

WHAT IS DIABETES?

Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. Hyperglycaemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels.

SOURCE: WHO

TEN FACTS ABOUT DIABETES

- 1) There is an emerging global epidemic of diabetes that can be traced back to rapid increases in overweight, obesity and physical inactivity



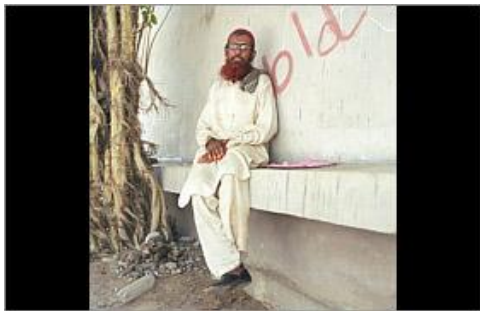
- 2) Total deaths from diabetes are projected to rise by more than 50% in the next 10 years. Most notably, they are projected to increase by over 80% in upper-middle income countries



3) Type 1 diabetes is characterized by a lack of insulin production and type 2 diabetes results from the body's ineffective use of insulin.



4) Type 2 diabetes is much more common than type 1 diabetes, and accounts for around 90% of all diabetes worldwide



5) Reports of type 2 diabetes in children - previously rare - have increased worldwide. In some countries, it accounts for almost half of newly diagnosed cases in children and adolescents.



6) A third type of diabetes is gestational diabetes. This type is characterized by hyperglycaemia, or raised blood sugar, which is first recognized during pregnancy



7) In 2005, 1.1 million people died from diabetes. The full impact is much larger, because although people may live for years with diabetes, their cause of death is often recorded as heart diseases or kidney failure.



8) 80% of diabetes deaths are now occurring in low- and middle-income countries.



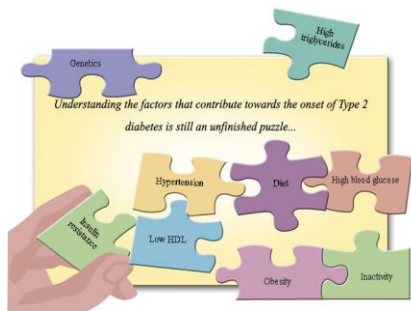
9) Lack of awareness about diabetes, combined with insufficient access to health services, can lead to complications such as blindness, amputation and kidney failure



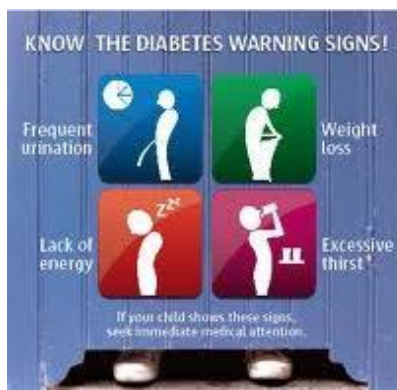
10) Diabetes can be prevented. **Thirty minutes of moderate-intensity physical activity on most days and a healthy diet** can drastically reduce the risk of developing type 2 diabetes.



