

For use with the SCAN G-427B Blood Glucose Meter to test for glucose levels in capillary whole blood.

# INTENDED USES

The SCAN G-427B Blood Glucose Monitoring System is comprised of SCAN G-427B Blood Glucose Meter and SCAN G-427BS Blood Glucose Test Strips.

The SCAN G-427B Blood Glucose Monitoring System is intended to be used for the quantitative measurement of glucose (sugar) in fresh capillary whole blood samples drawn from the fingertip. The SCAN G-427B Blood Glucose Monitoring System is intended to be used by a single person and should not be shared. It is intended for self-testing outside the body (in-vitro diagnostic use) by people with diabetes at home as an aid to monitor the effectiveness of diabetes control. The SCAN G-427B Blood Glucose Monitoring System should not be used for the diagnosis of or screening for diabetes. The SCAN G-427B Blood Glucose Monitoring System is not for use in neonates.

The Control Solution is for use with the SCAN G-427B Blood Glucose Meter and SCAN G-427BS Blood Glucose Test Strips to check Meter and Test Strips are working together properly and that the test is performed correctly.

### NOTE:

Please read this insert and the Meter user manual before using SCAN G-427B Blood Glucose Monitoring System (known hereafter as the System) to test your blood glucose level.

## CAUTIONS

- 1. For use with the SCAN G-427B Blood Glucose Meter (known hereafter as the Meter) to test the blood glucose levels in capillary whole blood.
- 2. This System is for in-vitro diagnostic use only.
- 3. Please review this insert and the Meter's user manual before using the SCAN G-427B Blood Glucose Test Strips (known hereafter as the Test Strips). For getting the reliable results and maintaining the manufacturer's complete service, support and warranty, use the Test Strips only.
- 4. Inaccurate results may occur in severely hypotensive individuals or patients in shock. Inaccurate low results may occur for individuals experiencing a hyperglycemic-hyperosmolar state, with or without ketosis. Critically ill patients should not be tested with the System.
- 5. The Test Strips and lancets should be kept away from children. The children may swallow it. If any items are swallowed, promptly see a doctor for help.

## NOTE

Do not use the Test Strips after their expiry date. Using expired Test Strips may result in inaccurate results,

# TEST PRINCIPALS

The System uses electrochemical methodologies. The System quantitatively measures blood glucose levels using an Amperometric method. The method involves detecting the current produced from glucose oxidation. The strength of the current produced by the reaction depends on the amount of glucose in the blood sample. The electrons generated during this reaction are transferred from the blood to the electrodes. The magnitude of the resultant current is proportional to the concentration of glucose in the specimen. The current level is converted into a readout displayed on the Meter.

# PRODUCT DESCRIPTION



Each Test Strip can be used only once. The Test Strip consists of the following parts:

## Absorbent hole

Apply a drop of blood here. The blood will be drawn in automatically.

# Confirmation window

This is where you confirm if enough blood has been applied to the absorbent hole of the strip.

# Test strip handle

Hold this part to insert the strip into the slot.

## Contact bars

Insert this end of the Test Strip into the Meter. Push it in firmly until it will go no further.

## NOTE

Test results might be inaccurate if the contact bars are not fully inserted into the Test Strip port. The front side of the Test Strips must face up when inserting the Test Strips.

# LIMITATIONS

Please observe the following limitations to obtain accurate results of blood glucose level:

- 1. The System is not intended for use on neonates.
- 2. The System is not intended for use on artery blood, neonates' serum and plasma.
- 3. The System can be used up to an altitude of 10,744 feet.
- 4. The following substances at levels greater than normal or therapeutic levels may cause significant interference. The highest concentration tested at which no significant interference was summarized as below.

The following compounds, when determined to in excess of their concentration limitation, may produce inaccurate result:

COMPOUND	LIMITATION	COMPOUND	LIMITATION
Acetaminophen	≤8.0mg/dL	Lbuprofen	≤50mg/dL
Ascorbic Acid	≤5,0mg/dL	Lcodextrin	≤13mg/dL
Bilirubin	≤90mg/dL	L-dopa	≤10mg/dL
Cholesterol	≤500mg/dL	Maltose	≤900mg/dL
Creatinine	≤5.0mg/dL	Methyldopa	≤3.0mg/dL
Dopamine	≤2.0mg/dL	Pralidoxime Iodide	≤25mg/dL
EDTA	≤360mg/dL	Salicylate	≤60mg/dL
Galactose	≤900mg/dL	Tolazamide	≤100mg/dL
Gentisic Acid	≤5.0mg/dL	Tolbutamide	≤400mg/dL
Glutathione	≤53mg/dL	Triglycerides	≤2000mg/dL
Haemoglobin	≤500mg/dL	Uric Acid	≤8.0mg/dL
Heparin	≤8000U/dL	Xylose	≤100mg/dL

- · Patients undergoing oxygen therapy may yield falsely lower results.
- Not for use for patients in a hyperglycemic-hyperosmolar state, with or without ketosis
- · Not for use on critically ill patients.
- Not to be used for patients who are dehydrated, hypertensive, hypotensive or in shock
- Very low (less than 20%) or very high (more than 60%) red blood cell count (hematocrit) can lead to incorrect test results, If you do not know your hematocrit level, please consult your healthcare provider.
- $\cdot$  High temperature more than 104or low temperature less than 50may lead to incorrect test results.
- High humidity (more than 85%) and low humidity (less than 15%) may lead to incorrect test results.

