



*Don't start a diet that has an expiry date
Develop a healthy lifestyle that last forever*

Author unknown

Lifestyle Medicine

*Elaine Chong, Dietitian
Monash FODMAP Trained
Cambridge Weight Plan Trained
Australasian Society of Lifestyle Medicine Member*

About

Lifestyle Medicine

The discipline

Lifestyle Medicine is defined as, "The application of environmental, behavioural, medical and motivational principles to the management (including self-care and self-management) of lifestyle-related health problems in a clinical and/or public health setting" (Egger et al, 2017).

Or put another way, "Lifestyle Medicine provides an interdisciplinary, whole-system approach to the prevention and reversal of chronic and lifestyle-related diseases through the modification of the behavioural, social and environmental drivers."

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In Search of a Germ Theory Equivalent for Chronic Disease

Garry Egger, PhD, MPH

Suggested citation for this article: Egger G. In Search of a Germ Theory Equivalent for Chronic Disease. *Prev Chronic Dis* 2012;9:110301. DOI: <http://dx.doi.org/10.5888/pcd9.110301>

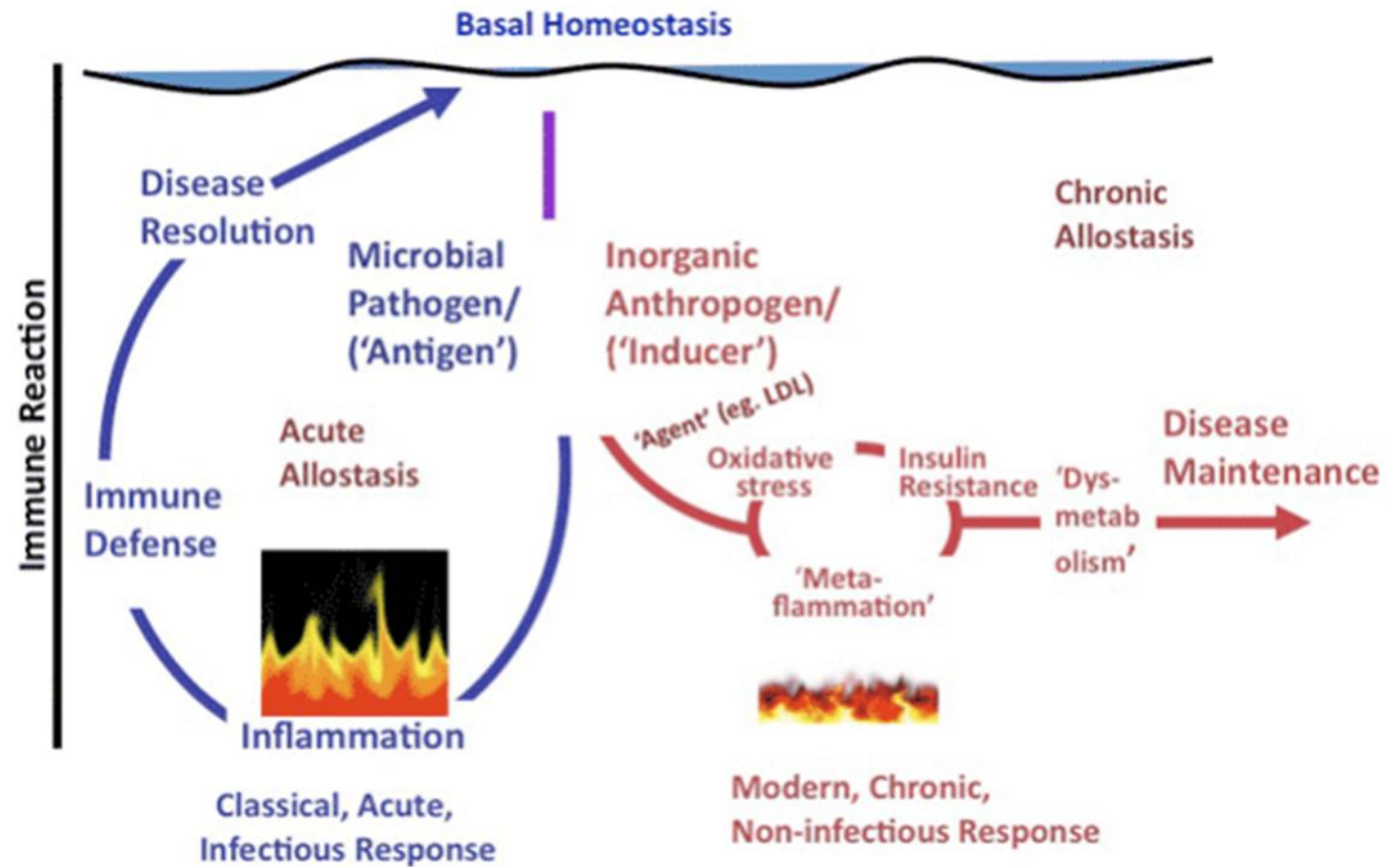


Figure 1. A representation of the difference between classical inflammation (illustrated as raging fire), initiated by a microbial antigen or injury, and metaflammation (illustrated as smoldering fire), caused by inorganic “anthropogens.” Adapted from Egger and Dixon (10). Abbreviation: LDL, low-density lipoprotein. The scale of difference of immune reaction between the 2 forms (ie, approximately 100-fold) is not shown. [A text description of this figure is also available.]

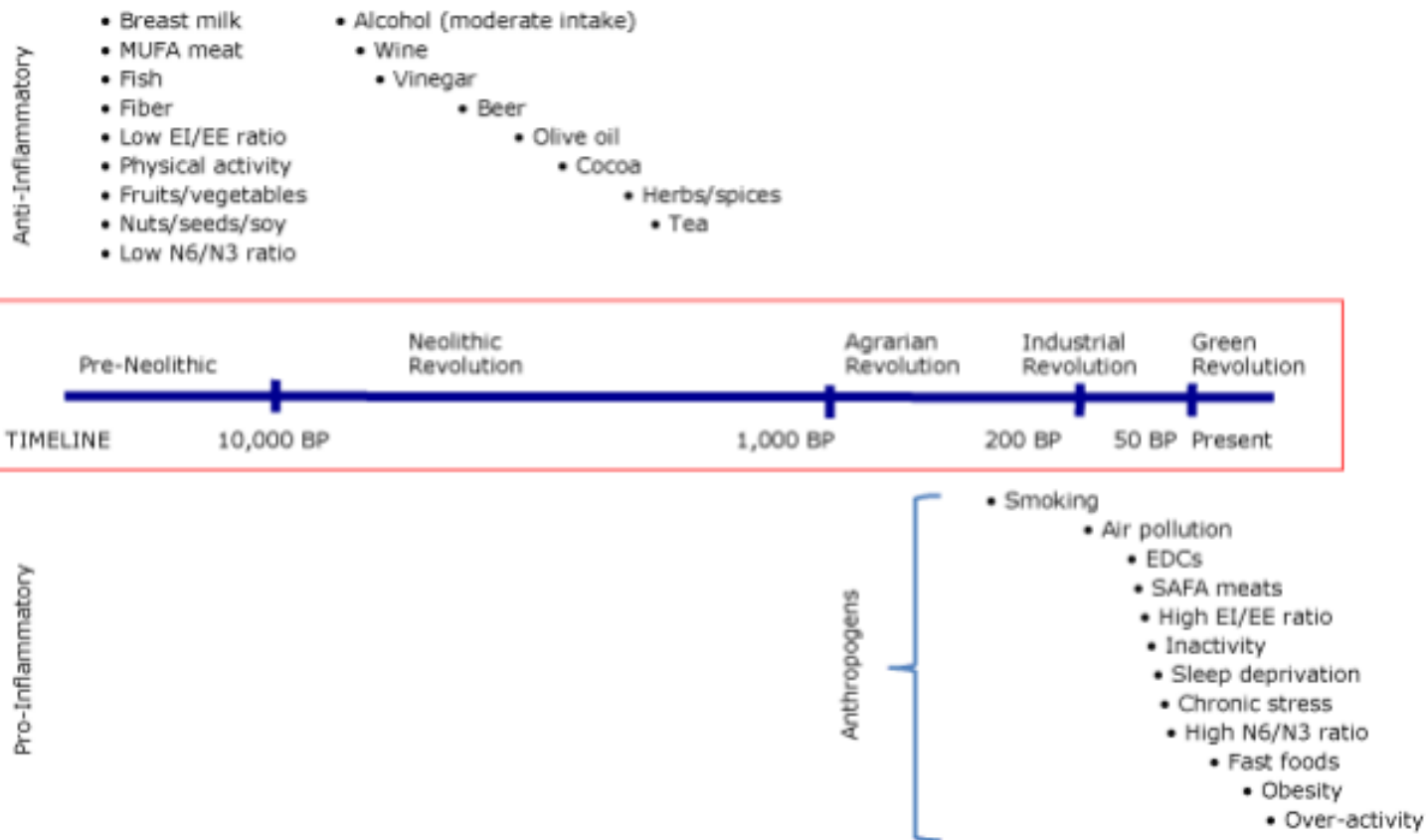


Figure 2. The pro- or anti-inflammatory effects of various inducers and their approximate (not to scale) introduction into the human environment. The bullets associated with each inducer in the time frame indicated suggest the approximate time of introduction to the human environment. “Anthropogens” are defined here as man-made environments and the by-products, behaviors, and/or lifestyles encouraged by those environments, some of which have biological effects which may be detrimental to human health. Abbreviations: MUFA, monounsaturated fatty acid; EI, energy intake; EE, energy expenditure; N6, omega-6 fatty acid; N3, omega-3 fatty acid; BP, before present; EDCs, endocrine-disrupting chemicals; SAFA, saturated fatty acid. [A text description of this figure is also available.]

