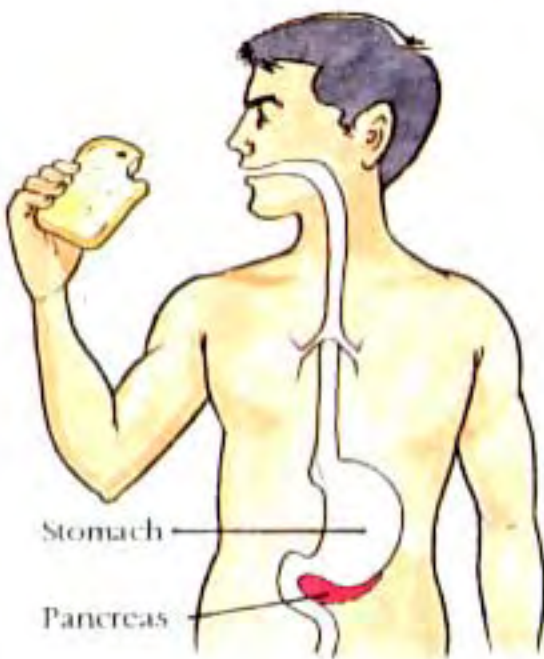




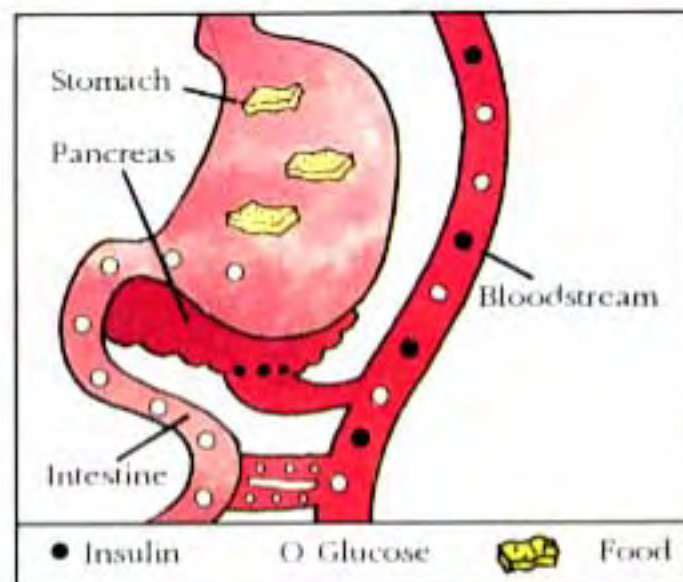
DIABETES

WHAT IS DIABETES?



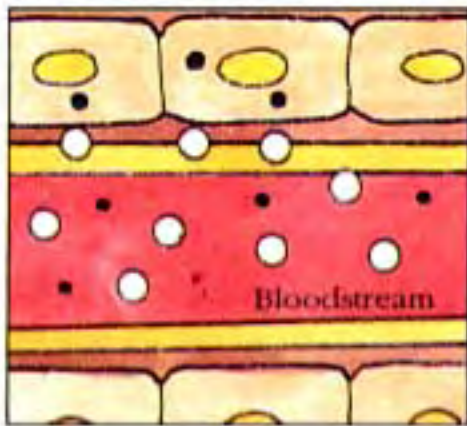
Insulin is a hormone made in the pancreas, a gland found behind the stomach. In the stomach, food which is eaten is changed into glucose and goes into the blood stream to be used by the body to produce energy. Glucose is our main source of energy.

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



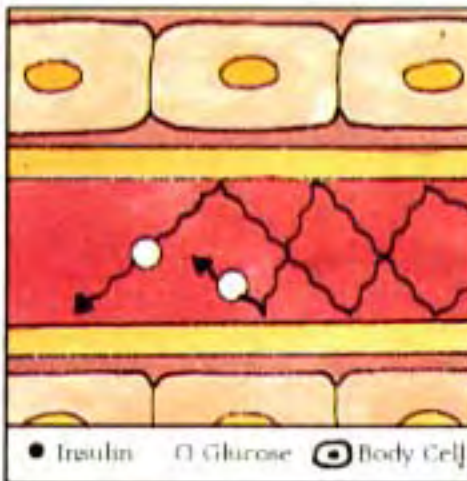
WHAT IS DIABETES?

