

# IN DOCTRINA ET IN USU

Praticamente ... diabetologia

## HOMO EST QUOD EST

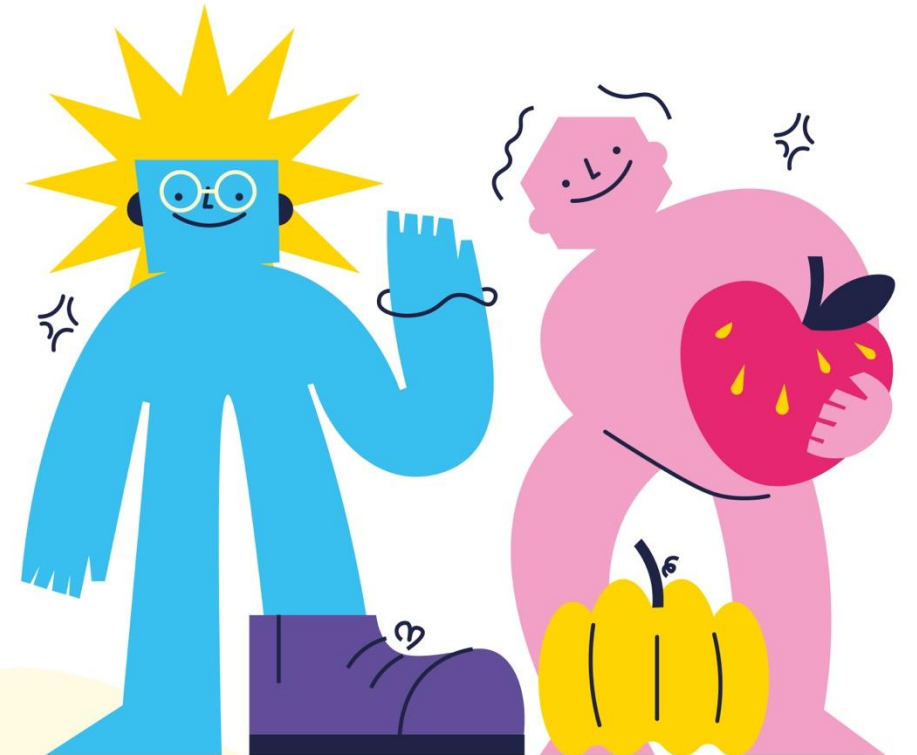
Nutrire il futuro: strategie di prevenzione e cura

**01.06.24**

**TORINO (TO)**  
Centro Congressi  
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**23.11.24**

**POLLENZO (CN)**  
Aula Magna Università degli  
Studi di Scienze Gastronomiche



# Utilizzo delle Incretine nei giovani



The screenshot shows the Rai Play interface for the miniseries "I vecchi e i giovani". The header includes the Rai Play logo, navigation tabs for "Film", "Serie Italiane", "Sport", and "Bambini", a search icon, a user profile icon with the letter "U", and the Rai logo. The main content area features the title "I vecchi e i giovani" in large white text, followed by the year "1979". A descriptive paragraph in white text reads: "I vecchi e i giovani", tratto dal romanzo di Luigi Pirandello, è una miniserie andata in onda sul secondo programma nella primavera del 1979. Girato in 35 mm, lo sceneggiato rientra nel filone che consolida le riprese in esterno e l'uso del colore per le produzioni Rai. Marco Leto dirige un cast internazionale: fra gli altri, Gabriele Ferzetti, Alain Cluny, Stephanie Beacham, Stefano Satta Flores. Below this, it lists the director "Regia: Marco Leto" and the cast "Interpreti: Gabriele Ferzetti, Alain Cuny, Stephanie Beacham, Bekim Fehmiu". At the bottom, there are three interactive buttons: a blue button with a play icon and the text "RIPRODUCI St 1 Ep 1", a grey button with a plus icon and the text "La mia lista", and a grey button with a share icon and the text "Condividi". The background of the page is a dark, close-up image of a woman's face.

**Umberto GOGLIA, MD, PhD**

**SAI – Diabetologia Territoriale , ASLCN1**

**Referente AFT – DISTRETTO SUD-OVEST**

Carlo Salinari (1919 - 1977 ) parla - riferendosi a **I Vecchi e I giovani**, di tre "fallimenti collettivi": RISORGIMENTO, come mancato moto generale di rinnovamento dell'Italia UNITA', come fallito strumento di liberazione e sviluppo SOCIALISMO, che avrebbe potuto essere la ripresa del movimento risorgimentale.



Questi **fallimenti** si sovrappongono poi a quelli "*individuali*" «dei vecchi che non hanno saputo passare dagli ideali alla realtà e si trovano a essere responsabili degli scandali, della corruzione e del malgoverno dei giovani»

**obesity** reviews

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## Obesity: a medical history

D. Haslam

Bulls Green Farm, Datchworth, Herts SG3 6RZ, UK

**Keywords:** Diet, history, nutrition, obesity.

*Accepted 16 November 2006*

**The history of *obesity* is a history of failure.**

**Looking back in time, however, gives us many insights as to treatment in the future.**

**obesity** reviews

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## Obesity: a medical history

D. Haslam

Bulls Green Farm, Datchworth, Herts SG3 6RZ, UK

**Keywords:** Diet, history, nutrition, obesity.

Accepted 16 November 2006

**Venus of Willendorf**



<b>Material</b>	Oolitic limestone
<b>Created</b>	c. 30,000 BP
<b>Discovered</b>	7 August 1908, near Willendorf, by Josef Szombathy
<b>Present location</b>	Naturhistorisches Museum, Vienna, Austria

## Relation Between Obesity and Type 2 Diabetes: Evolutionary Insights, Perspectives and Controversies

June 2024 · [Current Obesity Reports](#) 13(3)

DOI:[10.1007/s13679-024-00572-1](https://doi.org/10.1007/s13679-024-00572-1)

Authors:



**Manoj Kumar Gupta**

Hannover Medical School



**Hunter gatherer  
(Healthy and survivor)**



**Modern Individual**

# IN DOCTRINA ET IN USU

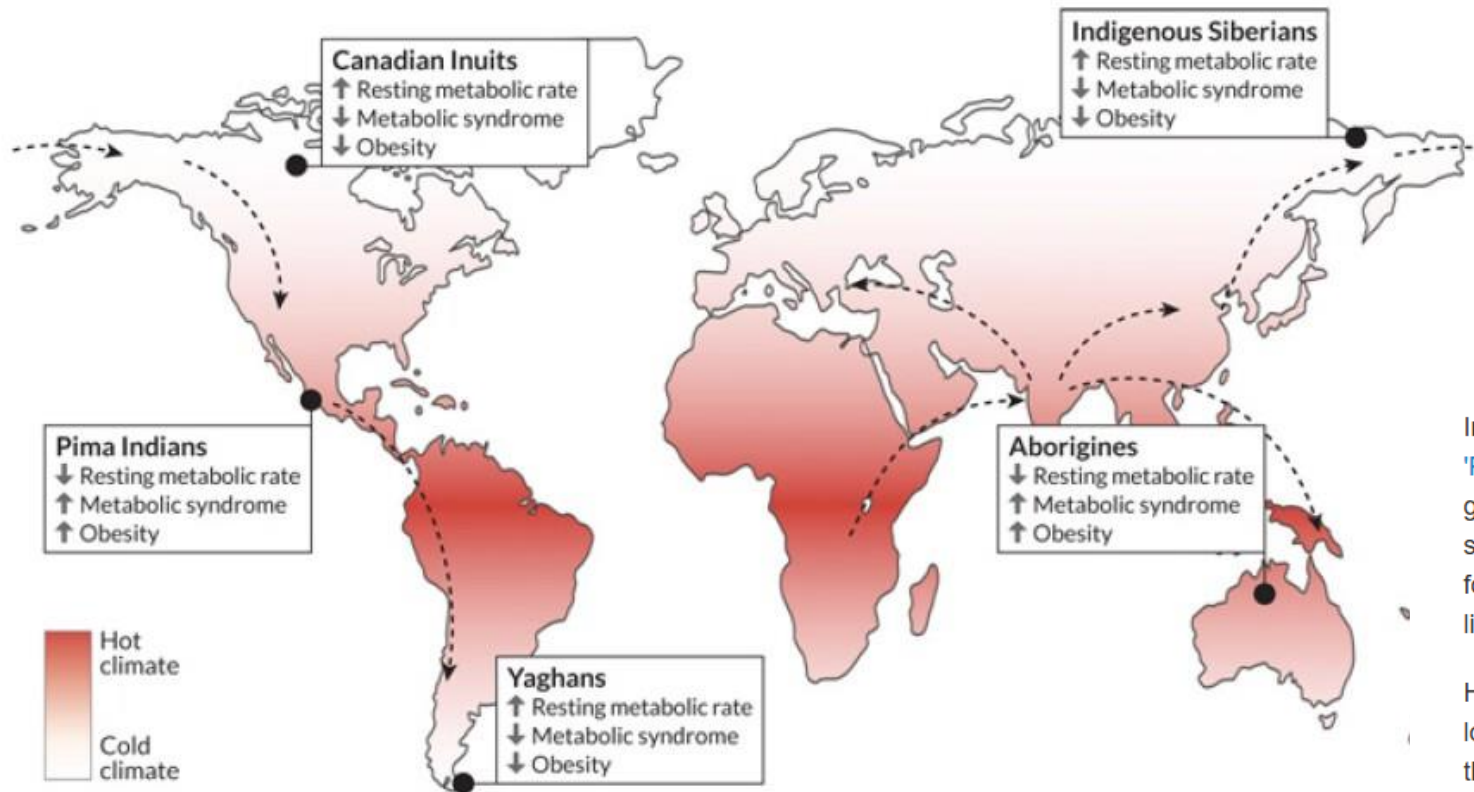
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POLLENZO 23.11.24