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Chapter 2

The Epidemiology of Chronic Disease

Maximilian de Courten, Barbora de Courten, Garry Egger, Michael Sagner

For if medicine is really to accomplish its great task, it must intervene in political and social life. It must point out the hindrances that impede the normal social functioning of vital processes, and effect their removal.

Rudolf Ludwig Karl Virchow (1849)
(Quoted in P. Farmer Pathologies of Power; Farmer, 2004).

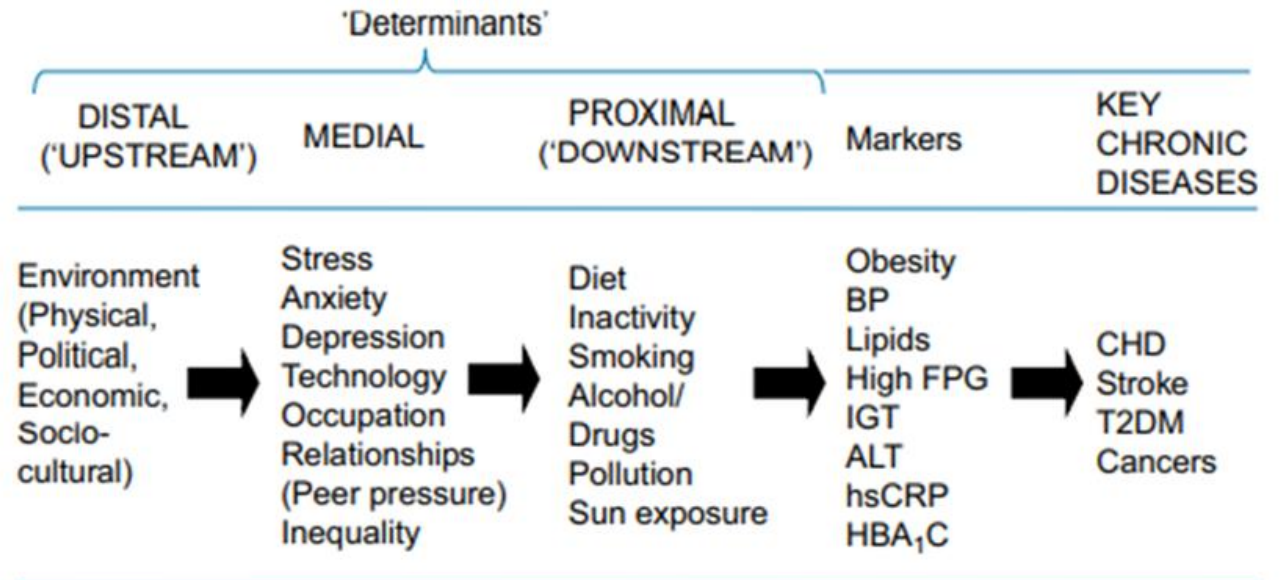
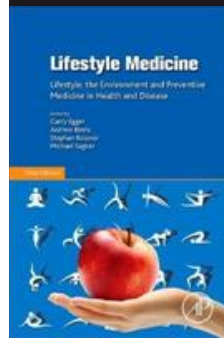


FIGURE 2.1 A hierarchy of chronic disease determinants. *ALT*, alanine aminotransferase; *BP*, blood pressure; *CHD*, coronary heart disease; *FPG*, fasting plasma glucose; *HBA₁C*, hemoglobin A₁C; *hsCRP*, high sensitive C-reactive protein; *IGT*, impaired glucose tolerance; *T2DM*, Type 2 diabetes mellitus.

LIFESTYLE MEDICINE

6 WAYS TO TAKE CONTROL OF YOUR HEALTH

Lifestyle Medicine is an evidence-based approach to treating and reversing disease by replacing unhealthy behaviors with positive ones.

www.lifestylemedicine.org

- 1 NUTRITION**
 Food is Medicine. Choose predominantly whole, plant-based foods that are rich in fiber and nutrient dense. Vegetables, fruit, beans, lentils, whole grains, nuts and seeds.
- 2 EXERCISE**
 Regular and consistent physical activity that can be maintained on a daily basis throughout life - walking, gardening, push ups and lunges - is an essential piece of the optimal health equation.
- 3 STRESS**
 Stress can lead to improved health and productivity - or it can lead to anxiety, depression, obesity, immune dysfunction and more. Helping patients recognize negative stress responses, identify coping mechanisms and reduction techniques leads to improved wellbeing.
- 4 SUBSTANCE ABUSE**
 The well-documented dangers of any addictive substance use can increase risk for many cancers and heart disease. Positive behaviors that improve health include cessation of tobacco use and limiting the intake of alcohol.
- 5 SLEEP**
 Lack of, or poor quality sleep can lead to a strained immune system. Identify dietary, environmental, and coping behaviors to improve sleep health.
- 6 RELATIONSHIPS**
 Social connectedness is essential to emotional resiliency. Studies show that isolation is associated with increased mortality. Considering a patients home and community environment improves overall health.

