Tackling obesity using an addiction paradigm

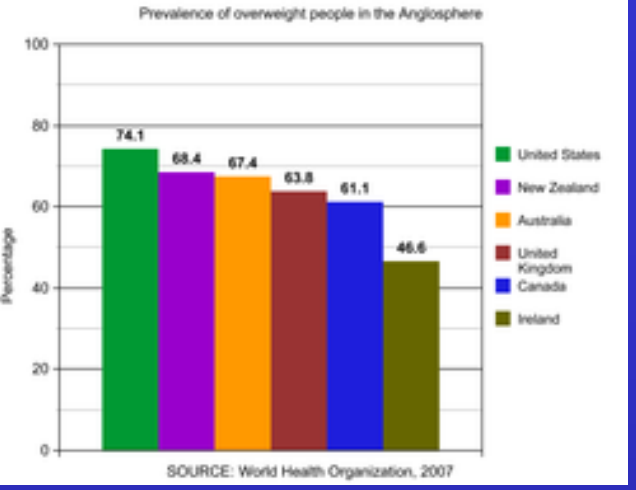
Practice Nurses Dunedin
August 2012

Prof Doug Sellman
National Addiction Centre
University of Otago, Christchurch

Adult Obesity in NZ

2008/09 Adult Nutrition Survey

- One in four adults (aged 15 years and over) were obese (28%)
- 45% of Maori adults were obese
- 58% of Pacific adults were obese
- Increase in males from 17% in 1997
  to 28% in 2008/09
- Increase in females from 21% in 1997
  to 28% in 2008/09



Percentage of overweight people in the Anglosphere

- United States 74%
- New Zealand 68%
- Australia 67%
- United Kingdom 63%
- Canada 61%
- Ireland 47%

Consequences of obesity

- *Metabolic*:
  Insulin resistance, impaired glucose tolerance and type 2 diabetes
  Dyslipidaemia
  - Increased VLDL, triglyceride, increased LDL cholesterol
  - Reduced HDL cholesterol
  - Increased apo B lipoprotein (small dense molecules)

  Fatty liver/non-alcoholic steatohepatitis (NASH)
  Gallstones
  Polycystic ovarian syndrome / infertility in women
- *Cardiovascular*:
  Hypertension
  Coronary heart disease
  Varicose veins
  Peripheral oedema
- *Cancer*:
  Breast
  Endometrium
  Prostate
  Kidney
  Pancreas
  Colon
- *Mechanical*:
  Osteoarthritis
  Spinal complications
  Obstructive sleep apnoea
- *Social*:
  Low self-esteem
  Adverse judgement by society
- *Other*:
  Increased anaesthetic risk
  Increased risk of fractures in children

Source: Essentials of Human Nutrition

Obesity: mostly in the genes (Doctor - June 2012)

"The difference between a fat person and a thin person is in their genes"

Dr Robyn Toomath

Endocrinologist

Founder/Spokesperson for "Fight the Obesity Epidemic" (FOE)

Heritability Of Psychiatric Disorders (Kendler 2003)

Heritability	Psychiatric Disorders	Other Important Familial Traits
zero		Language Religion
20-40%	Anxiety disorders Depression Bulimia	MI Blood pressure Personality
40-60%	Alcohol and drug dependence	IQ Plasma cholesterol Adult-onset diabetes
60-80%	Schizophrenia Bipolar Illness	Weight
80-100%		Height

Behind every addiction is an engineered moreish product

i'm lovin' it™

Non-essential, energy-dense, nutritionally-deficient (NEEDNT) foods

Dr Jane Elmslie

The NEEDNT Foods List

- A list of 50 non-essential, energy dense, nutritionally deficient foods
- Key money makers for the food industry
- Foods high in fats and added sugars, which together with salt, are the food components most commonly associated with the emerging problem of food addiction

N Z Med J. 2012 Feb 24;125(1350):84-92. Erratum in: N Z Med J. 2012 Mar 30;125(1352):130.