*D. Sellayah et al/Endocrinology 2014, adapted by E. Otwell*  
An illustration of one of the recent theories linking evolution, human genetics and obesity  
"Warm Climates, Slow Metabolism"

In his paper titled "[Diabetes Mellitus: A 'Thrifty' Genotype Rendered Detrimental by 'Progress'?](#)" Neel proposed that the feast-or-famine cycles encountered by hunter-gatherers favored an ability to rapidly store fat during times of plenty, in order to survive subsequent food scarcity. A change in conditions to reliable, year-round supplies of food, Neel argued, transformed the tendency to store fat from an advantage into a liability, and perhaps led to diabetes.

However, Neel's own studies [cast doubt](#) on the theory. Neel couldn't find evidence of a long history of diabetes among the communities in question, and young members of these groups didn't demonstrate glucose intolerance, a predisposing factor for the disease.

## Relation Between Obesity and Type 2 Diabetes: Evolutionary Insights, Perspectives and Controversies

June 2024 · *Current Obesity Reports* 13(3)

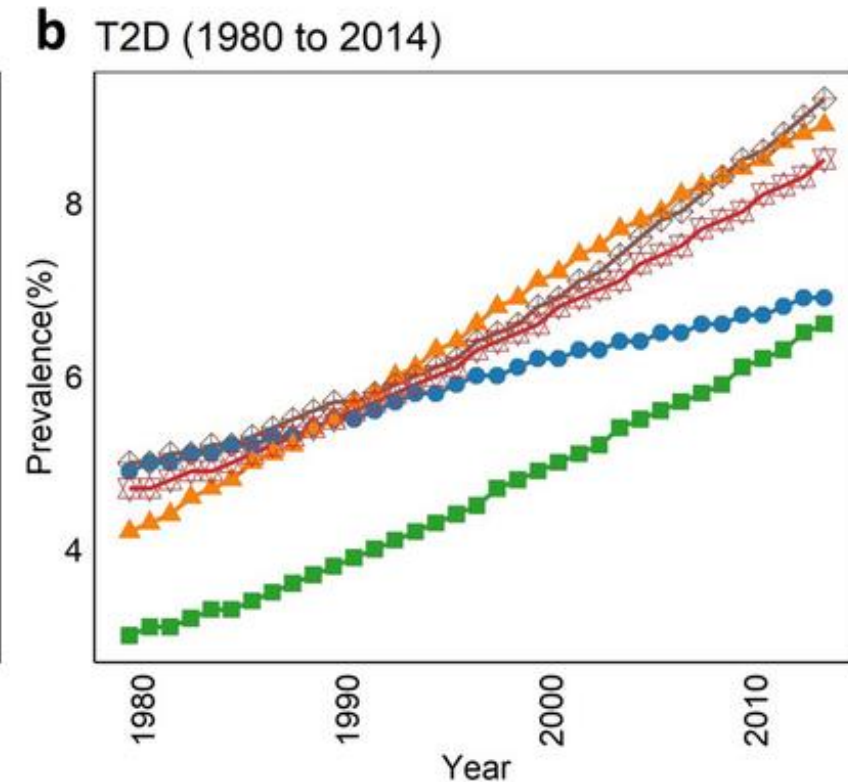
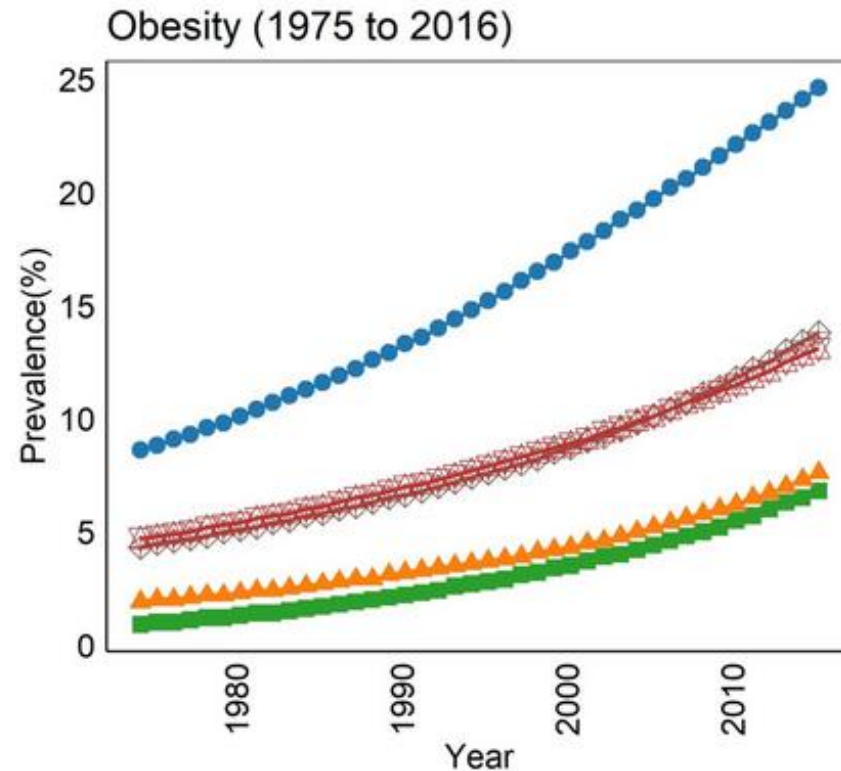
DOI: [10.1007/s13679-024-00572-1](https://doi.org/10.1007/s13679-024-00572-1)

Authors:



**Manoj Kumar Gupta**  
Hannover Medical School

Region — World — High-income — Low-income — Lower-middle-income — Upper-middle-income



Prevalence and consequences of obesity in different economic regions of the world. a The percentage of adults with obesity, defined as having a Body Mass Index (BMI) equal to or exceeding 30 kg/m<sup>2</sup>, adjusted for age standardization in specified populations from 1975 to 2019 [27, 28]. b The percentage of individuals within a specified population who have either a fasting glucose level of 126 mg/dl (7.0 mmol/l) or higher, a history of diagnosed diabetes or are currently using insulin or oral hypoglycemic drugs [29, 30] from 1980 to 2014.