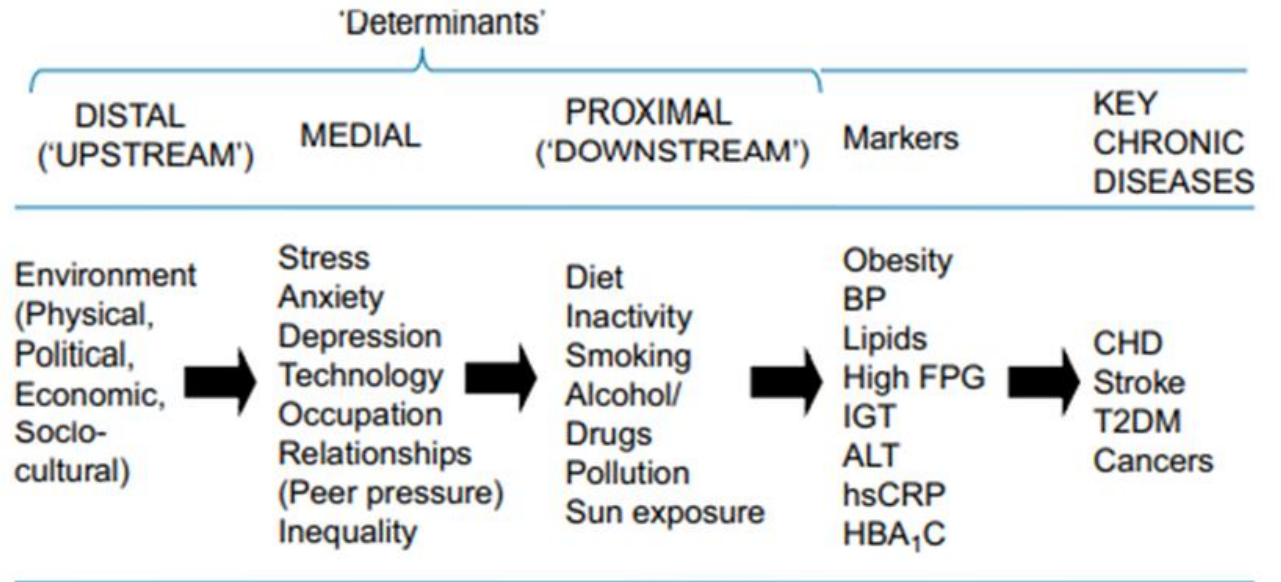


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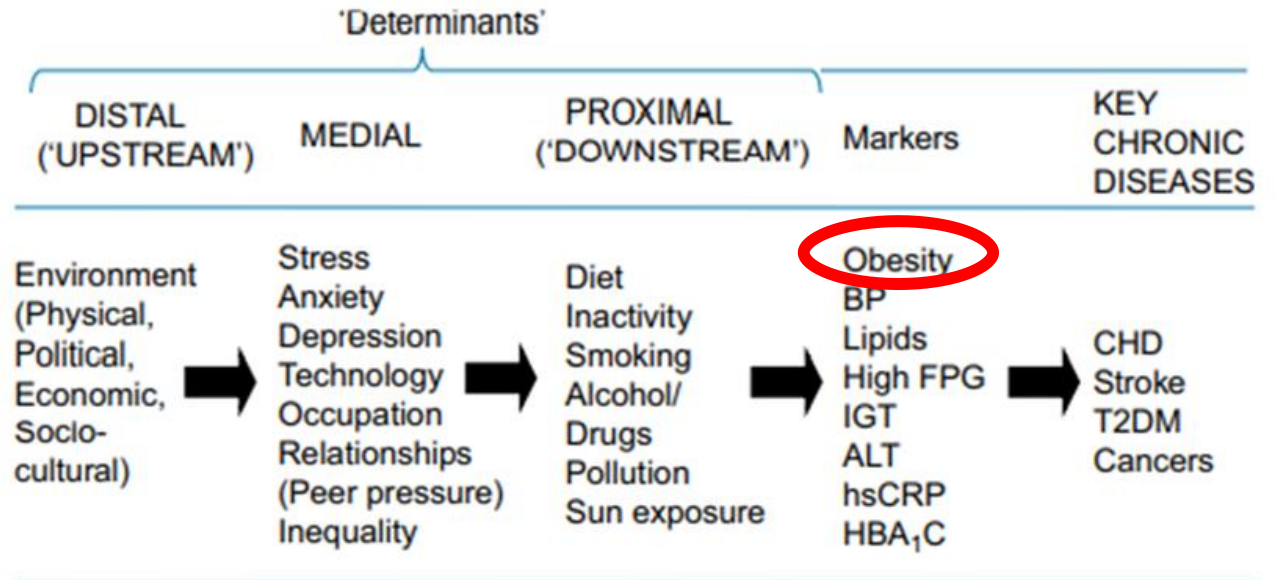
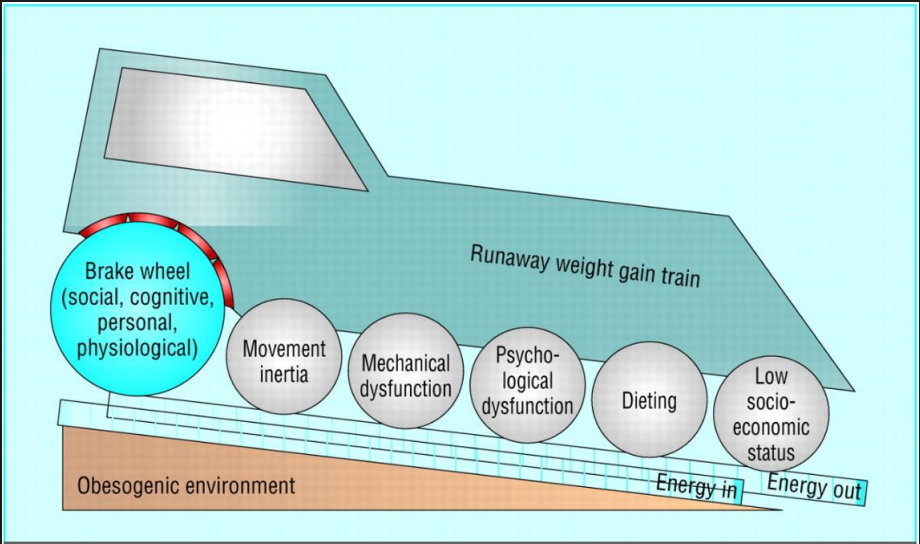


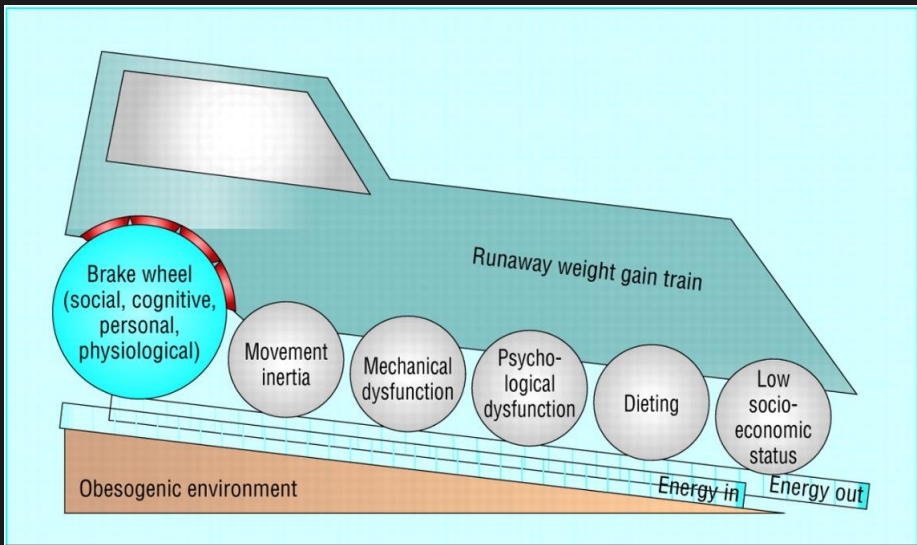
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The runaway weight gain train: too many accelerators, not enough brakes

BMJ 2004 ; 329 doi: <https://doi-org.cmdhb.idm.oclc.org/10.1136/bmj.329.7468.736> (Published 23 September 2004)

Cite this as: *BMJ* 2004;329:736



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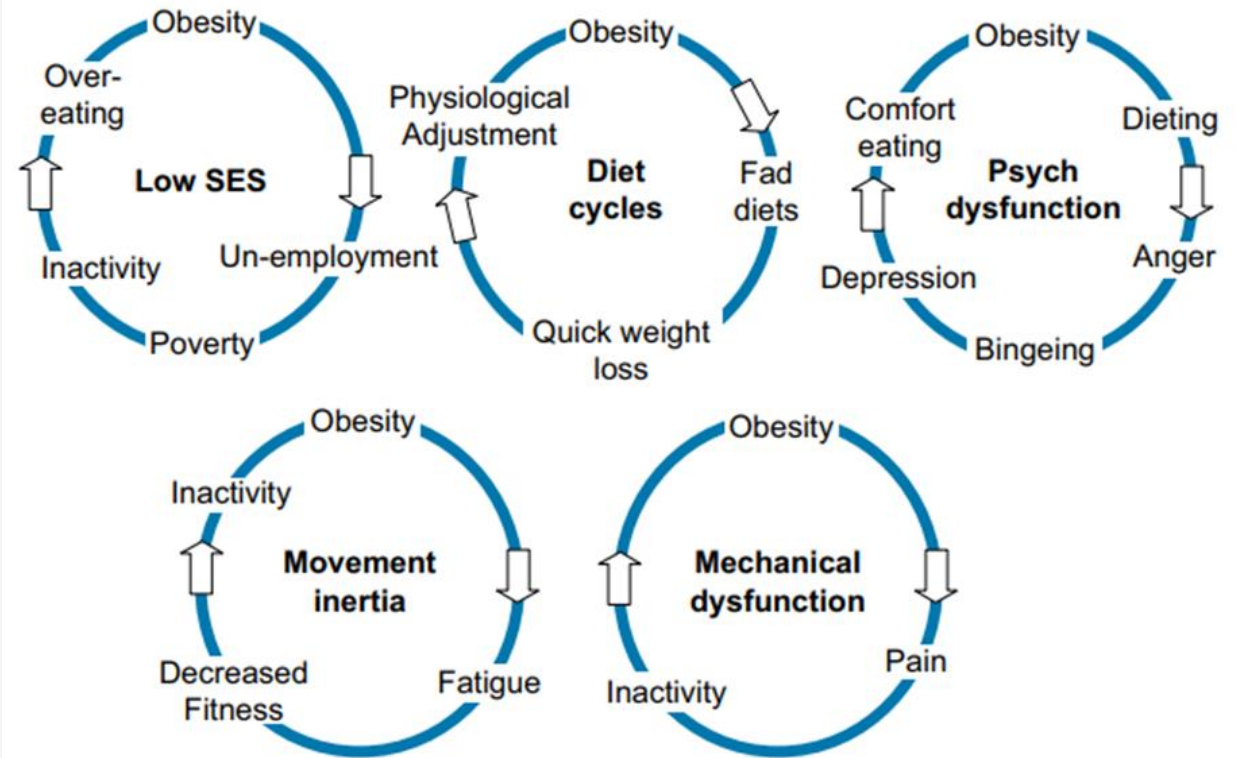
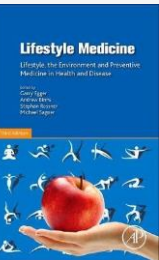
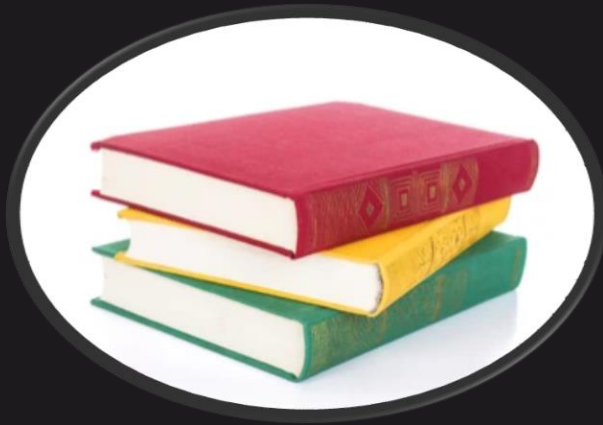


FIGURE 7.1 Vicious circles associated with obesity (SE=Socioeconomic status). Reprinted with permission from Swinburn, B., Egger, G., 2004. The runaway weight gain train: too many accelerators, not enough brakes. *Br. Med. J.* 329 (7468), 736–739.



