

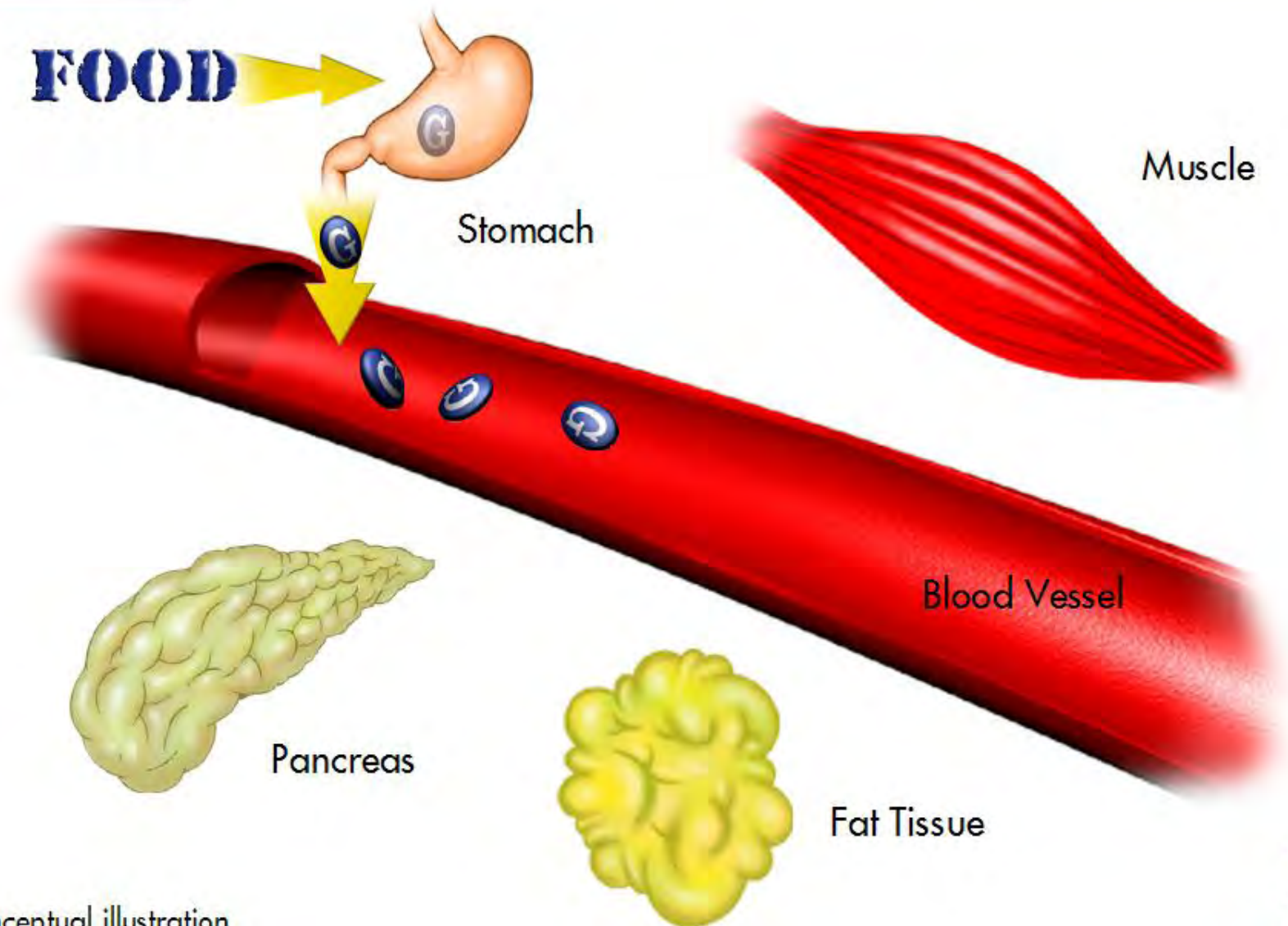
What is Type 2 Diabetes?



What is diabetes?

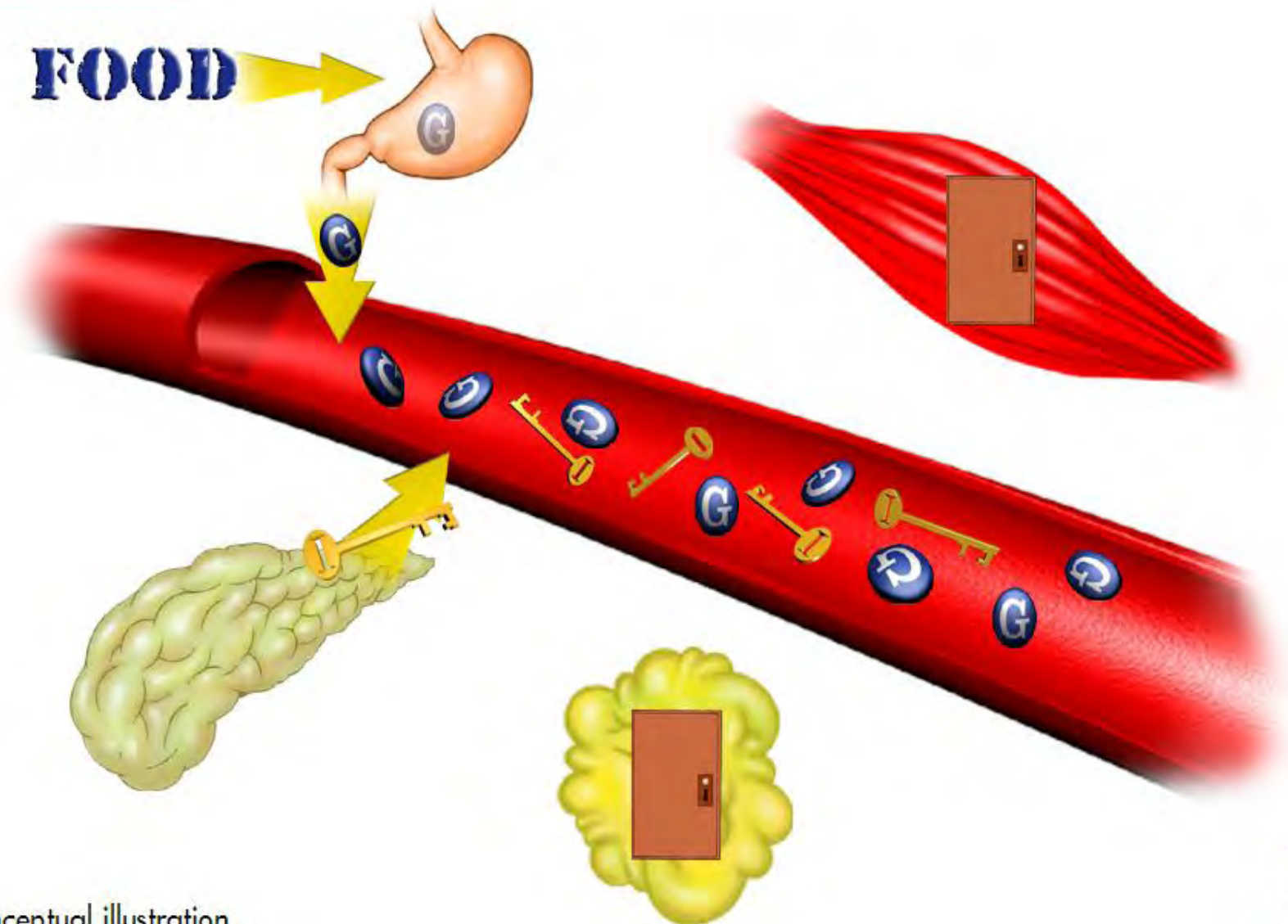
Diabetes is a disease that occurs when your body cannot produce enough insulin and cannot use insulin well enough to control the amount of glucose (sugar) in your blood. The result is too much glucose in your blood.