Normal Person



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

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



Diabetic Person

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

HOW MANY TYPES OF DIABETES ARE THERE?

There are 2 main types.

Type 1 Insulin Dependent Diabetes

- Usually develops in children and young adults
- Due to insufficient insulin
- Can only be controlled by insulin injections as well as proper diet and exercise
- Usually strong family history



HOW MANY TYPES OF DIABETES ARE THERE?



Type II

Non-Insulin Dependent Diabetes

Commonly occurs in adults (40 years and over) and overweight individuals

Due to insufficient or ineffective insulin

Can often be controlled with just proper diet and exercise or a combination of diet, medication and exercise

Usually strong family history

WHAT ARE THE RISK FACTORS OF DIABETES?

Anyone can develop diabetes but there are some people who have certain factors which increase their risk of getting diabetes. These risk factors are:

Overweight

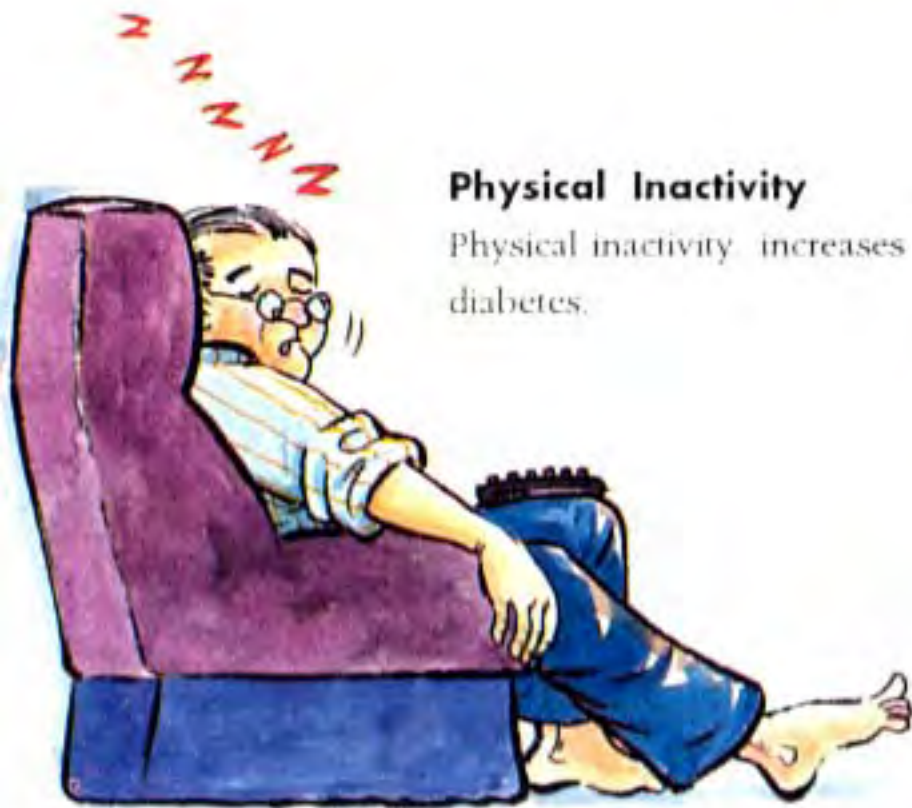
Diabetes occur more frequently in people who are overweight.



WHAT ARE THE RISK FACTORS OF DIABETES?

Physical Inactivity

Physical inactivity increases the risk of diabetes.



Nutritional Factors

Taking a diet rich in saturated fat or lacking in dietary fibre increases the risk of diabetes.



