

Dietetic Interventions in Complex Obesity

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Challenges to Obesity Care

Perception that obesity is not a disease

- Misapprehension of the causes and complications of obesity
- Belief that it is the primary responsibility of the patient
- Perception that prevention is far more important than treatment
- Weighing up the risks of effective treatments

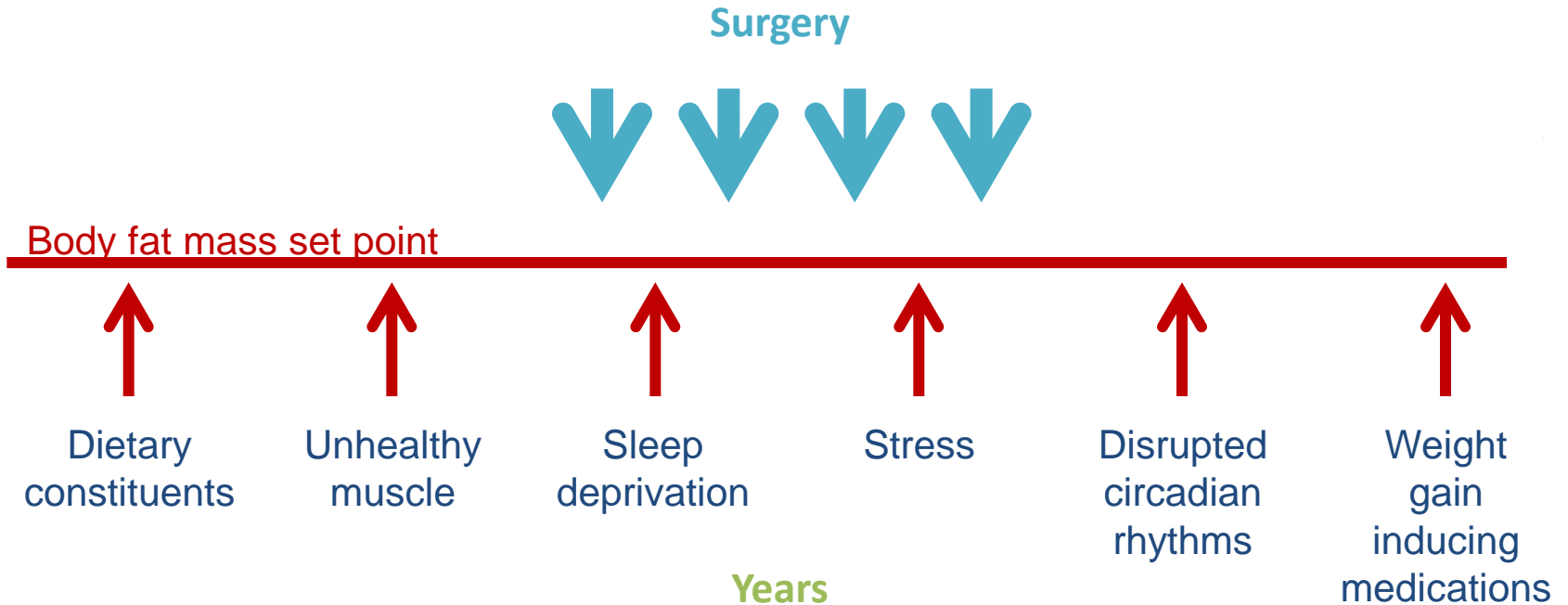
- Discouragement of patients' seeking care
- Limited availability and reimbursement of proven medical and surgical therapies
- Barriers to development of novel therapies