## STORAGE AND HANDLING

In order to ensure the Test Strips are effective, observe proper storage and handling procedures as below.

- 1. Write the expiry date on the Test Strips vial after opening it. The Test Strips expire 90 days after first opening.
- 2. Store the Test Strips in a cool, dry place between 39.2 F-104 F (4 F-40 F) and below 85% relative humidity.
- 3. Keep the Test Strips away from direct sunlight.
- 4. Do not store the Test Strips in high humidity areas. Do not freeze.
- 5. The Test Strips must be stored in their original vial ONLY. Do not transfer them to a new vial or other container.
- $\ensuremath{\text{6}}.$  Do not touch the Test Strips when your hands are wet.
- 7. Use each Test Strip promptly after removing it from the vial, Close the vial lid quickly and firmly.
- 8. Keep the vial lid closed at all times.
- 9. Do not bend, cut or alter the Test Strips. Doing so will lead to inaccurate results.

# **HOW IT WORKS**

The Test Strips provide a quantitative measurement of glucose level in whole blood. The absorbent hole fills automatically when the Test Strip contacts with a blood drop through simple capillary action. The blood drop is drawn into the absorbent hole. The Meter reads the glucose level. Only 0.7 microliters of blood sample are required. The reaction time is 6 seconds. The Meter displays glucose levels from 20 to 600 mg/dL.

# BLOOD COLLECTION PROCEDURE

You can obtain a blood drop from your fingertip through the following procedures:

- 1, Clean the puncture site with warm, soapy water. Then rinse and thoroughly dry.
- ${\bf z}.$  If an alcohol swab is used, make sure the puncture site is completely dry before lancing.
- 3. Lance the puncture site. Wipe off the first blood drop. Rub gently to form a new blood drop.
- 4. Do not squeeze puncture site excessively.

## PERFORMING A BLOOD GLUCOSE TEST

- 1. Wash hands with warm, soapy water,
- 2. Remove a Test Strip from its vial with clean, dry hand. Do not bend, cut or modify the Test Strips in any way. Remove the Test Strip from the vial. Use it promptly.
- 3. Insert the Test Strip into the Meter. The Meter will turn on automatically.
- 4. Use the lancing device to obtain the blood samples.
- 5. Apply the blood sample to the Test Strip. Do not apply the blood sample twice.

- 6. Read the test results. Eject the used Test Strip
- 7. Discard the used Test Strip and the lancet into the waste container for sharp objects.
- 8. The Meter will switch itself off automatically after the Test Strip is ejected. For detail information of the testing procedures, please refer to the User's Manual.

# CONTROL SOLUTION TEST

To ensure proper performance of the System and accurate test results, it is important to perform Control Solution test with the control solutions regularly. The Control Solution is used to check the performance of the System and the user's test skill. The System is performing adequately if the Control Solution test result falls within the expected control range printed on the vial. Please contact the SCAN G-427B dealer to purchase the Control Solution.

# A control test shall be performed:

- · When the System does not work properly
- · When the test result is unusual or inconsistent.

### Results that fall outside the range may be caused by:

- 1. Improper skill in performing the test;
- 2. Contaminated or expired Control Solution;
- 3. The Meter or the Test Strip has deterioration or malfunction.

#### NOTE

The control range can vary with each new Control Solution vial. Always use the control range on the current Control Solution vial. Before you can get the Control Solution test result falling within the control range on the vial, do not use the System to measure your blood glucose level. If the problem is existing, please contact dealer or customer service for assistance.

## TEST RESULTS

The Meter displays the blood glucose test results from 40 to 600 mg/dL.

- 1. If your result is lower than 40 mg/dL, the Meter will display 'Lo', Repeat your test with a new Test Strip to confirm this reading.
- 2.If your result is higher than 600 mg/dL, the Meter will display "Hi". Repeat your test with a new Test Strip to confirm this reading.

# REFERENCE VALUES

TIME OF DAY	GLUCOSE REFERENCE RANGE: MG/DL (MMOL/L)
Before Breakfast (fasting)	<100 (5.55)
Two hours after meals	<140 (7.78)

Source: American Diabetes Association, Standards of Medical Care in Diabetes - 2012. Diabetes Care 2012,35 (suppl.1) S11-S63.