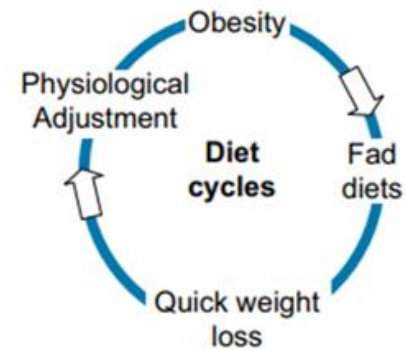


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Three Women

Three Stories



VLED

Very Low Energy Diet

- 600-800Kcal per day, complete nutrition
- Induce Ketosis

Common VLED products in New Zealand

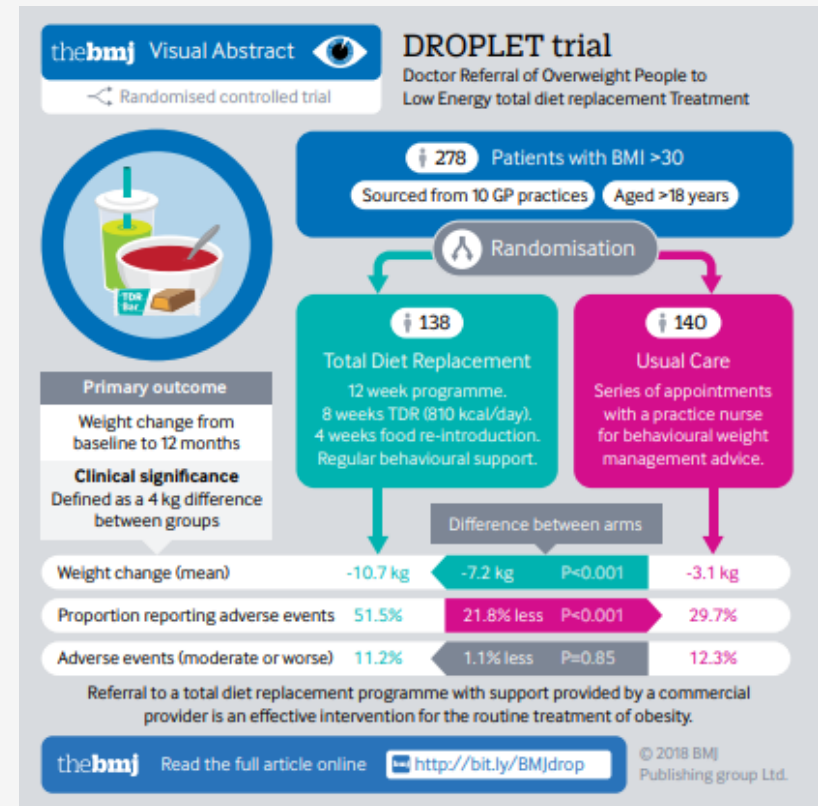
- Optifast <https://www.optifast.com.au/>
 - Optislim <https://www.optislim.com.au/>
 - FastFx <https://www.fastfx.co.nz/>
 - Cambridge Weight Plan <https://www.cambridgeweightplan.co.nz/>
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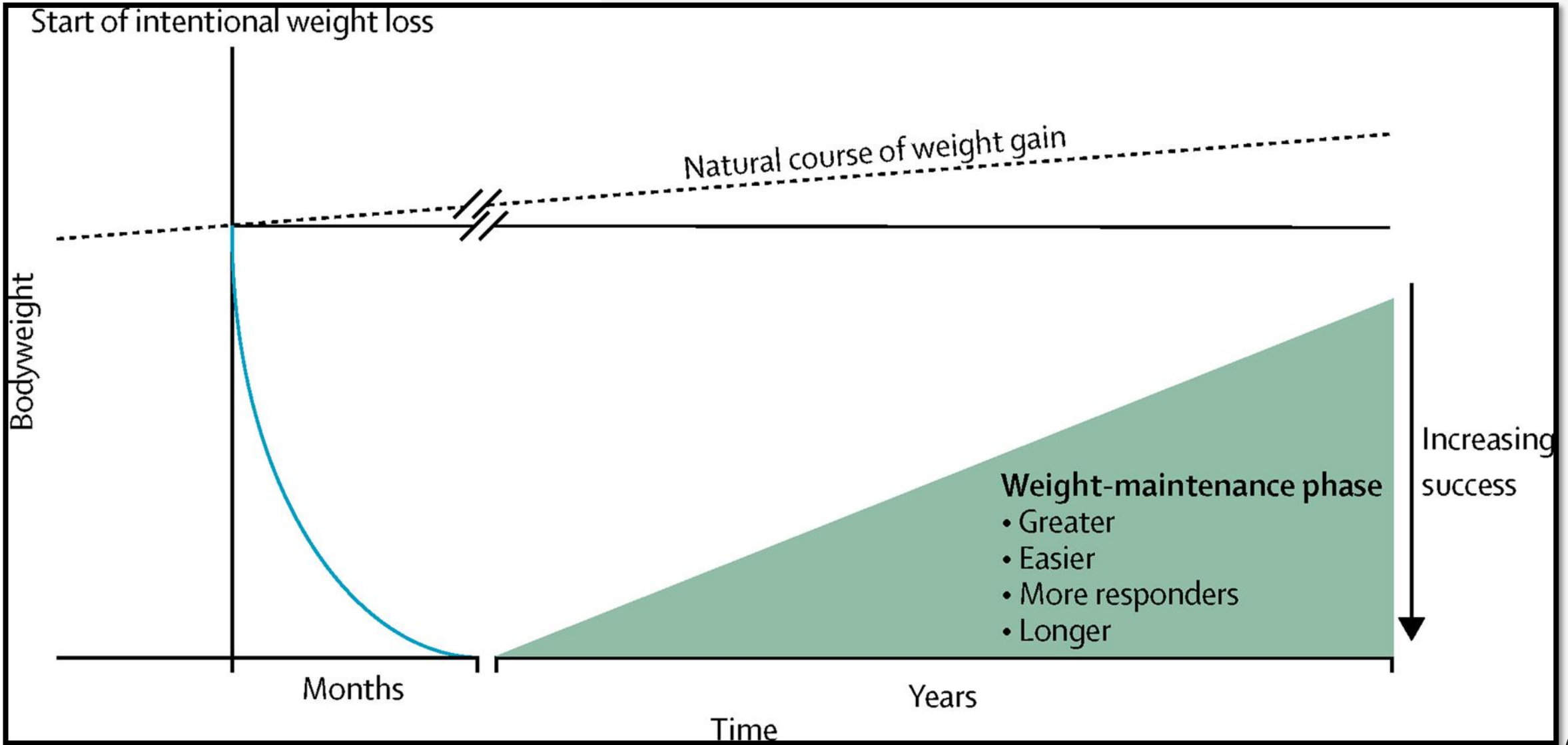
Weight Management VLED Meal Replacement Program

Doctor Referral of Overweight People to Low Energy total diet replacement Treatment (DROPLET): pragmatic randomised controlled trial

Nerys M Astbury, Paul Aveyard, Alecia Nickless, Kathryn Hood, Kate Corfield, Rebecca Lowe, Susan A Jebb

- PREVIEW – Diabetes Prevention Study <https://preview.ning.com/>
- DIRECT - Diabetes Remission <https://www.directclinicaltrial.org.uk/>