## Relation Between Obesity and Type 2 Diabetes: Evolutionary Insights, Perspectives and Controversies

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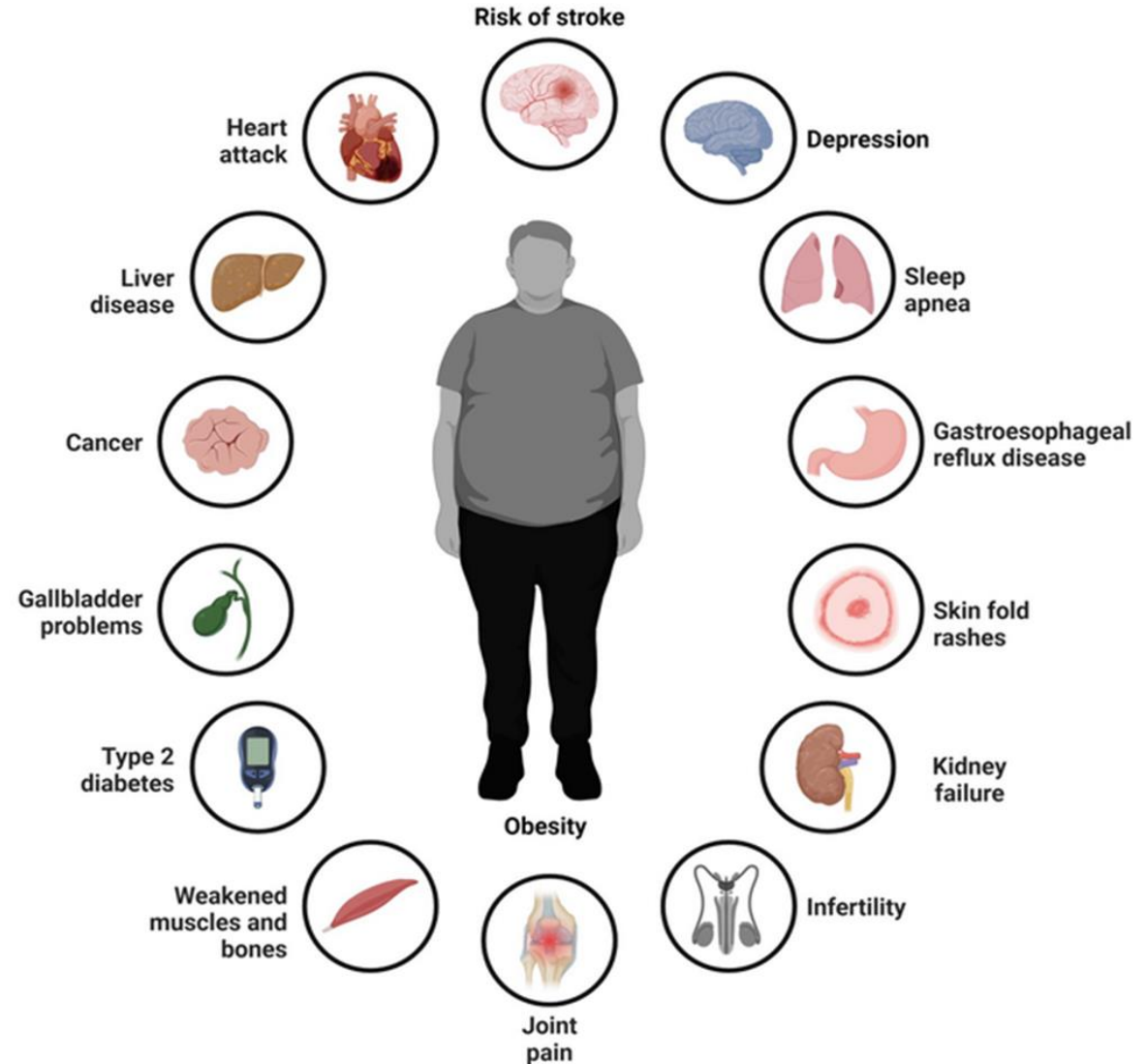
Authors:



**Manoj Kumar Gupta**

Hannover Medical School

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c Health risks associated with Obesity

## Relation Between Obesity and Type 2 Diabetes: Evolutionary Insights, Perspectives and Controversies

June 2024 · *Current Obesity Reports* 13(3)

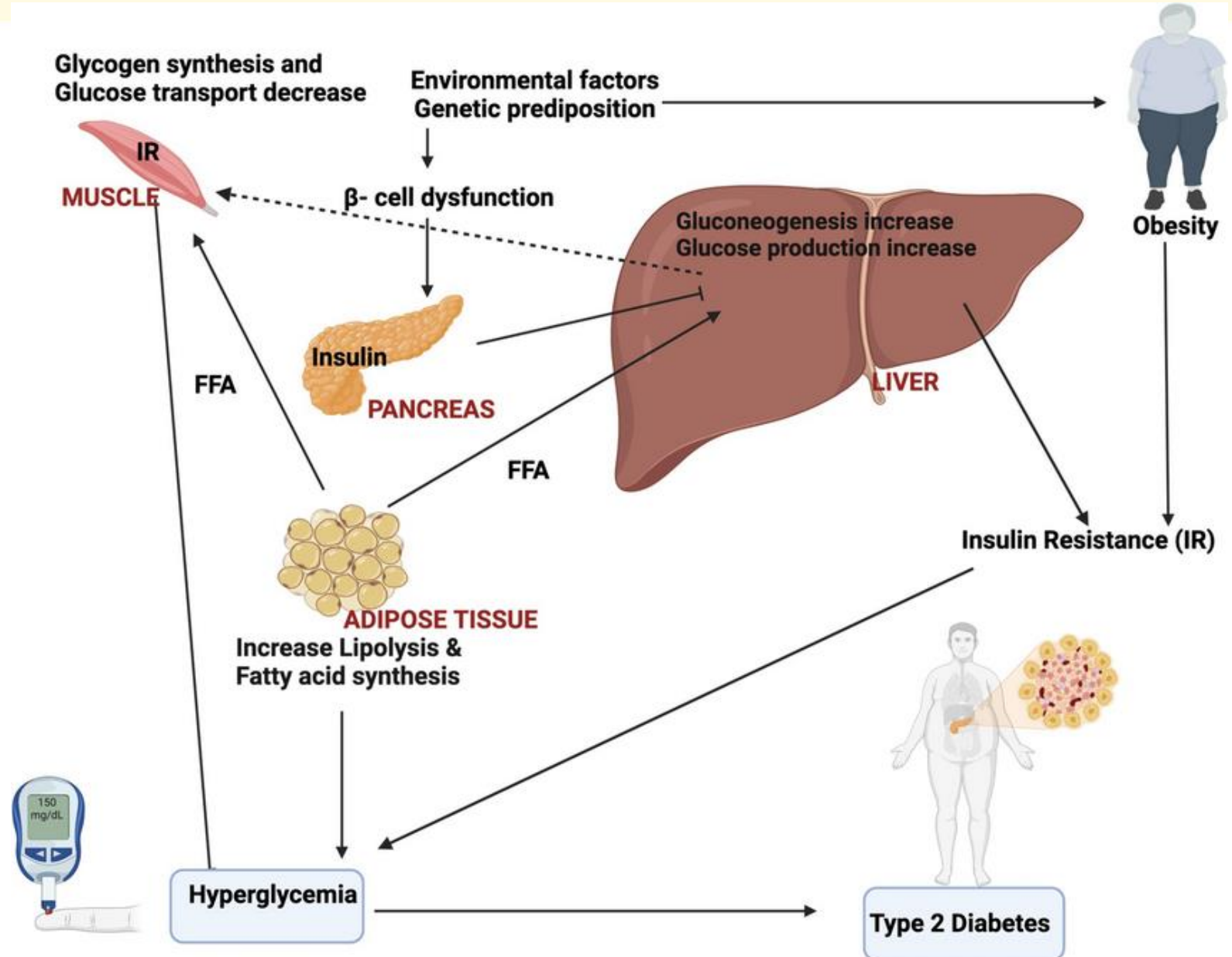
DOI: [10.1007/s13679-024-00572-1](https://doi.org/10.1007/s13679-024-00572-1)

Authors:



**Manoj Kumar Gupta**  
Hannover Medical School

Pathogenesis of obesity associated IR and T2D. Clinically, T2D is characterized by dysfunction of  $\beta$  cells and IR.  $\beta$  cell dysfunction may develop because of numerous environmental as well as genetic predisposition factors.



## Relation Between Obesity and Type 2 Diabetes: Evolutionary Insights, Perspectives and Controversies

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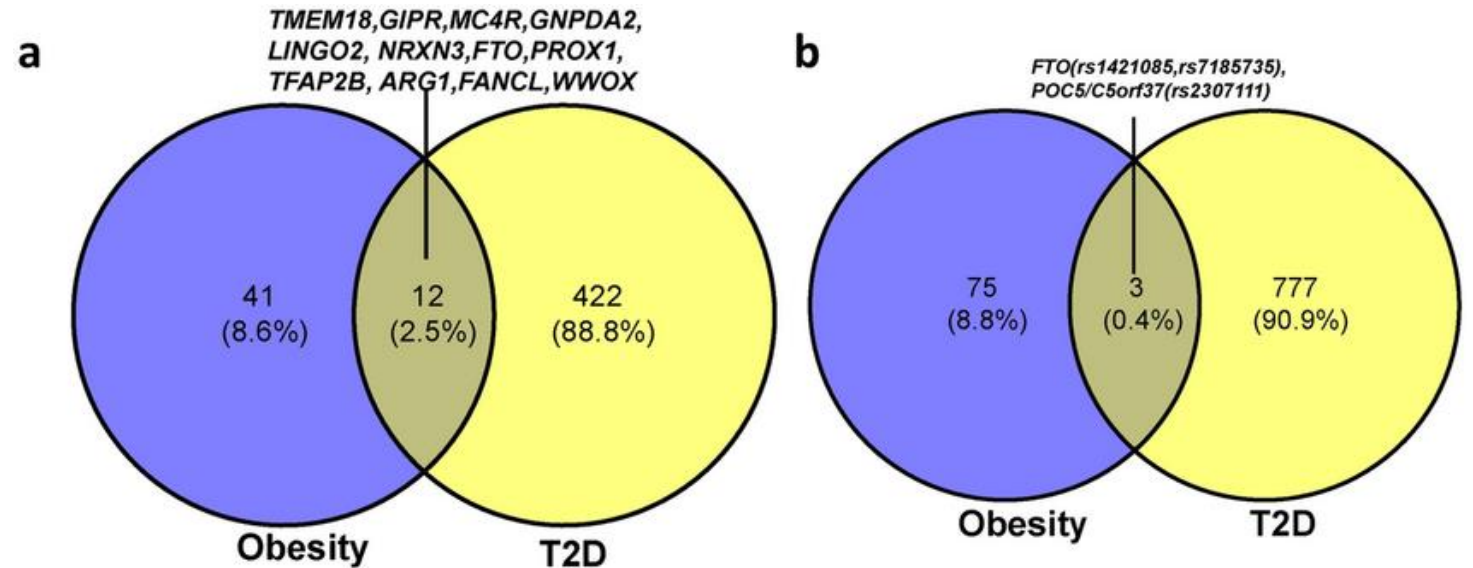
Authors:



**Manoj Kumar Gupta**

Hannover Medical School

Obesity and T2D associated with gene and its variants associated with identified by GWAS: a 12 overlapping genes, b 3 variants



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## World Obesity Atlas 2024: No area of the world is unaffected by the consequences of obesity

[NEWS](#) WORLD OBESITY ATLAS 2024: NO AREA OF THE WORLD IS UNAFFECTED BY THE CONSEQUENCES OF OBESITY

[≡ IN THIS SECTION](#)

### Key Statistics:

- 79% of adults with overweight and obesity will live in Low- and Middle-Income Countries (LMICs) by 2035.
- 88% of children with overweight and obesity will be living in LMICs by 2035.
- It is projected that the number of adults living with obesity will rise from 0.81 billion in 2020 to 1.53 billion in 2035.

WORLD OBESITY

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## World Obesity Atlas 2024: No area of the world is unaffected by the consequences of obesity

NEWS WORLD OBESITY ATLAS 2024: NO AREA OF THE WORLD IS UNAFFECTED BY THE CONSEQUENCES OF OBESITY

IN THIS SECTION

**Table 1.6:** Global estimate (2020) and projected number of young people (2025-2035) with overweight (BMI >1sd – 2sd)\* and obesity (BMI >2sd)\*

	2020	2025	2030	2035
Children with overweight	260m	310m	350m	390m
Children with obesity	175m	240m	310m	380m
Children with overweight or obesity as a proportion of all children globally	22%	28%	33%	39%

Source *World Obesity Federation, 2023a*

For regional data see sections 2 and 3.

\* Definitions according to World Health Organization child growth reference charts.

Open Access Review

## Hormonal Gut–Brain Signaling for the Treatment of Obesity

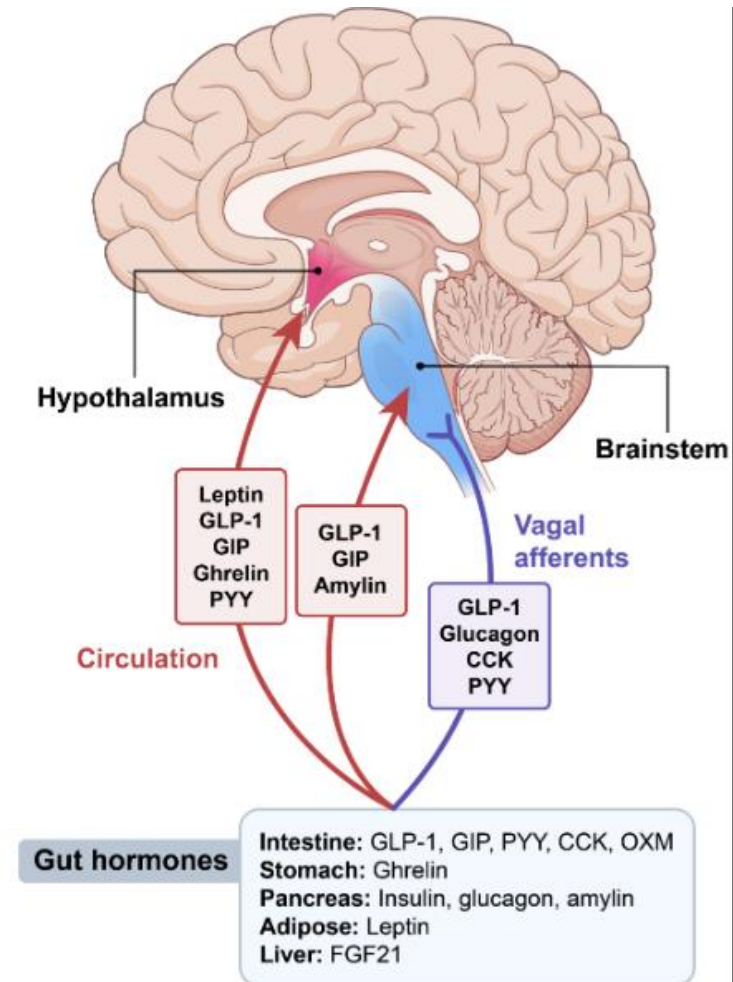
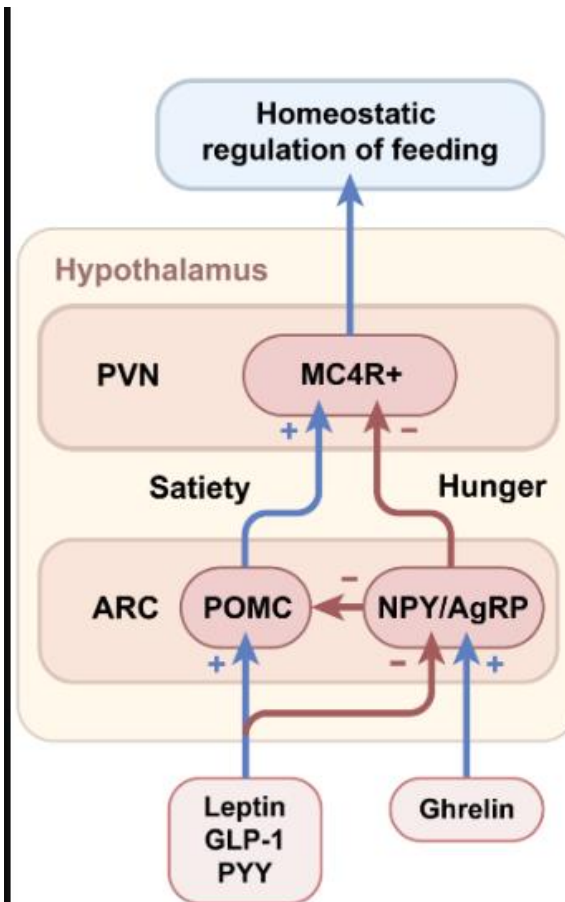
by Eun Roh <sup>1</sup> and Kyung Mook Choi <sup>2,\*</sup>

<sup>1</sup> Division of Endocrinology and Metabolism, Department of Internal Medicine, Hallym University Sacred Heart Hospital, Hallym University College of Medicine, Anyang 14068, Republic of Korea

<sup>2</sup> Division of Endocrinology and Metabolism, Department of Internal Medicine, Korea University College of Medicine, Seoul 02841, Republic of Korea

\* Author to whom correspondence should be addressed.

