

OVERVÆGT BLANDT BØRN

Jens Meldgaard Bruun

Steno Diabetes Center Aarhus
Dept. Clinical Medicine, University of Aarhus
Danish National Center for Obesity

COI

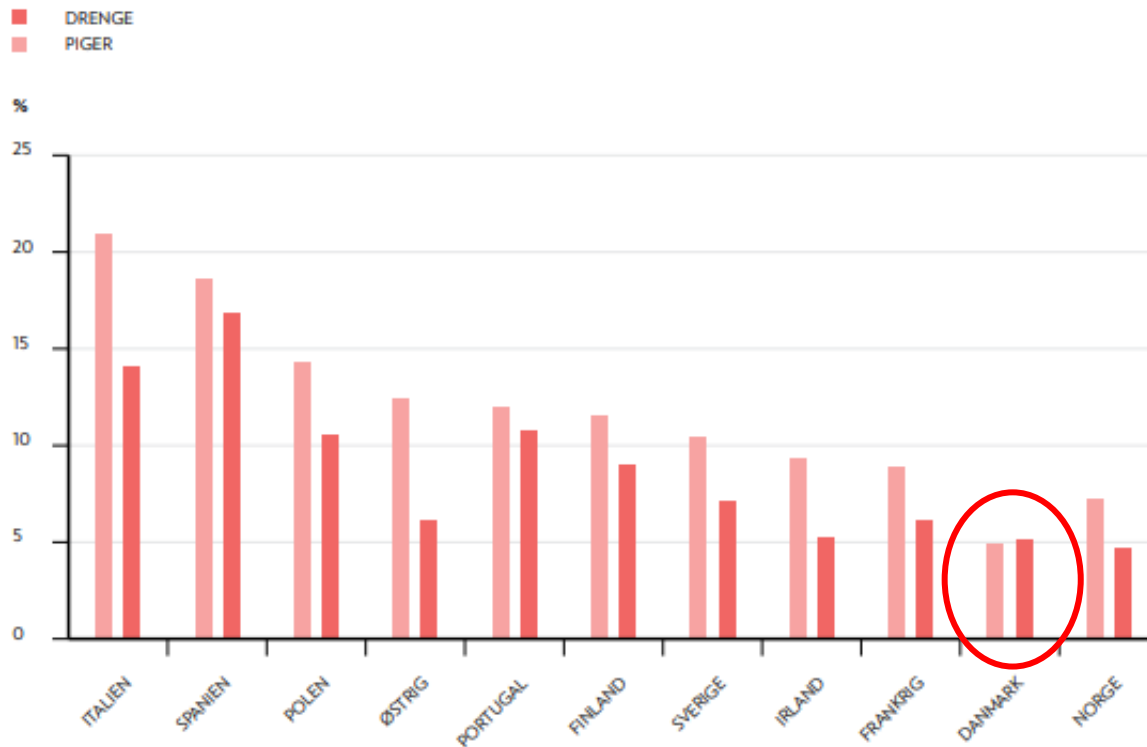
- ▶ Speakers bureau (last 3 years):

Eli Lilly, Merck, Novo Nordisk & Böhringer Ingelheim

- ▶ Research funding (last 3 years):

Sygeforsikringen danmark, Novo Nordisk Foundation, Danske Regioner, Aarhus University

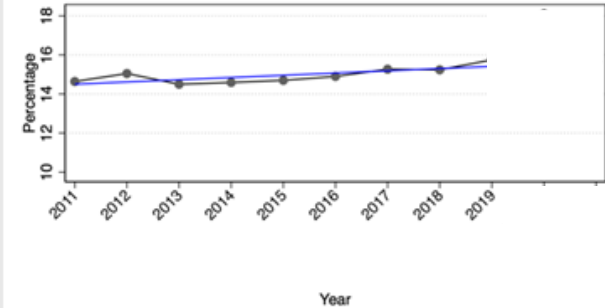
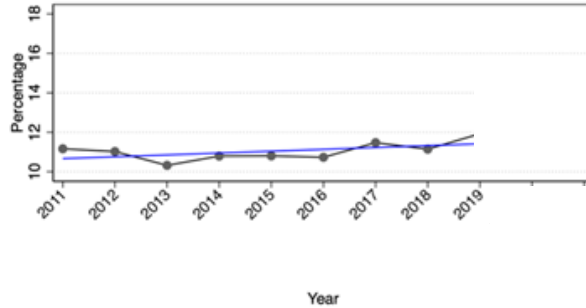
OBESITY IN CHILDREN