Developing the list

- Compiled using:
  - National Heart Foundation and Diabetes New Zealand "Foods to Avoid", "Stop Eating" and "Optional Foods" lists
  - CDHB "Supermarket Shopping Guide"
  - USDA population guidance on discretionary calories.
  - Clinical experience

- Foods and beverages were included if they:
  - contained alcohol
  - saturated fat
  - added sugar
  - were prepared using a high fat cooking method
  - contained a large amount of energy relative to their essential nutrient value

NON-ESSENTIAL ENERGY-DENSE NUTRITIONALLY-DEFICIENT FOODS

NEEDNT FOOD	REPLACE WITH:
Alcoholic drinks	Water/diet soft drinks
Biscuits	*
Butter, lard, dripping or similar fat (used as a spread or in baking/cooking etc.)	Lite margarine or similar spread or omit
Cakes	*
Chocolate	*
Coconut cream	Lite coconut milk/coconut flavoured lite evaporated milk
Condensed milk	*
Cordial	Sugar free cordial
Corn chips	*
Cream (including crème fraiche)	Natural yoghurt (or flavoured yoghurt depending on use)
Crisps (including vegetable crisps)	*
Desserts/puddings	*
Doughnuts	*
Drinking Chocolate, Milo etc.	Cocoa plus artificial sweetener
Energy drinks	Water
Flavoured milk/milkshakes	Trim, Calcitrim or Lite Blue Milk
Fruit tinned in syrup (even lite syrup!)	Fruit tinned in juice/artificially sweetened

NON-ESSENTIAL ENERGY-DENSE NUTRITIONALLY-DEFICIENT FOODS

NEEDNT FOOD	REPLACE WITH:
Fried food	Boiled, grilled or baked food
Frozen yoghurt	Ordinary yoghurt
Fruit juice (except tomato juice and unsweetened blackcurrant juice)	Fresh fruit (apple, orange, pear etc. + a drink!)
Glucose	Artificial sweetener
High fat crackers (≥ 10g fat per 100g)	Lower fat crackers (≤ 10g fat per 110g)
Honey	*
Hot chips	*
Ice cream	*
Jam	*
Marmalade	*
Mayonnaise	Lite dressings/lite mayonnaise
Muesli bars	*
Muffins	*
Nuts roasted in fat or oil	Dry roasted or raw nuts (≤ 1 handful per day)
Pastries	*
Pies	*
Popcorn with butter or oil	Air popped popcorn

NON-ESSENTIAL ENERGY-DENSE NUTRITIONALLY-DEFICIENT FOODS

Quiches	Crust-less quiches
Reduced cream	Natural yoghurt
Regular luncheon sausage	Low fat luncheon sausage
Regular powdered drinks (e.g. Raro)	Water/Diet/Sugar free powdered drinks
Regular salami	Low fat salami
Regular sausages	Low fat sausages
Regular soft drinks	Water/Diet soft drinks
Rollups	Fresh fruit
Sour cream	Natural yoghurt
Sugar (added to anything including drinks, baking, cooking etc.)	Artificial sweetener
Sweets/lollies	*
Syrups such as golden syrup, treacle, maple syrup	Artificial sweetener
Takeaways	*
Toasted muesli and any other breakfast cereal with ≥ 15g sugar per 100g cereal	Breakfast cereal with <15g sugar per 100g cereal, > 6g fibre per 100g cereal and <5g fat per 100g cereal (or <10 g fat per 100g cereal if cereal contains nuts and seeds)
Whole Milk	Trim, Calcitrim or Lite Blue Milk
Yoghurt type products with ≥ 10g sugar per 100g yoghurt	Yoghurt (not more than one a day)

Feedback to Date

- Current research participants
  - Appreciate the clarity
  - Have been surprised at some inclusions
  - Useful as an individual guide to work out own most problematic areas
  - Useful to choose 5-10 most problematic NEEDNT foods to stop eating completely or focus on reducing significantly
  - Gives additional focus beyond portion size
- Current patients
  - Appreciate the clarity
  - Have expressed the view that they are “addicted” to some foods on the list
  - Have used the list to prioritise non essential energy dense food consumption.
  - Have achieved their weight loss goals

Dealing to obesity using an addiction paradigm

Recovery from obesity and food addiction

Diagnostic criteria for food addiction based on DSM-IV SUBSTANCE DEPENDENCE

Maladaptive pattern of use with at least three of the following occurring within a 12 month period:

1. Consumption is often more than intended (quantity or time)
2. Unsuccessful attempts to cut down or control consumption
3. Much time is spent in consumption (time +++)
4. Important activities given up or reduced
5. Continued consumption despite knowledge of associated medical or psychological problems
6. Tolerance (acquired)
7. Withdrawal

Four elements of an addiction approach to recovery

- Permanent lifestyle change
- Abstinence as an "addiction interrupter"
- Motivational interviewing
- A good treatment philosophy