**WHAT ARE THE RISK FACTORS
OF DIABETES?****Family History Of Diabetes**

If one parent has diabetes, the risk of getting diabetes is increased. The risk is even higher if both parents are diabetics

**Other Factors**

Factors like age and ethnic group have also been associated with the increase in occurrence of diabetes

WHAT ARE THE SYMPTOMS OF DIABETES?



- always thirsty
- passing of urine frequently
- tiredness or lethargy
- weight loss despite good appetite
- slow healing of cuts and wounds
- skin itchiness, especially in the genital area



If some of these symptoms occur, see a doctor immediately to find out whether you have diabetes. At the clinic or hospital, simple urine and blood test are carried out to confirm whether you have diabetes. But **REMEMBER**, many diabetics do not have any of the above symptoms.

WHAT ARE THE COMPLICATIONS OF DIABETES?

The high blood glucose level in untreated or poorly controlled diabetes can cause serious complications.

Diabetics develop a loss of feeling in the hands and feet and often injure themselves unknowingly. These wounds are slow to heal and become infected easily.

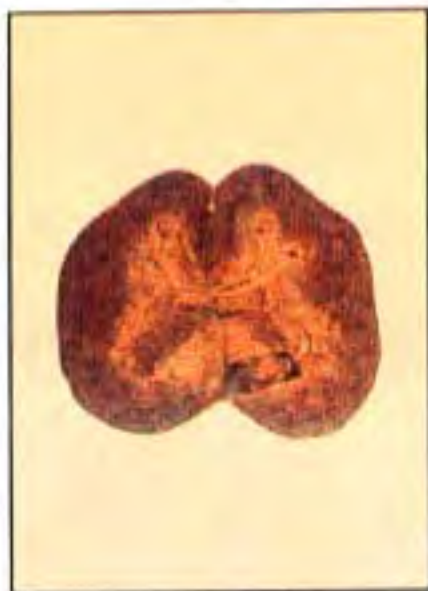
Continuous high blood glucose level can also damage the small blood vessels in the body, particularly eyes, kidneys and nerves. Damaged blood vessels as a result of uncontrolled diabetes will reduce the blood flow to the various organs.



WHAT ARE THE COMPLICATIONS OF DIABETES?

Complications Of Diabetes Are

- Gangrene (dead tissue) which may result in loss of limb
- blurring of vision leading to blindness
- kidney disease
- heart attack
- high blood pressure
- stroke
- coma or loss of consciousness
- disease of the nerves