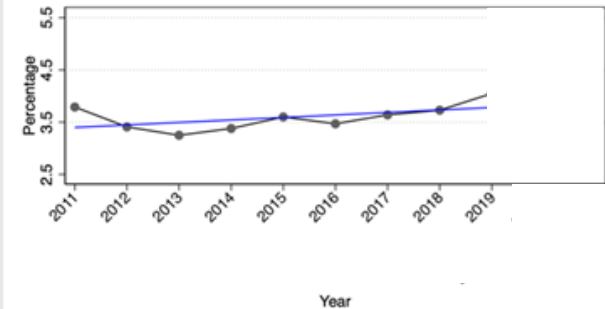
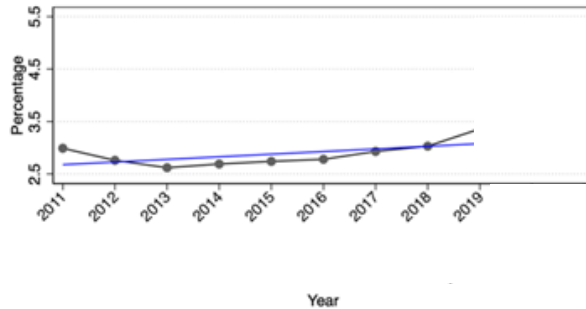
Bruun JM et al.
Vidensråd for Forebyggelse 2021

OVERWEIGHT & OBESITY – TRENDS IN DK

Overweight



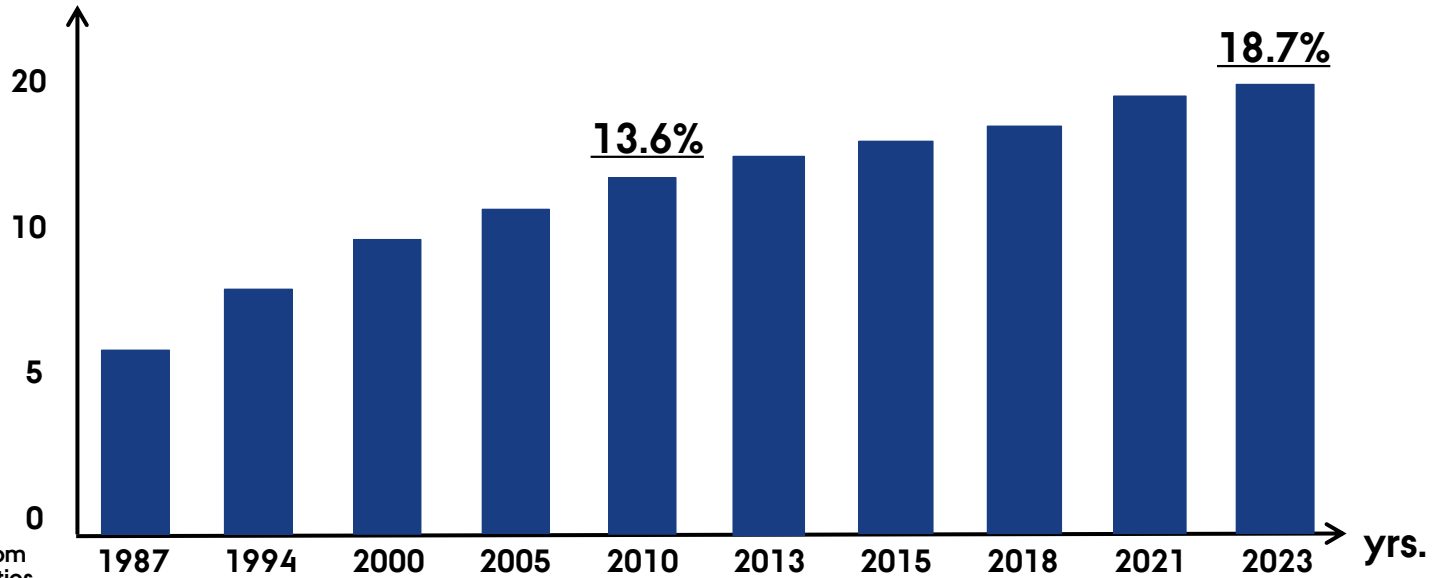
Obesity



Jensen FK et al. Unpublished data

OBESITY IN ADULTS

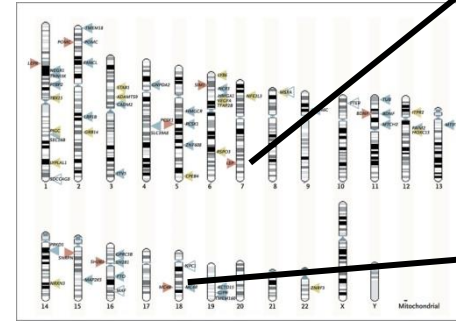
Obesity (%)



Bruun JM, adapted from
Danish Health Authorities

WHO DEVELOP OBESITY?

