<b>OBESITY</b>	MANA	GEMENT	IN F	RIMARY	CAR
TRAINING	G AND	CERTIFIC	CATE	PROGR	AM



# **Module 3 - PEARLS: Applying History** and Physical Exam to Practice

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#### **Goal of This Session**

Goal is to help you:

■ Utilize learning to integrate diagnostics into clinical practice

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## PEARLS From the Module 3 Clinical Webinar

- 1. Diagnosing obesity is an important first step to recognizing and addressing obesity in a clinical setting
  - You can't treat what you don't diagnose
- 2. A thorough assessment is the foundation of effective treatment
- 3. Your history, physical exam, and laboratory findings will help to guide individualized treatment

### PEARLS From the Module 3 Clinical Webinar

- 4. Use the readiness to change and respect if a patient is not ready to engage
- 5. Staging an individual's obesity will:
  - Help to understand the extent of the disease
  - Specify how quality of life and functional ability are being impacted (if using EOSS)
  - Help to guide how aggressive treatment should be

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#### Application to Practice: Insulin Resistance

- Insulin resistance sets off a host of metabolic processes
  - Formation of excess adiposity and inflammation throughout the body
  - As IR continues
    - oExcess adipose is accumulated and insulin resistance rises oWeight gain occurs more easily oMore difficult time losing weight

oWorsens insulin resistance

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## Application to Practice: Insulin Resistance

HOMA-IR (Homeostatic Model Assessment for Insulin Resistance) score can help to calculate insulin resistance

- $\blacksquare$  Designed for research—now often used in clinical practice
- Several studies suggest a cutoff of >2 for any insulin resistance
- MD Calc has a tool for **HOMA-IR**
- https://www.mdcalc.com/homa-ir-homeostatic-model-assessmentinsulin-resistance

# Application to Practice: Insulin Resistance

### HOMA-IR2

- Several studies suggest a cutoff of >1 for any insulin resistance
- Provides additional information including beta cell function
  - degree of insulin sensitivity (HOMA %S)
  - level of beta cell function (HOMA %B)
- Downloaded to computer as an application
- <a href="https://www.dtu.ox.ac.uk/homacalculator/download.php">https://www.dtu.ox.ac.uk/homacalculator/download.php</a>

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HOMA-IR Sco	re		
HOMA-IR Scores f	or these two	patients	
1. Go to: https:/ insulin-resista		lc.com/homa	a-ir-homeostatic-model-assessment-
<ol> <li>Calculate res</li> <li>Patient 1:</li> </ol>		n 11, Glucose 8	38
HOMA-	IR 2.4		HOMA-IR 2 1.41 %B 126.9 %S 70.8
troulin Ghrene	11	politic mp	Plasma glucose: 85 mmol/l • mg/dl
2.4			%B: 126.9 %S: 70.8 IR: 1.41
• Patient 2:	Fasting Insulir	7, Glucose 84	4
Irosile	7	p3335, 6p	HOMA-IR 2 0.89 %B 102.7 %S 111.9
Clucroe	84	mg/dL by	Plasma glucose : 84 mmol/l mg/dl   Insulin
1.4			%B: 1027 %S: 111.9 R: 0.89

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## Application to Practice—Staging

- 64-year-old female: BMI 37.3 PMH: diabetes, HTN, osteoarthritis, anxiety, walks 2 miles a day
- Class 2 (WHO staging is based on BMI)
- Staging
  - AACE
  - EOSS