RISK FACTORS OF DIABETES



WARNING SIGNS OF DIABETES

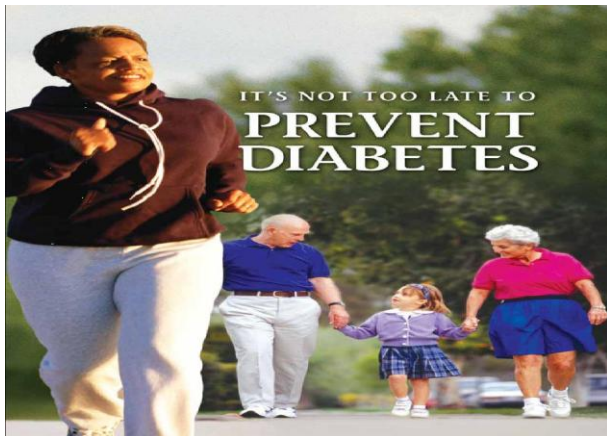


DIAGNOSIS OF DIABETES

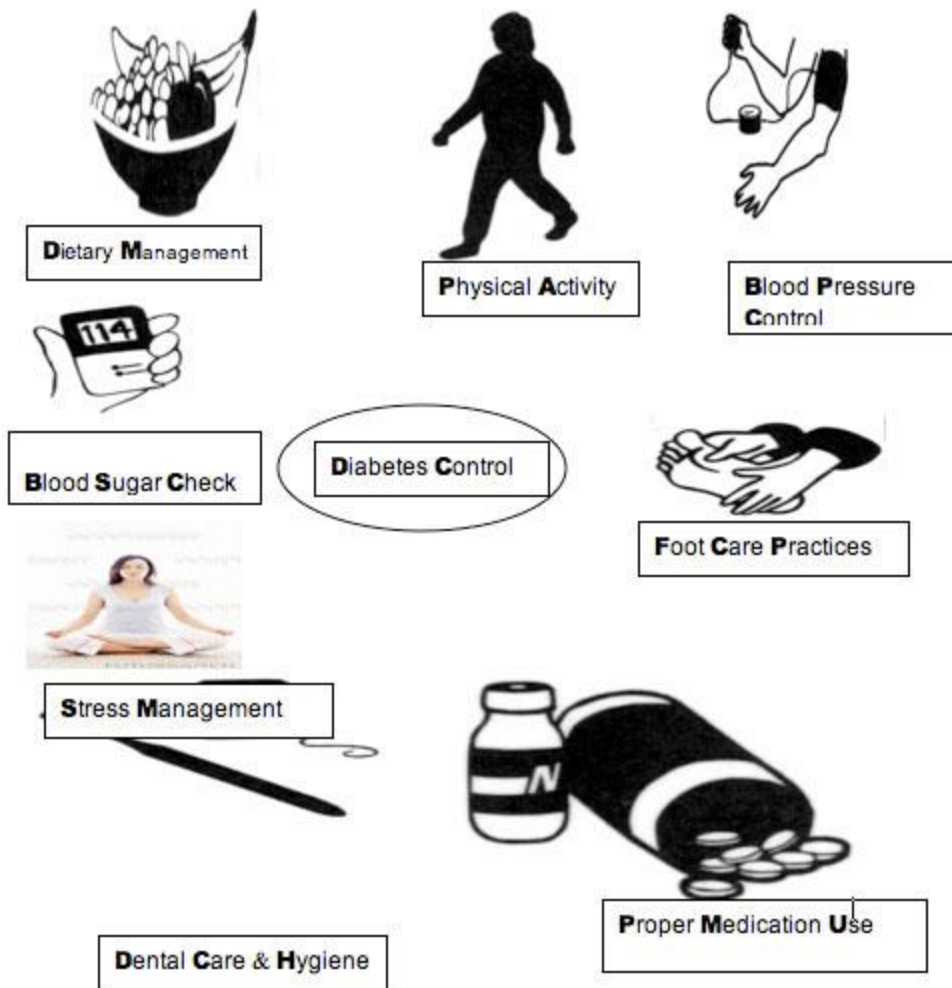
Stage	Test	
	Fasting Plasma Glucose (FPG)	2- Hour Oral Glucose Tolerance Test
Diabetes	≥ 126 mg/dl	≥ 200 mg/dl
Pre-diabetes	≥ 100 and < 126 mg/dl	≥ 140 and < 200 mg/dl
Normal	< 100 mg/dl	< 140 mg/dl

Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Diabetes Care. 2004;27:S5-S10. Glucose Tolerance Test; accessed August 6, 2008 at http://en.wikipedia.org/wiki/Glucose_tolerance_test

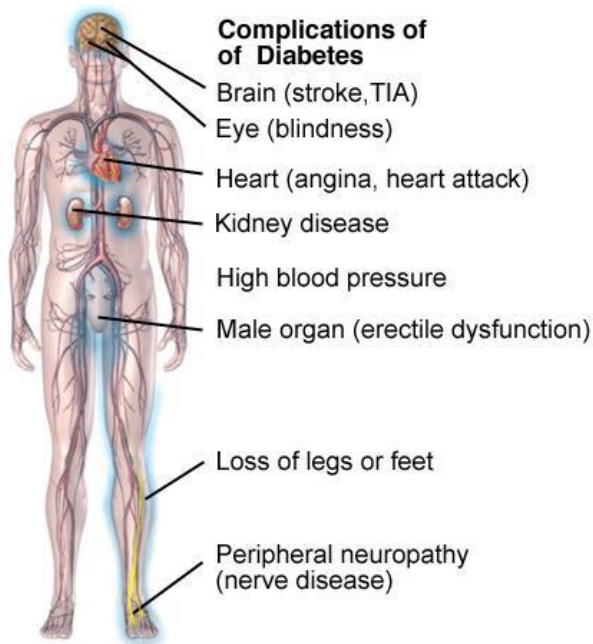
PREVENTION OF DIABETES



MANAGEMENT OF DIABETES



COMPLICATIONS OF DIABETES



EXERCISES

BEFORE STARTING *EXERCISE*

CONSULT YOUR PHYSICIAN

WHAT TO DO?