- Genes
- Factors during pregnancy
- Structural/socioeconomic factors
- Psychological factors
- High caloric food intake
- Inactivity/reduced activity
- Sleep
-?



Wang Z et al, Nat Gen 2022



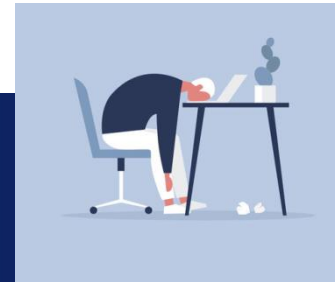
Lep

Farooqi S et al. JCI 2002



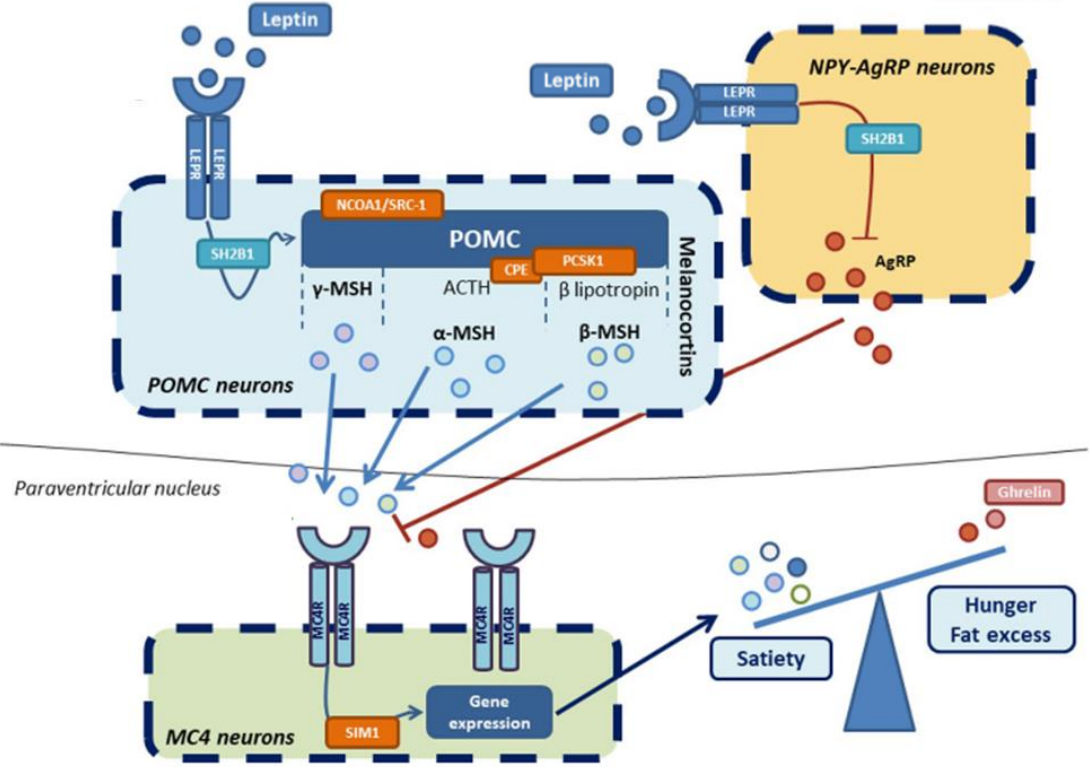
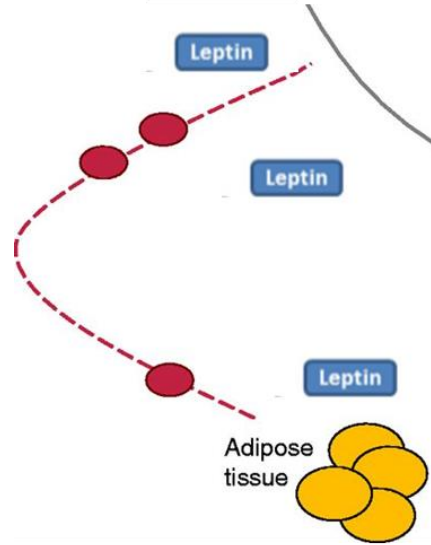
MC4R

