

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 diagnosed¹

>60 million

IR affects >60 million Americans²

80%

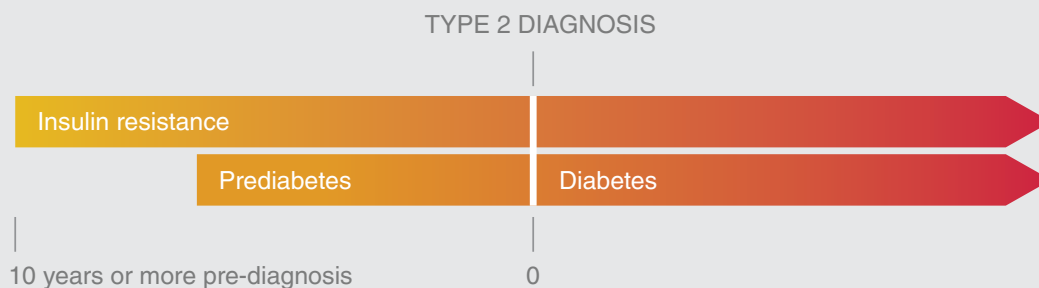
By the time diabetes is evident, 80% of beta cell function has already been lost³

The 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 disease⁴ 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-IR⁴
- 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 diagnosed¹



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



Which patients are suitable for testing?

1. Patients with normal glucose and HbA1c who may be at risk⁴
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 Insulin Resistance Panel with Score gives you an effective counseling tool for patients who need to make lifestyle changes.



What actions might you consider?⁵⁻¹⁰

- 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		PRACTITIONER INFORMATION	
Name	TEST, PATIENT 1	Order ID	ZZ791800008	Name	TEST PROVIDER - IT DEPT
Age	38	Collection Date/Time	09/25/2018, 10:40 AM	Chc# ID	12628 IT DEPT - CHL
Gender	Female	Received Date/Time	09/25/2018, 10:51 AM	Address	SUITE 500 CLEVELAND OH 44119 US
Fasted Status	COB	Report Date/Time	10/03/2018, 1:43 PM		
ethnicity	USA				

METABOLIC								
	In Range	Out of Range	Flag**	Relative Risk	Reference/ Optimal Range	Units	Previous Result	Date
Insulin Resistance Score								
Insulin Resistance Score (IRSC)		48		MOD	<33			
Reference Range: <33 is 0. Insulin Sensitivity <33. Insulin Resistance >33. A score below 33 is optimal. The insulin resistance score correlates with steady state glucose levels achieved during an oral sugar suppression test, a standard research test for insulin resistance. The score is based on IRSC and C-peptide results (Abbas, F., 2013; Dai, C., Tang, C.H., Dandekar, J.J., Reaven, G.H., 1997; Prasad, M., 2007) Identification of Insulin Resistance in Apparently Healthy Individuals. <i>Metabolism</i> in press.								
Insulin, Intact (C-peptide) (IRSC)		12.1			<38	µIU/mL		
Insulin concentration can be converted to picomoles by applying the conversion factor: 1 µIU/mL = 5.97 pmol/L. For additional information, please refer to the laboratory's website (www.chl.com) (This link is being provided for informational purposes only.)								
C-peptide, LC/MS/MS (IRSC)		1.8			0.88-2.16	ng/mL		

OUT OF RANGE RESULTS SUMMARY							
	Result	Flag**	Relative Risk	Reference/ Optimal Range	Units	Previous Result	Date
METABOLIC							
Insulin Resistance Score	48		MOD	<33			

Test Name	Patient Preparation	Test Code	CPT Codes*
Insulin Resistance Panel with Score	Overnight fasting required	906974	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.



For more information please contact your Sonora Quest Laboratories Account Manager or visit SonoraQuest.com

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. 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.

SonoraQuest.com

Sonora Quest Laboratories, any associated logos, and all associated Sonora Quest Laboratories registered or unregistered trademarks are the property of Sonora Quest Laboratories. All third-party marks —© and ™—are the property of their respective owners. © 2019 Sonora Quest Laboratories. All rights reserved. 1/2019

6701 Carnegie Ave. | Suite 500 | Cleveland, OH 44103
 p 866.358.9828 | f 866.869.0148
clevelandheartlab.com | knowyourrisk.com | chlcm.com