1) TARGET HEART RATE

WHAT'S YOUR TARGET RANGE?	
INTENSITY	% MAX HEART RATE*
very light	<35
light	35-54
moderate	55-70
hard	71-90
very hard	>90
maximal	100

*maximal heart rate = 220 - age

FIGURING YOUR TARGET RANGE
For a moderately intense (55-70% max) activity level: $[220 - (\text{your age})] \times .55$ to $[220 - (\text{your age})] \times .70$
EXAMPLE
Target heart rate range for 54-year-old doing moderately intense activity: $[220 - 54] \times .55$ to $[220 - 54] \times .70$ 91 to 116 beats per minute

WARM UP AND COOL DOWN

Before

- Include 5 minute warm up
- Check blood sugar



After

- Include 5 minute cool down
- Check blood sugar

BRISK WALKING FOR DIABETES



Walking And Diabetes



Getting out and walking is a great way to shed those extra weight, reduce your risk of type 2 diabetes, and to help you to control your blood sugars.

- Walking helps to improve blood sugar control. It helps the muscles utilize blood glucose and its benefits can last for several hours, even days.
- Walking helps to improve cardiovascular health. This is important because diabetics are at an increased risk of cardiovascular disease.
- Walking helps with weight control. Getting out and walking on a regular basis helps to burn calories which helps to control weight and reduces the risk of other health problems.

Remember to look out the proper fitting shoes for walking. Diabetics are at in increased risk of ulcers on the feet which are prone to infection. Be sure to find a pair of quality, comfortable walking shoes for your walking exercise program



Cycling And Diabetes



Riding a bike is another great way to help to lose weight and manage your blood sugar levels. Cycling is a great cardiovascular exercise that is also a good leg work out.

Cycling is low impact and a perfect exercise for diabetics as you can choose your own pace and difficulty level. If you are new to biking or have not done it in a long time then start with just a ride down the street, or around the block. Work your way up from there.

You will love cycling because it is such a fun work out. You are out in nature, or inside in the comforts of your own home on a stationary bike. Before you know it, you

will be losing those extra pounds and getting yourself back in shape again and doing a much better job of managing your blood sugar.

When choosing a bike, keep in mind where you will be riding, do you need a road bike, a mountain bike, or do you prefer a stationary bike for working out at home.

Rebounding Exercises



Rebounding on a mini-trampoline is one of the best and safest ways to exercise for diabetics.

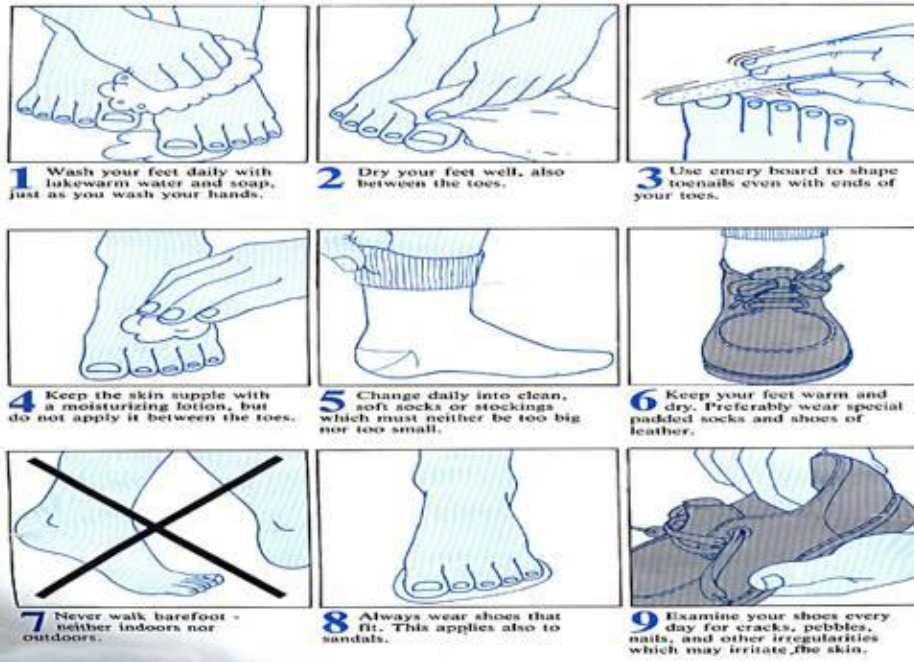
The typical Mini-trampolines are about 3 feet across and 9 inches off the ground. One of the reasons rebounding is so good for you is because of its effects on the lymphatic system of the body. Rebounding is reported to help to increase lymph flow by 15 to 30 times. This means that it is helping to purify the blood and increases circulation throughout the body.