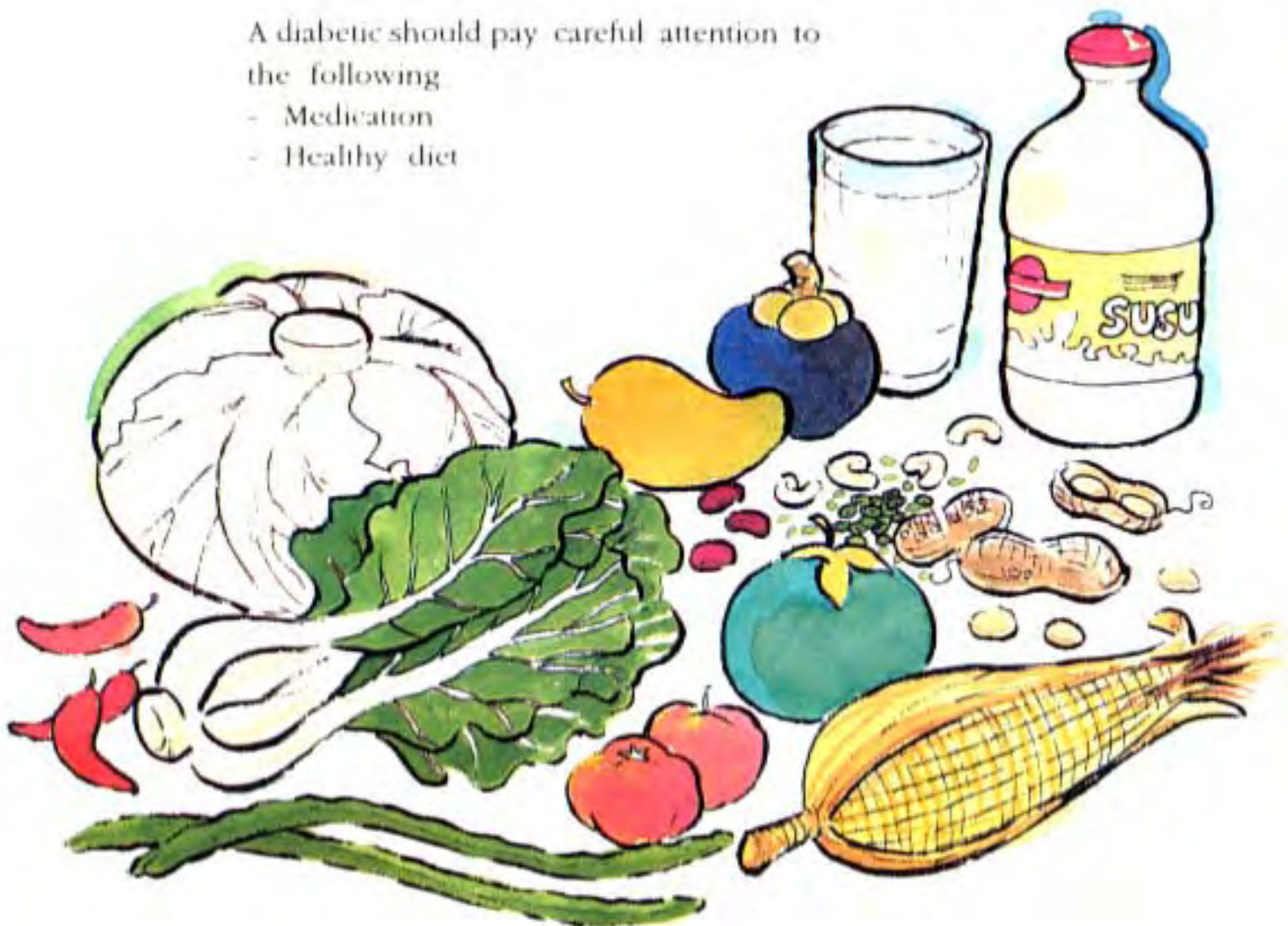
IS DIABETES CURABLE?

Diabetes is not curable. It can, however, be controlled. To control diabetes means keeping the level of glucose in the blood within the normal range



A diabetic should pay careful attention to the following

- Medication
- Healthy diet



IS DIABETES CURABLE?



- Keeping to a healthy weight range
- Regular exercise
- Preventing infection



CAN DIABETES BE PREVENTED?

Diabetes, in particular Type II diabetes, often associated with overweight, may be prevented by :

Having A Healthy Weight

Insulin seems to work less effectively in people who are overweight. A healthy weight range is to have a Body Mass Index (BMI) of 20 to less than 25.