Food breaks down into glucose



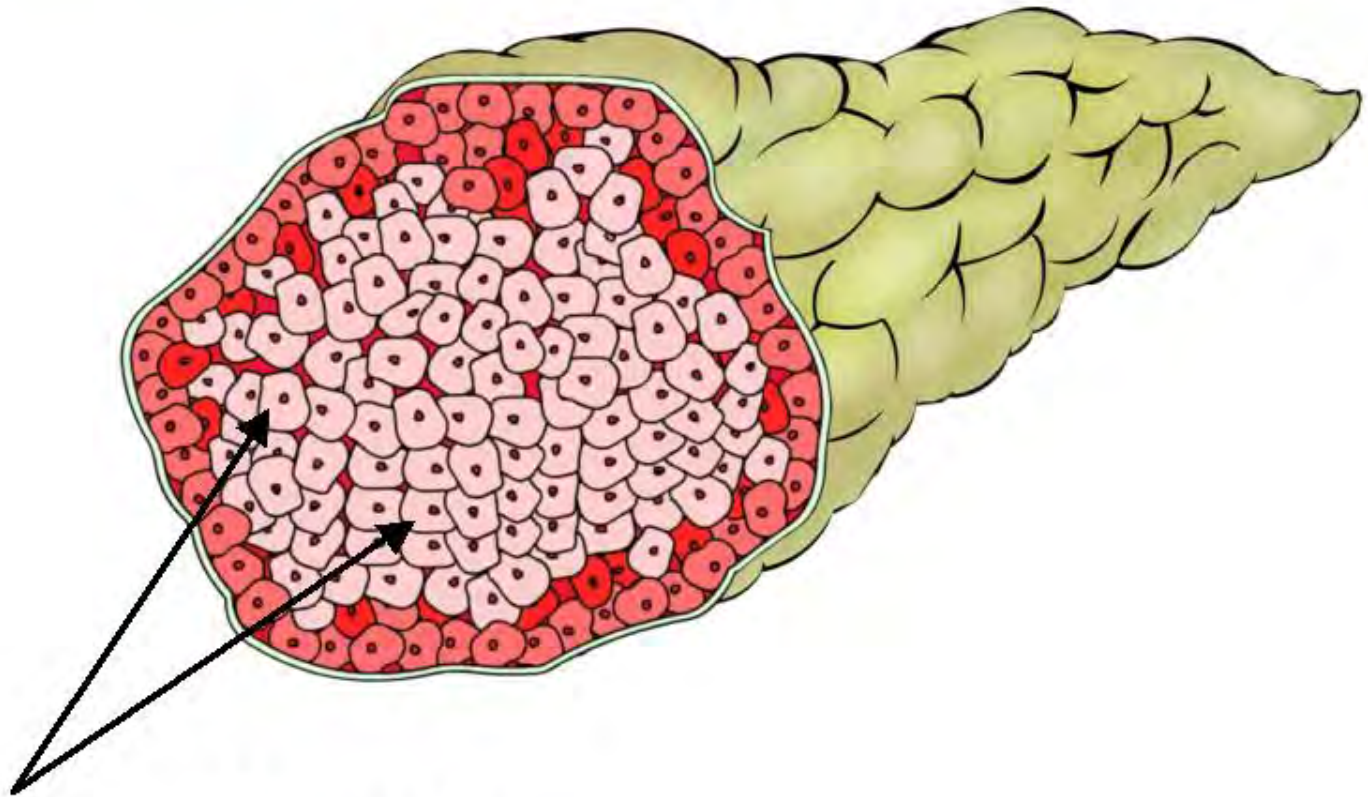
Conceptual illustration

Insulin is released from the pancreas



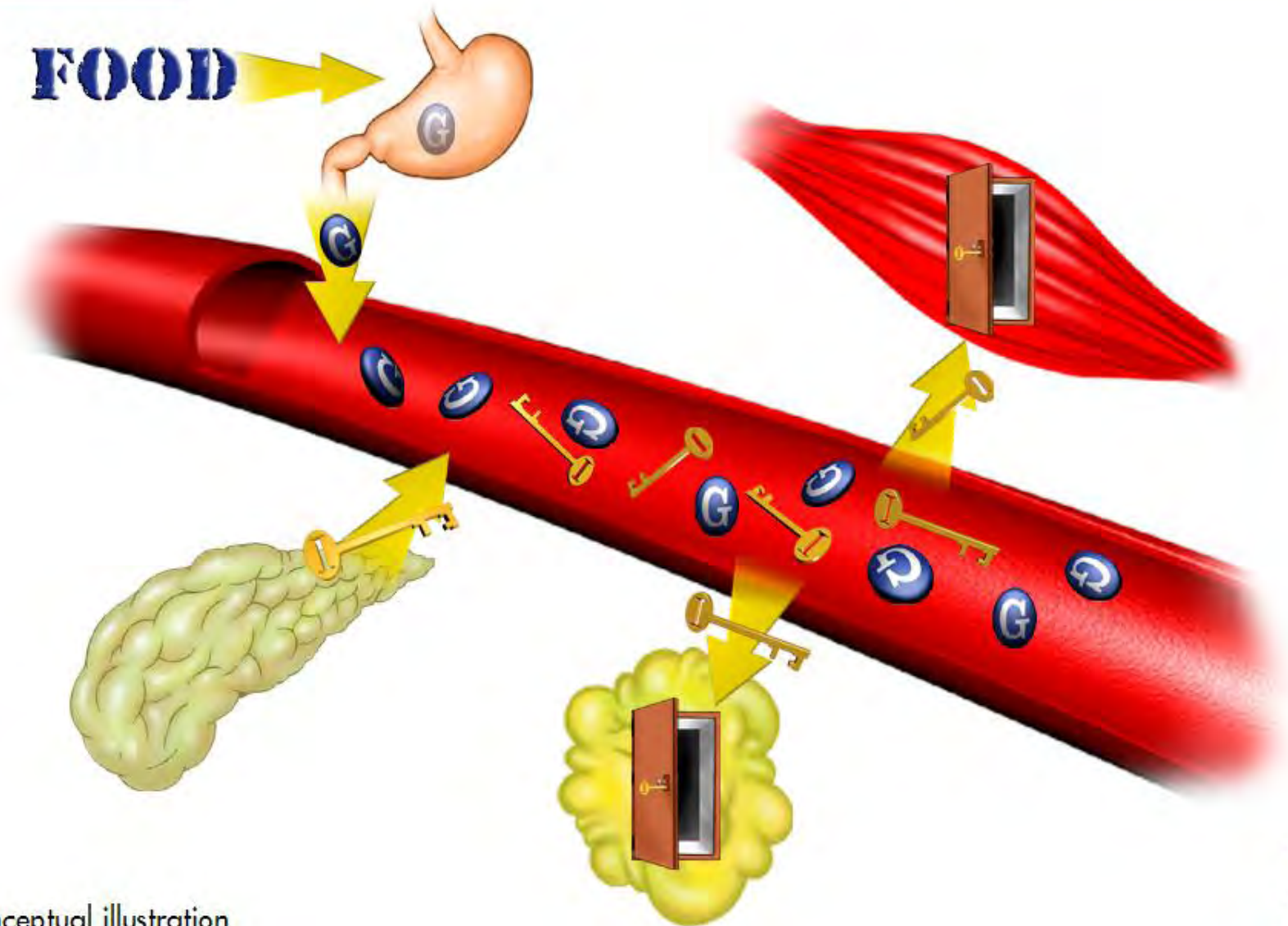
Conceptual illustration

Pancreatic beta cells make insulin



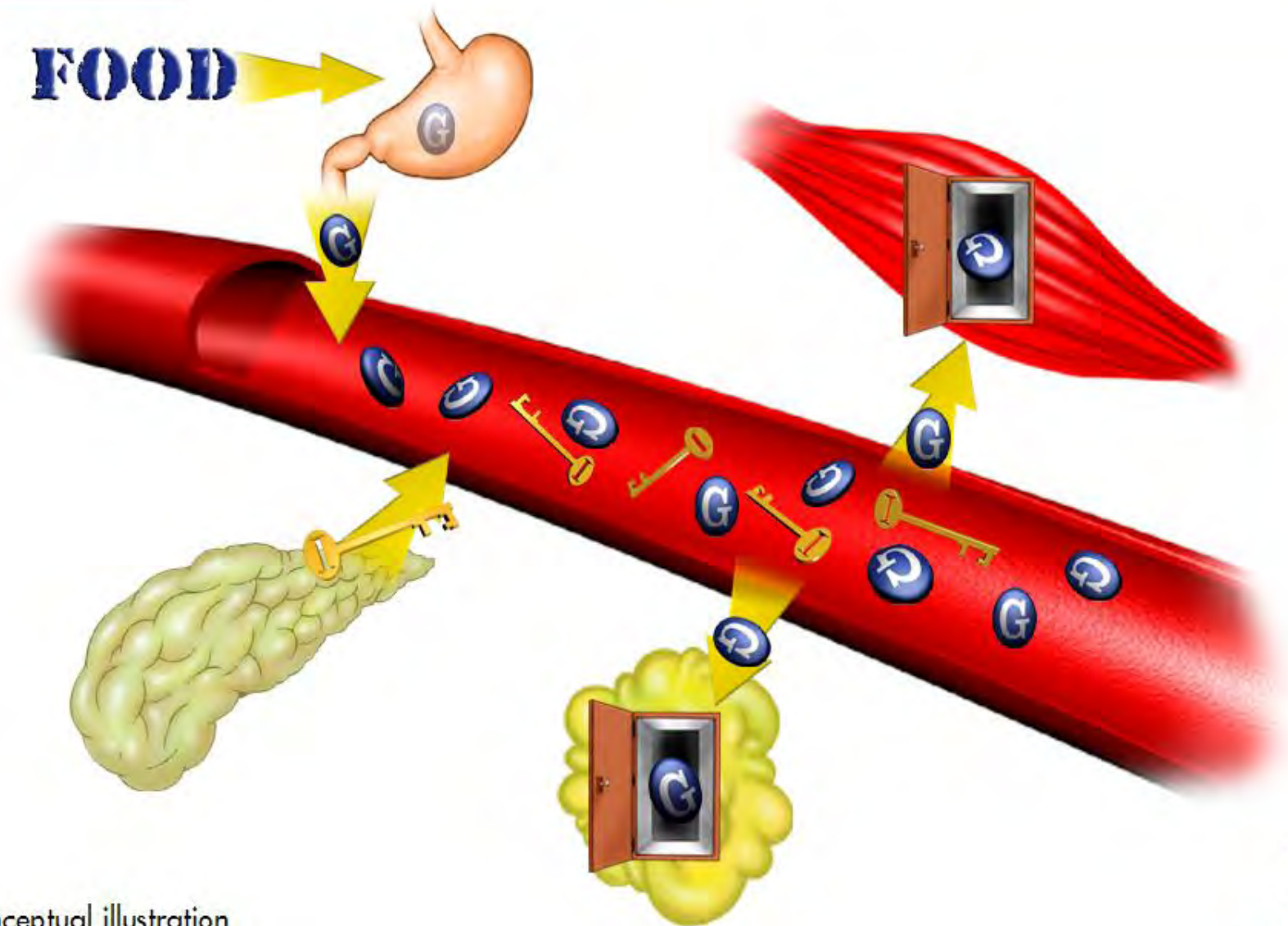
Special cells, called beta cells,
are responsible for making insulin

Insulin allows glucose to enter cells



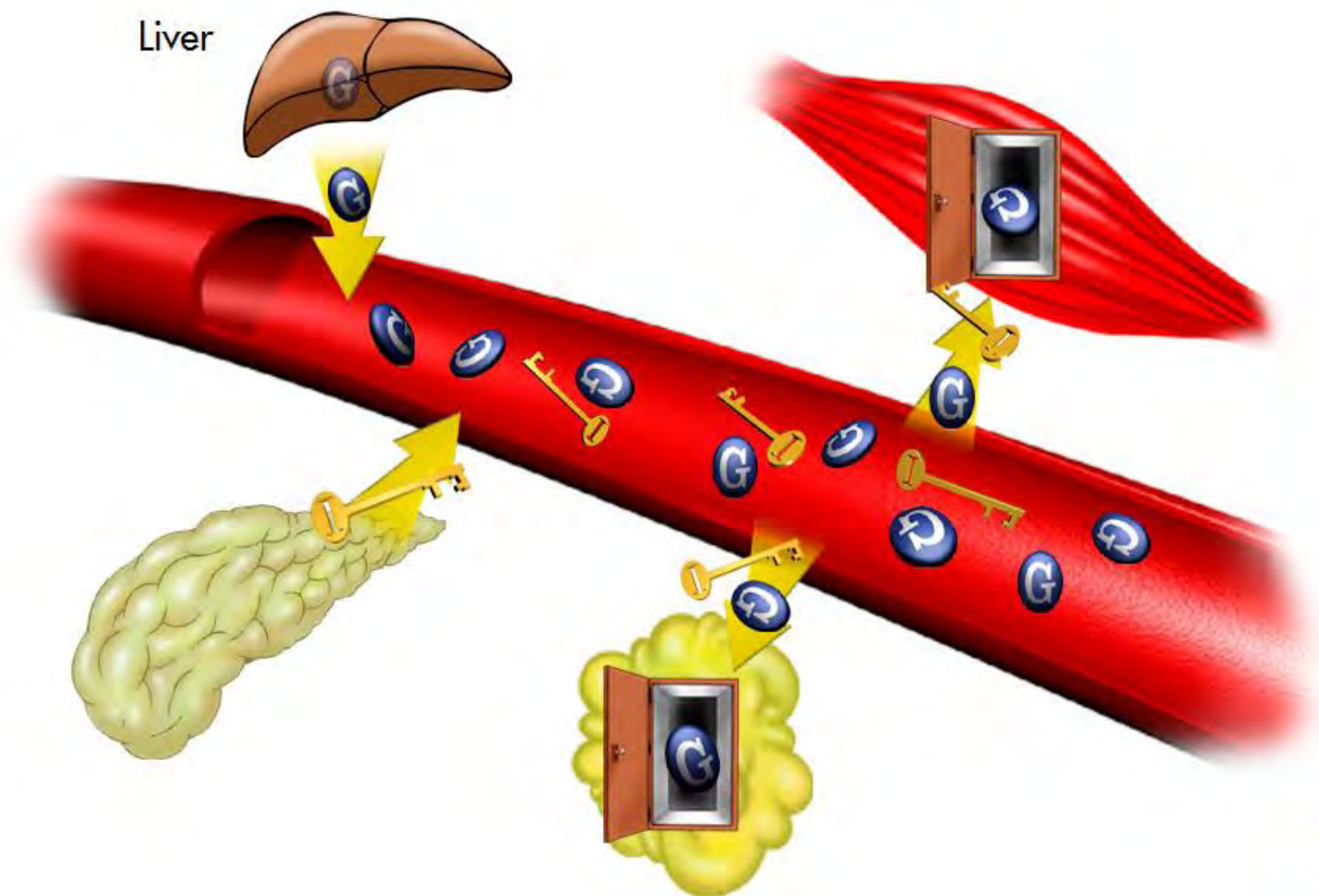
Conceptual illustration

Glucose is used by the cells for energy



Conceptual illustration

When you are not eating the liver makes glucose



The 3 major types of diabetes

	Cause	How Common?
Type 1	Immune system mistakenly destroys the insulin-producing cells in the pancreas.	Less than 10% of people with diabetes
Type 2	Insulin resistance and decreased insulin production.	More than 90% of people with diabetes
Gestational	Insulin resistance caused by pregnancy. Increases risk for type 2 diabetes.	3-5% of pregnancies

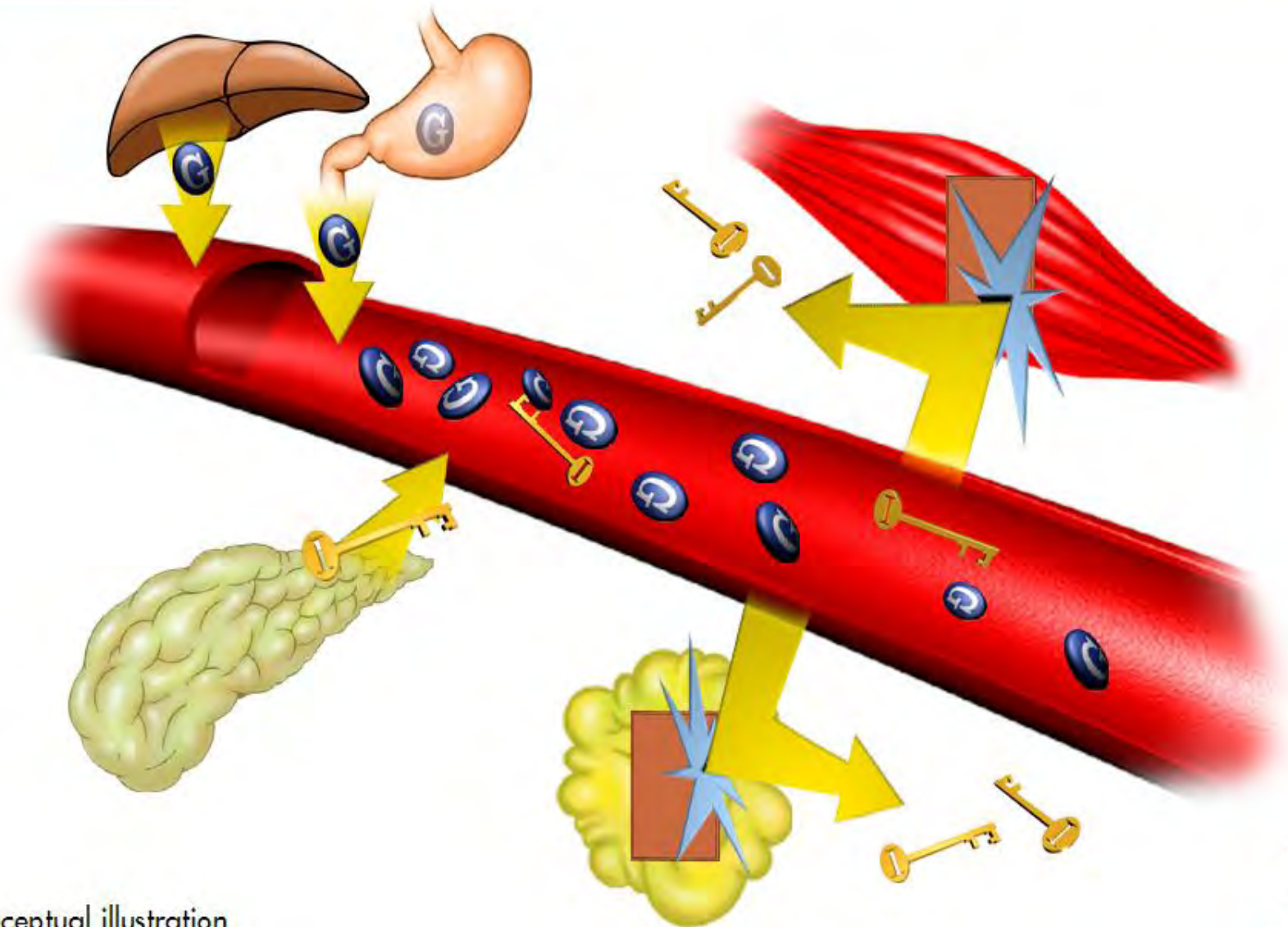
Diagnosing diabetes

		Fasting (mg/dL)	OGTT (mg/dL)
Normal		Less than 100	Less than 140
Diabetes Mellitus		126 or higher	Greater than 200
Pre-Diabetes	Impaired Fasting Glucose	100 to 125	n/a
	Impaired Glucose Tolerance	n/a	140 to 200