Bruun JM et al
Ugeskr Laeger 2004



IT'S ALL BRAIN

Arcuate nucleus



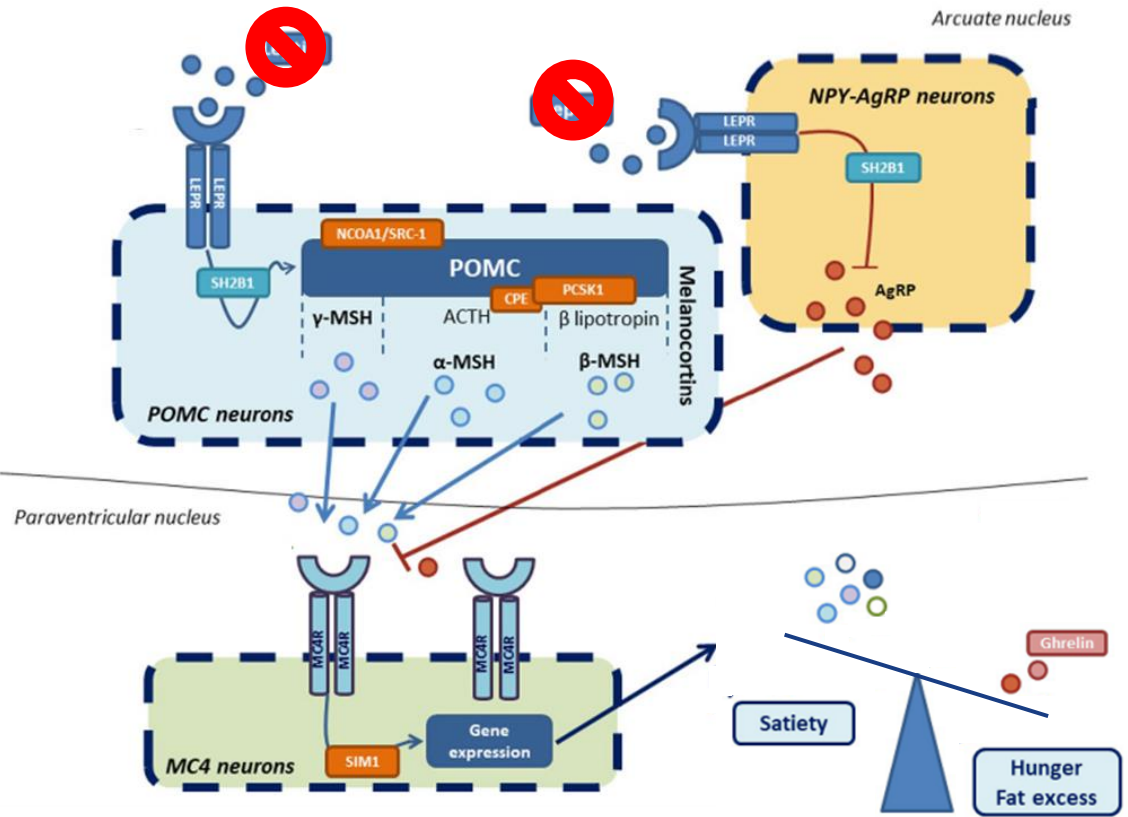
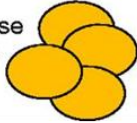
Mainieri F, Eur J Ped 2023

IT'S ALL BRAIN



LEP

Adipose tissue



Mainieri F, Eur J Ped 2023

COMPLICATIONS

- Stigmatisation, depression, loneliness...
- T2D (prediabetes)
- Blood pressure
- Fatty liver
- Sleep apnea
- Dyslipidaemia
-



TREATMENT OF OBESITY – WHAT TO DO?

1. Identification of those at risk
2. Prevention, if possible
3. Treatment, when needed



PREVENTION?