Application to Pra	ct	ice—S1	tagi	ng					
■ 64-year-old female: BM	137	7.3 PMH:	diab	etes, HTN	۷, د	steoarth	nritis, ar	nxiety, w	alks 2
miles a day				Class	В	AI .			
				1		to 29.9 kg/m²			
Class 2 (WHO staging is	ha	ed on BN	41)	2		to 39.9 kg/m <sup>2</sup>			
, , ,	Da.	sea on br	viij	3	В	/II > 40 kg/m <sup>2</sup>			
■ Staging									
AACE									
o Stage 2 d/t DM or HTN	Stage	BM	Complication	15	Stag			Prychological symptoms	Functional limitations
	0	25 kg/m² to 28.9 kg/m² (prechesity or overveight)	no identified o	complications	0	None Subclinical risk	None Mild – no medical	None Mild	None Quality of life not
. 5000		(precessly or everweight) or BM ≥ 30 kg/m <sup>2</sup>			÷	factors Established ORC with	treatment needed Moderate	Moderate	impacted Moderate - QoL is
EOSS     Stage 2	-1	≥25 lg/m²	complications	none mild to moderate is that can be breated in treating obesity	2	medical intervention		psychological sx (depression, arolety, eating disorder)	being impacted
				evere complication and may aggressive treatment	3	Significant ORC with end organ damage (Mi, heart failure, diabetes with complications)	Significant (incapacitating OA)	Significant (reduced mobility, unable to work or complete AD(s)	Significant – Qut is significantly impacted
					4	Severe Severe	or Severe	or Severe	or Sewere
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Staging	
• 38-year-old male: BMI 41 PMH: osteoarthritis, depression, NAFLD, using a cane	
Class (WHO staging is based on BMI)	
■ Staging • AACE	
• EOSS	
200	11

Staging									
■ 38-year-old male: BMI 4	11 F	MH: oste	oar	thritis, de	pre	ession, N	AFLD, u	sing a c	ane
				Class	вм				
				- 1	25 t	29.9 kg/m²			
<ul> <li>Class 3 (WHO staging is</li> </ul>	bas	sed on BN	AI)	2	30 t	39.9 kg/m²			
ciass s (wine staging is		, ca 011 b11	,	3	ВМІ	VII ≥ 40 kg/m²			
<ul><li>Staging</li></ul>									
• AACE					Stage	Obesity Related risk factor	Physical symptoms	Psychological symptoms	Functional limitations
					0	None Subclinical risk	None Mild – no medical	None Mild	None Quality of life not
o Stage 2 d/t DM or HTN	Stage	BM	Complicat	ions	1	factors	treatment needed		Impacted
	0	25 kg/m² to 25.9 kg/m²	to identifie	d complications		Established ORC with medical intervention	Moderate	Moderate psychological sx	Moderate – QoL is being impacted
• FOSS		(precbasity or overweight) or BM ≥ 30 kg/m <sup>2</sup>			2			(depression, arriety, eating	
	- 1	≥ 25 lg/m²		more mild to moderate		Significant ORC with	Significant	disorder) Significant (reduced	Significant - QoL is
o Stage 3				ns that can be treated by treating obesity	3	end organ damage (Mi, heart failure,	(incapacitating OA)	mobility, unable to work or complete	significantly impacted
	2	≥ 25 kg/m²	at least on	severe complication and may		diabetes with complications)		AO(s)	
			require mo	ne aggressive treatment	4	Sovere	or Severe	or Severe	or Severe
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Staging
■ 26-year-old female: BMI 26 PMH: IR by HOMA-IR 2.4, medication metformin
• Class (WHO staging is based on BMI)
Staging AACE
• EOSS

Staging								
■ 26-year-old female: B	SMI 26 PMF	l: IR by I	HOMA-I	R 2	.4, med	ication	metforr	nin
■ Class 1 (WHO staging	is based or	n BMI)	Class 1 2		BMI 25 to 29.9 kg/m 30 to 39.9 kg/m			
<ul> <li>Staging</li> <li>AACE</li> <li>Stage 2 d/t DM or HT</li> </ul>	ΓN		3	Stage	BMI ≥ 40 kg/m <sup>2</sup> Chesty Related risk factor None		Psychological symptoms Mone	Functional Britations None
• EOSS o Stage 1	Complications no identified compli-	cations	1 Subdivical risk Mild – no medical factors to testing the factors between the medical intervention 2		Mild Moderate psychological sx (depression, anolety, eating claserder)	Quality of life not impacted Moderate – Cot. is being impacted		
	1 ≥25 kg/m² 2 ≥25 kg/m²	has one or more mild to moderate complications that can be treated effectively by treating obesity at least one severe complication and may		3	Significant ORC with end organ damage (Mt, heart failure, diabetes with complications)	Significant (Incapacitating OA)	Significant (reduced mobility, unable to work or complete ADLs)	significantly impacted
		require more aggree		4	Severe	or Sewere	or Sewere	or Sewere