Insulin resistance and type 2 diabetes

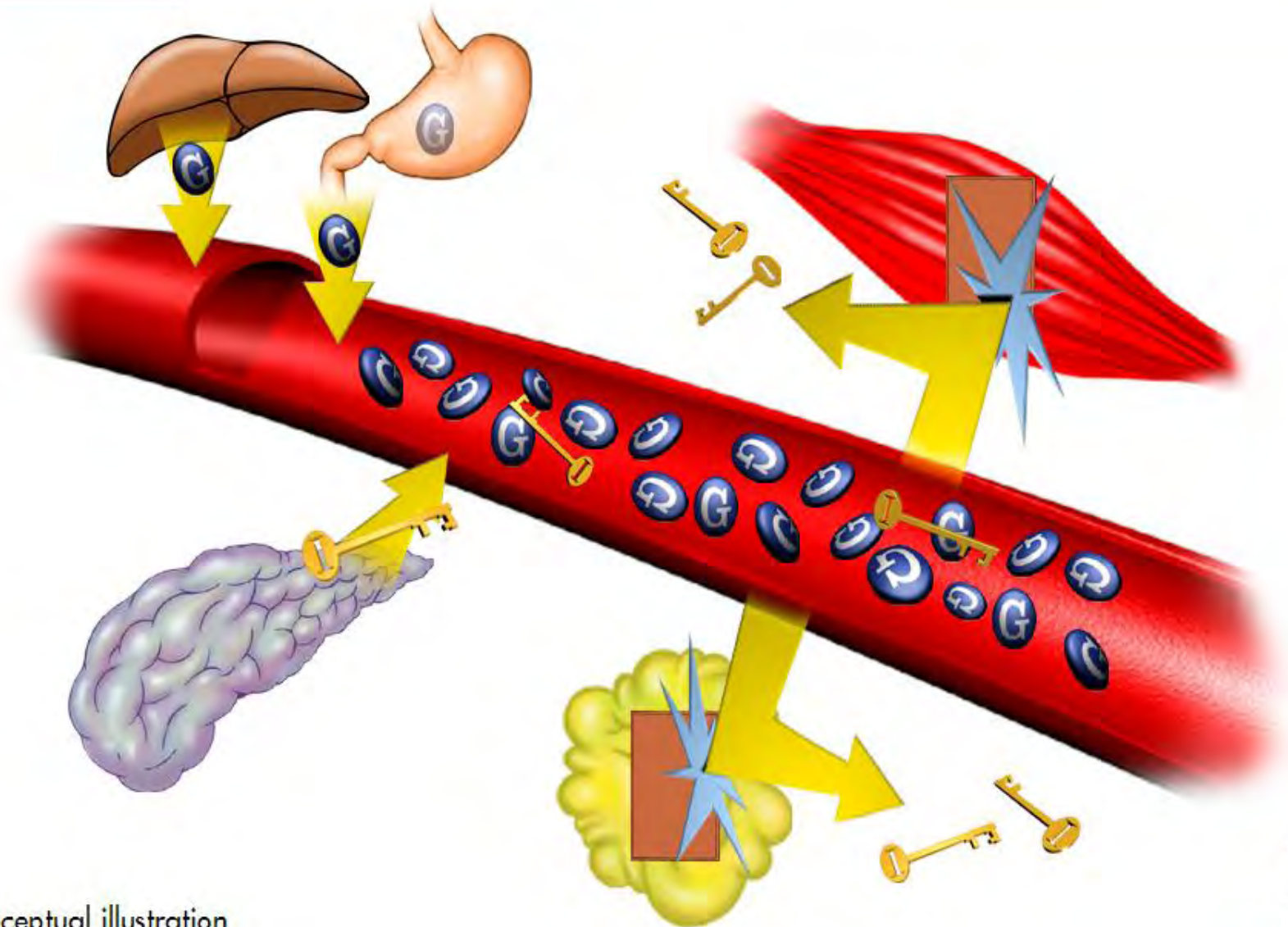
Insulin resistance can lead to pre-diabetes and type 2 diabetes

Insulin resistance: Cells "resist" insulin action



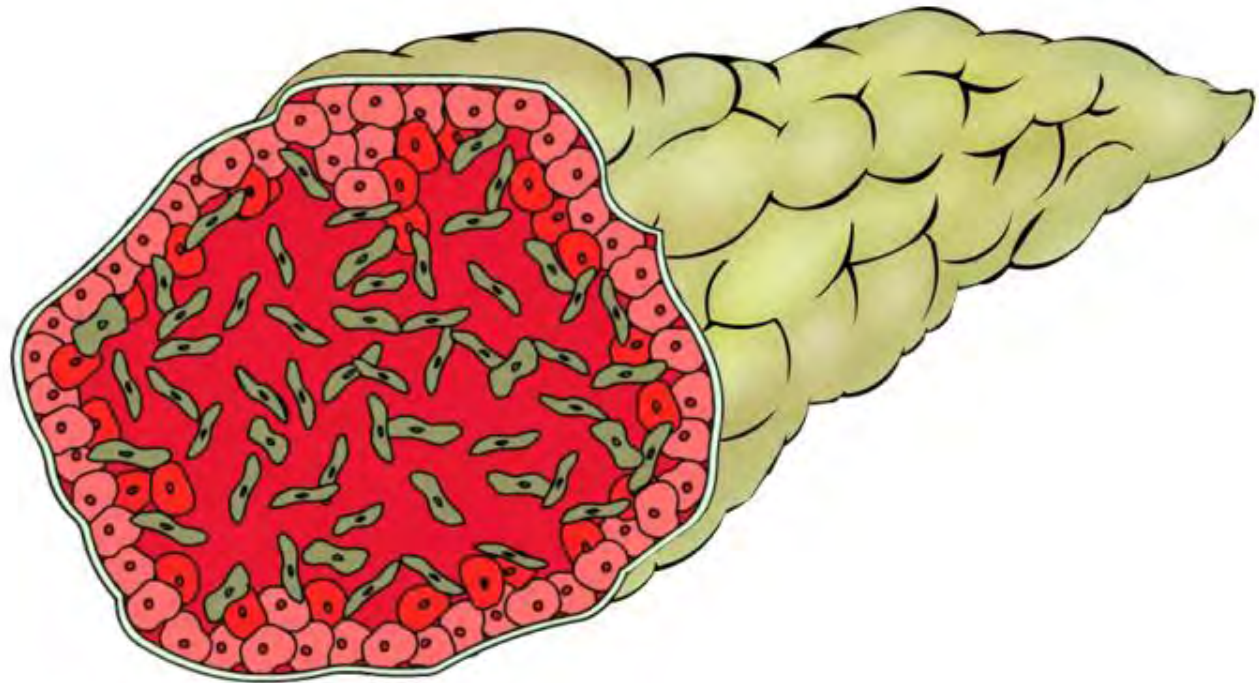
Conceptual illustration

Glucose levels build up in the blood



Conceptual illustration

Beta cells can't make enough insulin



Conceptual illustration

Overweight leads to insulin resistance and type 2 diabetes



Insulin resistance risk factors

Fasting Blood Glucose Level	110 mg/dL or more
Waist Circumference	Greater than 40 inches for men
	Greater than 35 inches for women
HDL Cholesterol	Less than 40 for men
	Less than 50 for women
Blood Pressure	130/85 mmHg or more
Triglycerides	150 mg/dL or more