*Int. J. Mol. Sci.* **2023**, *24*(4), 3384; <https://doi.org/10.3390/ijms24043384>



## nature reviews drug discovery

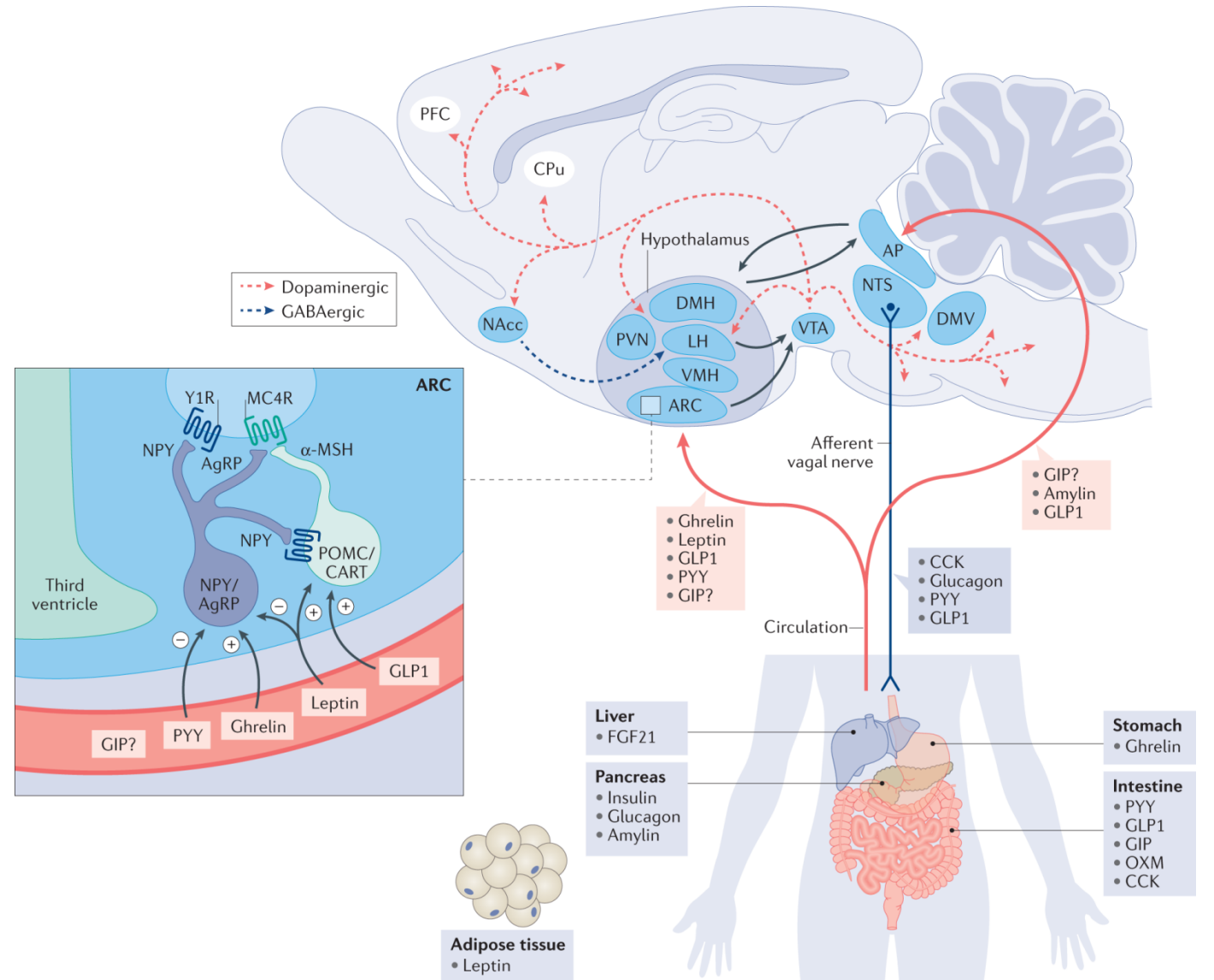
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Review Article | Published: 23 November 2021

## Anti-obesity drug discovery: advances and challenges

[Timo D. Müller](#) , [Matthias Blüher](#), [Matthias H. Tschöp](#) & [Richard D. DiMarchi](#) 





► Am J Physiol Endocrinol Metab. 2016 Mar 15;310(9):E774–E781. doi: [10.1152/ajpendo.00496.2015](https://doi.org/10.1152/ajpendo.00496.2015) 

## The incretin effect in obese adolescents with and without type 2 diabetes: impaired or intact?

[Benedikt A Aulinger](#)<sup>1,2,\*</sup>, [Torsten P Vahl](#)<sup>1,3,\*</sup>, [Ron L Prigeon](#)<sup>4</sup>, [David A D'Alessio](#)<sup>1,5,✉</sup>, [Deborah A Elder](#)<sup>6</sup>

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PMCID: PMC4867309 PMID: [26979523](#)

These findings demonstrate that in young subjects with early, well-controlled T2D the incretin effect is reduced, similar to what has been described in diabetic adults. The lower incretin effect calculated for the obese subjects with NGT is driven by a disproportionately greater insulin response to iv glucose and does not affect postprandial glucose regulation.

These findings confirm that the ***incretin effect is an early marker of impaired insulin secretion in persons with abnormal glucose tolerance but suggest that in obese subjects with NGT the incretin effect calculation can be confounded by exaggerated insulin secretion to iv glucose***



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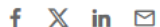
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ORIGINAL ARTICLE



## A Randomized, Controlled Trial of Liraglutide for Adolescents with Obesity

**Authors:** Aaron S. Kelly, Ph.D., Pernille Auerbach, M.D., Ph.D., Margarita Barrientos-Perez, M.D., Inge Gies, M.D., Ph.D., Paula M. Hale, M.D., Claude Marcus, M.D., Ph.D., Lucy D. Mastrandrea, M.D., Ph.D., Nandana Prabhu, M.Sc., and Silva Arslanian, M.D., for the NN8022-4180 Trial Investigators\* [Author Info & Affiliations](#)

Published March 31, 2020 | N Engl J Med 2020;382:2117-2128 | DOI: 10.1056/NEJMoa1916038 | [VOL. 382 NO. 22](#)

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ORIGINAL ARTICLE



## Liraglutide for Children 6 to <12 Years of Age with Obesity — A Randomized Trial

**Authors:** Claudia K. Fox, M.D. , Margarita Barrientos-Pérez, M.D., Eric M. Bomberg, M.D., John Dcruz, M.D., Inge Gies, Ph.D., Nina M. Harder-Lauridsen, Ph.D., Muhammad Yazid Jalaludin, M.D., Kushal Sahu, M.Sc., Petra Weimers, Ph.D., Thomas Zueger, M.D., and Silva Arslanian, M.D. , for the SCALE Kids Trial Group\* [Author Info & Affiliations](#)

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Obesity Medicine 48 (2024) 100545



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Obesity Medicine

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## Efficacy of liraglutide in pediatric obesity: A review of clinical trial data

Marcello Agosta<sup>a</sup>, Maria Sofia<sup>a</sup>, Salvatore Pezzino<sup>a,b,\*</sup>, Sara D'Amato<sup>a</sup>,  
Giorgia Litrico<sup>a</sup>, Chiara Mazzone<sup>a</sup>, Gaetano La Greca<sup>a,b</sup>, Saverio Latteri<sup>a,b</sup>

<sup>a</sup> Department of General Surgery, Cannizzaro Hospital, via Messina 829, 95126, Catania, Italy

<sup>b</sup> Department of Medical, Surgical Sciences and Advanced Technologies "G.F. Ingrassia", University of Catania, via Santa Sofia 87, 95125, Catania, Italy

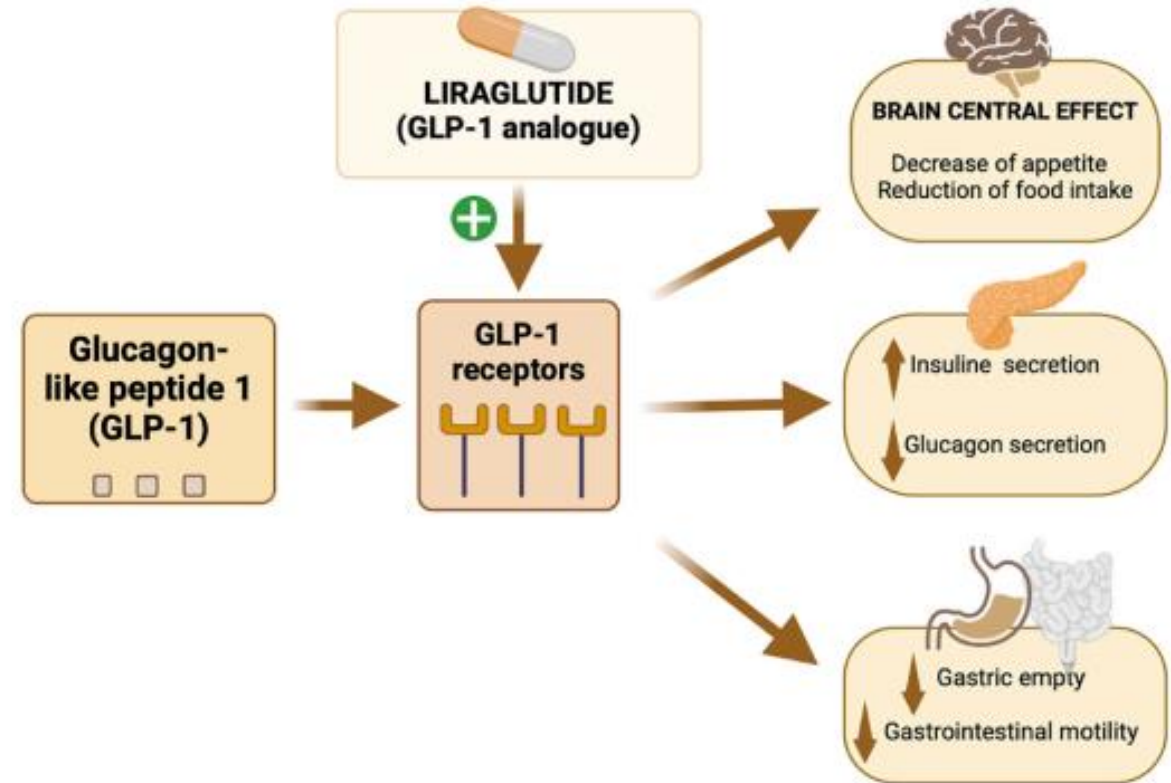


Fig. 1. Effects of liraglutide. Created with Biorender.com.