Four elements of an addiction approach to recovery

- Permanent lifestyle change

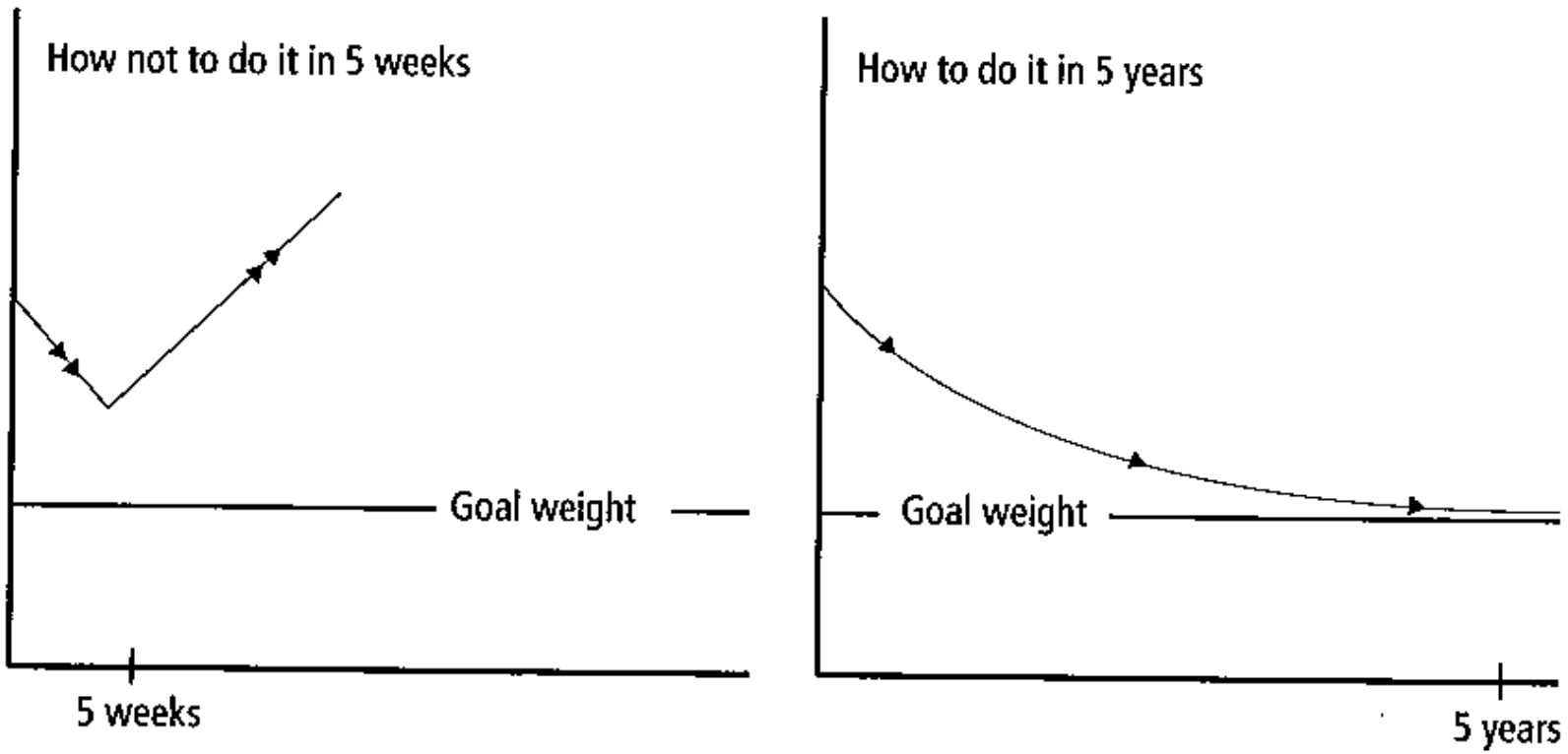


FIGURE 1 Two ways of losing weight

George Eman Vaillant, 1988
(1934-present)

“What is needed is that addicts alter their whole pattern of living”