Symptoms of type 2 diabetes

Feeling Tired



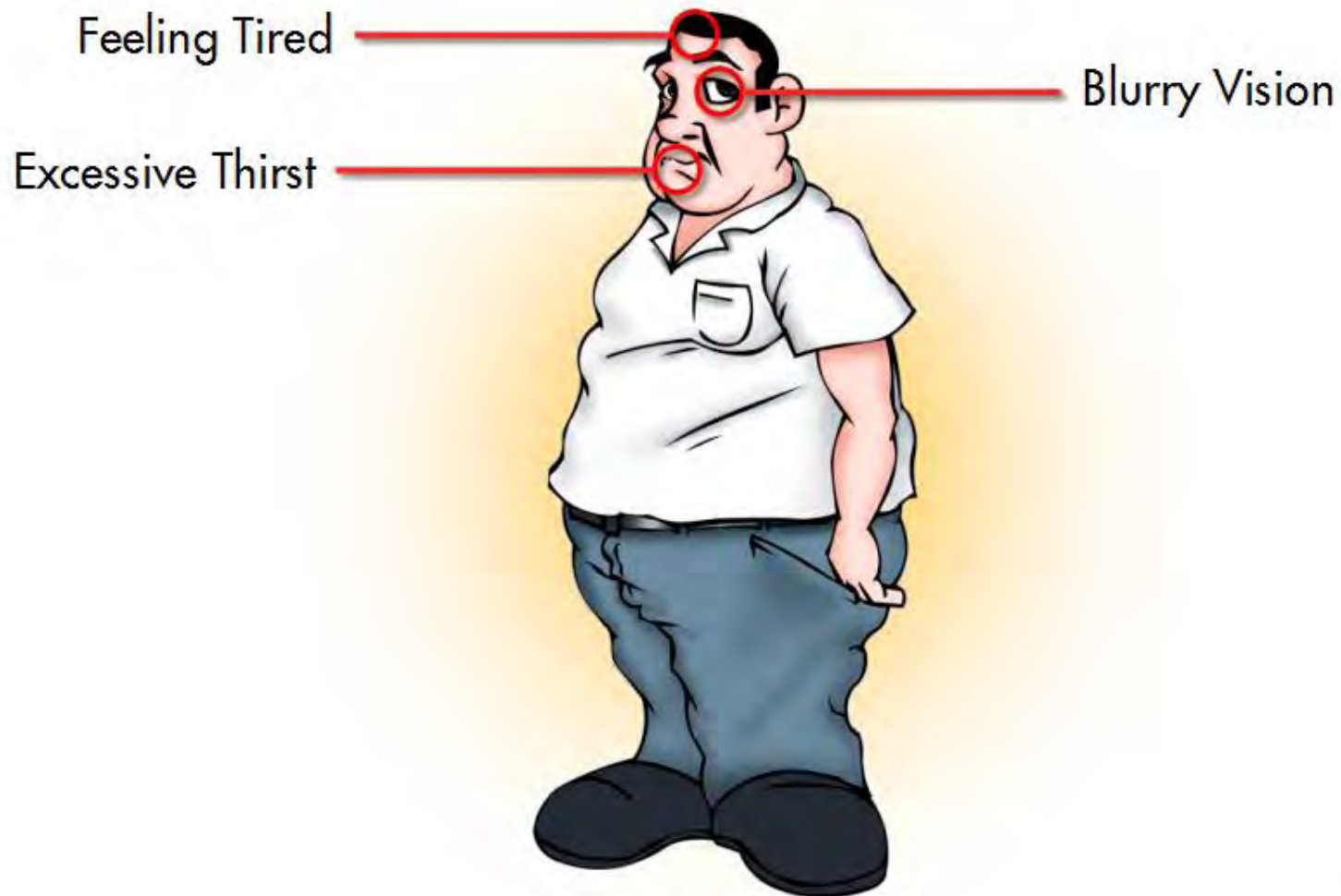
Symptoms of type 2 diabetes

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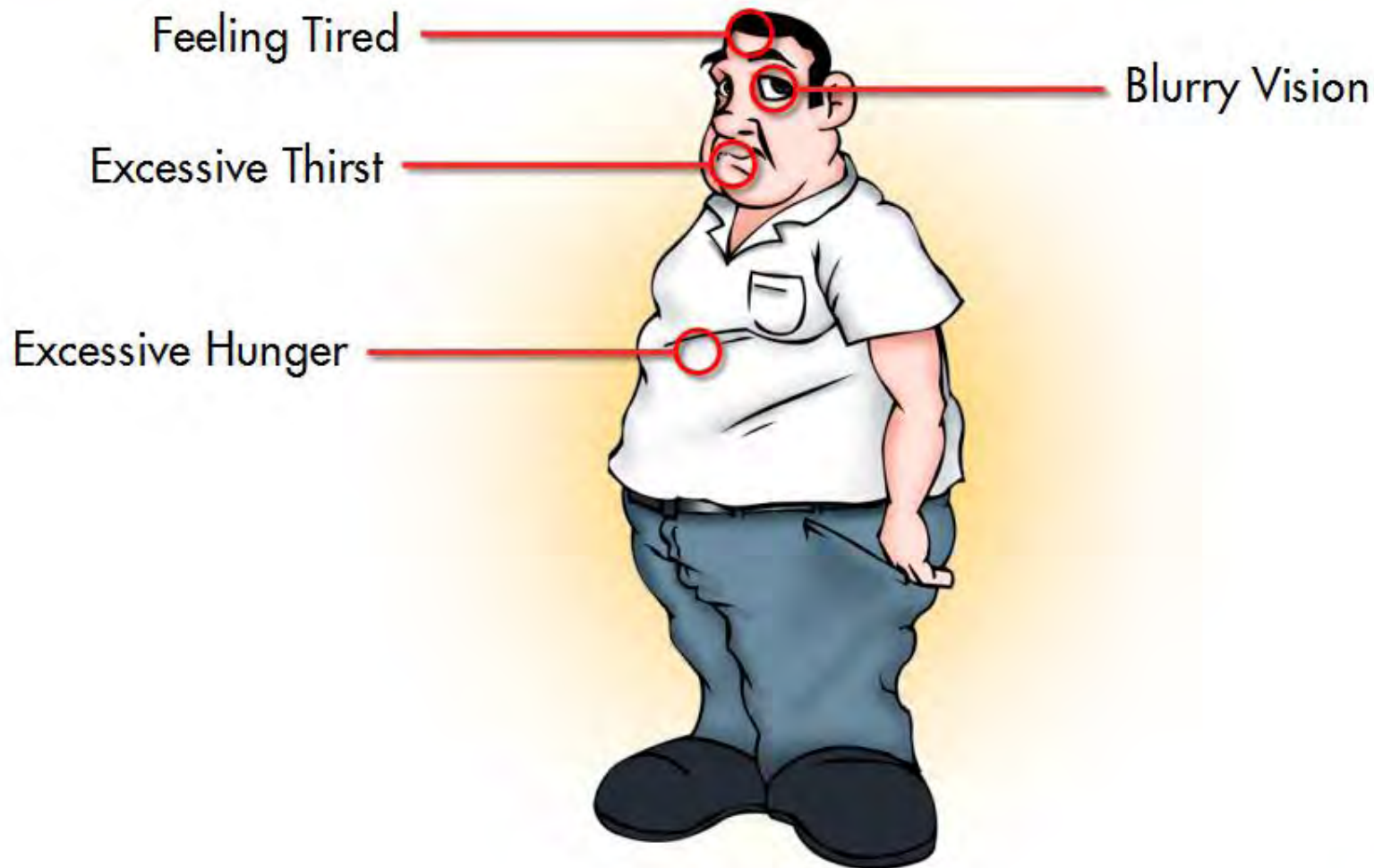
Blurry Vision



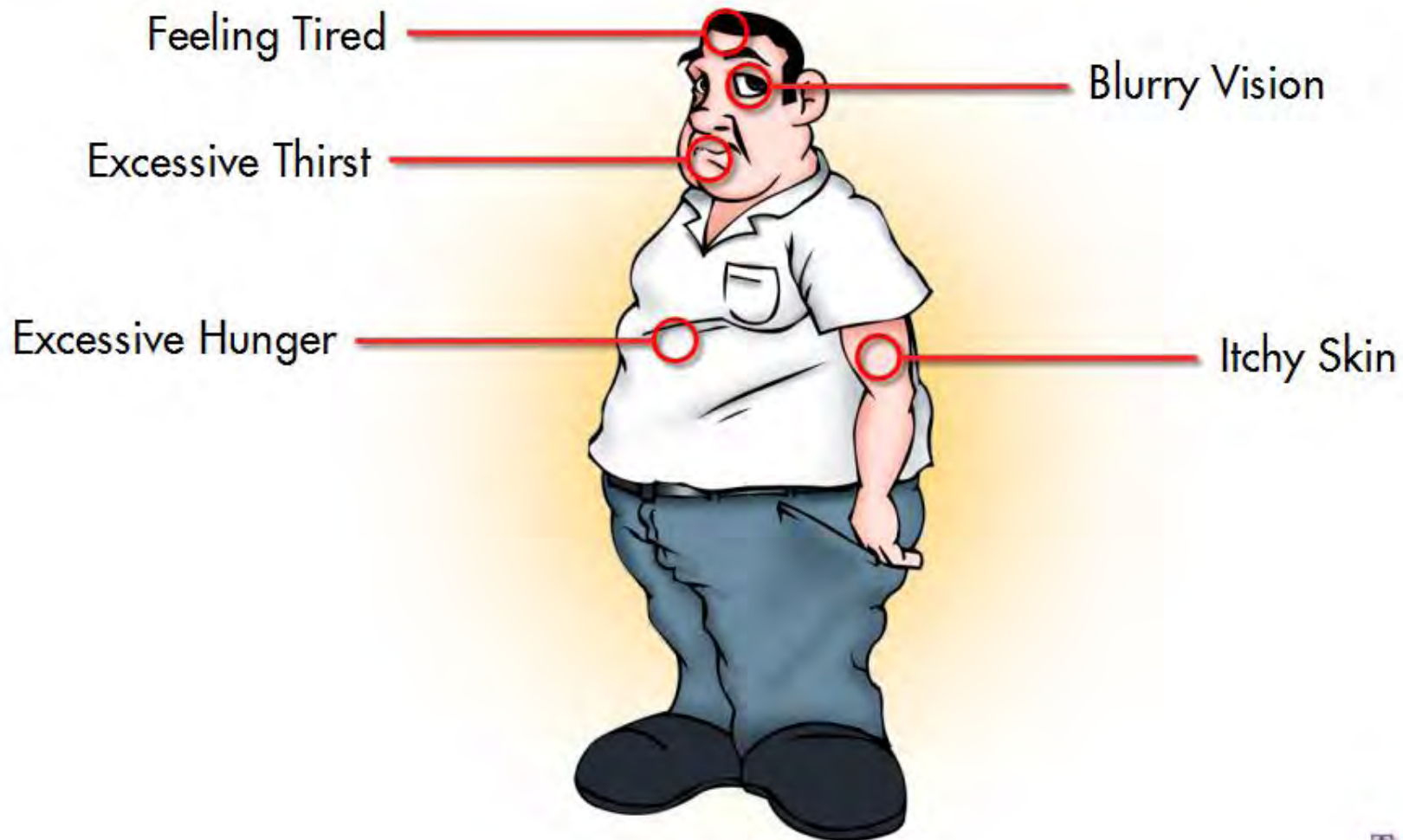
Symptoms of type 2 diabetes



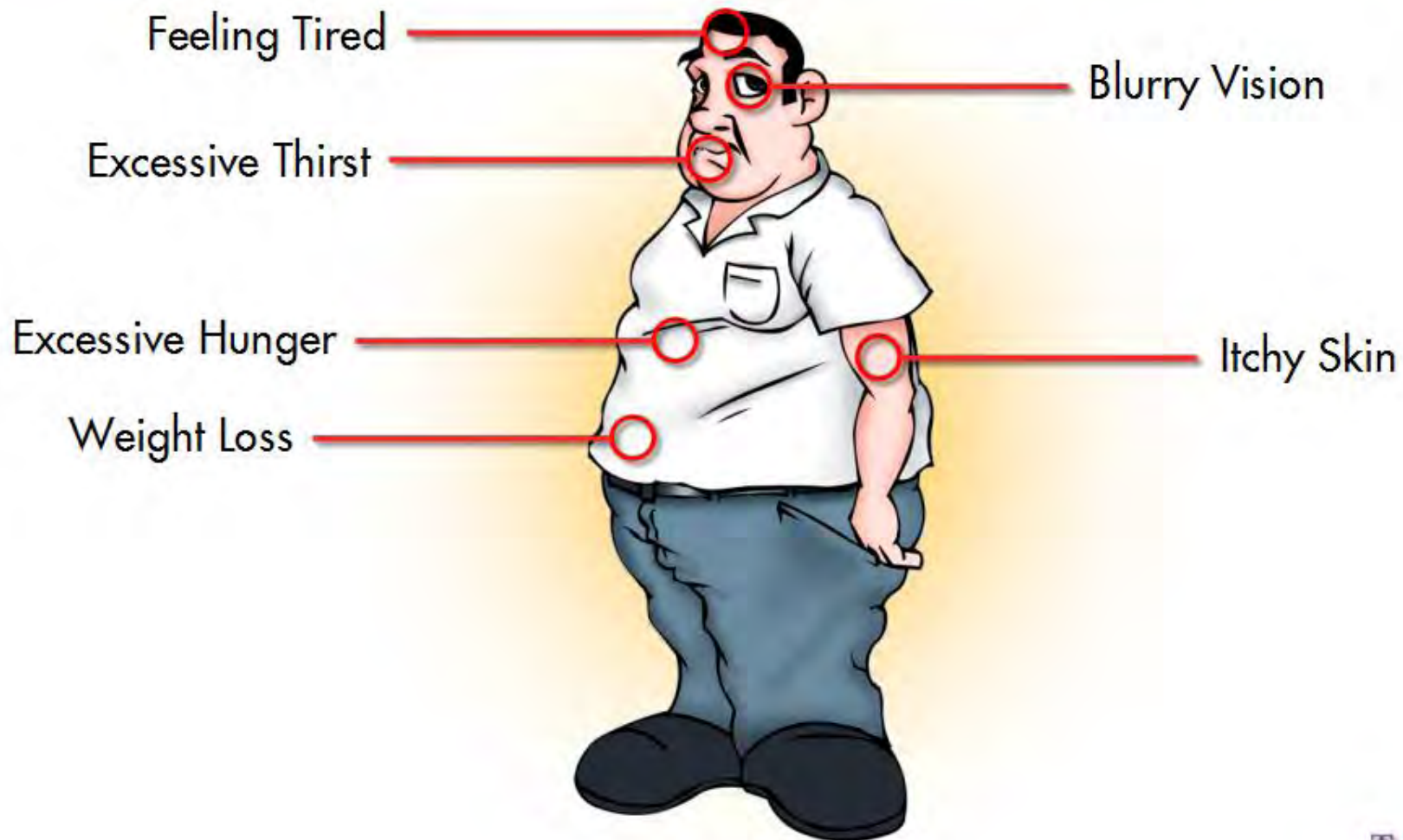
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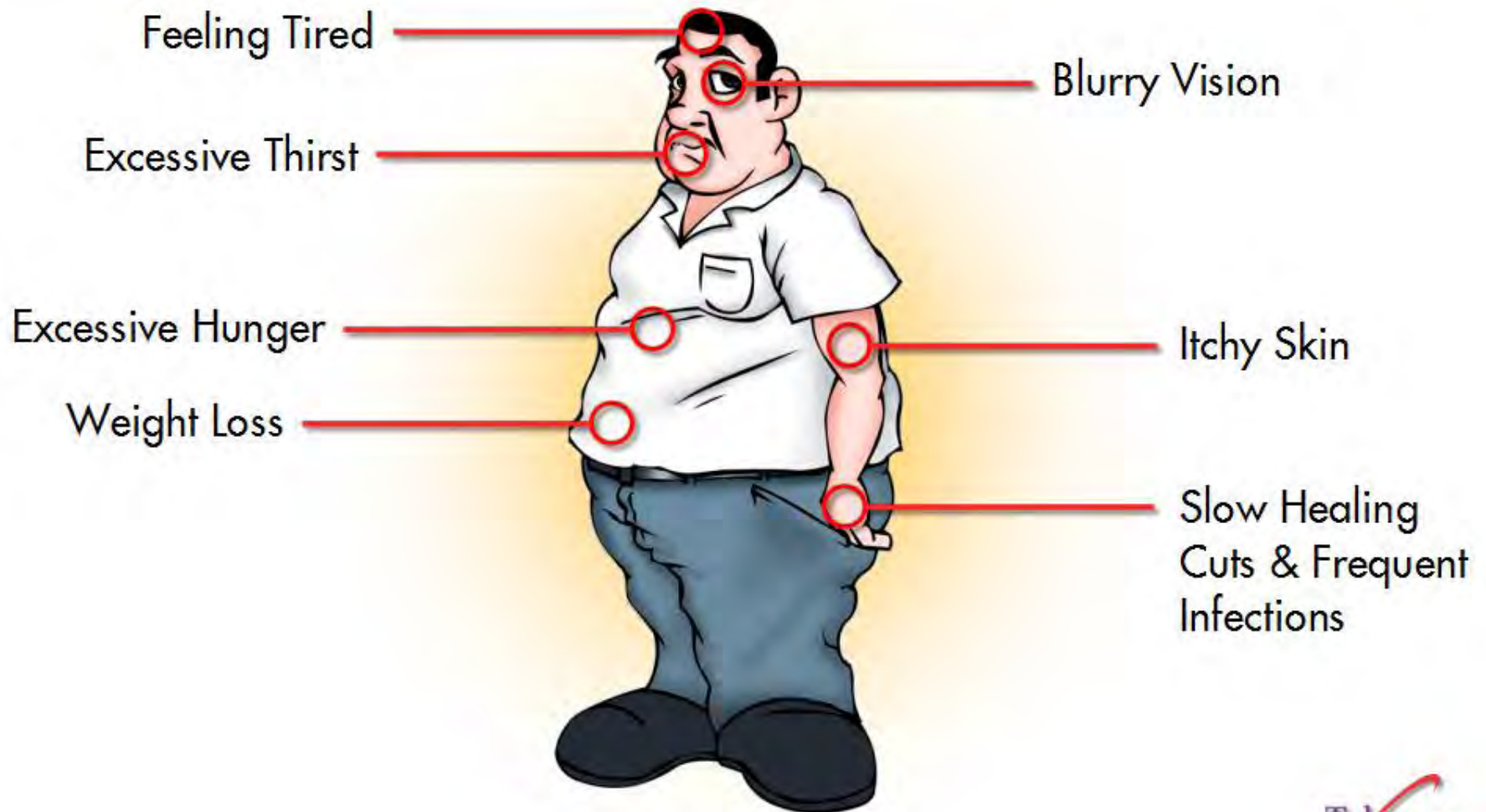
Symptoms of type 2 diabetes



