

## **Diabetes**

#### What is Diabetes?

Diabetes is a chronic condition that occurs when the body cannot produce enough insulin, or use it effectively. Insulin is a hormone produced by the pancreas that allows glucose from food to enter the body's cells, where it is converted into energy which is needed by muscles and tissues to function. As a result, a person with diabetes does not absorb glucose properly, and glucose stays circulating in the blood and reaches high concentrations (hyperglycaemia), and this damages tissues and organs over time, even leading to life-threatening health complications.

#### **Types of Diabetes**

There are two main types of diabetes:

Type 1 diabetes – Insulin dependent diabetes

Type 2 diabetes - Non-insulin dependent diabetes

#### Type I Diabetes

Type 1 diabetes occurs when the insulin cells in the pancreas are destroyed. As a result the body can no longer produce the insulin it needs. It is still unclear why this happens. The onset of type 1 diabetes usually develops in children and young adults. People with this form of diabetes are dependent on the use of daily insulin injections to control their blood glucose levels. Without insulin, serious complications and death will result.

#### Type 2 Diabetes

Type 2 diabetes is the most common type of diabetes. It usually occurs in adults, but is increasingly seen in children and adolescents. In type 2 diabetes, the body is able to produce insulin, but it is either not sufficient or the body is not responding to its effects. This leads to a build-up of glucose in the blood.

#### **Signs and Symptoms of Diabetes**

Abnormal thirst and dry mouth; frequent urination; extreme tiredness/lack of energy; constant hunger; sudden weight loss; slow-healing wounds; recurrent infections; blurred vision.

#### **Complications of Diabetes**

Deteriorating vision; foot ulcers; sexual impotence; skin infections; increased risk of heart attacks and strokes.

#### **Prolonged Complications**

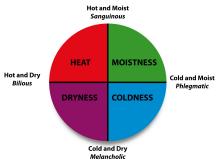
Kidney damage (nephropathy); nerve damage (neuropathy); blindness (retinopathy); amputations.

#### What Causes Type 2 Diabetes?

Risk factors for developing type 2 diabetes include being overweight or obese; a lack of regular physical activity; unwisely food choices (eating too much carbohydrate rich foods, for example); and a genetic predisposition. These risk factors increase **moistness** in the body.

#### The Tibb View on Type 2 Diabetes

Diabetes is linked to qualities of **moistness**. Heat is needed for the pancreas to function well. Excessive moistness dampens heat and results in insufficient production of insulin. Excessive moistness may also affect the tissue cells' sensitivity to insulin, resulting in increased levels of glucose circulating in the blood stream. Individuals with a **sanguinous** dominant/sub-dominant temperament are most likely to develop diabetes. This is due to the innate qualities of **moistness** associated with this temperamental type and



their predisposition to overeating. A person with a sanguinous/phlegmatic temperament is at even greater risk of developing diabetes, due to the dominance of moistness in this combination type.

#### **Management of Type 2 Diabetes**

Treatment and management is aimed at **reducing the excess moistness** associated with diabetes, by implementing Tibb Lifestyle Factors that will **increase the qualities of heat and dryness**. Lifestyle advice includes decreasing the intake of carbohydrate-rich foods and increasing levels of physical activity. This will decrease the level of moistness produced in the body and increase heat, which is needed for the proper functioning of the pancreas. This assists Physis in addressing both the symptoms and the causes of type 2 diabetes.

### Tibb Lifestyle Factors

#### Food and Drink

- Eat mostly Hot & Dry foods such as bittergourd, avocado, chickpeas, fenugreek and cinnamon, followed by Cold & Dry foods - like beef, fish, cauliflower and mushrooms.
- Eat less of Cold & Moist foods such as carrots, pumpkin, rice and butternut, and the least amount of Hot & Moist foods like bread, pasta, bananas and wheat cereals.
- Avoid hydrogenated fats, high-glycaemic, refined, processed or refrigerated foods.
- Avoid alcohol and tobacco.
- Avoid salty and sweet foods and drinks.
- Avoid fried, sugary and oily foods.
- Avoid refined sugar and fizzy drinks.
- Avoid icy and cold foods.
- Avoid high-glycaemic foods such as white rice, white flour products, starchy vegetables and many processed foods.
- Avoid eating carbohydrates like rice, bread or pasta, especially late in the date. Vegetables are acceptable.
- Eat 5 small meals per day instead of a few larger meals, especially supper. This should consist of three main meals and two snacks in between.
- Boiled/steamed/grilled steak, chicken or fish should be preferred;
- Increasing the intake of dietary fibre helps to reduce surges in blood sugar levels.
- For snacks eat fruit, vegetables or yogurt. Biltong and popcorn are also acceptable, but portion sizes should be small.
- Low carbohydrate foods such as cabbage, green beans, cauliflower leafy greens, beans, mushrooms and oranges should be included in the diet.
- Foods such as berries, eggs, fish, garlic, kelp, and most vegetables help stabilize the blood glucose levels.
- Vegetarian food should replace meats once weekly with vegetable sources of proteins such as legumes. Nuts and seeds (sesame flax and sunflower) in the diet should be increased.
- Minimize liquid intake during a meal. Drink water (preferably warm) 30 minutes before and 30 minutes after eating.
- Drink fresh vegetable juice instead of fruit juices.

#### Other Lifestyle Advice

- Exercise has an insulin-like effect on the body. Start with 10 minutes per day of cardiovascular exercises such as walking, running, cycling, or swimming. Gradually build up to 45-60 minutes at least three times a week;
- Foot hygiene: to avoid foot ulcers keep feet dry, and massage regularly with heating oils;
- Avoid emotional stress through breathing exercises, counseling and other appropriate measures.