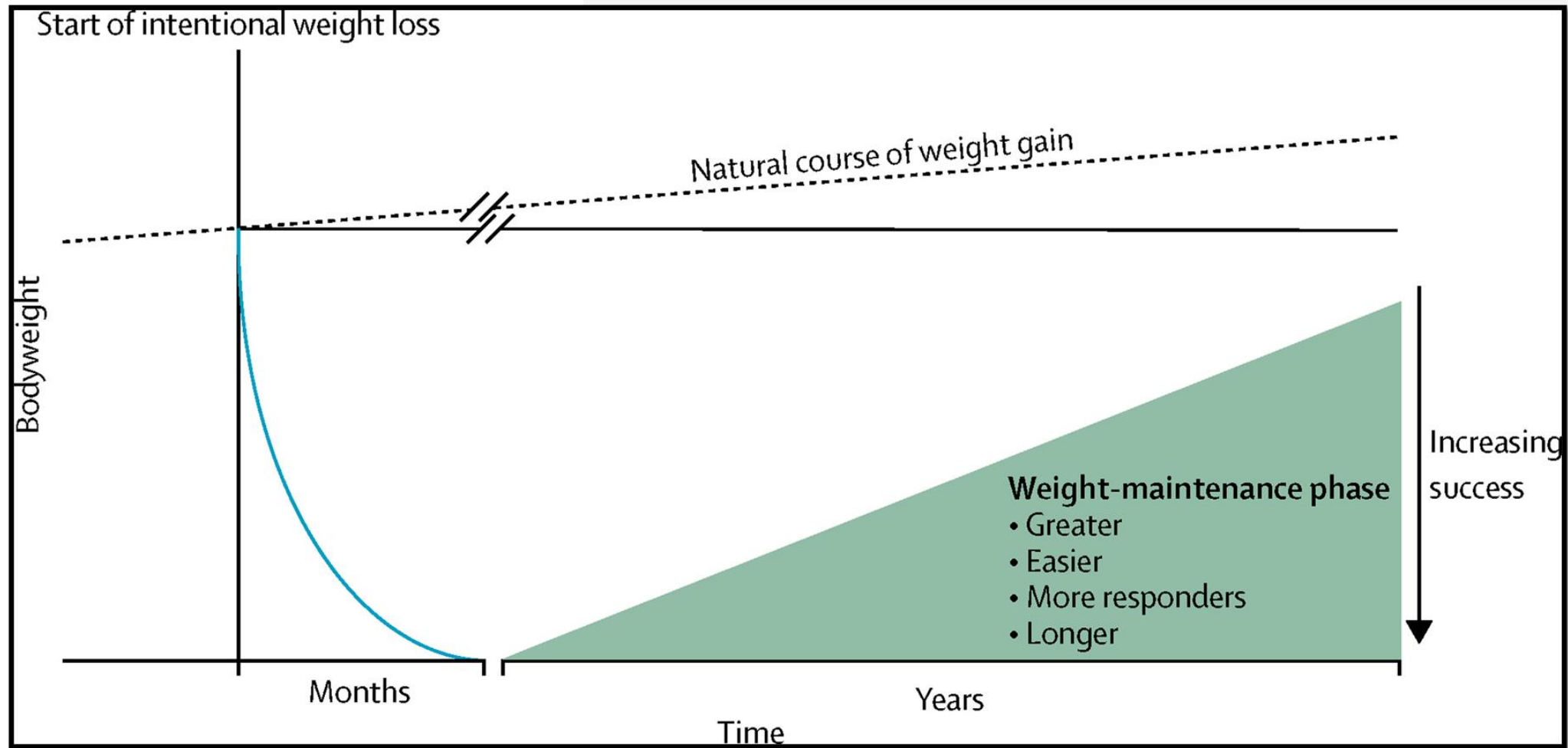
Keeping it off: the challenge of weight-loss maintenance



Published Online
January 19, 2018
[http://dx.doi.org/10.1016/S2213-8587\(17\)30405-9](http://dx.doi.org/10.1016/S2213-8587(17)30405-9)

The world's first evidence-based national obesity guideline¹ recognised that, in addition to effective government policies to prevent obesity, support for weight loss and weight-loss maintenance is needed,

maintenance has attracted minimal spending. Neither the US Food and Drug Administration nor the European Medicines Agency have ever approved weight-loss maintenance as a treatment indication. Medications



Week-by-week challenges during VLED

Ketosis
management

Exercise
Reshape the body

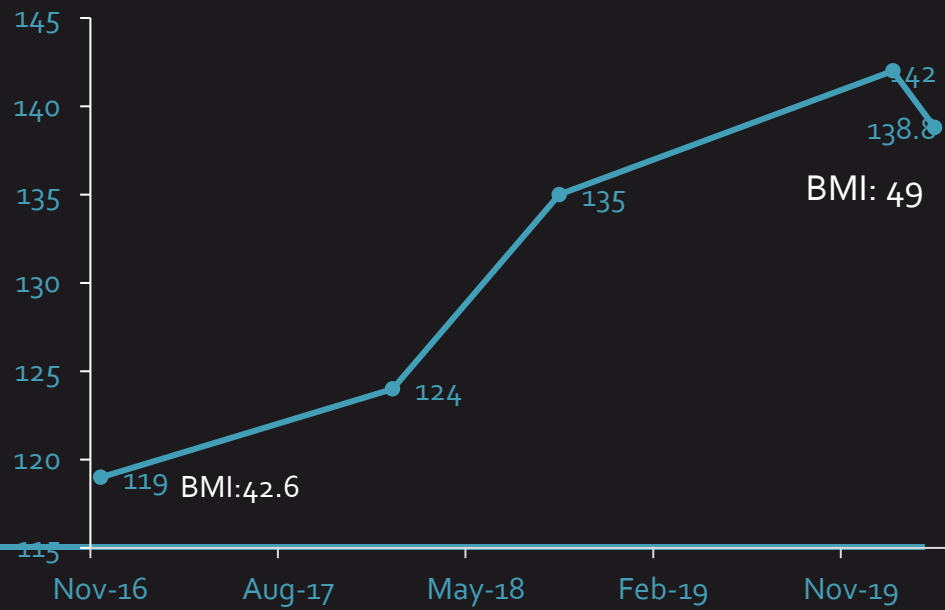
Weight Plateau
Focus on 'Inches'

Mrs A

Early 40's

Live with husband, no children

On work Visa (due for renewal)



Mrs A

Early 40's

Live with husband, no children

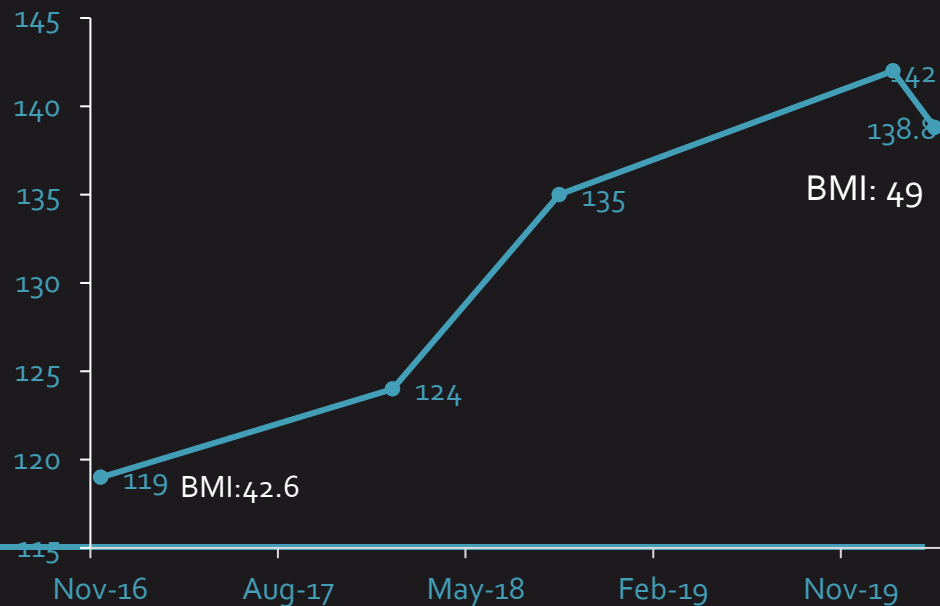
On work Visa (due for renewal)

Self-referred: request dietitian referral

Reason: 7-10% (7-14kg) weight loss for work visa renewal

What she wants:

- Achieve a 7-10% weight loss
- Wean off VLED to a eating pattern for weight management.