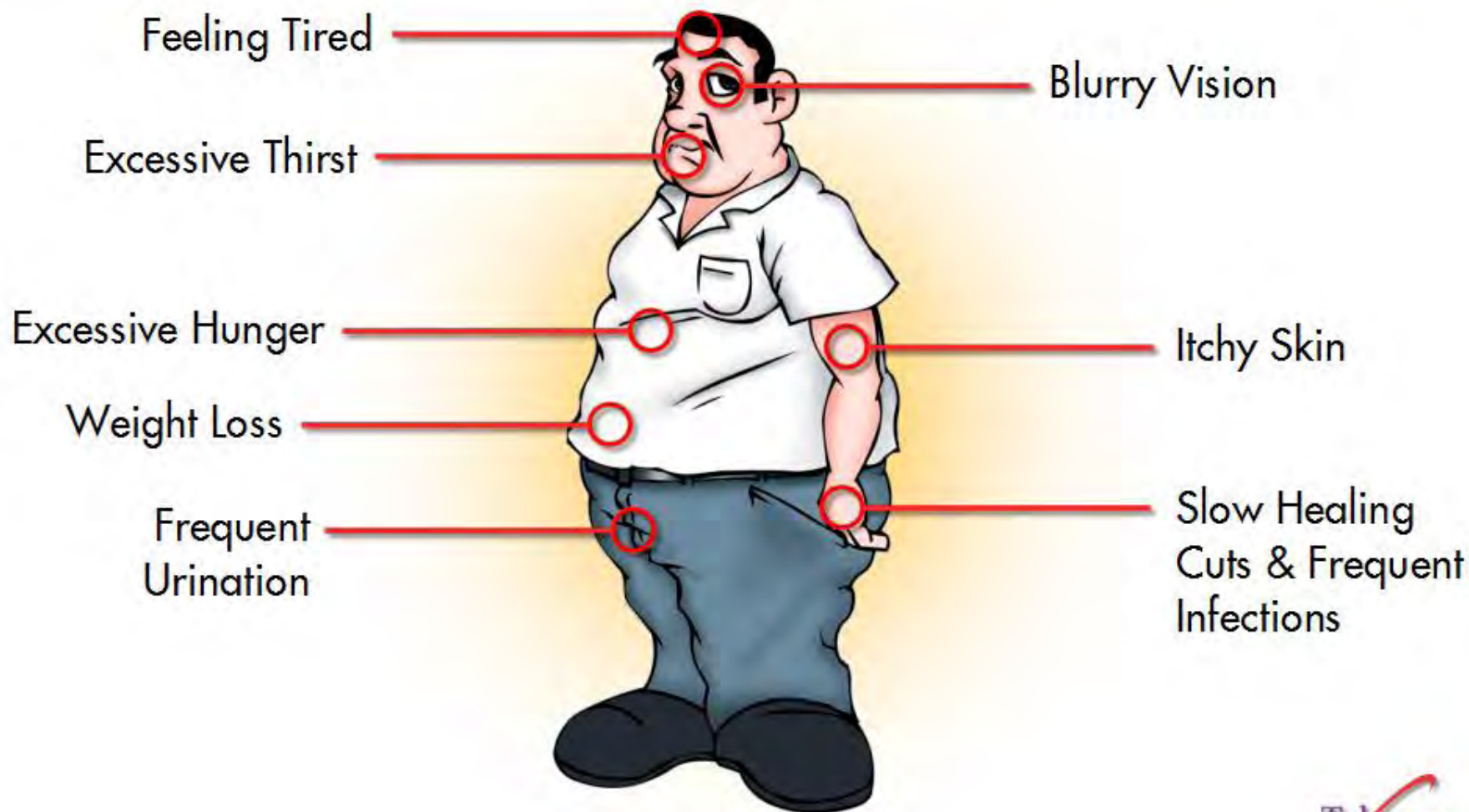
Symptoms of type 2 diabetes



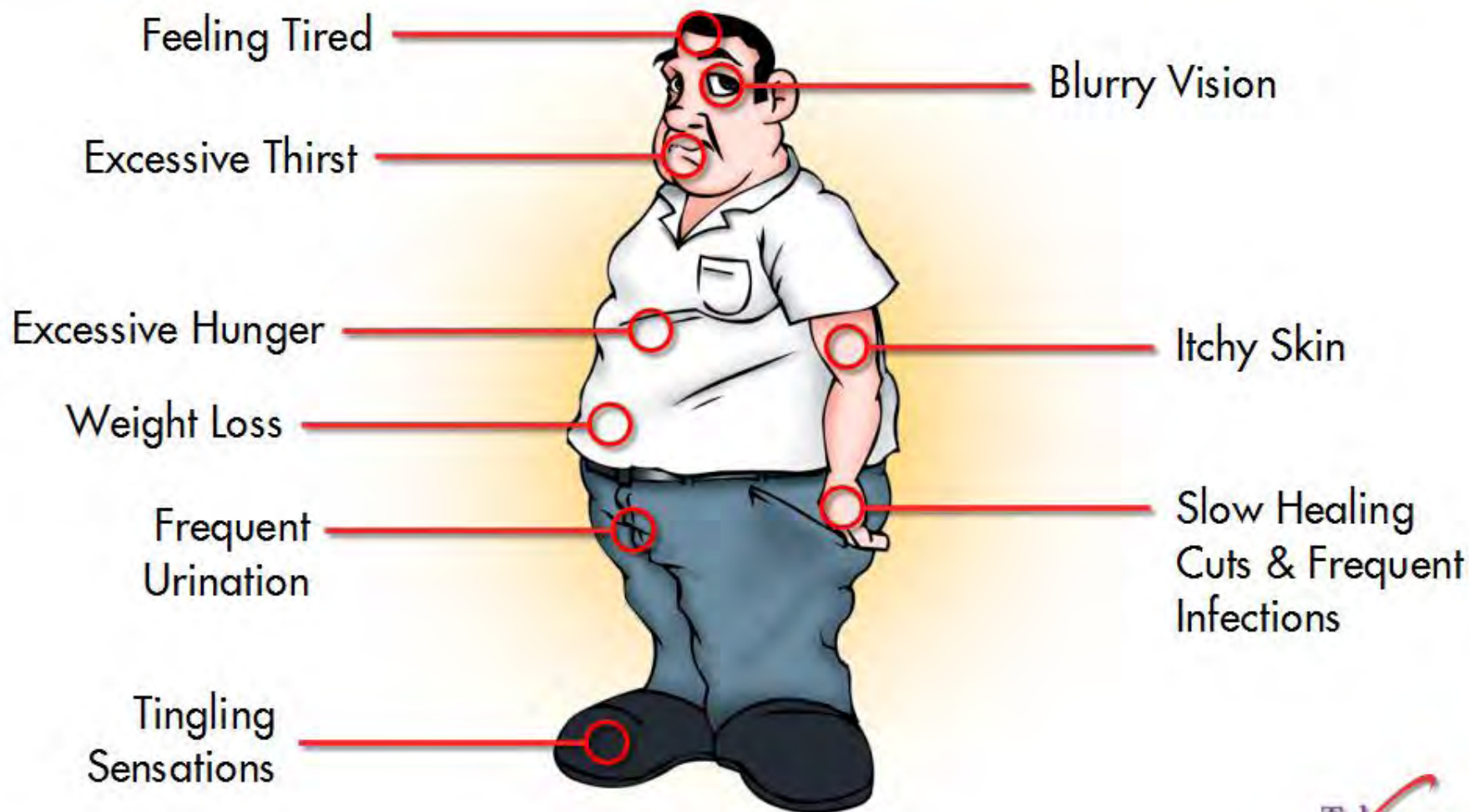
Symptoms of type 2 diabetes



Symptoms of type 2 diabetes



Symptoms of type 2 diabetes



Uncontrolled diabetes can lead to . . .



Uncontrolled diabetes can lead to . . .

Stroke



Uncontrolled diabetes can lead to . . .

Stroke

Blindness



Uncontrolled diabetes can lead to . . .