Four Phases to Recovery

Phase 1 Picking up the pieces from a failed lifestyle

- acute treatment

Phase 2 Assembling a new lifestyle

- rehabilitation

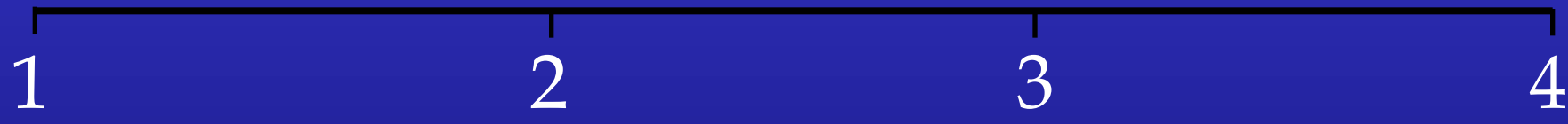
Phase 3 Practicing the new lifestyle

- ongoing support, after-care

Phase 4 Living the new lifestyle

- self-help management

Failed old lifestyle → Successful new lifestyle



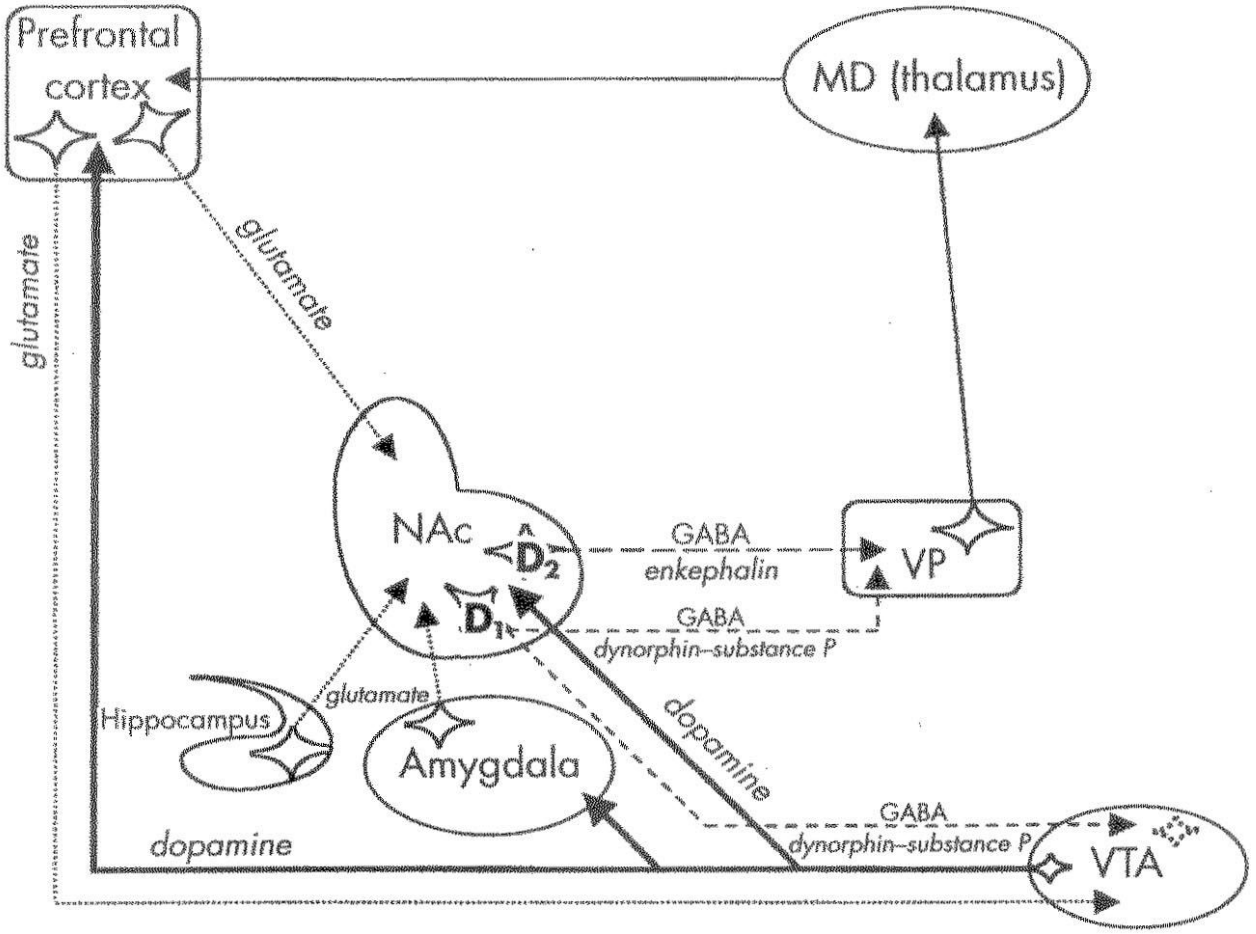
Clinical Management → Self Management

Four elements of an addiction approach to recovery

- Permanent lifestyle change
- Abstinence as an “addiction interrupter”