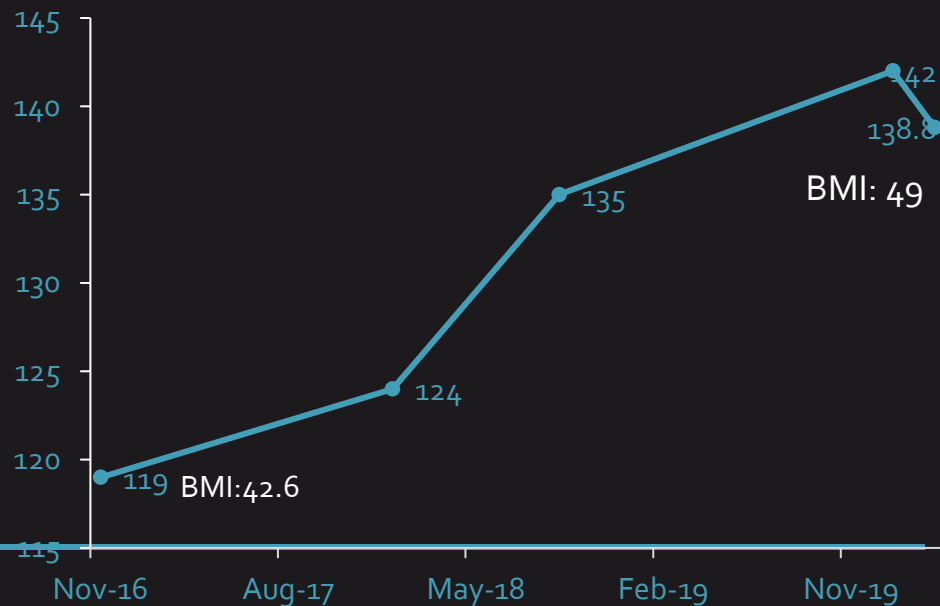


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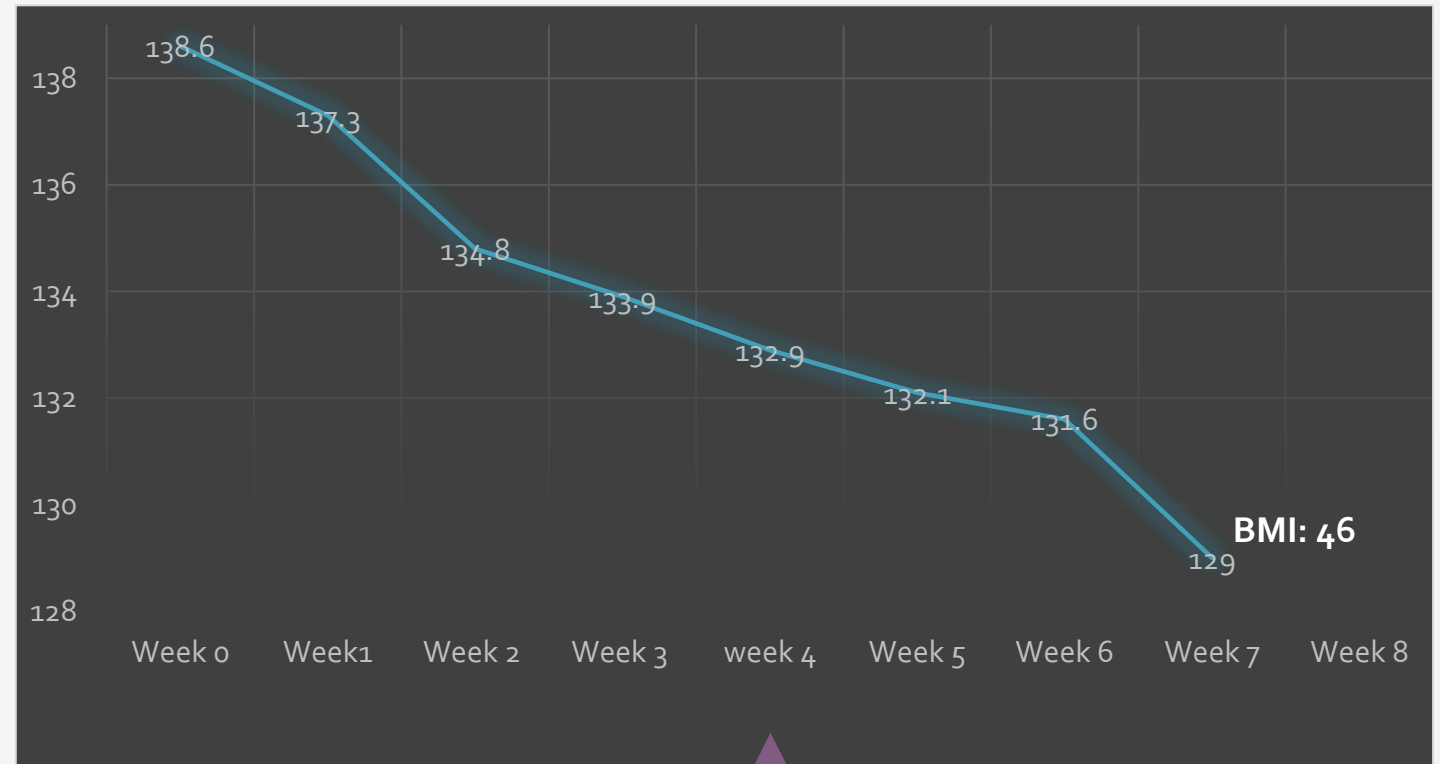


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Saw me in week 4

Mrs A

Establish a practical sustainable weight management plan which includes

1. Intermittent use of VLED,
2. Lower carbs, wholefood eating pattern and
3. regular exercise

Long-term goal weight is 100kg, BMI:35.8

Mrs A

Establish a practical sustainable weight management plan which includes

1. Intermittent use of VLED,
2. Lower carbs, wholefood eating pattern and
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Long-term goal weight is 100kg, BMI:35.8

While on VLED

Regulate bowel motion

- Add one teaspoon of Chia seeds or linseeds to each shake.
- Drink at least 2.5 liters of fluids daily.

Increase exercise intensity

- At least 30 minutes of cardio exercise (aim for a heart rate of 120-140).
- Include resistance exercise to build muscle.
- Include core muscle strengthening exercises.

Plan to wean off VLED to a lower carbs, wholefood eating pattern.

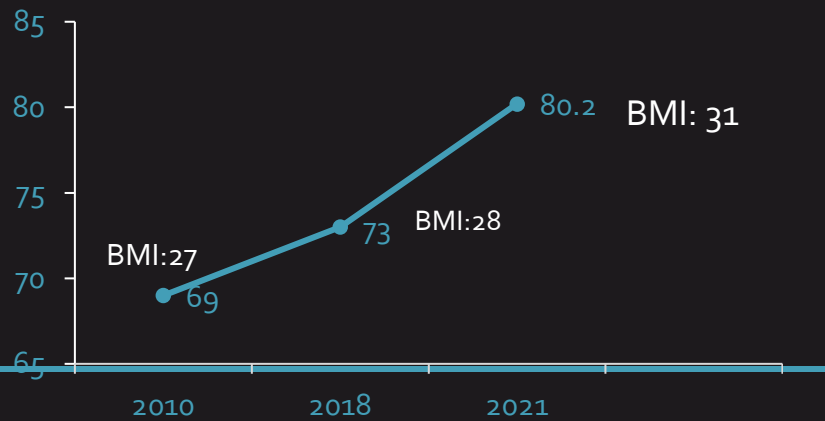
Mrs B

Early 40's

Work full-time in health

Live with husband & 2 children

Thyroxine & Cholecalciferol



Mrs B

Early 40's

Work full-time in health

Live with husband & 2 children

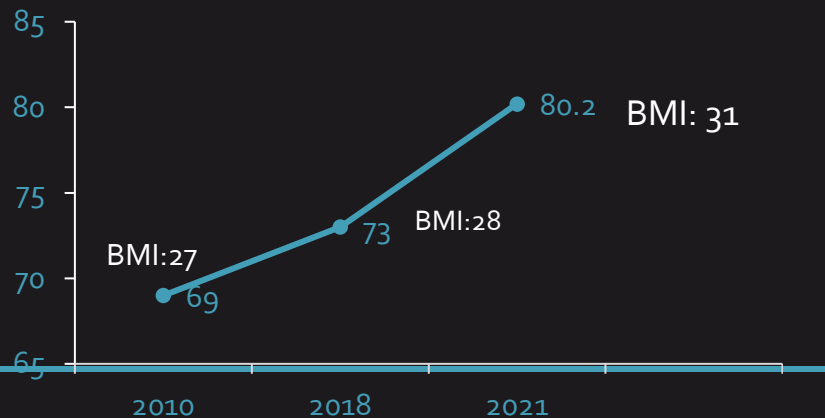
Thyroxine & Cholecalciferol

Self-referred: request dietitian referral

What she wants: Lose weight to avoid health problems.

What she doesn't want:

- Does not want to go on a diet nor bariatric surgery.
- Look for sustainable eating pattern.
- Need to see result to keep her motivated.



Mrs B

Early 40's

Work full-time in health

Live with husband & 2 children

Thyroxine & Cholecalciferol

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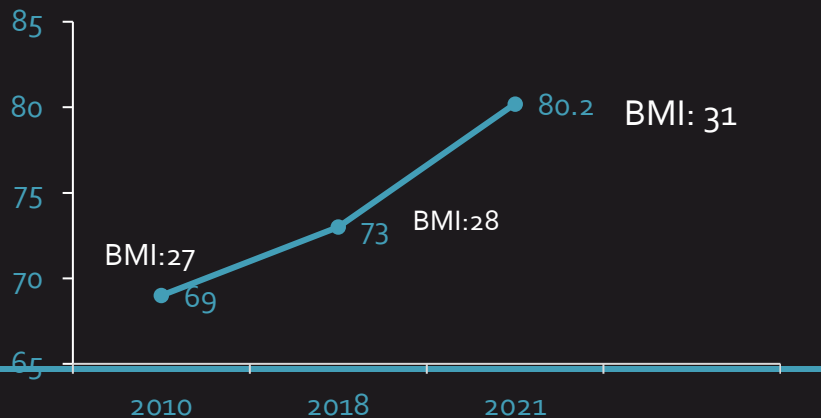
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What she doesn't want:

- Does not want to go on a diet nor bariatric surgery.
- Look for sustainable eating pattern.
- Need to see result to keep her motivated.