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DOI: 10.1111/obr.13641

REVIEW


Paediatric Body weight - Policy

OBESITY
Reviews | WILEY

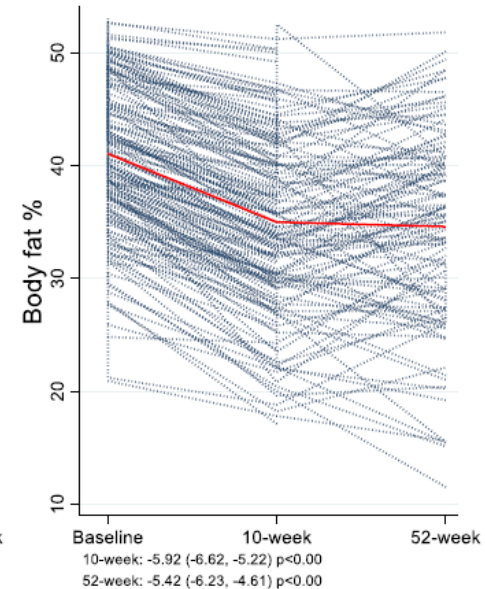
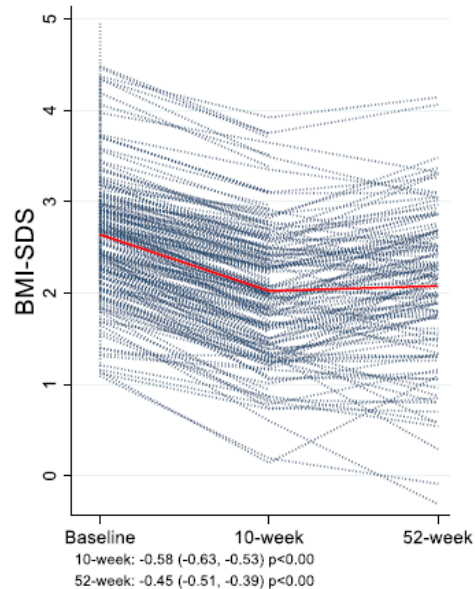
A literature review of evidence for primary prevention of overweight and obesity in healthy weight children and adolescents: A report produced by a working group of the Danish Council on Health and Disease Prevention

Nanna J. Olsen¹  | Jane N. Østergaard² | Lise G. Bjerregaard³ | Teresa V. Høy⁴ |
Lene Kierkegaard⁴ | Kim F. Michaelsen⁵ | Thorkild I. A. Sørensen⁶ |
Morten K. Grønæk⁴ | Jens M. Bruun^{2,7,8}  | Berit L. Heitmann^{1,9,10}

Effect of a higher protein diet and lifestyle camp intervention on childhood obesity (The COPE study): results from a nonrandomized controlled trial with 52-weeks follow-up

Dorthe D. Jakobsen^{1,2,3}  · Lea Brader⁴ · Jens M. Bruun^{1,2,3}

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LIFESTYLE



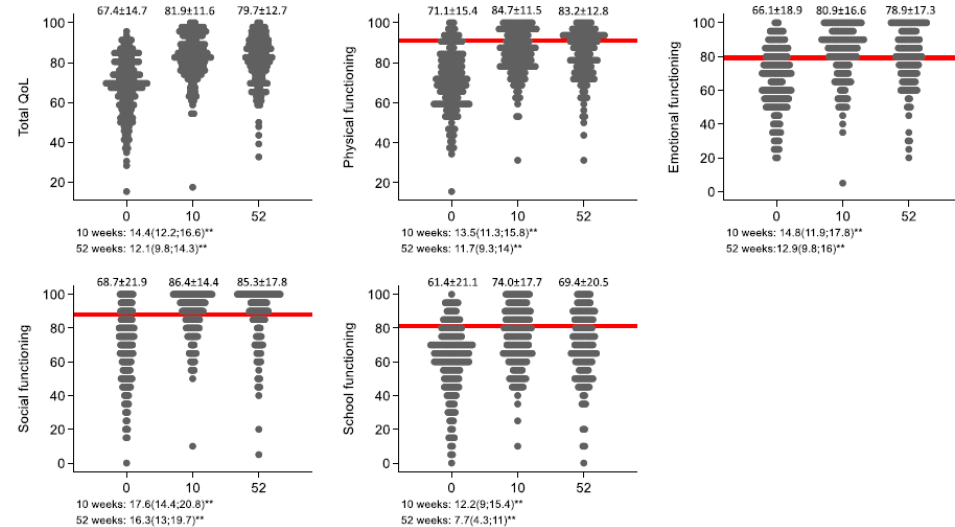
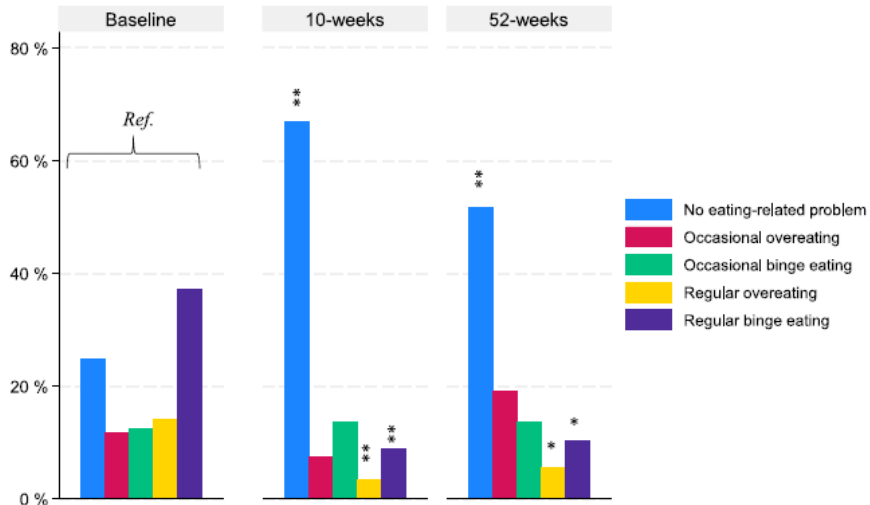
Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Obesity Research & Clinical Practice