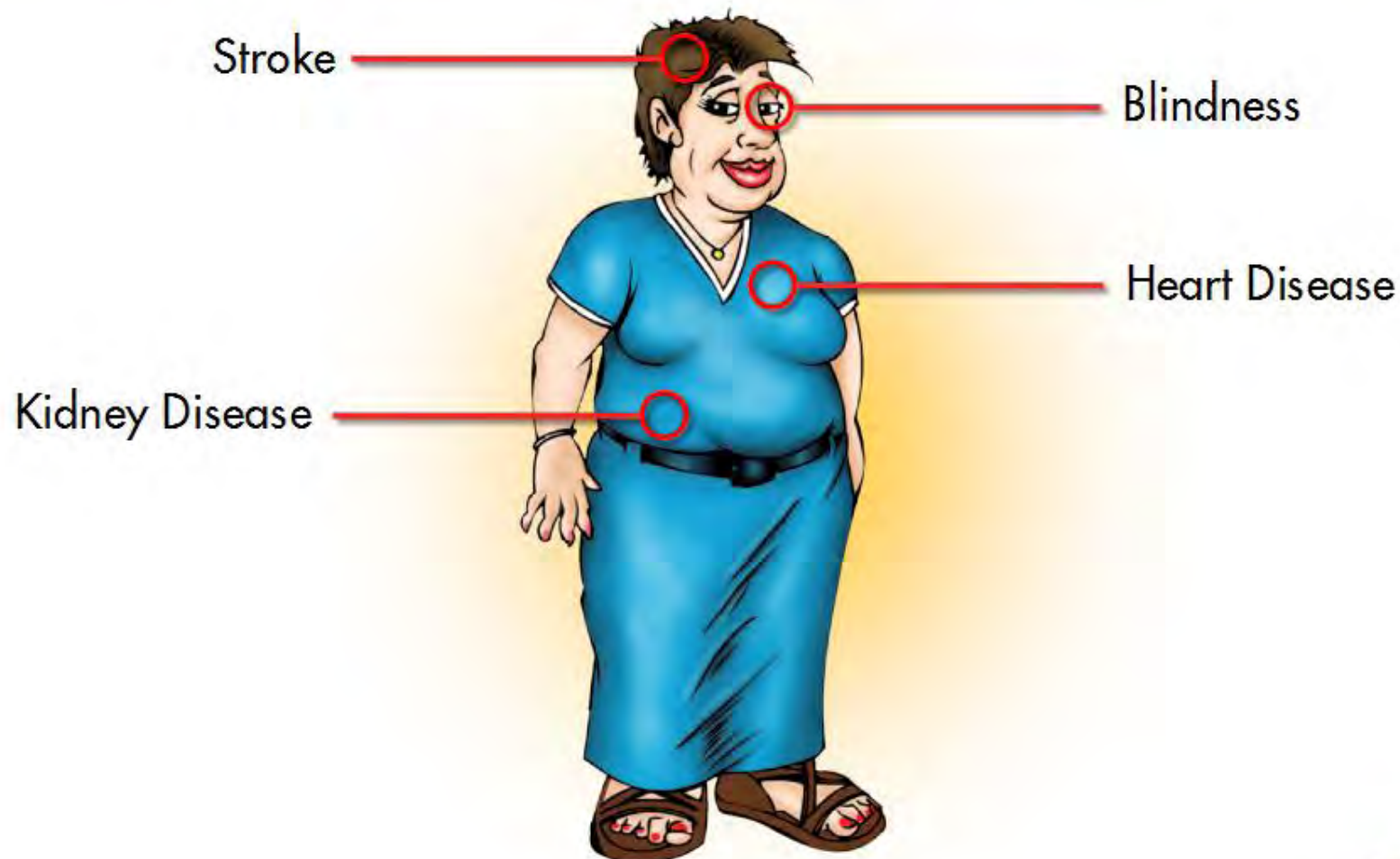
Stroke

Blindness

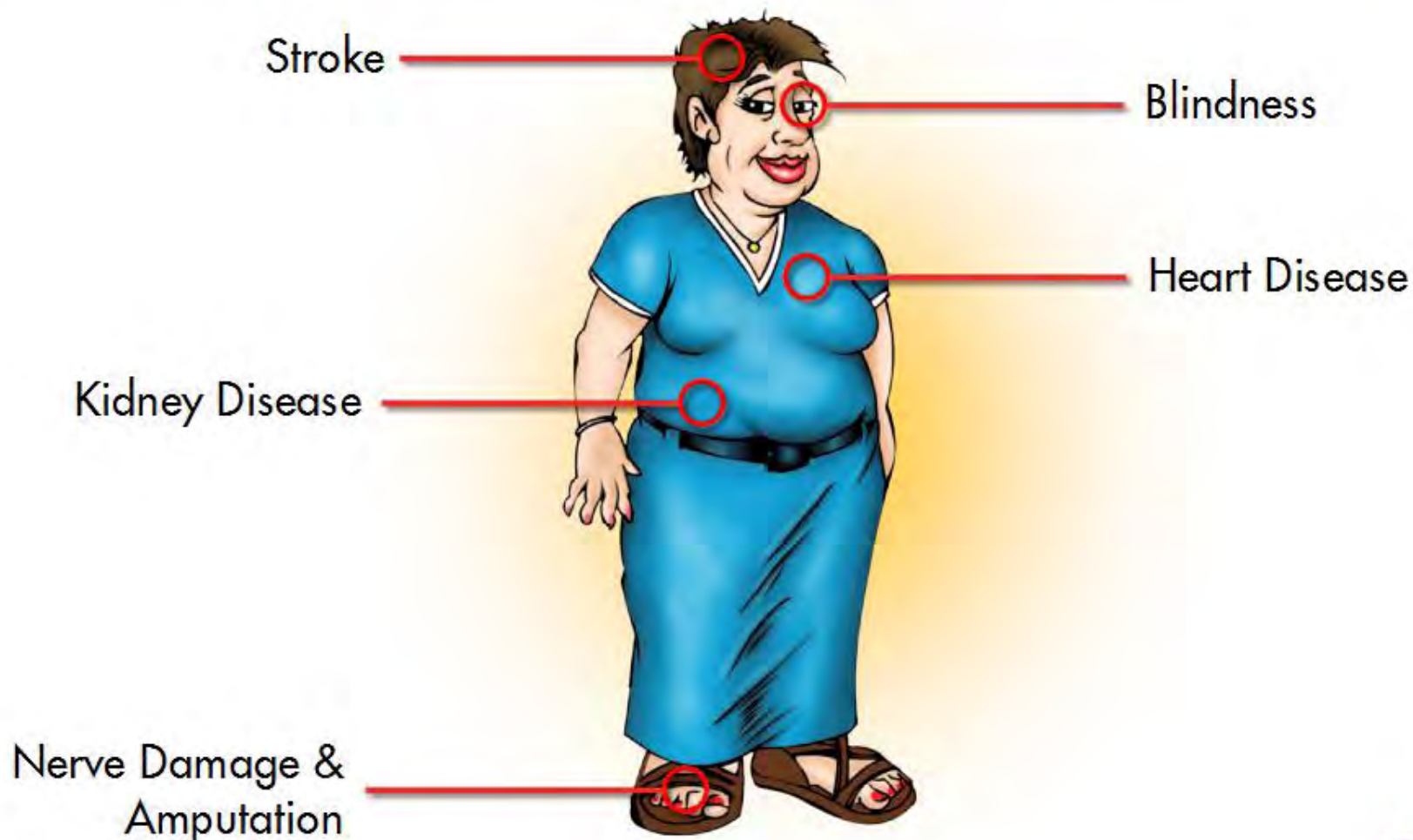
Heart Disease



Uncontrolled diabetes can lead to . . .



Uncontrolled diabetes can lead to . . .



There is good news!

Proper management of diabetes can prevent or delay long-term complications



The ABCs of diabetes care

	Stands for . . .	What is it?
A	A1C	A measure of your average blood glucose level.
B	Blood Pressure	Flow of blood against vessels.
C	Cholesterol	Blood fat that can clog arteries.

A1C: The big picture

- Reflects average blood glucose level over last 8 to 12 weeks
- Usually tested every 3 to 6 months depending on treatment and treatment goals
- Measures blood glucose control in addition to daily blood glucose testing

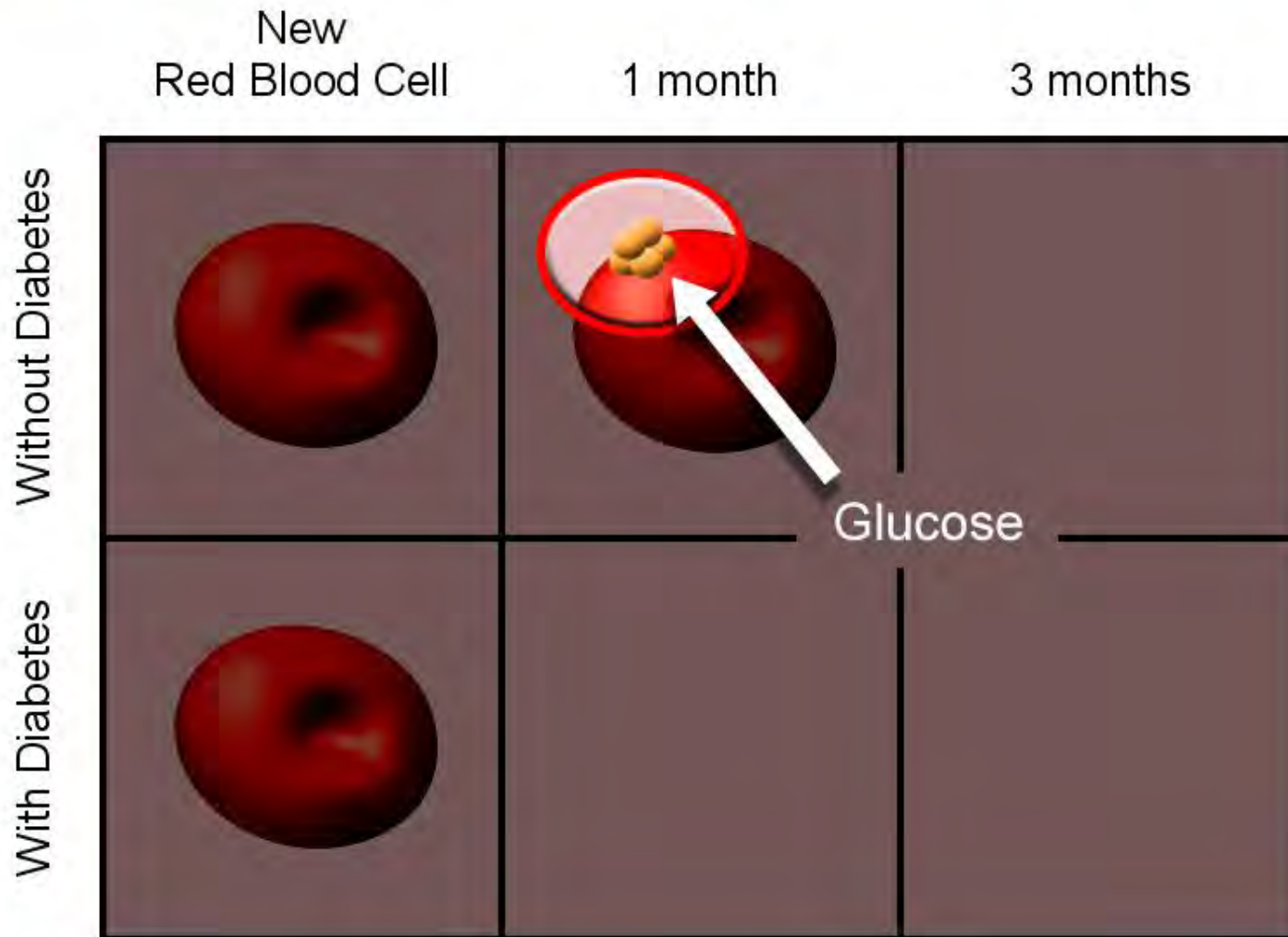
A1C: Glucose attaches to red blood cells

	New Red Blood Cell	1 month	3 months
Without Diabetes			
With Diabetes			

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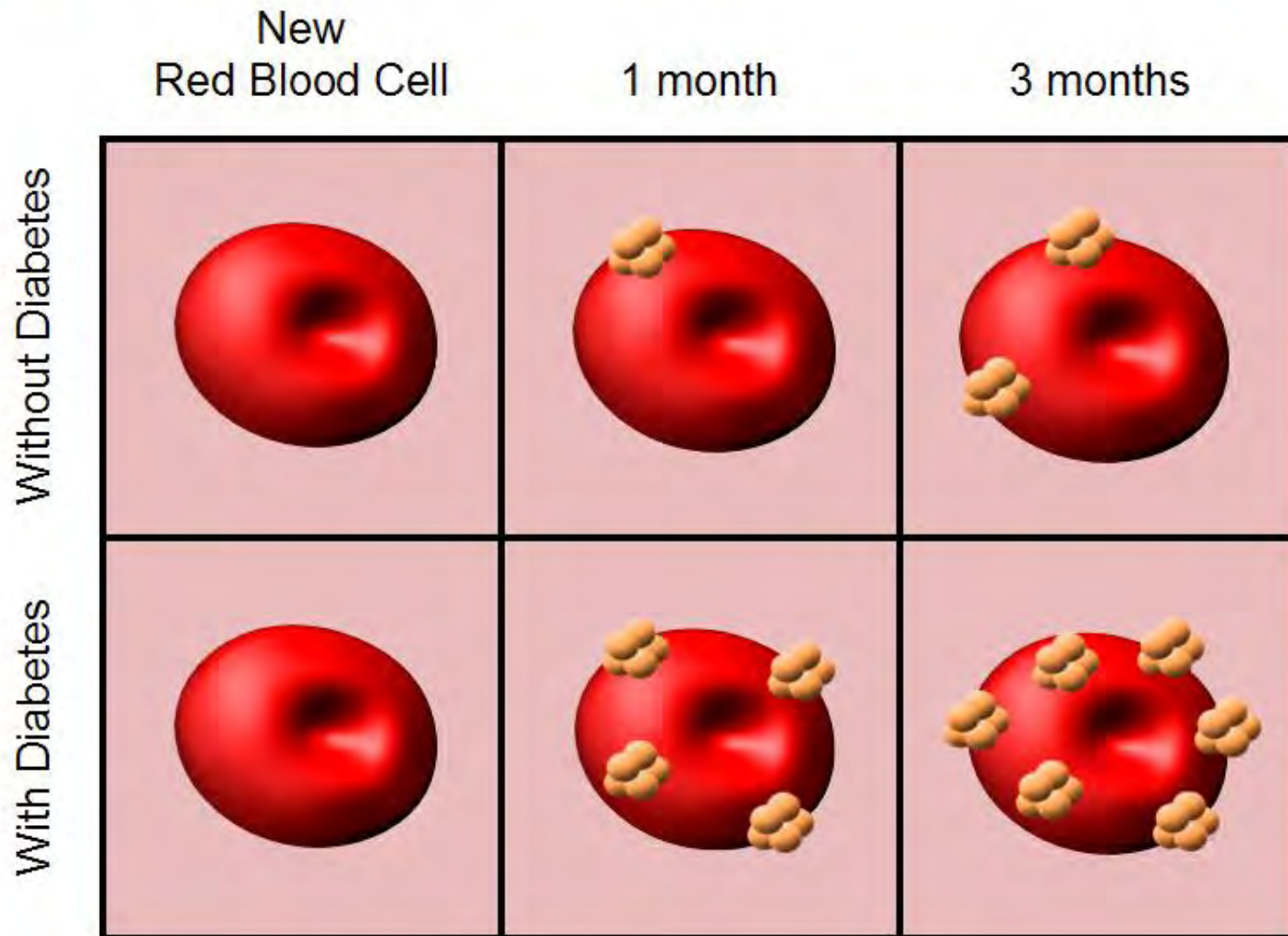
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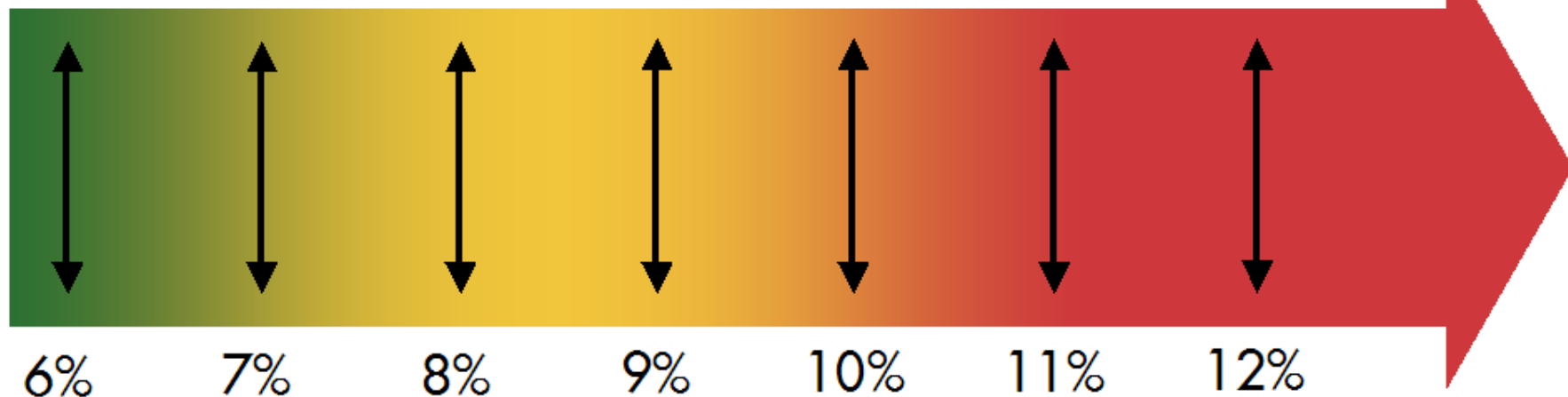
A1C: Glucose attaches to red blood cells