Obesity and Its Care: A Battle of Forces that Influence the Fat Mass Set Point

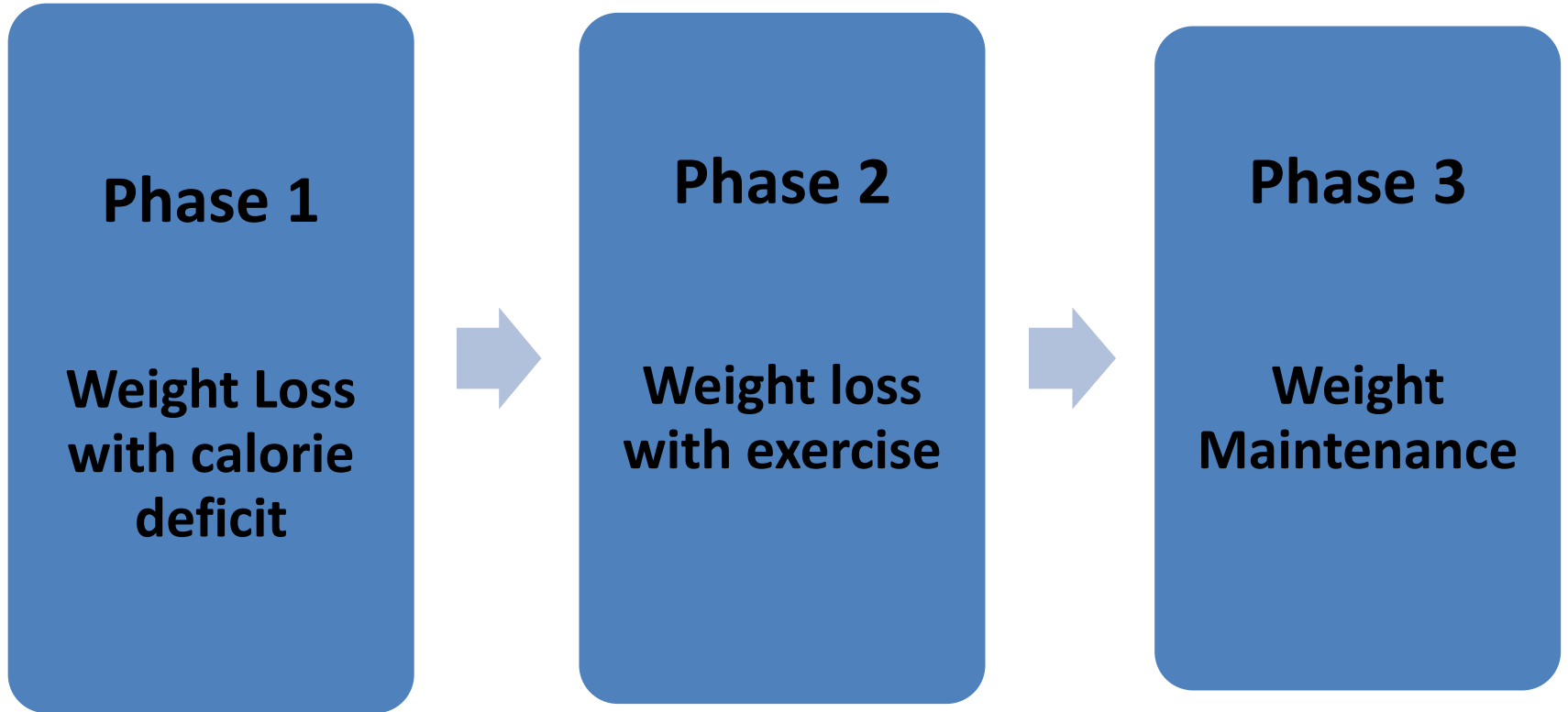


Obesity Treatment

Obesity and Its Care: A Battle of Forces that Influence the Fat Mass Set Point



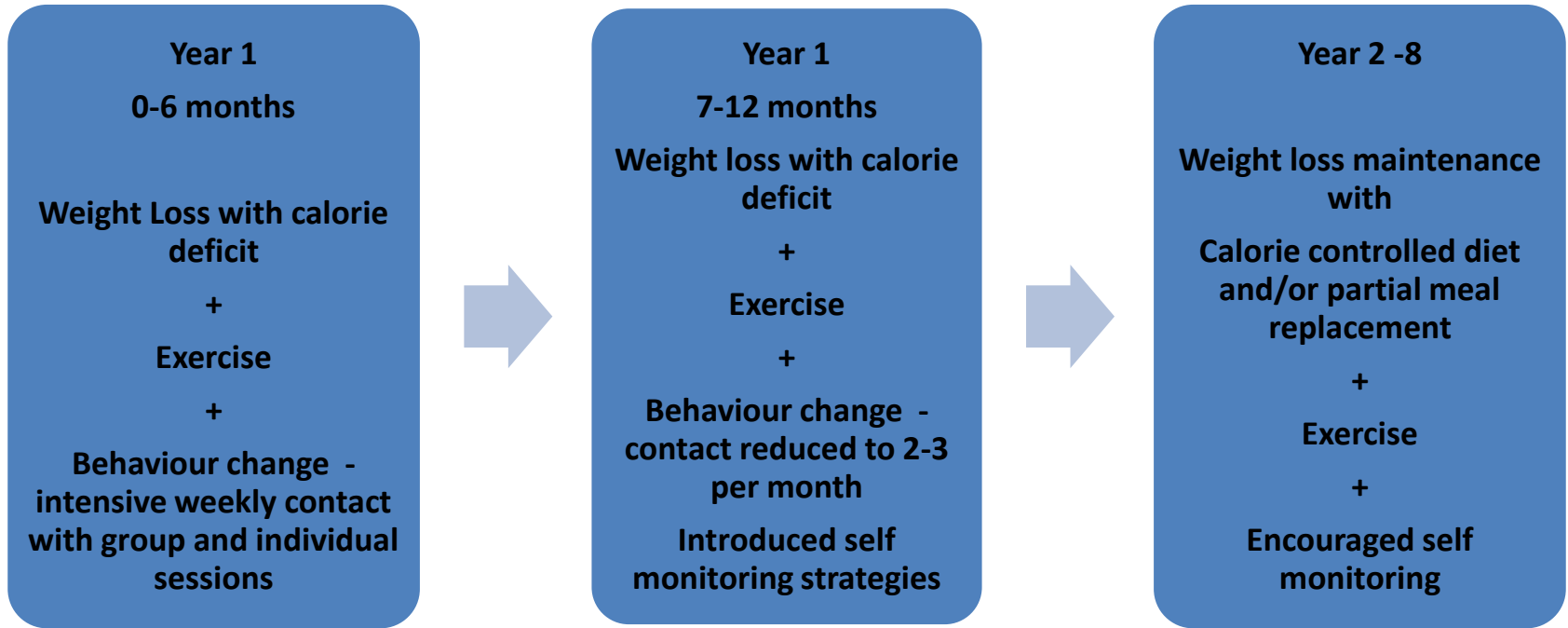
Typical Diet and Lifestyle Programme



Look AHEAD Trial

- The Look AHEAD (Action for Health in Diabetes)
 - designed to assess the effects of an intensive lifestyle intervention on health outcomes in overweight/obese individuals with type 2 diabetes.
- Primary outcome cardiovascular morbidity & mortality
- Largest and longest RCT to date of an intensive lifestyle intervention for weight reduction
- Intervention aimed at achieving and maintaining 7% weight loss