Lifestyle History

Nutrition	<ul style="list-style-type: none">• Eat healthy before starting family.• Eating pattern changes over the years to adapt family needs;<ul style="list-style-type: none">- husband has multiple food intolerance (IBS)- young children (baking).
Exercise	<ul style="list-style-type: none">• Exercise regularly before first pregnancy (2010). Reduce frequencies over the years.• Has treadmill at home.
Stress	'unremarkable'
Substance Abuse	Nil, Social drinker
Sleep	No concern
Relationship	No concern



Mrs B

Short-term Goal (2-4 weeks)

Aim for 5-10% (4-8kg) weight loss with VLED meal replacement shakes.

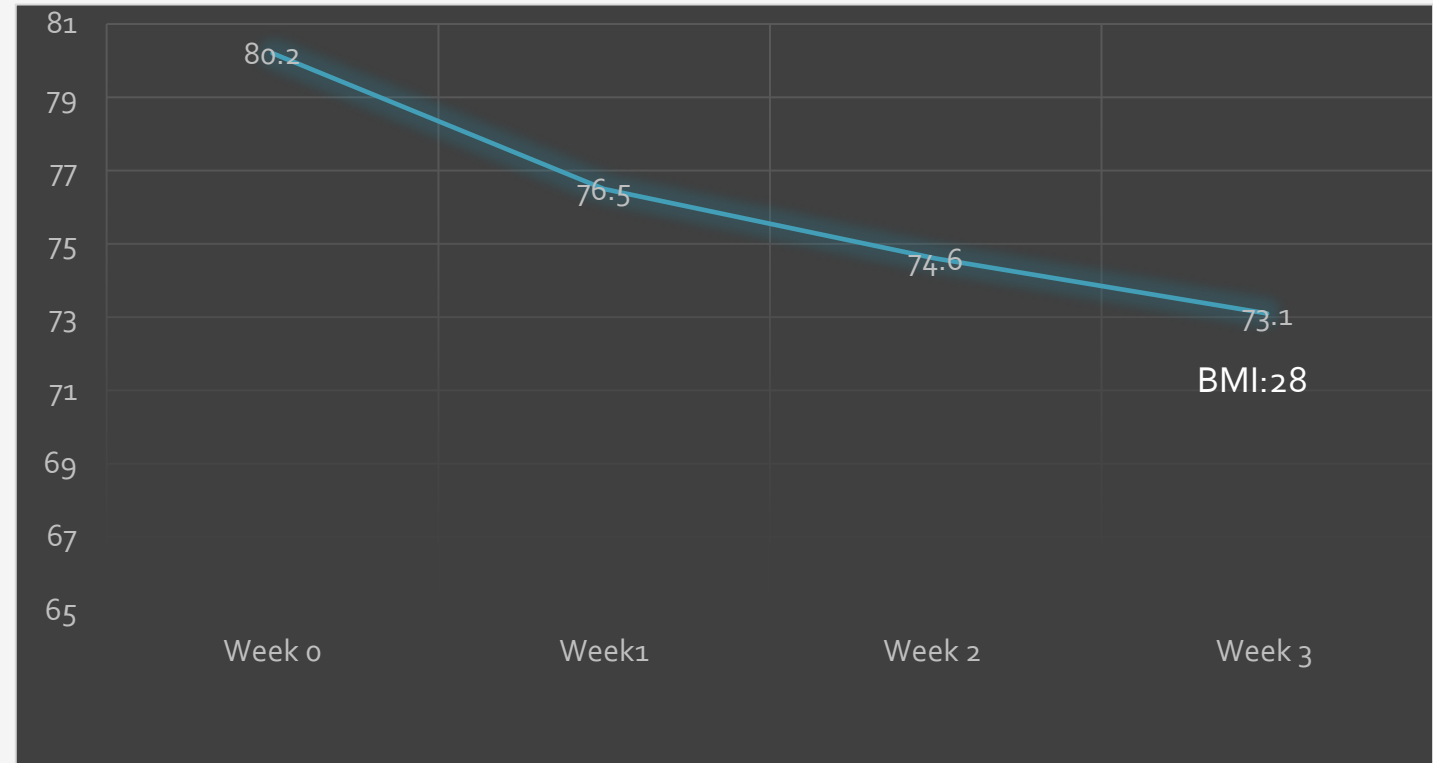
Medium-term goal (1-3 months)

Transition from VLED to a sustainable healthy eating pattern.

Long-term management

Establish a sustainable healthy eating pattern which mimics the Mediterranean, lower-carbohydrate plant-based way of eating.

8.6 % body weight loss, Pre-pregnancy weight: 69 kg



Week-by-week challenges

Ketosis
management

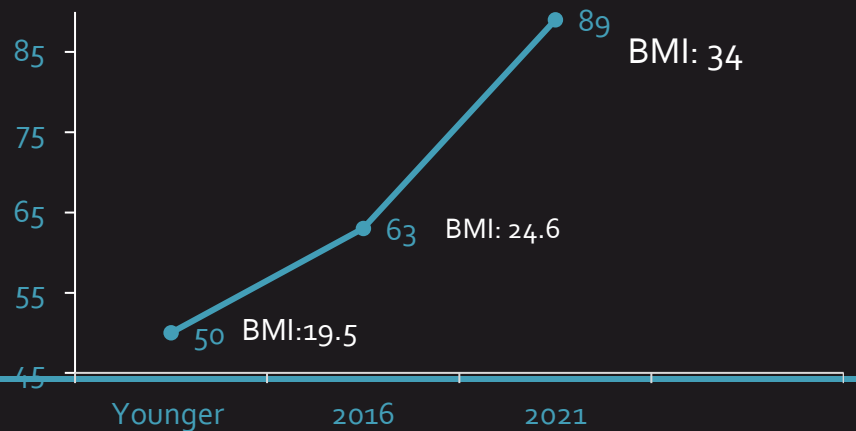
Exercise
Reshape the body

Weight Plateau
Focus on 'Inches'

Mrs C

Early 40's, Home maker
Live with husband & 2 children

Fatty Liver Disease
Coeliac Disease (2015)
History of GDM (2013, 2016)



Self-referred: word of mouth, request for dietitian referral

What she wants: Lose weight.

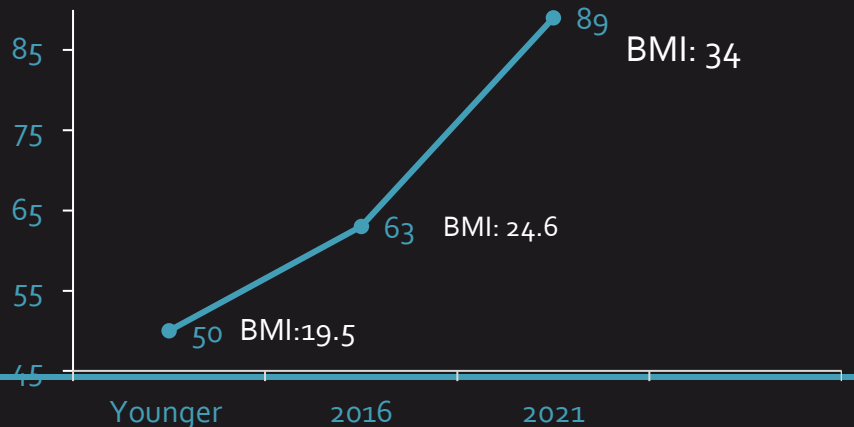
What she doesn't want:

- Plan to have private bariatric surgery, detered by cost.

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Self-referred: word of mouth, request for dietitian referral

What she wants: Lose weight.

What she doesn't want:

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Lifestyle History

Nutrition	<ul style="list-style-type: none">• Cook 2 meals; 'Hello Fresh'• Gluten-free diet – Coeliac Disease• Tried various 'diet' over the years• Snacking – 'Emotional eating'
Exercise	<ul style="list-style-type: none">• Not regular
Stress	Young family Coeliac Disease – 'accidental gluten' symptoms Ongoing migraine, reflux and gastro symptoms when eating out
Substance Abuse	'Coke Zero'
Sleep	Broken sleep
Relationship	Supportive husband and friends.

Mrs C

Discussion:

Establish realistic goal weight with
success in mind.

Manage 'Accidental Gluten' ingestion
from cross-contamination.

Nutrition Management for pre-and-post
bariatric surgery.

Goal: Establish a sustainable lifestyle that enables her to achieve and maintain a bodyweight of between 63 and 65kg in 2 years.

Mrs C

Discussion:

Establish realistic goal weight with success in mind.

Manage 'Accidental Gluten' ingestion from cross-contamination.

Nutrition Management for pre-and-post bariatric surgery.

Goal: Establish a sustainable lifestyle that enables her to achieve and maintain a bodyweight of between 63 and 65kg in 2 years.

Setting the foundation

- Avoid coke zero.
- Have more vegetables.
- Limit snacks to not more than three a day.
- Use 'GluteGuard' to manage 'accidental gluten' ingestion <https://glutagen.com/product/gluteguard/>



When she is ready , commence on the intensive VLCD program.