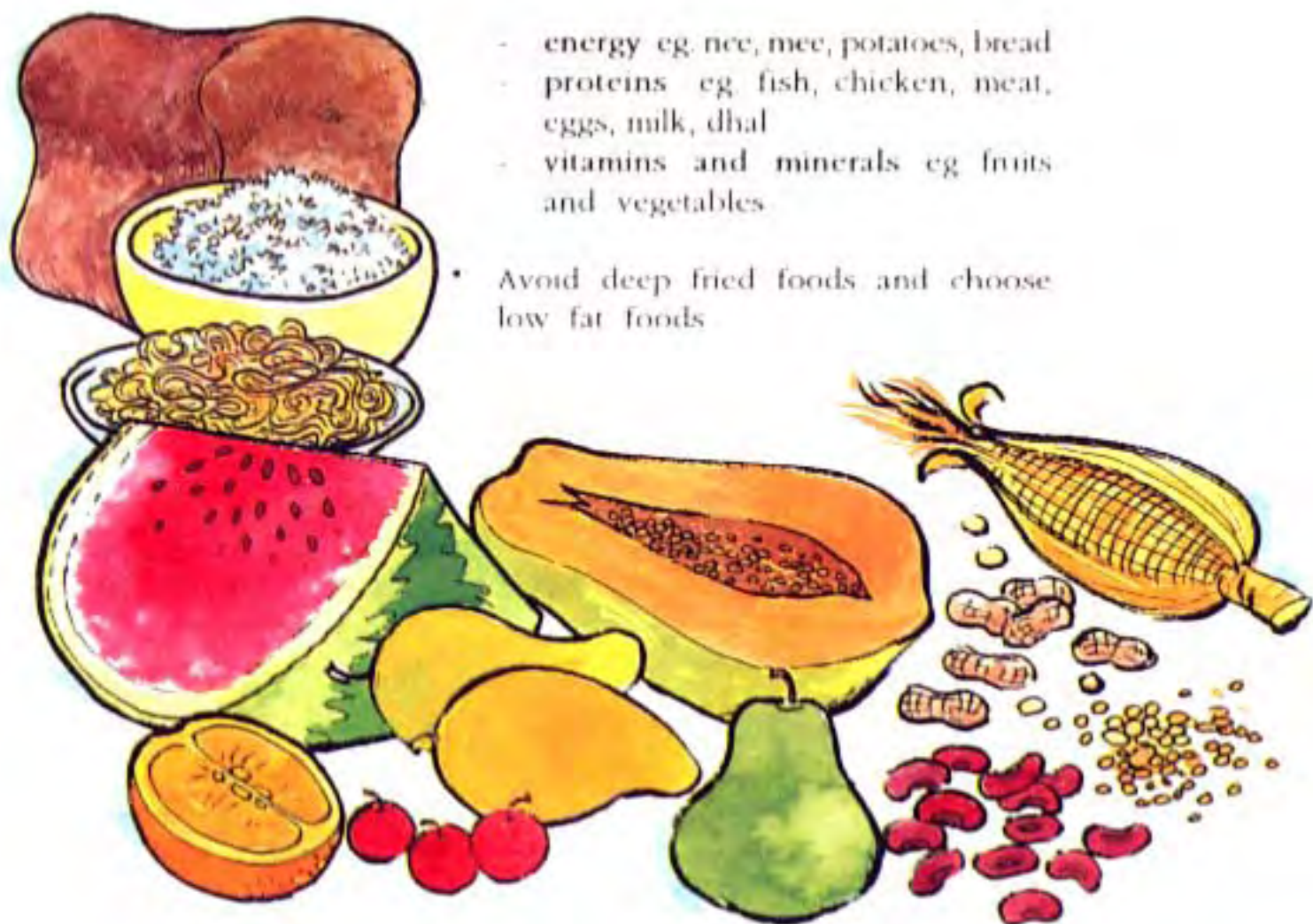
BMI is calculated using the formula

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$$

CAN DIABETES BE PREVENTED?