Look Ahead Intervention

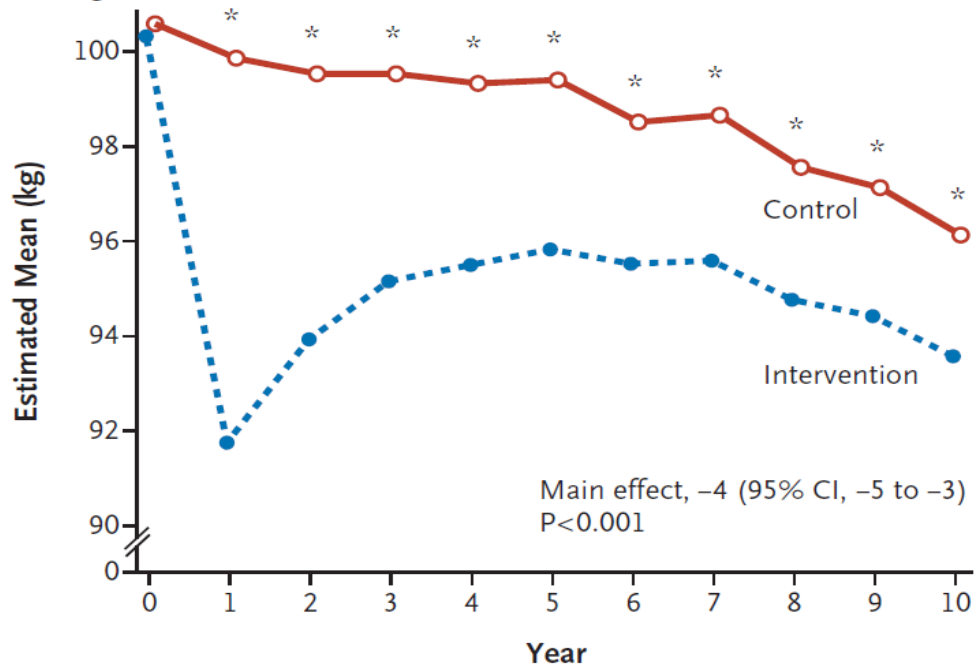


Control Group – received diabetes support & education which featured 3 group sessions per year focussed on diet, exercise and social support during years 1-4

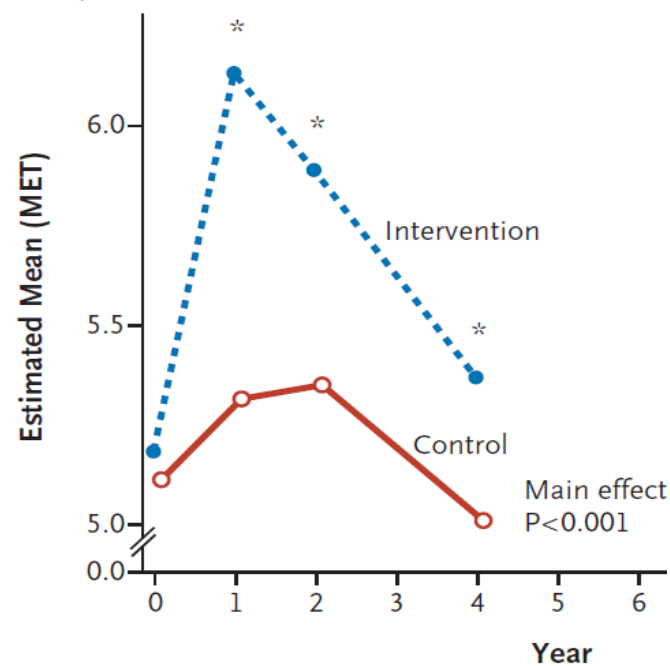
Look AHEAD Study

Wing et al NEJM 2013

A Weight



B Physical Fitness



Macronutrient Modification

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Diets with High or Low Protein Content and Glycemic Index for Weight-Loss Maintenance

Thomas Meinert Larsen, Ph.D., Stine-Mathilde Dalskov, M.Sc.,
Marleen van Baak, Ph.D., Susan A. Jebb, Ph.D., Angeliki Papadaki, Ph.D.,
Andreas F.H. Pfeiffer, M.D., J. Alfredo Martinez, Ph.D.,
Teodora Handjieva-Darlenska, M.D., Ph.D., Marie Kunešová, M.D., Ph.D.,
Mats Pihlsgård, Ph.D., Steen Stender, M.D., Ph.D., Claus Holst, Ph.D.,
Wim H.M. Saris, M.D., Ph.D., and Arne Astrup, M.D., Dr.Med.Sc.,
for the Diet, Obesity, and Genes (Diogenes) Project