journal homepage: www.elsevier.com/locate/orcp

Long-term changes in eating-related problems and quality of life in children with overweight and obesity attending a 10-week lifestyle camp

Dorthe Dalstrup Jakobsen^{a,b,c,*}, Kajsa Järholm^d, Lea Brader^e, Jens Meldgaard Bruun^{a,b,c}



LIFESTYLE – MUNICIPALITIES

Obesity Facts

Obes Facts , DOI: 10.1159/000540389

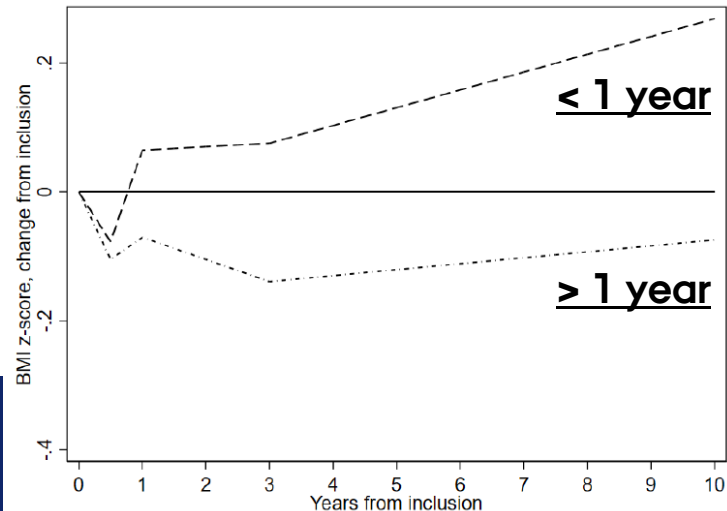
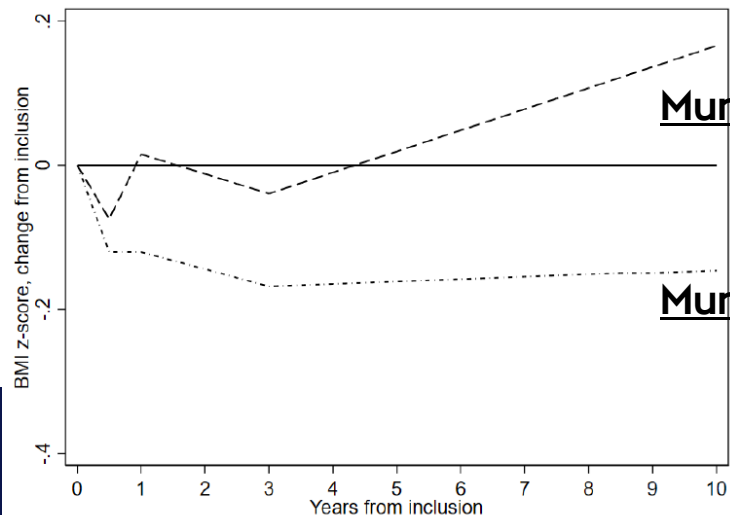
Received: December 13, 2023