A1C and daily blood glucose go hand in hand

Average Blood Glucose (mg/dL)

135 170 205 240 275 310 345

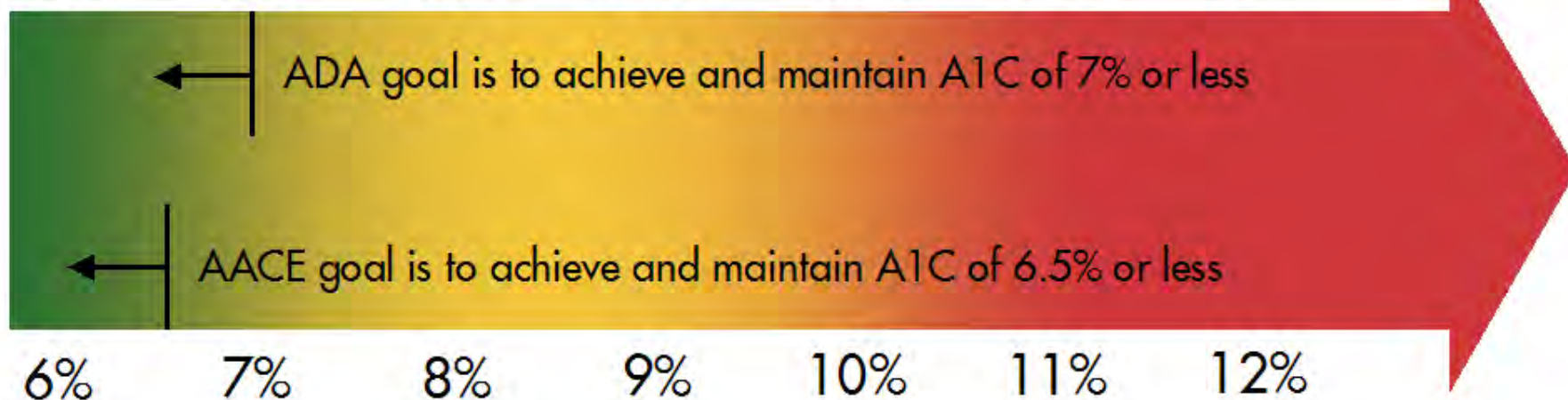


A1C Measurement

A1C and daily blood glucose go hand in hand

Average Blood Glucose (mg/dL)

135 170 205 240 275 310 345



A1C Measurement

Diabetes treatment

Always Includes:

Meal Planning

Physical Activity

Self Blood Glucose
Monitoring

Education



May Also Include:

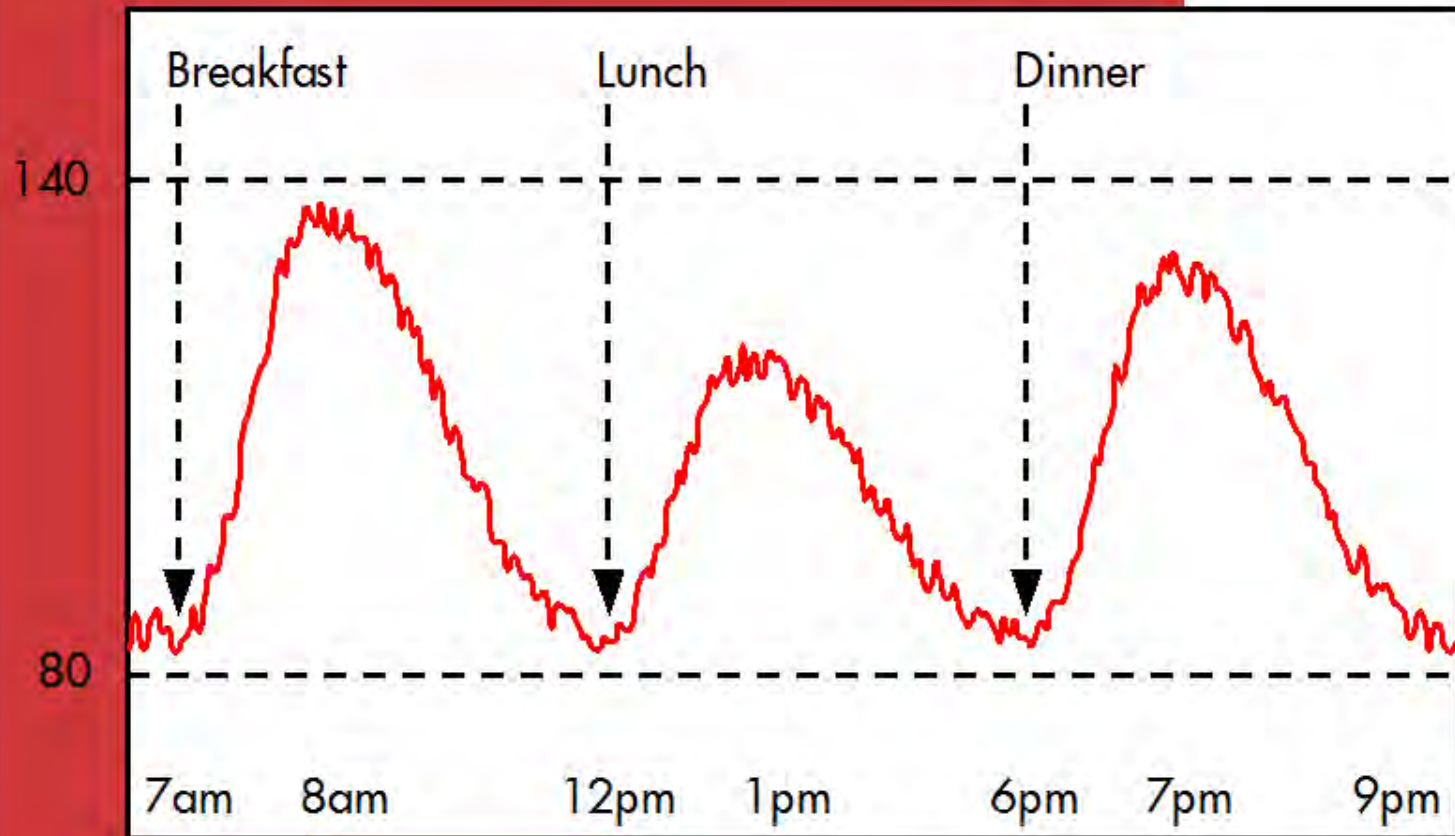
Oral Medications

Injected Insulin

Self monitoring blood glucose

- Daily testing of blood glucose levels
- Shows how different foods, activity, medications, and life can affect blood glucose
- Helps you and your health care team establish:
 - A meal plan
 - An exercise plan
 - A medication plan
 - A plan for sick days and stressful occasions

Blood glucose levels vary all day

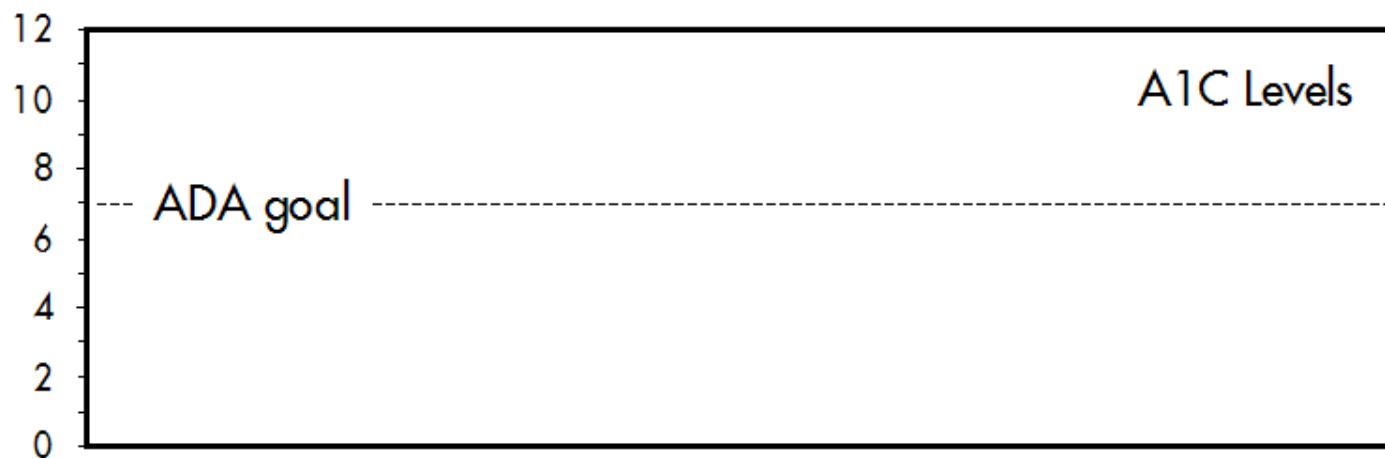
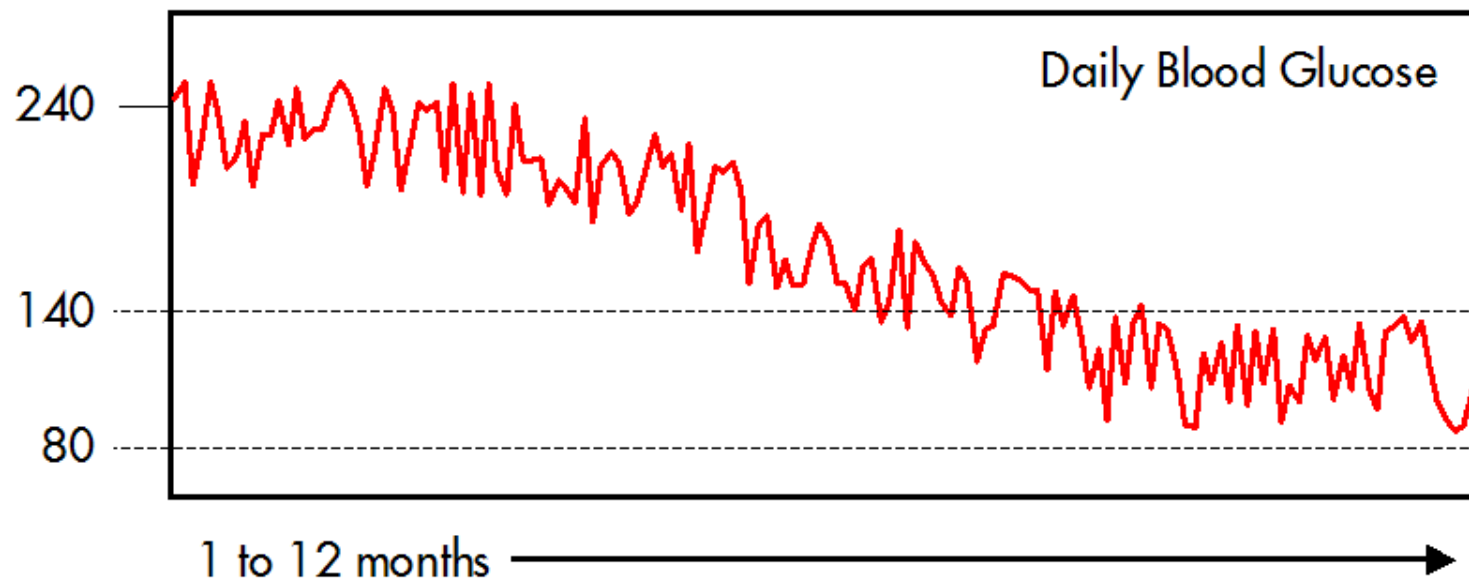