Rebounding can help to significantly reduce the symptoms of diabetes. It is a non strenuous exercise that can be done by nearly anyone and anywhere. Remember to start slow and work your way up to a 30-45 minute session and just watch those blood sugars improve.

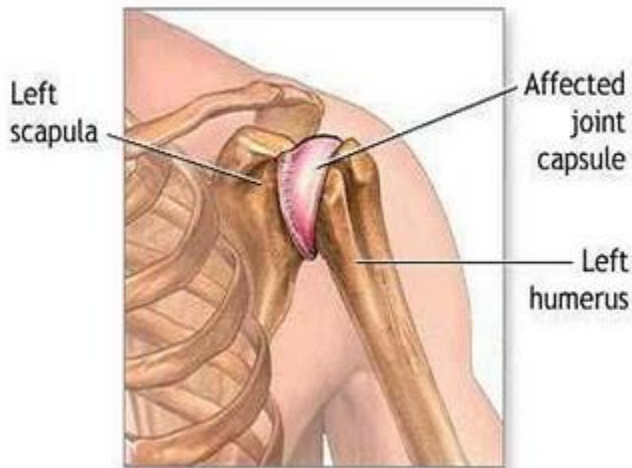
ADVANTAGE AND DISADVANTAGE OF EXERCISES

Benefits	Risks
Improved exercise tolerance	Sudden cardiac death
Improved glucose tolerance	Foot and joint injuries
Improved maximal O ₂ consumption	Hypoglycemia
Increased muscle strength	
Decreased blood pressure	
Decreased body fat	
Increased muscle mass	
Improved lipid profile	
Improved sense of well being	

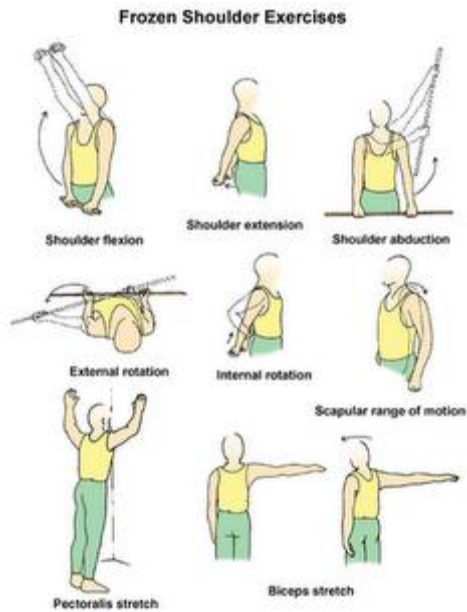
FOOT CARE



SHOULDER PAIN AND DIABETES (FROZEN SHOULDER)



EXERCISES FOR SHOULDER



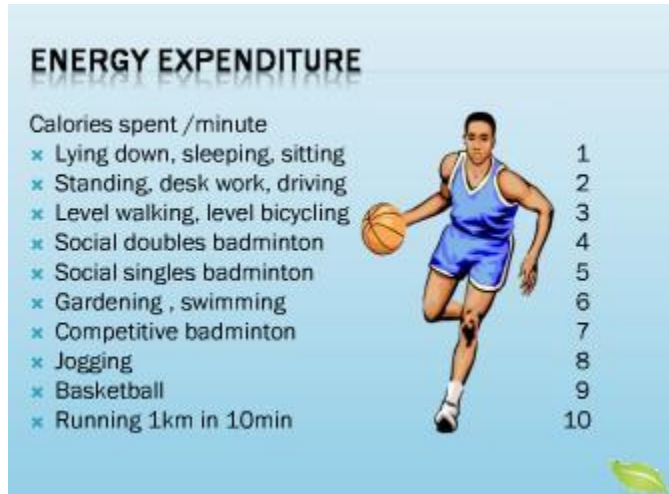
DENTAL AND DIABETES



If acute gum disease in **diabetics** is treated, it can help reduce their blood sugar levels, a study has revealed.

Researchers have found that reducing inflammation of the gums in people with [diabetes](#) can help lower the risk of serious complications associated with the condition, such as eye problems and heart disease.

LIFE STYLE MODIFICATIONS IN DIABETES



Diabetic Diet Meal Plan

DIABETES FOOD PYRAMID