# QUESTIONABLE OR INCONSISTENT RESULTS

If you get the test results that are unusual or inconsistent with how you feel, then:

- 1. Check if the Meter model matches the Test Strip.
- Make sure that the blood drop completely fills the confirmation window of the Test Strips.
- 3. Check that the Test Strips are still within their expiry date
- 4. Check the performance of the Meter and the Test Strips by performing a Control Solution test.

High or low blood glucose levels can indicate a possibly serious medical condition, If you continue to get unusually high or low results, consult your healthcare professional.

# CHEMICAL COMPONENTS

- Glucose oxidase (A niger) 10%
- Electron shuttle 50%
- Enzyme protector 8%
- · Non-reactive ingredients 32%

## PERFORMANCE CHARACTERISTICS

# **Precision study**

Data summary of within-run precision study (300 Venous Blood Tests per Glucose Level)

(mg/dL)	UCOSE	30~50	51~110	111~150	151~250	251~400
YSI MEAN	(mg/dL)	40.2	80.4	130.3	201.5	325.0
	Mean (mg/dL)	40.3	81.9	130	202	326
LOT 1	SD	2.5	3.7	5.5	7.2	7.6
	CV(%)	6.2%	4.6%	4.2%	3.6%	2.3%
LOT 2	Mean (mg/dL)	40.1	81.9	131	202	325
	SD	2.7	3.7	5.0	5.9	8.8
	CV(%)	6.8%	4.5%	3.8%	2.9%	2.7%

BLOOD GL (mg/dL)	BLOOD GLUCOSE mg/dL)		51~110	111~150	151~250	251~400
YSI MEAN	(mg/dL)	40.2	80.4	130.3	201.5	325.0
LOTA	Mean (mg/dL)	40.4	82.2	130	202	324
LOT 3	SD	2.6	3.8	4.7	6.8	8.6
	CV(%)	6.5%	4.6%	3.6%	3.3%	2.7%
POOLED	Mean (mg/dL)	40.3	82.0	130	202	325
FOOLLD	SD	2.6	3.7	5.1	6.6	8.4
	CV(%)	6.5%	4.5%	3.9%	3.3%	2.6%

# Data summary of between-run precision study

CONTROL SOLUTION LEVEL (mg/dL)		I (30-50)	II (96-144)	III (280-420)
	Mean (mg/dL)	43.7	100.7	354
LOT 1	SD	3.1	3.0	7.9
	CV(%)		3.0%	2.2%
	Mean (mg/dL)	42.6	99.7	351
LOT 2	SD	2.9	3.1	8.3
	CV(%)		3.1%	2.4%
	Mean (mg/dL)	44.2	101.7	356
LOT 3	SD	3.0	2.8	8.0
	CV(%)		2.8%	2.2%
	Mean (mg/dL)	44.4	108.1	342
POOLED	SD	3.2	3.3	7.1
	CV(%)		3.3%	2.0%

# SYSTEM ACCURACY STUDY

# For glucose concentrations <75 mg/dL (for all 3 lots)

	Within ±5 mg/dL	Within ±5 mg/dL	Within ±5 mg/dL	Within ±5 mg/dL
Ī	62/102 (60.78%)	95/102 (93.14%)	102/102 (100%)	102/102 (100%)

## For glucose concentrations 75 mg/dL (for all 3 lots)

Within ±5 %	Within ±10 %	Within ±15 %	Within ±20%
243/498 (48.80%)	399/498 (80.12%)	476/498 (95.58%)	497/498 (99.80%)

# **USER PERFORMANCE STUDY**

The study data indicate that the System can be operated properly by lay users, even in the case of absence of any guidance.

## For glucose concentrations <75 mg/dL (for all 3 lots)

Within ±5 mg/dL	Within ±5 mg/dL	Within ±5 mg/dL	Within ±5 mg/dL
62/117 (54.70%)	100/117 (85.47%)	116/117 (99.15%)	117/117 (100%)

# For glucose concentrations 75 mg/dL (for all 3 lots)

Within ±5 %	Within ±10 %	Within ±15 %	Within ±20%
461/933 (49.41%)	879/933 (94.21%)	918/933 (98.39%)	933/933 (100%)

## TRACEABILITY OF GLUCOSE MONITORING SYSTEM

The results of SCAN G-427B Glucose Monitoring System were compared to parallel results obtained on YSI-2300. YSI-2300 is the manufacturer's standard measurement equipment.

## **SCAN Blood Glucose Test Strips**

Model: G-427BS Distributed by CoachCare 97 3rd Avenue New York, NY 10003 USA Made in China