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Published online: September 12, 2024

Long-term change in BMI for children with obesity treated in family-centered lifestyle interventions

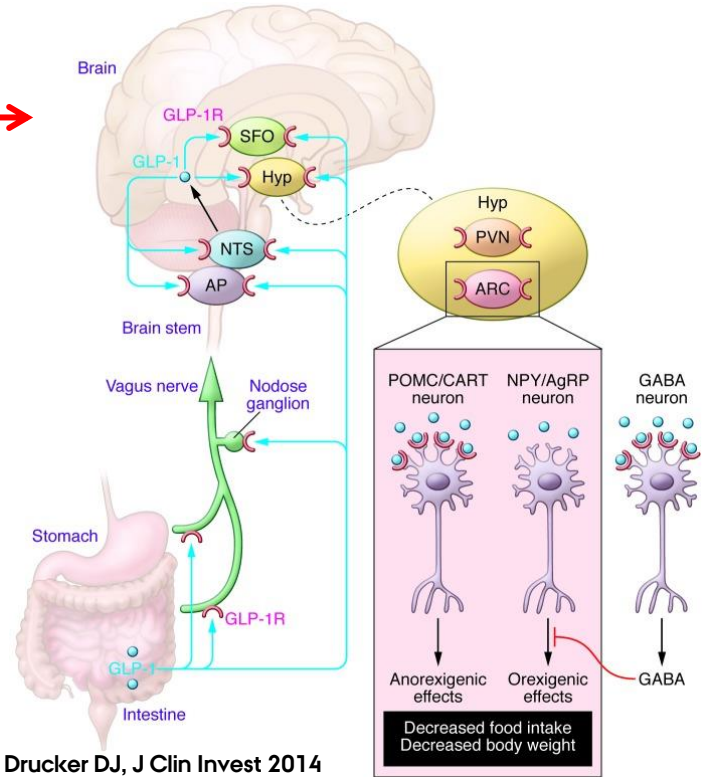
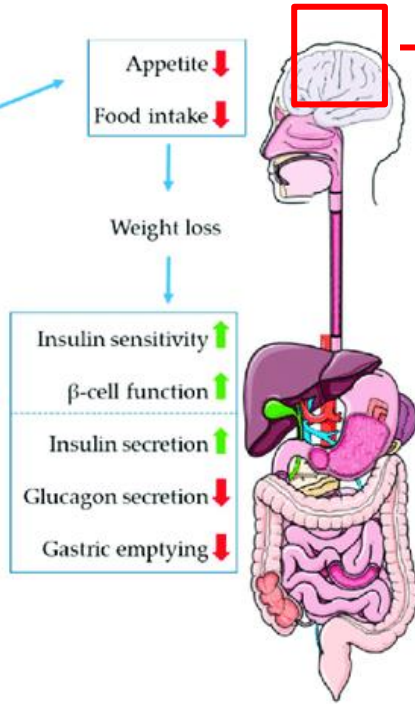
Jørgensen RM, Støvring H, Østergaard JN, Hede S, Svendsen K, Vestergaard ET, Bruun JM



GLP1-RA



GLP-1 receptor agonists



Baggio LL & Drucker DJ, J Clin Invest 2014

SEMAGLUTIDE

The NEW ENGLAND JOURNAL of MEDICINE

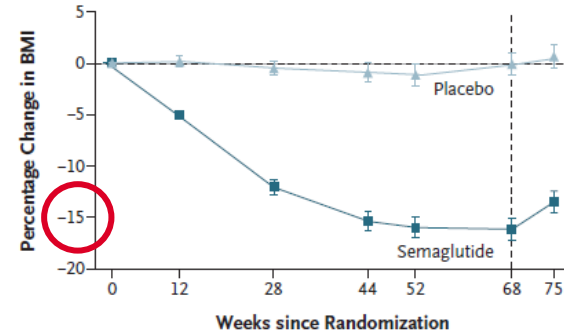
ORIGINAL ARTICLE

Once-Weekly Semaglutide in Adolescents with Obesity

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*

This article was published on November 2, 2022, at NEJM.org.