Obesity Medicine 48 (2024) 100545

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## Efficacy of liraglutide in pediatric obesity: A review of clinical trial data

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<sup>b</sup> Department of Medical, Surgical Sciences and Advanced Technologies "G.F. Ingrassia", University of Catania, via Santa Sofia 87, 95125, Catania, Italy

**Table 1**

Approved medications for childhood and adolescent obesity. BMI: Body mass index.

Medication	Orlistat	Liraglutide	Semaglutide	Phentermine
Indication	12 years and older ( <a href="#">Hampl et al., 2023</a> )	12 years and older ( <a href="#">Hampl et al., 2023</a> )	12 years and older ( <a href="#">Hampl et al., 2023</a> )	16 years and older (max 3 months) ( <a href="#">Hampl et al., 2023</a> )
Mechanism of action	Inhibits pancreatic and gastric lipases, consequently reducing fat absorption	Glucagon-like peptide-1 receptor agonist that acts on targets in the central nervous system	Glucagon-like peptide-1 receptor agonist that acts on targets in the central nervous system	Central norepinephrine uptake inhibitor + nonselectively inhibits serotonin and dopamine reuptake
Efficacy	5% BMI reduction	5% BMI reduction ( <a href="#">Hampl et al., 2023</a> )	5% BMI reduction ( <a href="#">Hampl et al., 2023</a> )	4% BMI reduction
FDA	Approved ( <a href="#">Hampl et al., 2023</a> )	Approved ( <a href="#">Hampl et al., 2023</a> )	Approved ( <a href="#">Hampl et al., 2023</a> )	Approved ( <a href="#">Hampl et al., 2023</a> )
EMA	Not approved	Approved (EMA, 2018a)	Approved (EMA, 2021)	Not approved



ORIGINAL ARTICLE



## Once-Weekly Semaglutide in Adolescents with Obesity

**Authors:** Daniel Weghuber, M.D., Timothy Barrett, Ph.D., Margarita Barrientos-Pérez, M.D., Inge Gies, Ph.D., Dan Hesse, Ph.D., Ole K. Jeppesen, M.Sc., Aaron S. Kelly, Ph.D., Lucy D. Mastrandrea, M.D., Rasmus Sørrig, Ph.D., and Silva Arslanian, M.D. , for the STEP TEENS Investigators\* [Author Info & Affiliations](#)

Published November 2, 2022 | N Engl J Med 2022;387:2245-2257 | DOI: 10.1056/NEJMoa2208601

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RESEARCH SUMMARY

### Once-Weekly Semaglutide in Adolescents with Obesity

Weghuber D et al. DOI: 10.1056/NEJMoa2208601

**CLINICAL PROBLEM**

Young people with obesity have limited options if pharmacotherapy is indicated. The glucagon-like peptide-1 analogue semaglutide — at a once-weekly, 2.4-mg, subcutaneous dose — is approved for weight management in adults with obesity. Its efficacy and safety in adolescents with obesity have been unknown.



**CLINICAL TRIAL**

**Design:** A phase 3a, multinational, double-blind, parallel-group, randomized, placebo-controlled trial assessed the efficacy and safety of semaglutide plus lifestyle intervention, as compared with lifestyle intervention alone, in adolescents with obesity.

**Intervention:** 201 adolescents 12 to <18 years of age with a body-mass index (BMI) in the ≥95th percentile, or in the ≥85th percentile with at least one weight-related coexisting condition, were assigned in a 2:1 ratio to receive subcutaneous semaglutide (2.4 mg once weekly) or placebo for 68 weeks. All participants and their parents received counseling about nutrition and physical activity for weight loss throughout the trial. The primary end point was the percentage change in BMI from baseline to week 68.

**RESULTS**

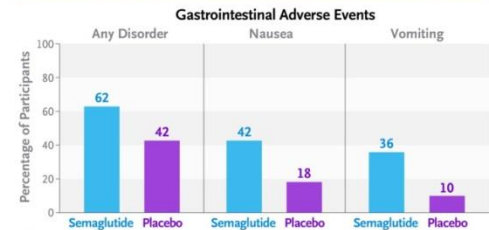
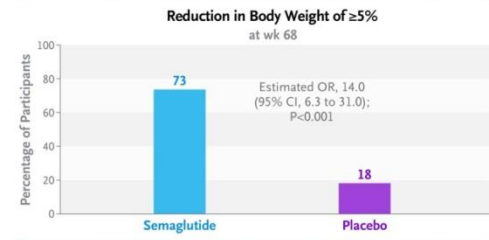
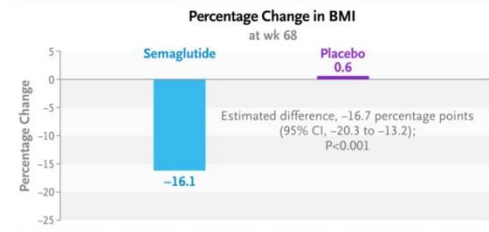
**Efficacy:** The semaglutide group had a clinically relevant reduction in mean BMI at week 68, whereas the placebo group had a modest increase.

**Safety:** Gastrointestinal disorders were the most common adverse events with semaglutide and were generally mild or moderate and of limited duration. Acute cholelithiasis occurred only with semaglutide (in five participants).

**LIMITATIONS AND REMAINING QUESTIONS**

- The durability of semaglutide's treatment effect in adolescents is unclear, as is the effect of treatment cessation.
- The generalizability of the findings may be limited, given that the trial included more female than male participants, most were White, and only eight had type 2 diabetes.

Links: [Full Article](#) | [NEJM Quick Take](#)



**CONCLUSIONS**  
In adolescents with obesity, once-weekly treatment with a 2.4-mg dose of subcutaneous semaglutide plus lifestyle intervention led to a significant reduction in BMI at week 68, as compared with lifestyle intervention alone.

## Once-Weekly Semaglutide in Adolescents with Obesity

**Authors:** Daniel Weghuber, M.D., Timothy Barrett, Ph.D., Margarita Barrientos-Pérez, M.D., Inge Gies, Ph.D., Dan Hesse, Ph.D., Ole K. Jeppesen, M.Sc., Aaron S. Kelly, Ph.D., Lucy D. Mastrandrea, M.D., Rasmus Sørrig, Ph.D., and Silva Arslanian, M.D. , for the STEP TEENS Investigators\* [Author Info & Affiliations](#)

Published November 2, 2022 | N Engl J Med 2022;387:2245-2257 | DOI: 10.1056/NEJMoa2208601

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**Table 1. Characteristics of the Participants at Baseline.\***

Characteristic	Semaglutide (N = 134)	Placebo (N = 67)	Total (N = 201)
Sex — no. (%)			
Male	50 (37)	26 (39)	76 (38)
Female	84 (63)	41 (61)	125 (62)
Age — yr	15.5±1.5	15.3±1.6	15.4±1.6
Age group — no. (%)			
12 to <15	47 (35)	25 (37)	72 (36)
15 to <18	87 (65)	42 (63)	129 (64)
Race — no. (%)†			
Asian	3 (2)	1 (1)	4 (2)
Black	11 (8)	5 (7)	16 (8)
White	104 (78)	55 (82)	159 (79)
Other	16 (12)	6 (9)	22 (11)
Hispanic or Latino ethnic group — no. (%)†	14 (10)	8 (12)	22 (11)
Tanner stage — no. (%)‡			

ORIGINAL ARTICLE

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## Once-Weekly Semaglutide in Adolescents with Obesity