Eat A Healthy Diet

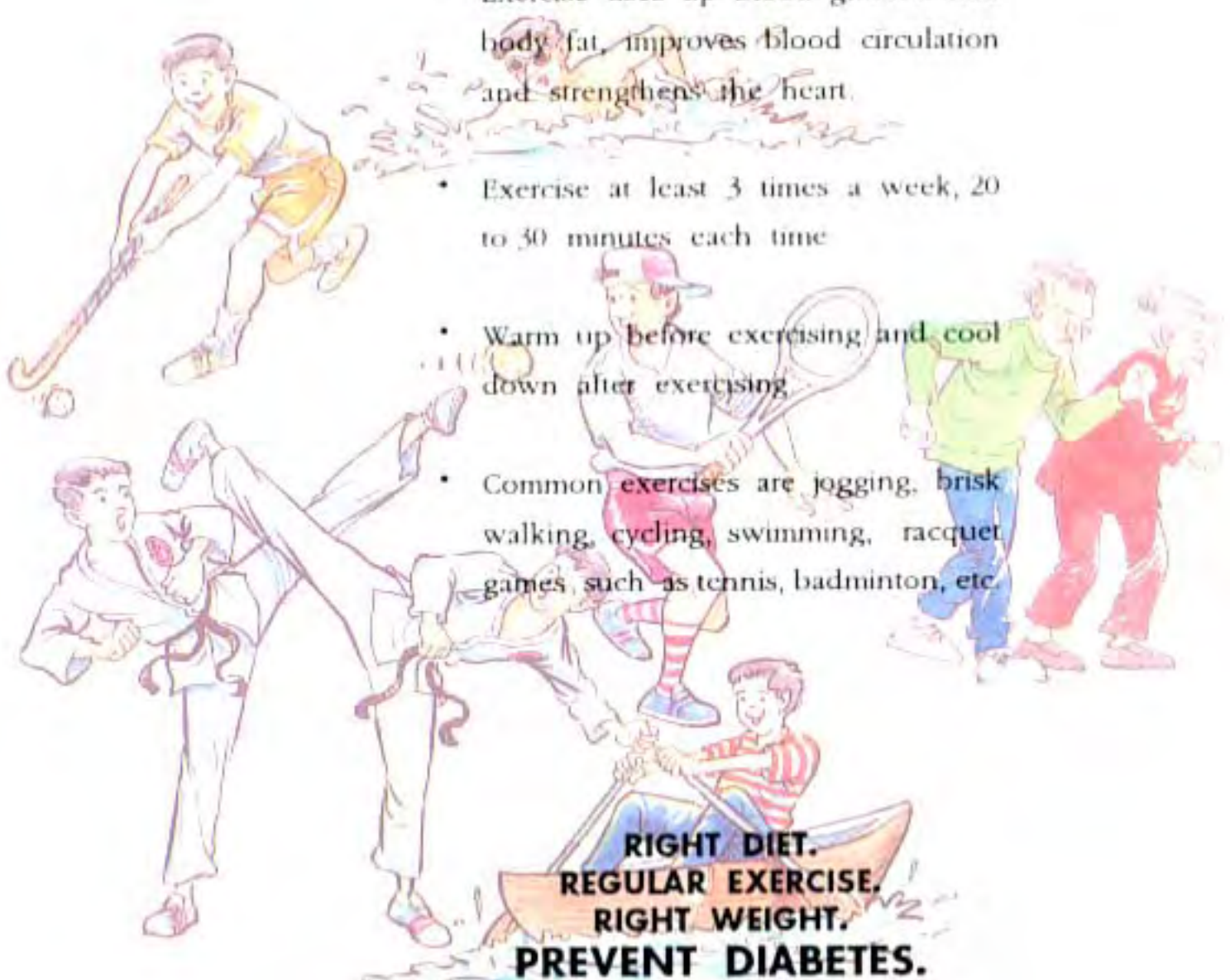
- Eat a wide variety of foods
- Choose daily from a combination of foods which supplies
 - energy eg rice, mee, potatoes, bread
 - proteins eg fish, chicken, meat, eggs, milk, dhal
 - vitamins and minerals eg fruits and vegetables
- Avoid deep fried foods and choose low fat foods



CAN DIABETES BE PREVENTED?

Exercise Regularly

- Exercise uses up blood glucose and body fat, improves blood circulation and strengthens the heart.
- Exercise at least 3 times a week, 20 to 30 minutes each time
- Warm up before exercising and cool down after exercising
- Common exercises are jogging, brisk walking, cycling, swimming, racquet games, such as tennis, badminton, etc.