ABSTRACT

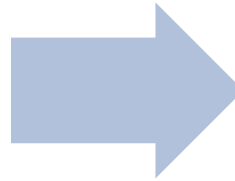
Diogenes Study

Phase 1 - 2months

**Weight Loss with calorie deficit
800kcal total meal replacement +
400g vegetables**

+

Weekly dietary counselling



Phase 2 –6 months

Weight maintenance

Randomised to 1 of 5 diets

**1. Low protein (13% of food energy)
and low GI**

2. Low protein and high GI

**3. High protein (25% of food energy)
and low GI**

4. High protein and high GI

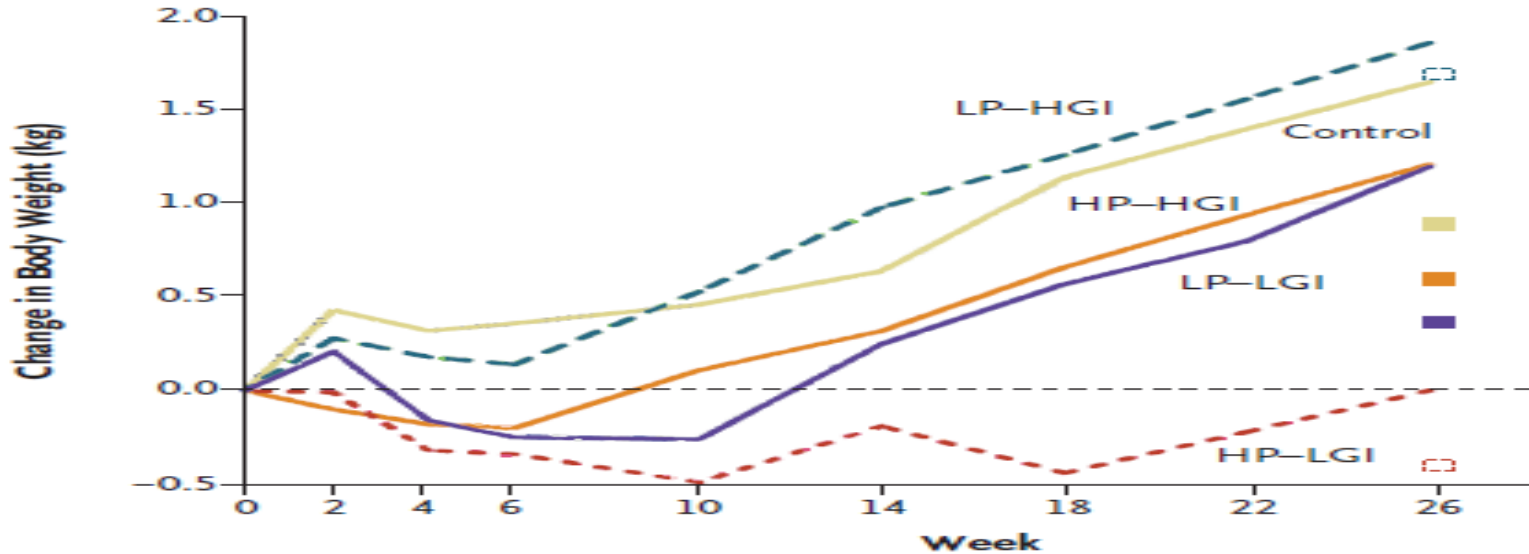
**5. Control – following dietary
guidelines from each country,
moderate protein and no
instructions on GI**