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Height — cm	170.1±9.4	168.8±10.6	169.7±9.8
Body weight — kg	109.9±25.2	102.6±22.3	107.5±24.5
<b>BMI§</b>			
Mean	37.7±6.7	35.7±5.4	37.0±6.4
Percentage of 95th percentile	133.8±22.7	127.8±17.6	131.8±21.2
Standard-deviation score	3.39±0.92	3.15±0.71	3.31±0.86
Waist circumference — cm	111.9±16.9	107.3±13.4	110.4±16.0
Glycated hemoglobin level — %	5.5±0.4	5.5±0.4	5.5±0.4
<b>Blood pressure — mm Hg</b>			
Systolic	120±11	120±12	120±11
Diastolic	73±9	73±9	73±9
<b>Geometric mean lipid levels — mg/dl</b>			
HDL cholesterol	43.7	43.3	43.5
Coefficient of variation	23.1	22.2	22.8
Triglycerides	111.3	108.1	110.2
Coefficient of variation	47.5	48.7	47.8

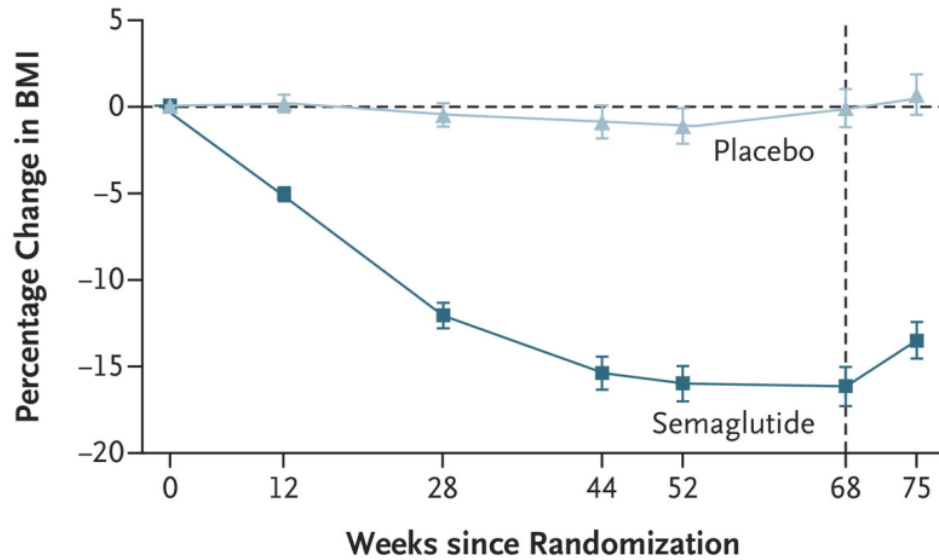
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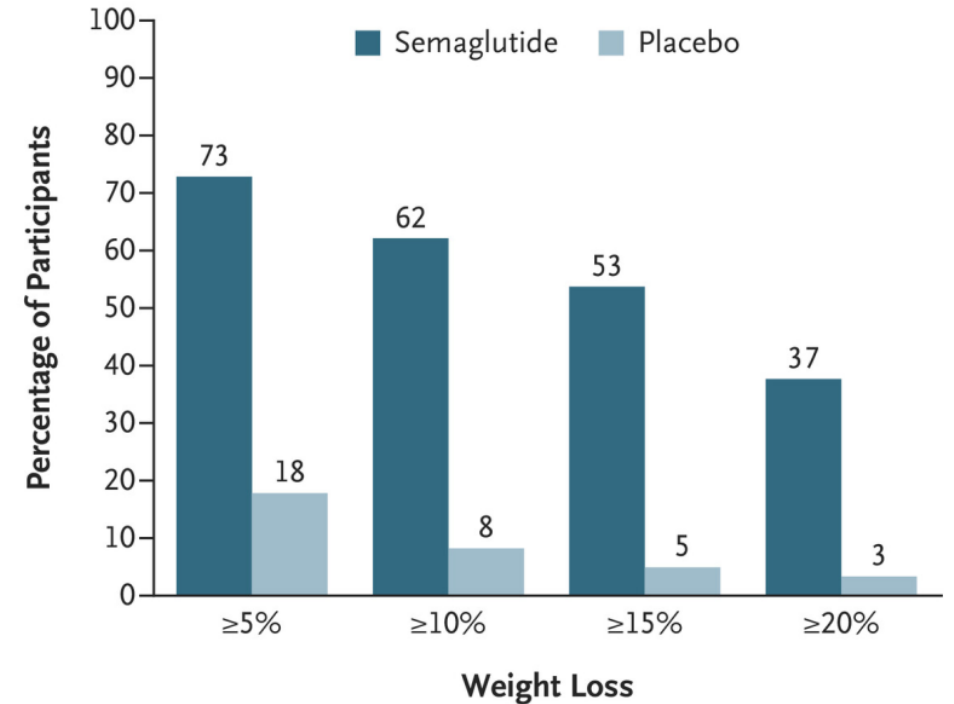
**A Change in BMI from Baseline**



**No. of Participants**

Placebo	67	56	63	61	62	62	61
Semaglutide	134	119	131	130	131	131	128

**B Weight-Loss Thresholds at Week 68**





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ORIGINAL ARTICLE

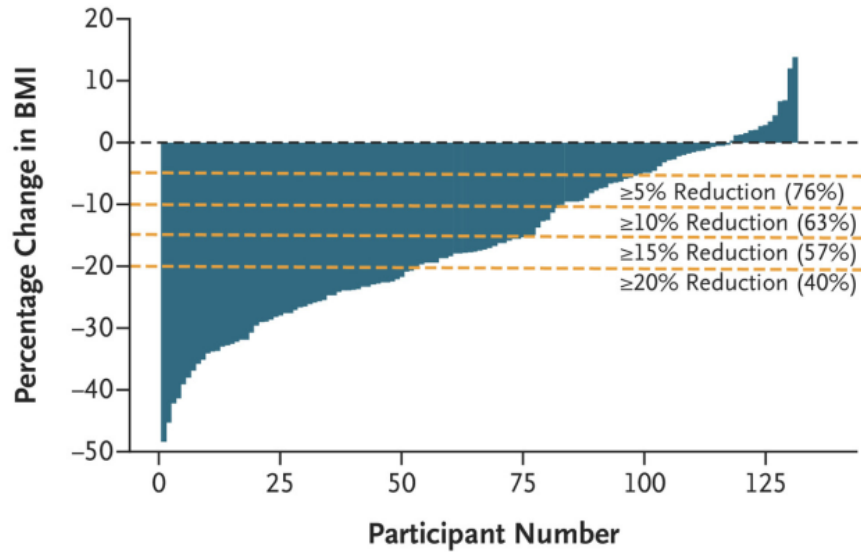
## Once-Weekly Semaglutide in Adolescents with Obesity

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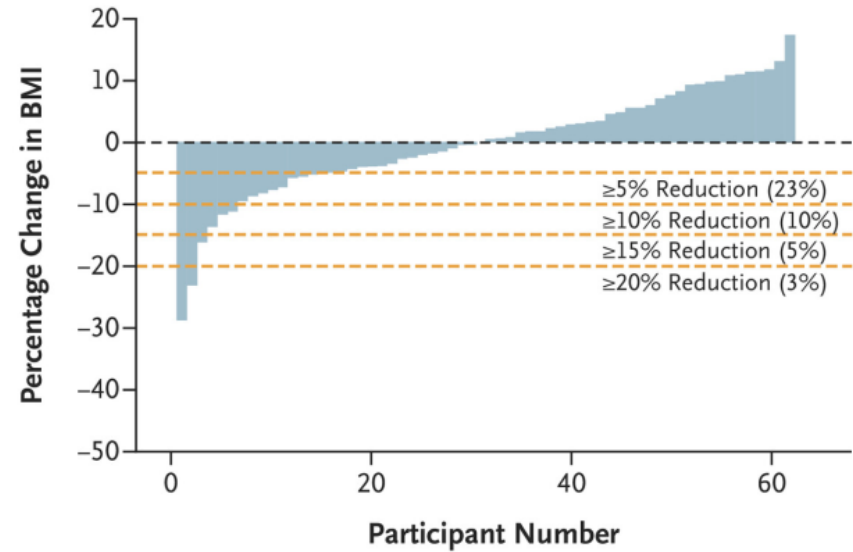
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C Change in BMI at Week 68 in the Semaglutide Group