NEURAL CIRCUITRY OF ADDICTION

(Hammer 2002)



Four elements of an addiction approach to recovery

- Permanent lifestyle change
- Abstinence as an "addiction interrupter"
- Motivational interviewing

Motivational Interviewing

- Supportive, flexible, respectful, collaborative, challenging, information giving

- Basic Principles (DEARS)
  - Develop discrepancy
  - Express empathy
  - Avoid argumentation
  - Roll with resistance
  - Support self-efficacy

- "I learn what I believe through what I hear myself saying"

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Recovery

1. Recovery from a disorder (DSMIV, AA)
   - Patient
   - Early remission/sustained emission/recovery
   - Abstinence (<10%)

2. Recovery of a worthwhile life (MHC)
   - Citizen
   - Empowerment/normalization/strengths-based
   - Functioning (>90%)

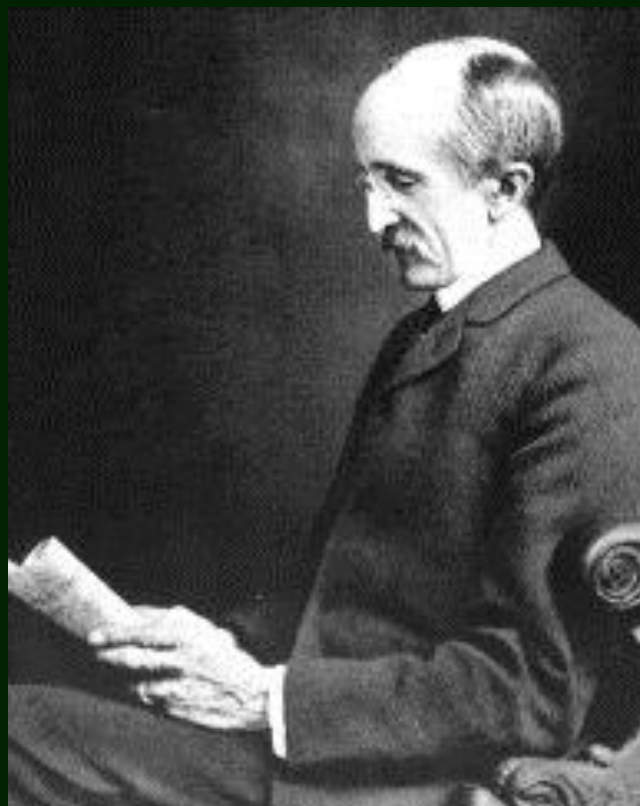
A good treatment philosophy

Cure sometimes
Relieve often
Comfort always

Although over 500 years old, this saying is most often associated with:

Edward Livingstone Trudeau
(1848 – 1915)

A physician who spent his life caring for people affected with tuberculosis



A new research-based self-help network

Kia Akina

“To encourage and support”

