long time, do not start vigorous exercise without first checking with your doctor!


Preventing Infections

Diabetics have greater risk of getting **INFECTIONS** than the ordinary person.

Thus you need to take precautions.


● MAINTAIN GOOD PERSONAL HYGIENE




Bathe regularly 

Bathe feet daily. Dry them thoroughly and dust with talcum powder.




Apply talcum powder frequently to areas of the skin prone to excessive sweating. 




Maintain good dental care. 

● AVOID INJURY





Be very careful when cutting your finger and toe nails 



 Never walk barefoot




 Small cuts should be cleansed and dressed immediately

 Shave with care


● FOOT CARE


If the blood circulation in your feet and legs is disturbed or impeded, the results can be very serious, and you may even lose your feet. So follow these simple rules.




Avoid wearing tight shoes 



Massage your feet regularly 

 Do not cross your legs for long period of time.



 Spend a few minutes a day lying down with your feet raised above the level of your body.

What are the dangers if diabetes is not controlled properly?

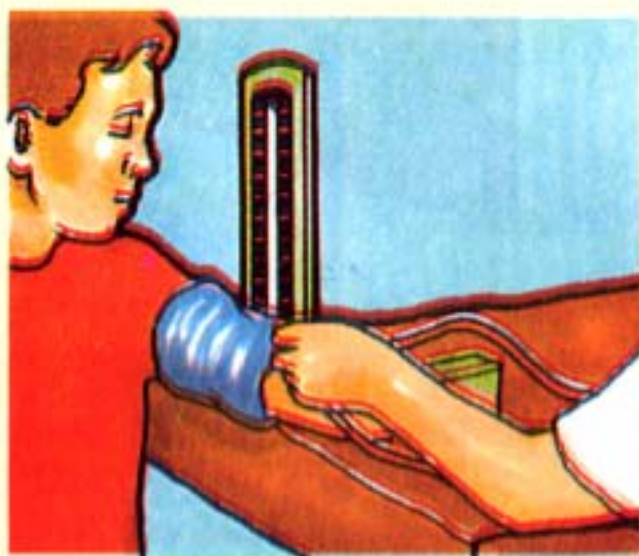
If **NOT** treated or controlled properly, the diabetic patient may develop **SERIOUS COMPLICATIONS** such as



KIDNEY DAMAGE



BLINDNESS



HIGH BLOOD PRESSURE



HEART ATTACKS & STROKES



DISEASE OF THE NERVES

This can lead to a loss of feeling in the hands and feet. The person is unable to feel much pain, and so can seriously injure himself without realizing it.



INFECTION leading to
GANGRENE (dead tissue) which
may result in **LOSS OF LIMB**



COMA OR COMPLETE LOSS OF CONSCIOUSNESS

If not treated immediately the person will die.

- * You can do a great deal to prevent these complications by taking good care of yourselves!
- * Having diabetes does not mean living under a life sentence. Be wise enough to follow the steps in the treatment and control of this condition and you most certainly can lead a full and normal life.

**CONTROL DIABETES
ENJOY
A HAPPY AND HEALTHY LIFE**

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WE CARE FOR YOUR HEALTH**

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