D Change in BMI at Week 68 in the Placebo Group





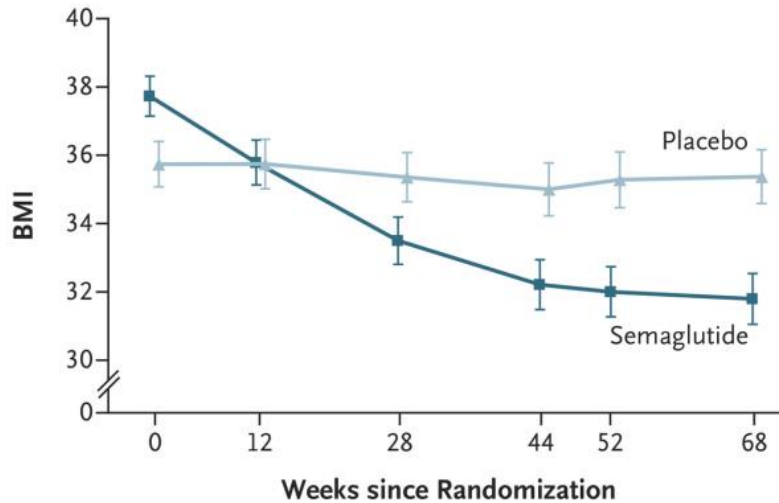
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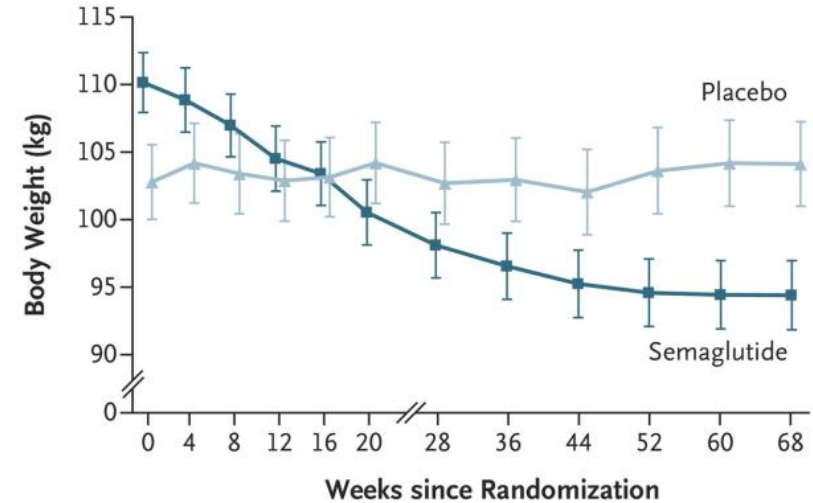
**E BMI According to Weeks since Randomization**



**No. of Participants**

Placebo	67	56	63	61	62	62
Semaglutide	134	119	131	130	131	131

**F Body Weight According to Weeks since Randomization**



**No. of Participants**

Placebo	67	62	63	59	66	64	64	63	61	64	63	62
Semaglutide	134	122	127	121	132	128	133	131	131	131	131	131



ORIGINAL ARTICLE



## Once-Weekly Semaglutide in Adolescents with Obesity




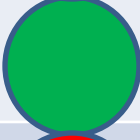



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**Table 2. (Continued.)**

End Point	Semaglutide (N = 134)	Placebo (N = 67)	Difference, Semaglutide vs. Placebo (95% CI) <sup>†</sup>	P Value
<b>Exploratory end points</b>				
Change in IWQOL-Kids questionnaire scores — points				
Physical comfort domain	6.4	−0.3	6.6 (2.0 to 11.2)	
Body esteem domain	9.3	5.4	3.9 (−1.9 to 9.8)	
Social life domain	2.4	−0.7	3.1 (−1.8 to 7.9)	
Family relations domain	0.9	−2.6	3.4 (−0.3 to 7.1)	
Total score	5.3	1.0	4.3 (0.2 to 8.3)	

Molecole	RCP	Evidence in young people	
<p><b>LIRAGLUTIDE</b></p>	<p>Adolescenti (<math>\geq 12</math> anni)</p> <p><u>Saxenda è indicato in aggiunta ad una sana alimentazione e ad un aumento dell'attività fisica per la gestione del peso corporeo in pazienti adolescenti dall'età di 12 anni in poi con:</u></p> <ul style="list-style-type: none"> <li>• obesità (IMC corrispondente a <math>\geq 30</math> kg / m<sup>2</sup> per gli adulti secondo i valori soglia internazionali *) e</li> <li>• peso corporeo superiore a 60 kg.</li> </ul> <p>Il trattamento con Saxenda deve essere interrotto e rivalutato se i pazienti non hanno perso almeno il 4% del loro IMC o punteggio z del IMC dopo 12 settimane alla dose di 3,0 mg/die o alla dose massima tollerata.</p> <p>* Valori soglia di IMC secondo l'International Obesity Task Force (IOTF) per l'obesità in base al sesso tra 12-18 anni (vedere tabella 1):</p>	6 – 12 aa	
		12 – 18 aa	
<p><b>SEMAGLUTIDE</b></p>	<p>Adolescenti (<math>\geq 12</math> anni)</p> <p><u>Wegovy è indicato in aggiunta a una dieta ipocalorica e a un aumento dell'attività fisica per la gestione del peso, in adolescenti dall'età di 12 anni in poi con:</u></p> <ul style="list-style-type: none"> <li>• obesità* e</li> <li>• peso corporeo superiore a 60 kg.</li> </ul> <p>Il trattamento con Wegovy deve essere interrotto e rivalutato se i pazienti adolescenti non hanno perso almeno il 5% del loro IMC dopo 12 settimane alla dose di 2,4 mg o alla dose massima tollerata.</p> <p>* Obesità (IMC <math>\geq 95^{\circ}</math> percentile) come definita dalla tabella di crescita in base al sesso e all'età (CDC.gov) (vedere Tabella 1).</p> <p>Tabella 1 Valori soglia di IMC (<math>\geq 95^{\circ}</math> percentile) in base al sesso e all'età in pazienti pediatriche dall'età di 12 anni in poi (criteri CDC)</p>	6 – 12 aa	
		12 – 18 aa	
<p><b>TIRZEPATIDE</b></p>	<p>Tabella 1 Valori soglia di IMC (<math>\geq 95^{\circ}</math> percentile) in base al sesso e all'età in pazienti pediatriche dall'età di 12 anni in poi (criteri CDC)</p>	6 – 12 aa	
	<p><i>Popolazione pediatrica</i></p> <p>La sicurezza e l'efficacia di tirzepatide nei bambini di età inferiore a 18 anni non sono state ancora stabilite. Non ci sono dati disponibili.</p>	12 – 18 aa	
<p><b>CAGRILINTIDE/ SEMA</b></p>			

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### We may have passed peak obesity

Weight loss drugs appear to be having an effect at the population level

JOHN BURN-MURDOCH

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The year 1963 was surely one of the most significant of the 20th century. President John F Kennedy was assassinated, Martin Luther King delivered his “I have a dream” speech, and the Beatles recorded and released their debut album. But for all the huge political and cultural events, it was arguably an even more momentous year for public health: 1963 was the year cigarette sales peaked and began to fall in the US.

A generation from now, we may look back on 2020 in a similar way. Yes, there was the small matter of a global pandemic, but this may also have been the year obesity levels ceased their inexorable rise and began to descend.

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## The US obesity rate fell in 2023

Age-adjusted obesity rate among adults aged 20 and older (%)



Health and Nutrition Examination Survey  
@jburnmurdoch

We have known for several years from clinical trials that Ozempic, Wegovy and the [new generation of diabetes and weight loss drugs](#) produce large and sustained reductions in body weight. Now with mass public usage taking off — one in [eight US adults](#) have used the drugs, with 6 per cent current users — the results may be showing up at the population level.

While we [can't be certain](#) that the new generation of drugs are behind this reversal, it is highly likely. For one, the decline is steepest among college graduates, the group most likely to be using them.

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What makes this all the more remarkable is the contrast in mechanisms behind the respective declines in smoking and obesity. The former was eventually achieved through decades of campaigning, public [health](#) warnings, tax incentives and bans. With obesity, a single pharmaceutical innovation has done what those same methods have repeatedly failed to do.

The US leading the descent is a beautiful twist. Its unparalleled consumer culture sent its obesity rate rising faster and further than almost anywhere else. When the solution was regulation or moderation, America was at a disadvantage. But when procuring and distributing large quantities of pharmaceuticals is the name of the game, the US is unrivalled. These drugs are more widely available there than anywhere else.

There has been a tendency in some quarters to view taking drugs to lose weight as cheating, not virtuous, not the way it's meant to be done. But here's the thing: it works. And I suspect that when we look back at charts of obesity rates in generations to come, there will be inflection points in the 2020s to prove it.

[john.burn-murdoch@ft.com](mailto:john.burn-murdoch@ft.com), [@jburnmurdoch](https://twitter.com/jburnmurdoch)



Una cosa è triste, cari miei: aver capito il gioco!

Dico il gioco di questo demoniaccio beffardo che ciascuno di noi ha dentro e che si spassa a rappresentarci di fuori, come *realtà*, ciò che poco dopo egli stesso ci scopre come una nostra **illusione**, deridendoci degli affanni che per essa ci siamo dati, e deridendoci anche, come avviene a me, del non averci saputo illudere, **poiché fuori di queste illusioni non c'è più altra realtà**