Five Strategies

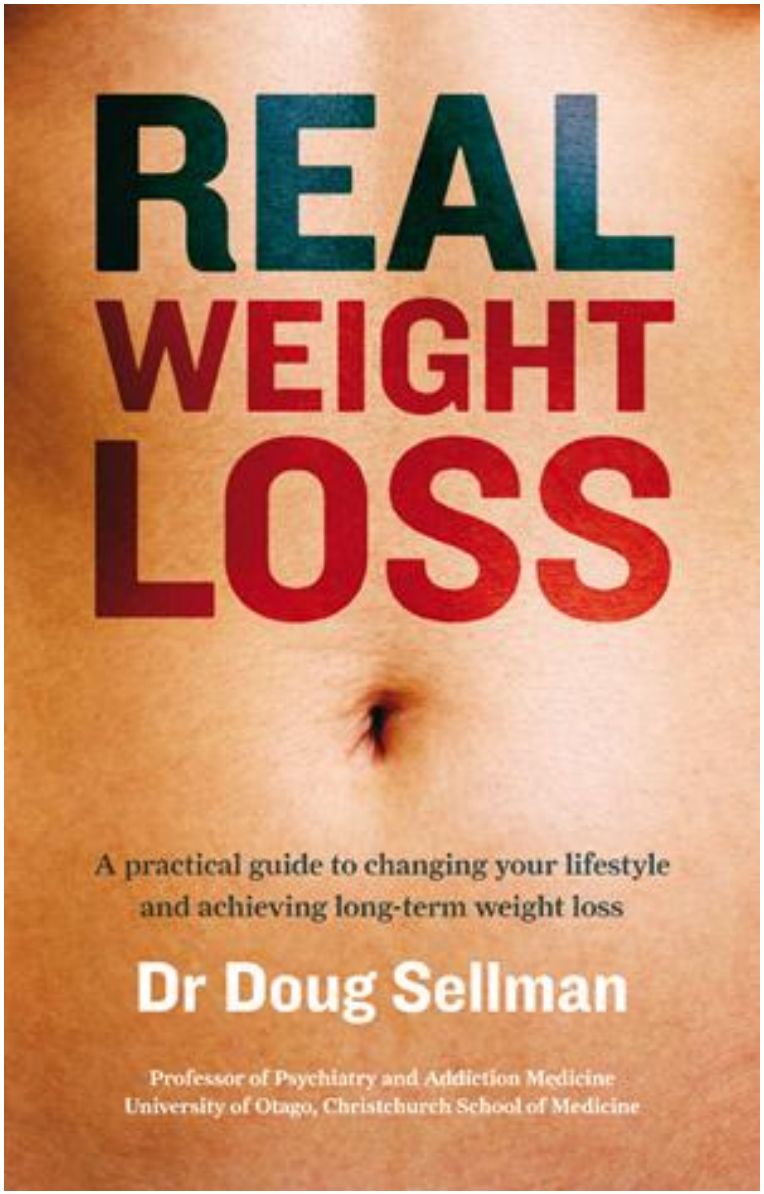
Take Control

Get Active

Eat Well

Persist

Enjoy Life


REAL
WEIGHT
LOSS
A practical guide to changing your lifestyle
and achieving long-term weight loss
Dr Doug Sellman
Professor of Psychiatry and Addiction Medicine
University of Otago, Christchurch School of Medicine

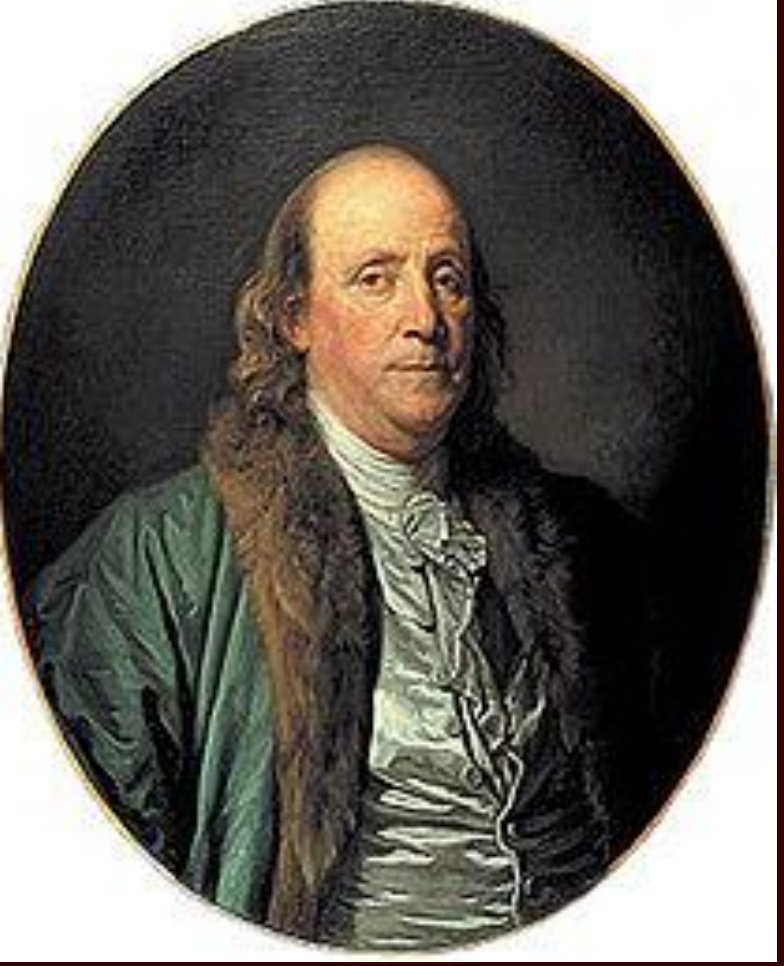
Take Control

- Commitment to weight goals
- Regular weighing
- Planning eating on a daily basis
- Consciously thinking about some aspect of lifestyle change

Throw out scales, ignore the BMI (Doctor - June 2012)

Throw out domestic scales and pay no attention to BMI, Auckland dietician MaryRose Spence says.