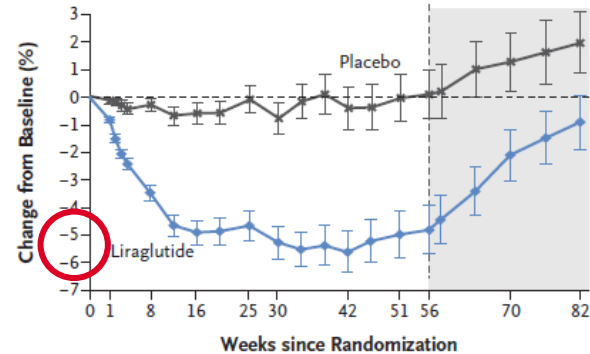
A Change in BMI from Baseline



No. of Participants

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

B Relative Change in BMI



No. of Participants

Placebo	126	125	123	116	116	105	101	105	97	102
Liraglutide	125	123	119	118	119	110	107	113	106	112

SEMAGLUTIDE

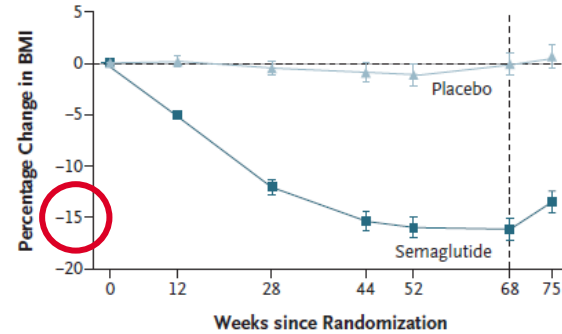
The NEW ENGLAND JOURNAL of MEDICINE

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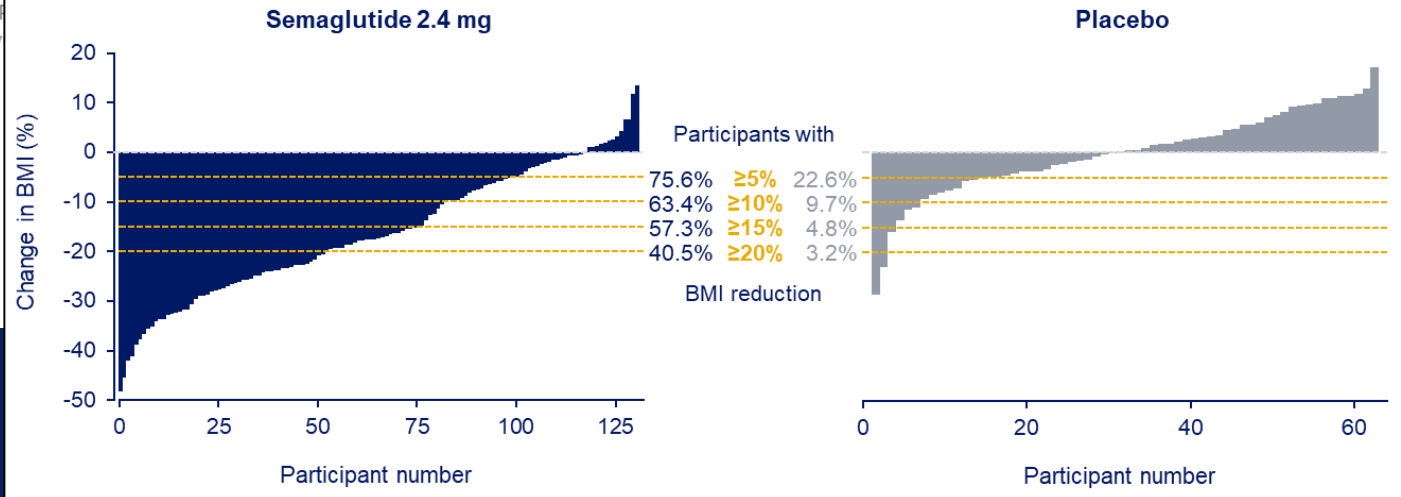
Daniel Weghuber, M.D., Timothy Barrett, Ph.D., Margarita Barrientos-Pérez, M.D.,
Inge Gies, Ph.D., Dan Hesse, Ph.D., Ole K. Jeppesen, M.Sc., Aaron S. Kelly, Ph.D.,
Lucy D. Mastrandrea, M.D., Rasmus Sørrig, M.D., and the STEP TEENS Investigators

A Change in BMI from Baseline



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CONCLUSION AKA TAKE-HOME

- ▶ Plateau weight development in DK – stability is key
- ▶ Childhood obesity is challenging – prevention is preferred
- ▶ Some children need weight loss, and it's *not* harmful
- ▶ Lifestyle intervention works (maybe)
- ▶ Pharmacotherapy is available – concomitant lifestyle change is key

Q&A