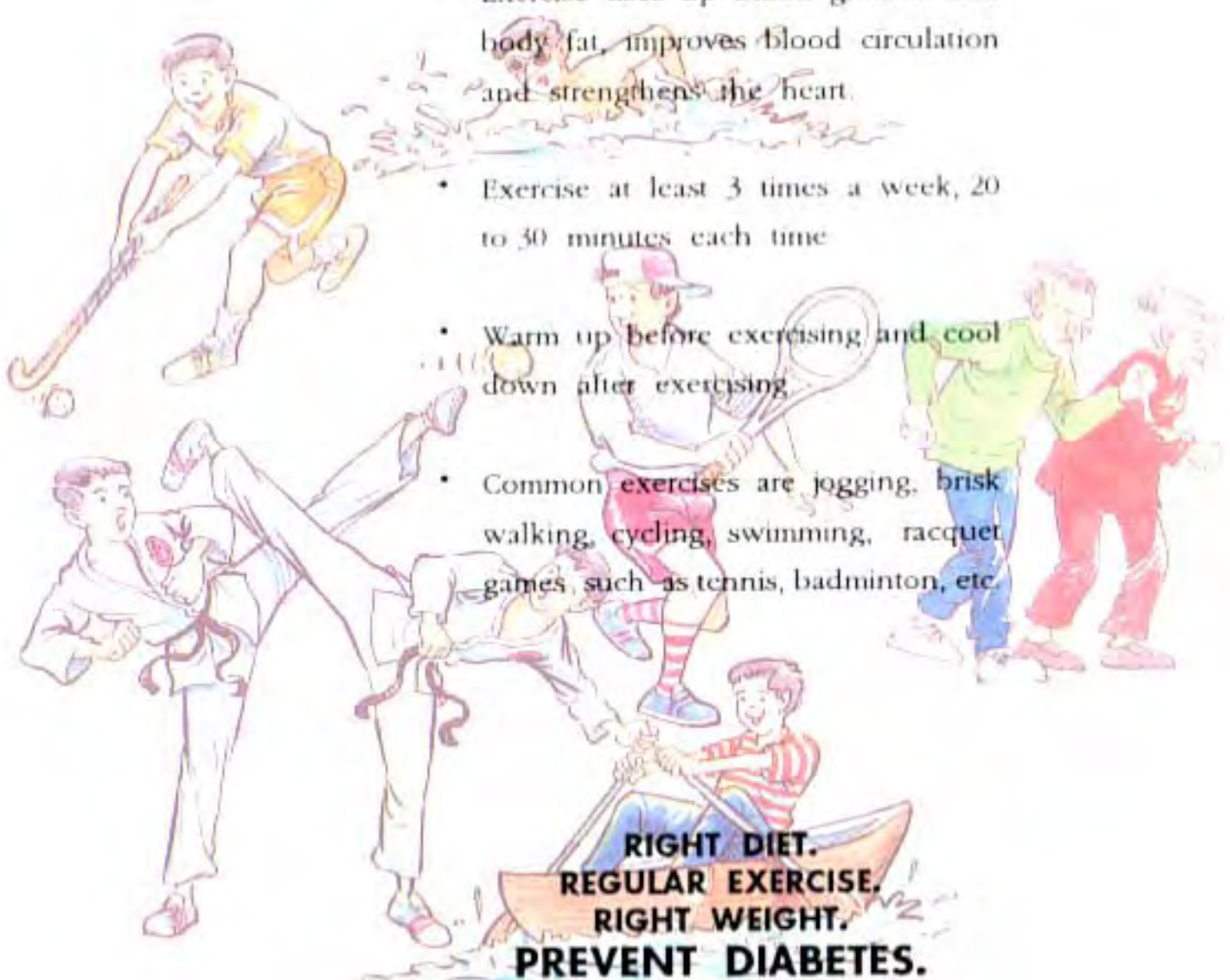


**RIGHT DIET.
REGULAR EXERCISE.
RIGHT WEIGHT.
PREVENT DIABETES.**

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