Both these tools are redundant, Ms Spence told Rotorua GP CME delegates.



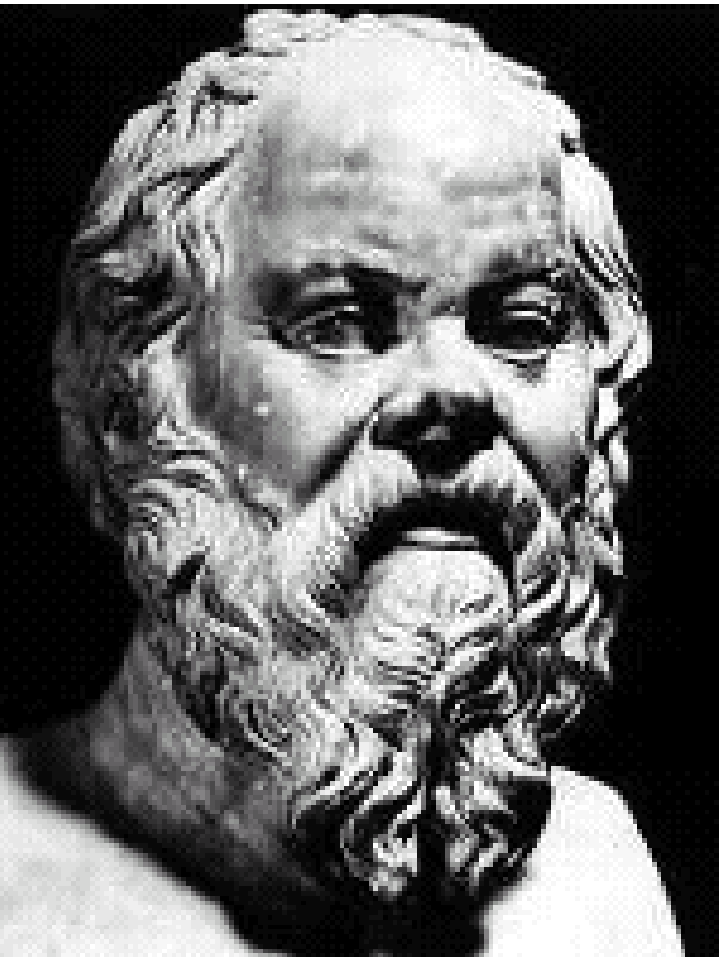
Benjamin Franklin
(1706–1790)

“Up, sluggard, and waste not life;
in the grave will be sleeping enough”

Get Active

- Start the day with a short physical routine eg stretches
- 20-30 minutes of moderate activity on average every day
- Biking, walking, scootering etc instead of using car
- Stairs rather than lifts or escalators

“Thou should’st eat to live; not live to eat”