Monitoring your blood glucose

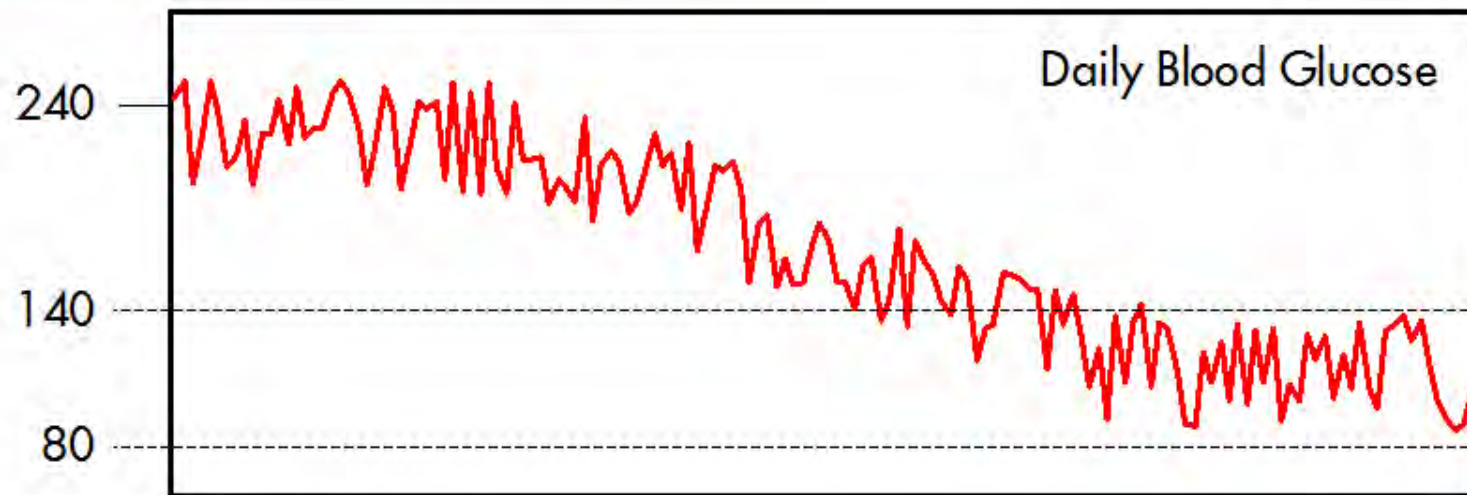
- Expect your blood sugar measurements to vary, so aim for a range:
 - 90 to 130 before meals
 - Less than 140-180 after meals
- All results give useful information
- Think high and low, not good or bad

Meals		Exercise			
	Pre	Post		Pre	Post
Breakfast	137	145	Walked Dog	149	134
Snack					
Lunch	132	156			
Snack	141	148	Mow Lawn	148	136
Dinner	131	139			
Snack					

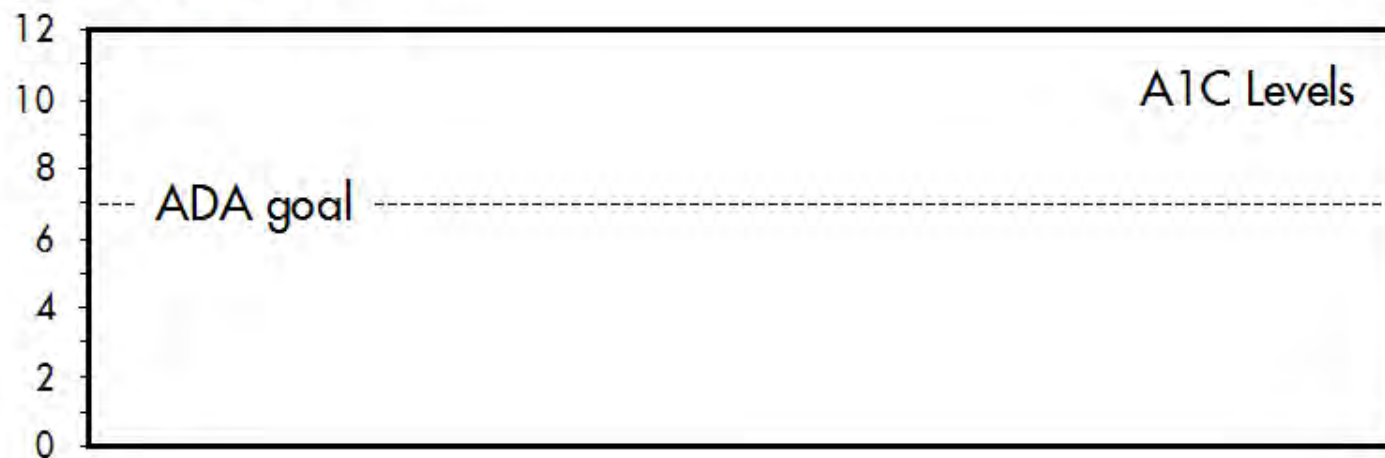
Goal: Near normal daily blood glucose



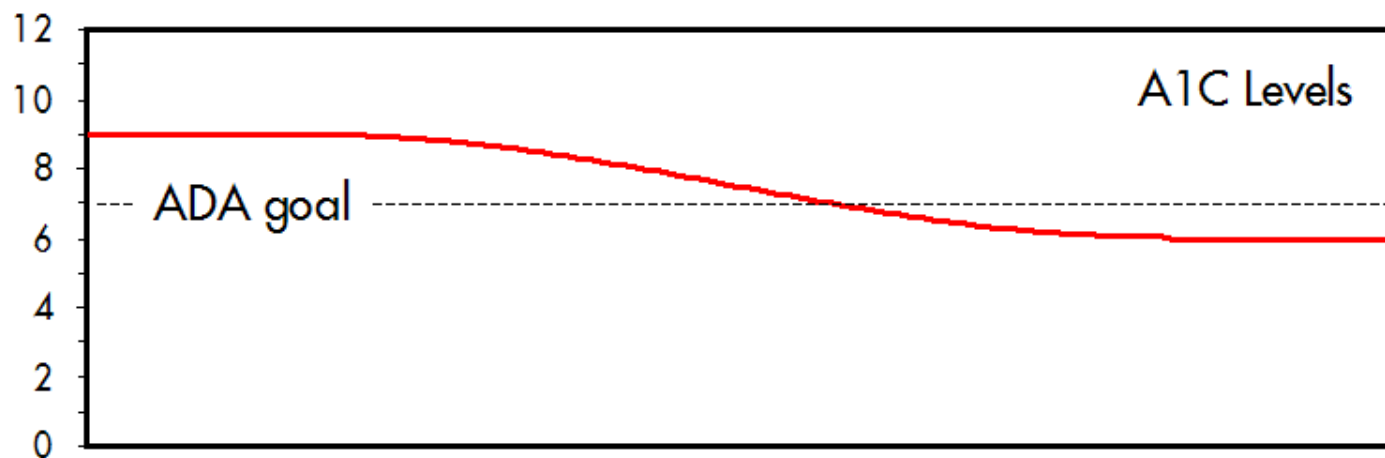
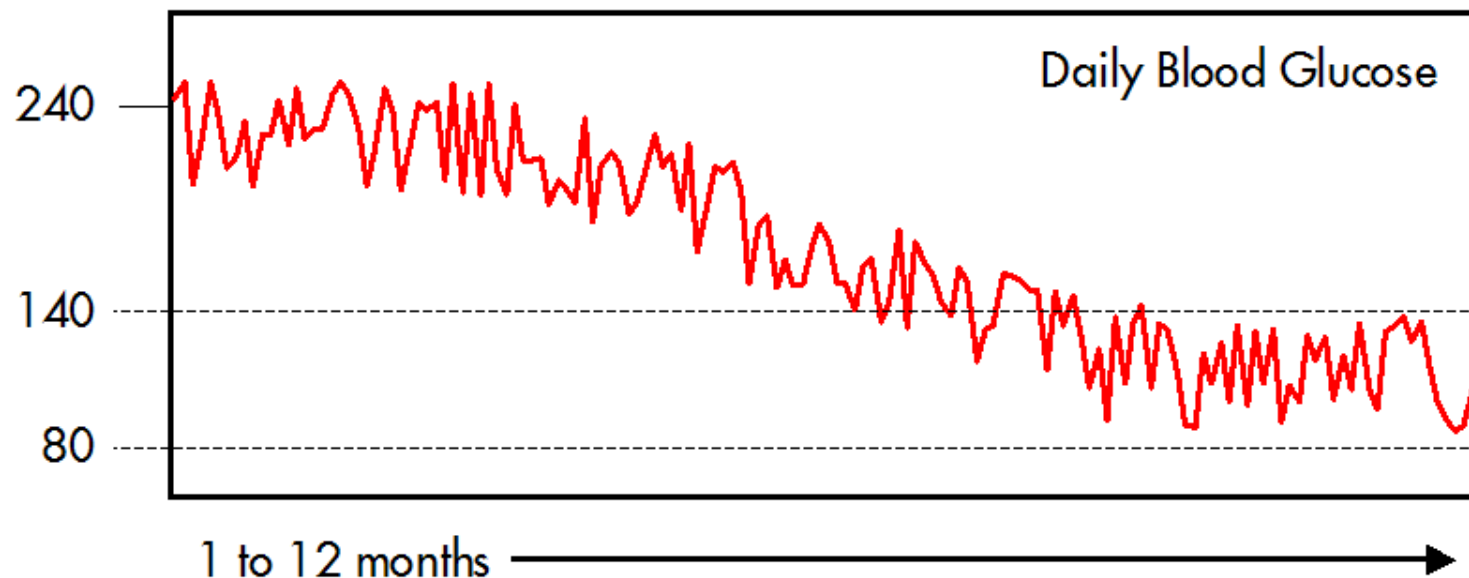
Goal: Near normal A1C



1 to 12 months



Goal: Near normal A1C



Daily self blood glucose monitoring goals

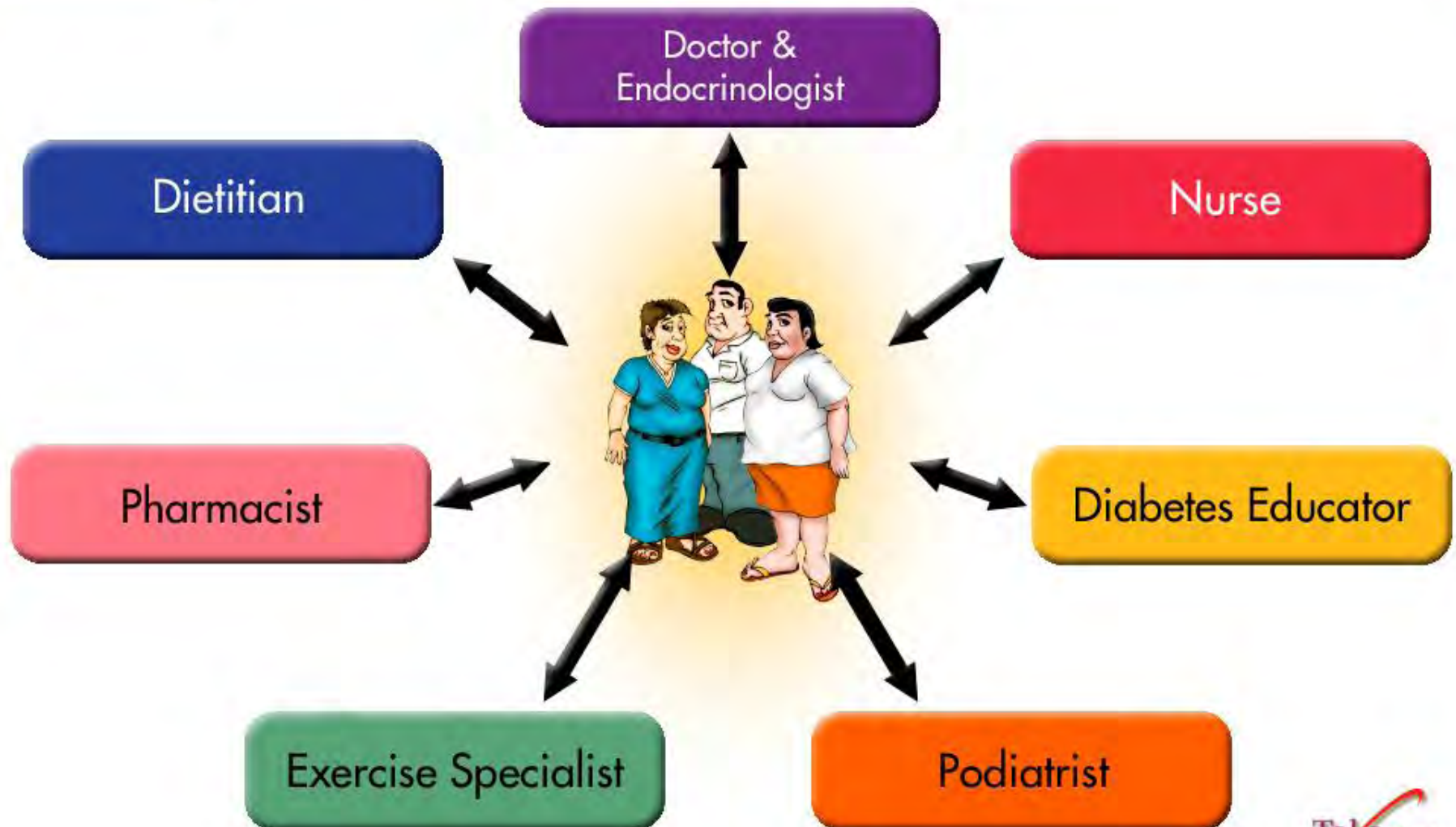
With your healthcare team:

- Decide how often to test your blood sugar and at what times of day
- Determine how to record your results
- Discuss results to make treatment changes if needed

Remember:

*You are not your blood
glucose test results!*

Who can help?



Summary

- Type 2 diabetes is a result of insulin resistance and a defect in insulin production
- You should manage the ABCs to prevent long-term complications
- Take action by checking blood sugar regularly
- Use your diabetes team members to support your diabetes management plan

Questions?