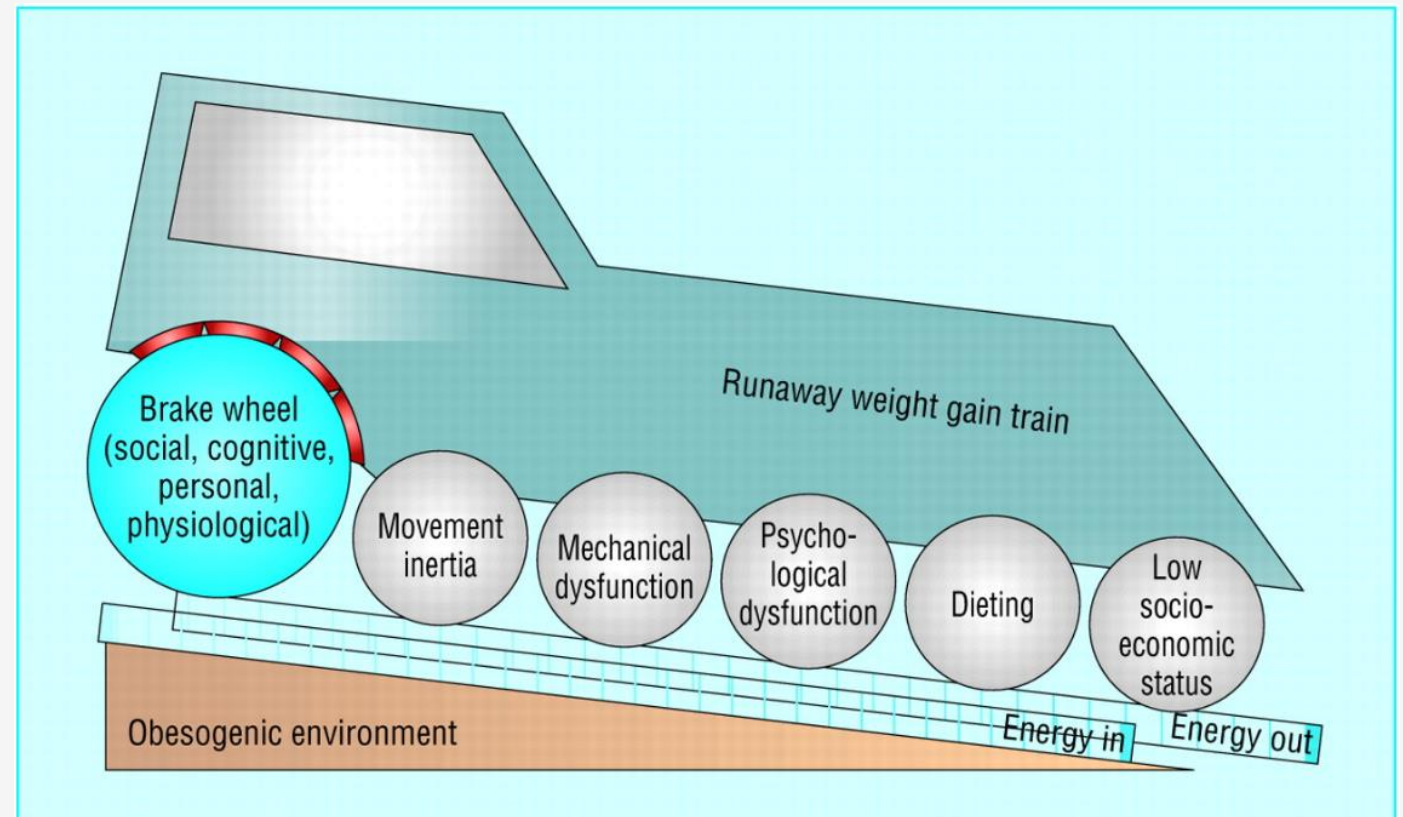
- Aiming for a 5-10% (4.5-9kg) total body weight loss while on the program.

Post-intensive VLCD program

- Devise a plan to establish a sustainable eating pattern and exercise routine to achieve her health goals (better cholesterol control, reduce the risk of developing Type 2 Diabetes and improve overall well-being) and weight goal of 63-65kg.

Three Women

Three Stories

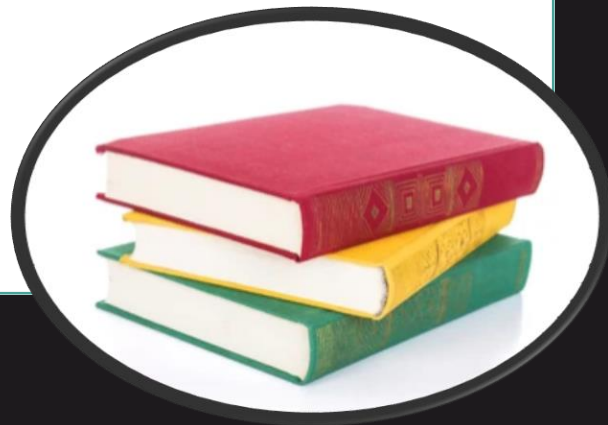


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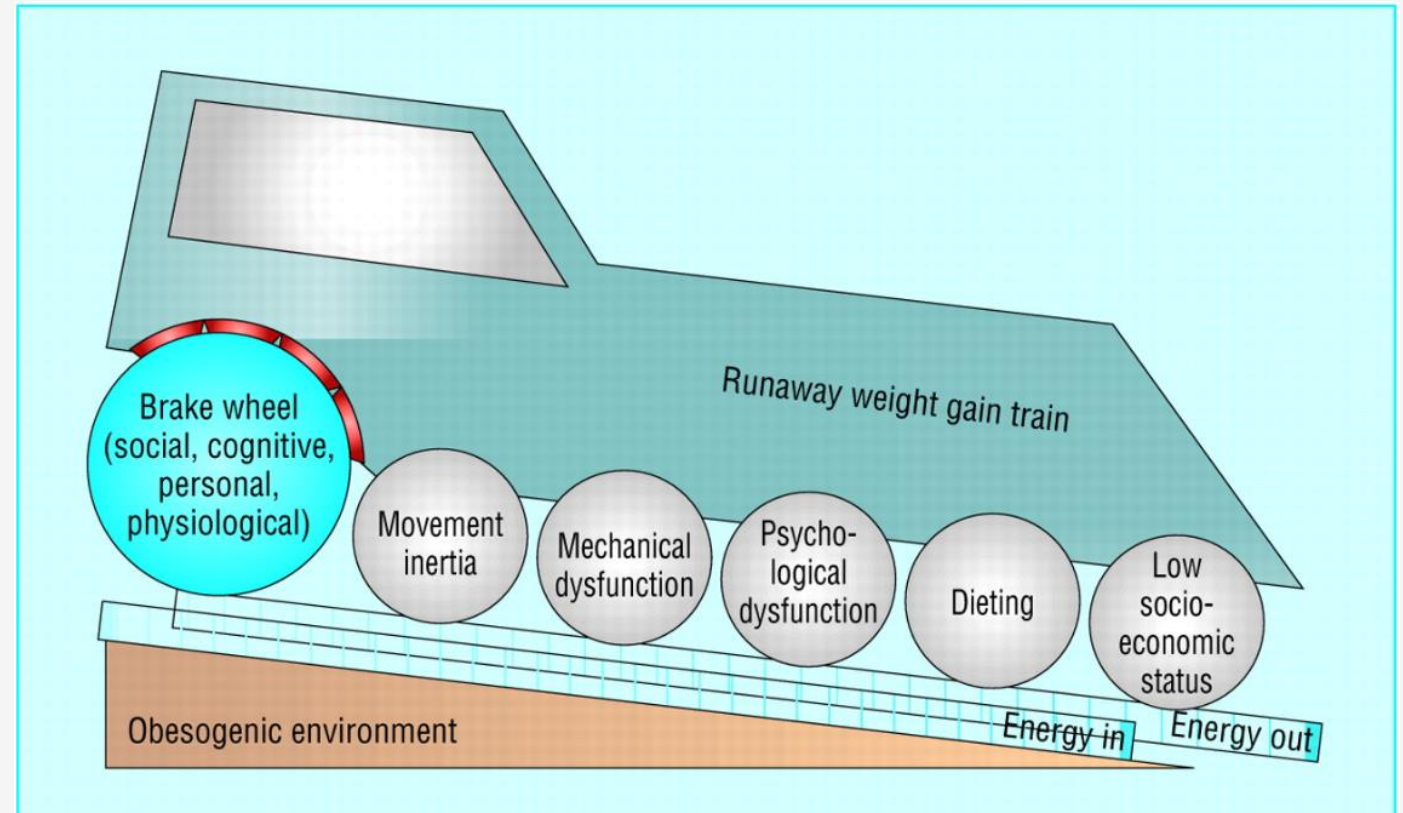
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VLED can be the **Stepping Stone** for some people to put the **Break** on Runaway weight gain train when the **Lifestyle Medicine** approach is used.