+

Monthly dietary counselling

Weight Changes for Each Group During the Weight Maintenance Intervention

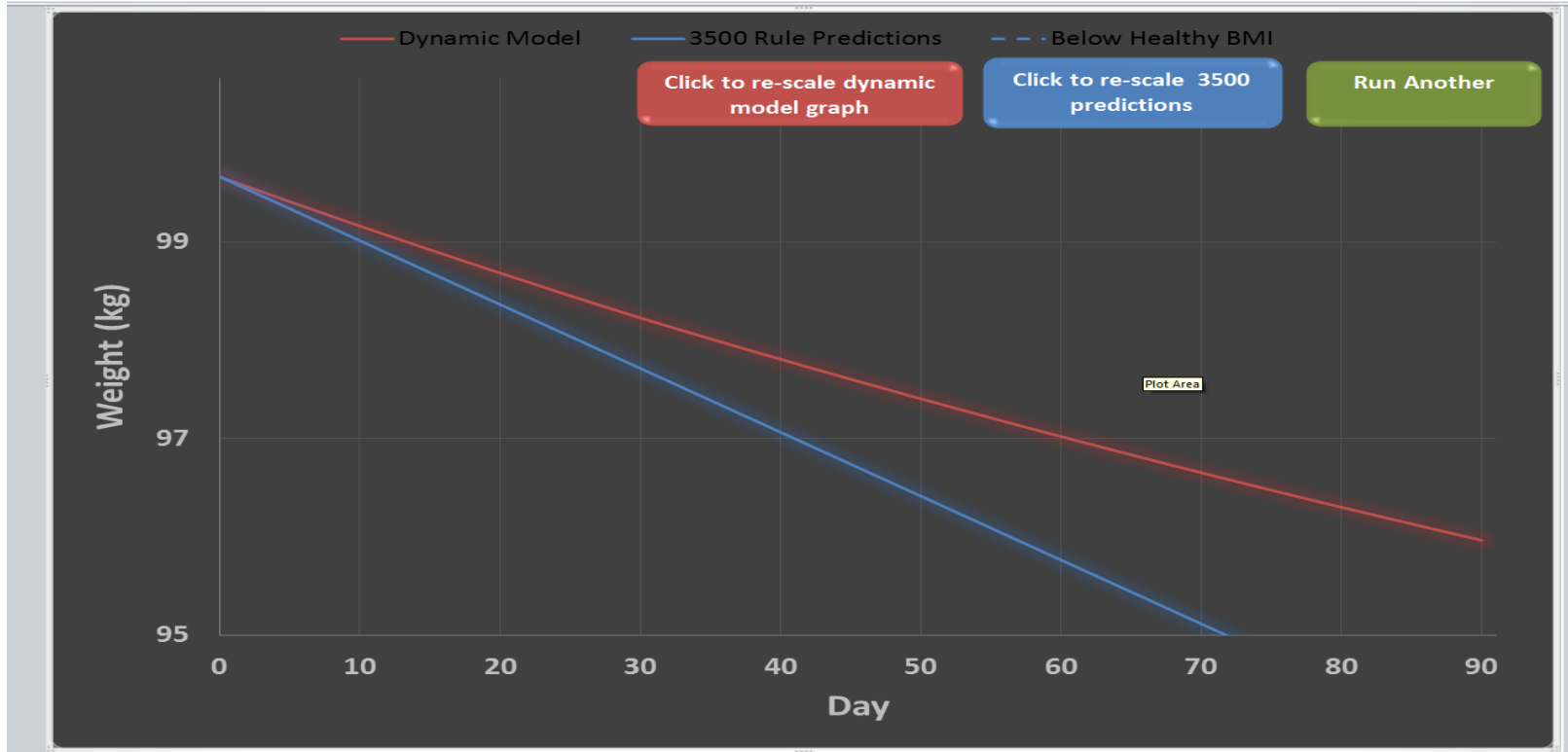
B



No.

LP-LGI	150	116	121	118	112	104	101	97	106
LP-HGI	155	118	114	118	108	104	95	91	97
HP-LGI	159	132	136	131	125	116	118	114	124
HP-HGI	155	130	124	121	118	114	100	104	107
Control	154	126	131	125	131	125	118	110	114

Weight loss will be lower than that predicted by equations – comparison using the 500kcal deficit rule



