

## Cardio IQ® Insulin Resistance Panel with Score

# Know what's ahead—the earlier, the better

Detecting insulin resistance (IR) now can help you and your patients take action to change its course

**10** years

IR can be present 10 years or more before diabetes is diagnosed<sup>1</sup>

**>60** million

IR affects >60 million Americans<sup>2</sup>

**80** %

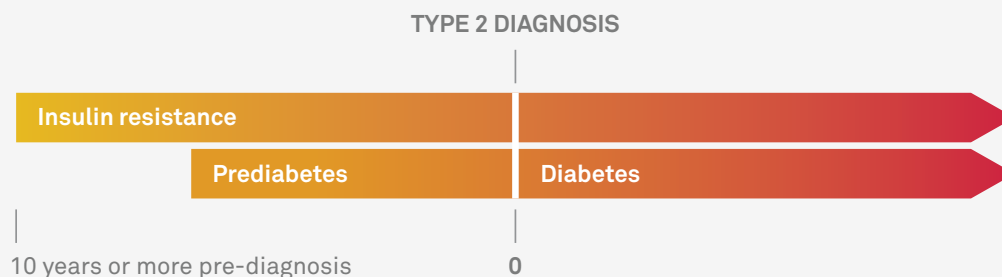
By the time diabetes is evident, 80% of beta cell function has already been lost<sup>3</sup>

**The Quest Diagnostics Cardio IQ® Insulin Resistance Panel with Score offers a simple, accurate, and actionable way to assess IR and help identify prediabetes and diabetes risk.**

A routine insulin resistance score validated against the gold standard:

- Validated in a Stanford University study of 535 individuals without diabetes or cardiovascular disease<sup>4</sup> against the insulin suppression test, a gold standard method for the direct measurement of insulin resistance
- Provides an enhanced assessment of IR through the combined measurement of insulin and C-peptide from a single fasting blood specimen
- Offers greater discrimination of IR compared to either insulin or C-peptide levels alone and a better assessment of IR status than TG/HDL or HOMA-IR<sup>4</sup>
- Detects IR and possible risk of prediabetes and diabetes before traditional markers can

**IR can begin 10 years or more before type 2 diabetes is diagnosed<sup>1</sup>**



**For patients whose risk factors may not be as evident, Cardio IQ® Insulin Resistance testing can provide actionable insight.**



## Which patients are suitable for testing?

1. Patients with normal glucose and HbA1c who may be at risk<sup>4</sup>

2. Individuals with clinical features associated with IR

- Overweight/obese
- Central obesity
- Family history of diabetes

- A history of gestational diabetes mellitus
- Hypertension
- Acanthosis nigricans



## An effective counseling tool

The Cardio IQ® Insulin Resistance Panel with Score gives you an effective counseling tool for patients who need to make lifestyle changes.



## What actions might you consider?<sup>5-10</sup>

- **Counsel patients** on lifestyle changes, such as increasing physical activity, losing weight, and adhering to a healthy diet
- **Employ pharmaceutical interventions** that increase insulin sensitivity or induce weight loss

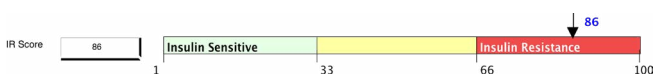
*The treatment considerations are provided for informational purposes only and are not intended as medical advice. A physician's test selection and interpretation, diagnosis, and patient management decisions should be based on his/her education, clinical expertise, and assessment of the patient.*

Patient Information		Specimen Information		Client Information	
<b>TEST, CARDIO4</b>		Specimen: CW029170A		Client #: 97502840 11111111	
DOB: 01/10/1985 AGE: 33		Requisition: 0215083		TEST CLIENT (HQ) NEL	
Gender: M Fasting: N		Lab Ref #: ARTST		Attn: TESTING FOR SFDC	
Phone: 987.654.1230		Collected: 07/17/2018 / 13:00 EDT		400 EGYPT RD # 2009 1/4	
Patient ID: ARTST		Received: 07/17/2018 / 02:49 EDT		SUITE 12345	
		Reported: 07/25/2018 / 13:27 EDT		NORRISTOWN, PA 19403-3406	

Cardio IQ®					
Test Name	Units	Result and Risk Category			Result from
		Optimal	Moderate	High	
Metabolic Markers					
INSULIN, INTACT, LC/MS/MS	uIU/mL		18		<=16 N/A >16
C-PEPTIDE, LC/MS/MS	ng/mL		2.55		<=2.16 N/A >2.16
INSULIN RESISTANCE SCORE			86		<33 33-66 >66

For details on reference ranges please refer to the reference range/comment section of the report.

IR Score: 86

1 33 66 100

Insulin Sensitive Insulin Resistance

Test Name	Patient Preparation	Test Code	CPT Codes*
Cardio IQ® Insulin Resistance Panel with Score	Overnight fasting required	36509(X)	83525, 84681

\* The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.

**Knowing what's ahead can make all the difference.** Contact your Quest Diagnostics sales representative or visit [QuestDiagnostics.com/IRscore](https://www.questdiagnostics.com/IRscore) to learn more.

### References

1. Holman, RR. Assessing the potential for alpha-glucosidase inhibitors in prediabetic states. *Diabetes Res Clin Pract.* 1998;40 Suppl:S21-25. 2. American Heart Association. About diabetes. Available at [www.heart.org/en/health-topics/diabetes/about-diabetes](http://www.heart.org/en/health-topics/diabetes/about-diabetes). Accessed August 17, 2018. 3. Dall T, Thielson D, Varvel, S. Targeting insulin resistance: the ongoing paradigm shift in diabetes prevention. *AJMC.* April 11, 2013. <https://www.ajmc.com/journals/evidence-based-diabetes-management/2013/2013-1-vol19-sp2/targeting-insulin-resistance-the-ongoing-paradigm-shift-in-diabetes-prevention>. Accessed September 20, 2018. 4. Abbasi F, Shiffman D, Tong CH, et al. Insulin resistance probability scores for apparently healthy individuals. *J Endocr Soc.* 2018;2:1050-1057. 5. Knowler WC, Barrett-Connor E, Fowler SE, et al. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med.* 2002;346:393-403. 6. Daniel S, Soleymani T, Garvey WT. A complications based clinical staging of obesity to guide treatment modality and intensity. *Cur Opin Endocrinol Diabetes Obes.* 2013;20:377-388. 7. Torgerson JS, Hauptman J, Boldrin MN, et al. XENical in the prevention of diabetes in obese subjects (XENDOS) study: A randomized study of orlistat as an adjunct to lifestyle changes for the prevention of type 2 diabetes in obese patients. *Diabetes Care.* 2004;27:155-161. 8. Garvey WT, Ryan DH, Henry R, et al. Prevention of type 2 diabetes in subjects with prediabetes and metabolic syndrome treated with phentermine and topiramate extended release. *Diabetes Care.* 2014;37:912-921. 9. American Diabetes Association, National Institute of Diabetes, Digestive and Kidney Disorders. The prevention or delay of type 2 diabetes. *Diabetes Care.* 2002;25:742-749. 10. Genuth S, Kahn R. A step backward—or is it forward? *Diabetes Care.* 2008;31:1093-1096.

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