#### **Herbal Remedies**

- Regular use of cinnamon (1 tsp daily added to food), cloves, and turmeric helps the body use insulin more effectively.
- Add a handful of stinging nettle to a litre of boiling water. Cover overnight. Strain and drink throughout the day.
- 100 grams each: ajmo/carrom seeds, fenugreek seeds, dried bitter gourd and 250ml bitter gourd juice. Mix the juice with the powder and pour it into a tray. Place the tray in a warm, dry and well ventilated place until completely dry. Use 500-1000mg 3 times a day of the powder. For children, reduce the dose by half.

## **Cold & Dry Foods**

Meats	Vegetables	Fruits	Nuts	Grains & Seeds	Dairy Products	Oils	Spices & Herbs	Drinks	Flavourants	Condiments & Spreads	Confectionary & Desserts	Cereals	Dishes
beef	brussel sprouts	(all sour fruits)	peanuts	barley	sour cream	coconut oil	basil	coffee		balsamic		cornflakes	sour dishes
biltong (beef)	cabbage	green apples		beans(all types)	egg white	corn oil	tamarind	ice		vinegar		maltabella	
crabs	cauliflower	cherries, coconut		corn	sour milk	sesame oil		sour fruit juices		peanut butter		mielie meal	
fish	eggplant	china/dry fruit		couscous	yoghurt			tea (black)		pickles		millet	
knuckles	green beans	granadilla		lentils						tomato sauce			
mussels	mushrooms	grape fruit		maize						worcestershire			
ostrich	peas	lemon, lime		mielies						sauce			
oysters	potatoes	naartjies, oranges		popcorn						vinegar			
pork	sauerkraut	pineapple,plums		poppy seeds									
snails	tomatoes	prunes, pomegranate		samp									
snoek		raspberries		sesame seeds									
tripe		strawberries											
tuna		sultanas											

### **Cold & Moist Foods**

Meats	Vegetables	Fruits	Nuts	Grains & Seeds	Dairy Products	Oils	Spices & Herbs	Drinks	Flavourants	Condiments & Spreads	Confectionary & Desserts	Cereals	Dishes
duck	beetroot	apricot	macadamia	cucumber seeds	coconut milk		cardamom	milk shakes	fructose		custard	pronutro	
rabbit	baby marrow	cranberries		linseed	cow's milk		coriander	rooibos	glucose		ice cream	rice crispies	
	butternut	figs		melon seeds	goats milk		cumin	sugar cane	rose syrup		sago		
	broccoli, carrots	kiwi fruit		pumpkin seeds	buttermilk		vanilla	juice		1			
	cucumber	litchis, melons		rice cakes	butter			water					
	squash	mulberries		rice	margarine								
	lady fingers (okra)	pawpaw, pears		semolina	rice milk								
	lettuce	prickly pears			soya milk								
	pumpkin	quince											
	radish, sprouts	spanspek											
	soya beans	sweet apples											
	tofu												
	zucchini												

# **Hot & Dry Foods**

Meats	Vegetables	Fruits	Nuts	Grains & Seeds	Dairy Products	Oils	Spices & Herbs	Drinks	Flavourants	Condiments & Spreads	Confectionary & Desserts	Cereals	Dishes
all small bird	bitter gourd	avocado	cashews	celery seeds	eggs	mustard oil	aniseed	alcohol	pungent and	chilli sauce			spicy dishes
meat	celery	grapes	hazel nuts	chickpeas			cinnamon	grape juice	bitter	mustard sauce			
chicken	green pepper		pecan nuts	fenugreek seeds			cloves, garlic	herbal teas	flavourants	peri-peri			
lobsters	leek		walnuts	gram flour			green/red chilli	(see herbs)		sauce			
mackerel	onion			mustard seeds			fenugreek						
oily fish	red pepper			papad			lavender						
pilchards	yellow pepper						nutmeg						
prawns							oregano						
sardines							paprika						
							parsley						
							rocket, rosemary						
							saffron						
							tarragon						

### **Hot & Moist Foods**

Meats	Vegetables	Fruits	Nuts	Grains & Seeds	Dairy Products	Oils	Spices & Herbs	Drinks	Flavourants	Condiments & Spreads	Confectionary & Desserts	Cereals	Dishes
buck	artichokes	bananas	almonds	bread	clarified butter	castor oil	bay leaves	green tea	honey	mayonnaise	biscuits	all bran flakes	sweet dishes
goat	asparagus	dates	brazil nuts	bulgar wheat	condensed milk	olive oil	black pepper	hot water	molasses		cakes	bran	
goose	olives	guavas	pistachios	flour	cheese	sunflower oil	cayenne pepper	juices	salt		chocolate	honey smaks	
lamb	spinach	mangoes	apricot kernels	pasta	cream cheese		chives	(see fruits)	sugar		liquorice	muesli	
liver	spring onion	peaches		rye bread	mother's milk		ginger, fennel	herbal teas			vermicelli	nutri-k	
mutton	sweet potato	papaya		sunflower seeds	(for babies)		green masala	(see herbs)				nutrific	
turkey	turnips			wheat	fresh cream		marjoram					oats	
				macaroni			mint, sage					puffed wheat	
				dill seeds			soya sauce					taystee wheat	
							thyme,turmeric					weetbix	
							watercress						
							white pepper						