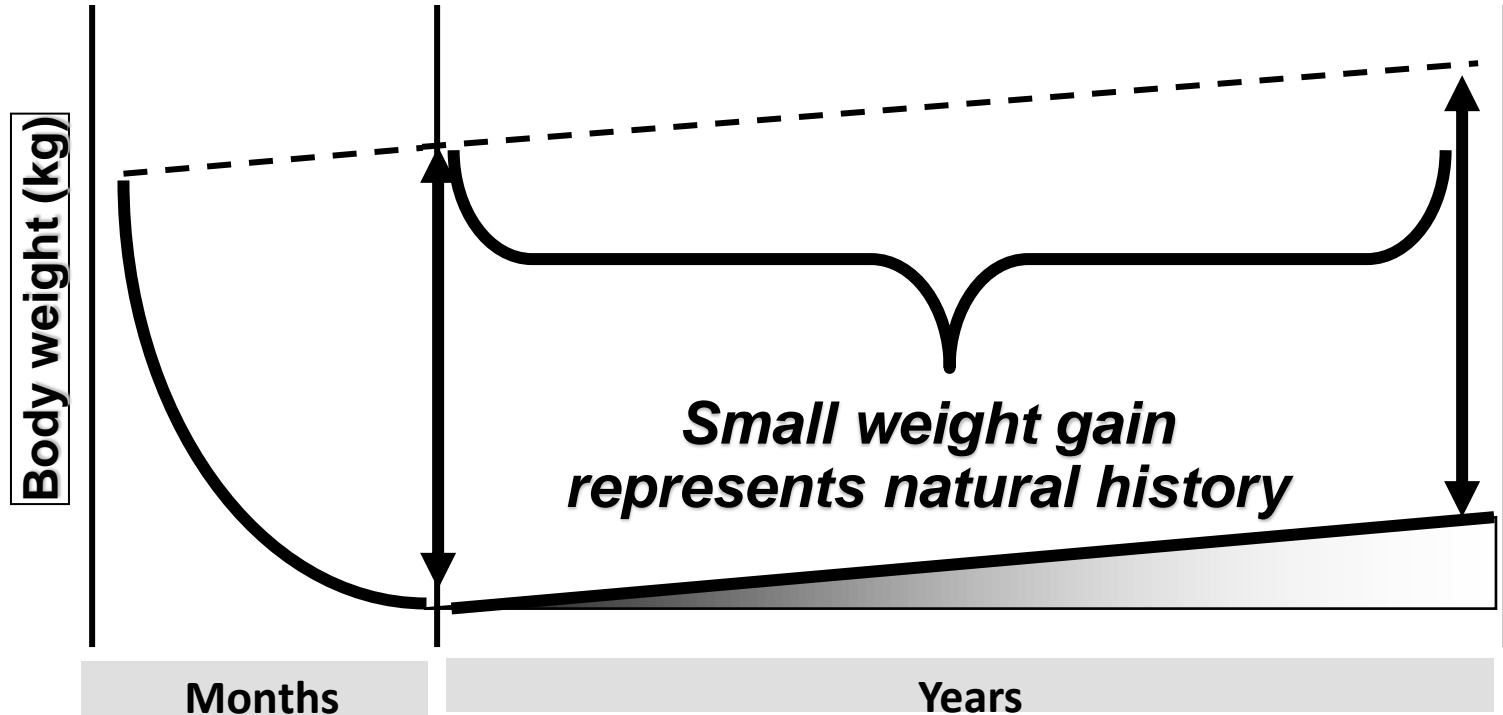
<http://www.pbrc.edu/research-and-faculty/calculators/sswcp/>

How easy is it to gain weight?

- 1kg of fat = 7000kcal
- 1 slice of bread with butter \approx 100kcal
- Just one extra slice of bread a day for a week in excess of requirements \approx 700kcal too many
- In ten weeks 1kg weight gain
- In one year >5kg weight gain



Age-related Weight Gain



Supporting the Journey



Managing Expectations



Conclusion

- Obesity is a complex disease with no single causal factor
- Manage expectations at the outset for patient and healthcare professional
- Many different approaches – diet, meal replacement, exercise, medication, surgery
- But weight gain is inevitable
- Support patients to better adhere to weight loss and weight maintenance plans