Socrates

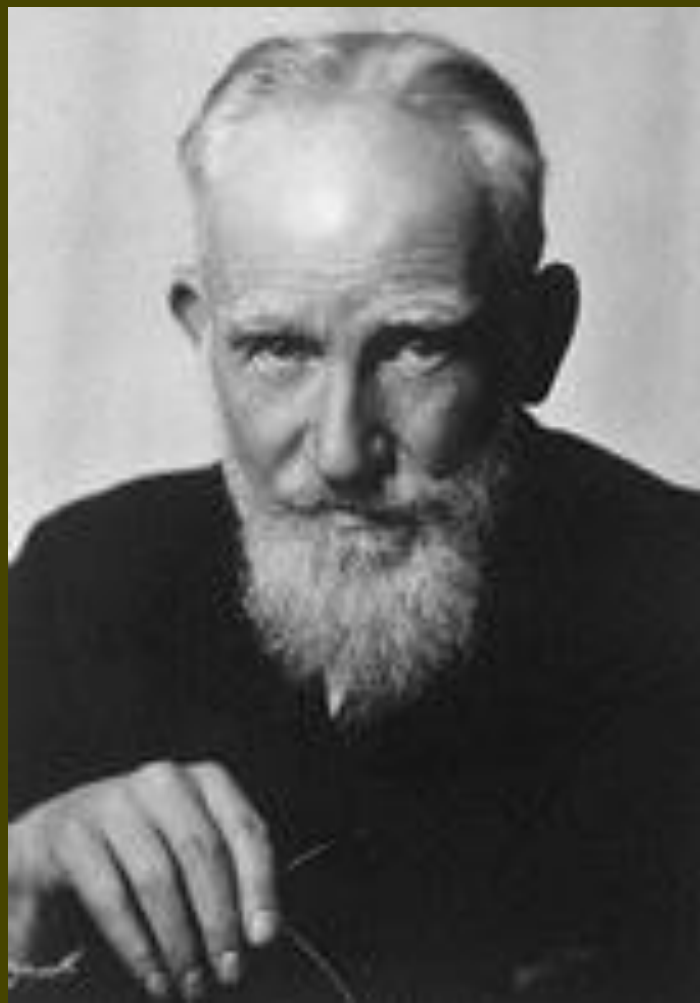
469-399 BC

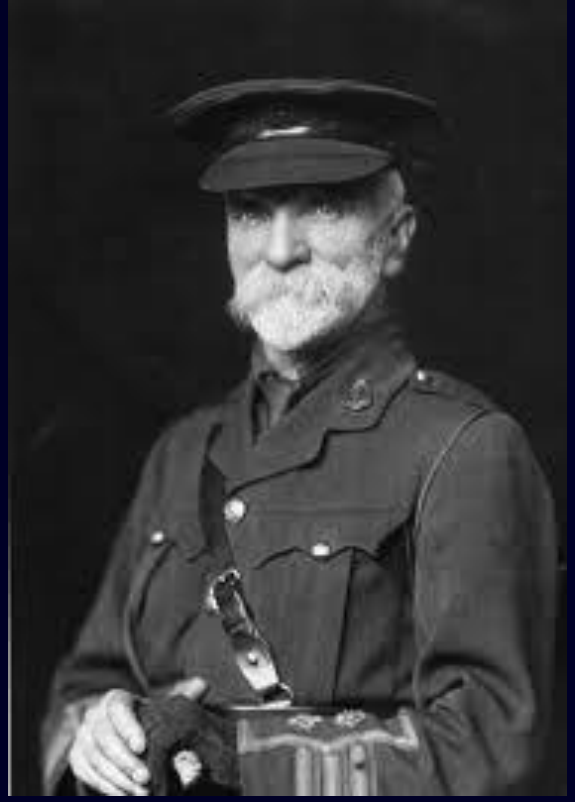
Greek Philosopher

“There is no sincerer love, than the love of food”

George Bernard Shaw
(1856 – 1950)

Teetotaller and vegetarian





Josiah Oldfield (1863 – 1953)

"Eat nature's food
and live long"

Eat Well (I)

- Nutritious breakfast
- Reduce or avoid NEEDNT food
- Don’t drink calories when thirsty
- Eat less sugar and less fat

Eat Well (II)

- Chew each mouthful thoroughly
- Deliberately limit portion size
- Don’t eat everything on plate
- Put your food/utensils down between mouthfuls

Persist

- Don’t give in to urges to eat when not hungry
- Allowing genuine hunger to develop
- Complete something important that you have been procrastinating about
- Keep on going even when you feel like giving up

“Never, never, never give up”

Winston Churchill (1874 – 1965)

Enjoy Life

- Comforting and encouraging yourself about weight loss progress
- Prayer, meditation, immersion in music etc to switch self off or let self go
- Being thankful
- Living for others

“Care for yourself, care for others and care for the Earth, but don’t forget to laugh a lot in the process”

“Enjoy your brief bubble of consciousness and savour every moment”

The Kia Akina Programme for Recovery from Obesity

1. I reached the point where I decided to make a fresh start to lose weight and keep it off for the rest of my life.

2. I weighed myself and committed to this being the heaviest weight I will ever be again.

3. I worked out how much weight I needed to lose to achieve a Body Mass Index of 29.

4. After careful consideration, I decided how long I would take to lose the excess weight, and worked out several intermediate goals as well.

5. I began regularly weighing myself and recording the result.

6. I found at least one other person to communicate my weight loss progress with on a regular basis.

The Kia Akina Programme for Recovery from Obesity

7. I committed to doing at least 20 minutes of moderate exercise/activity on average every day.

8. I became more conscious of my eating and began consuming more vegetables and fruit and less high energy processed food and alcohol.

9. I kept going and didn't give up, even when I sometimes relapsed and found it really hard to keep on track with my weight loss goals.

10. I discovered new ways that bring lasting contentment, rather than relying on the short term pleasure of consuming food and alcohol, or waiting until I have lost weight to enjoy life.

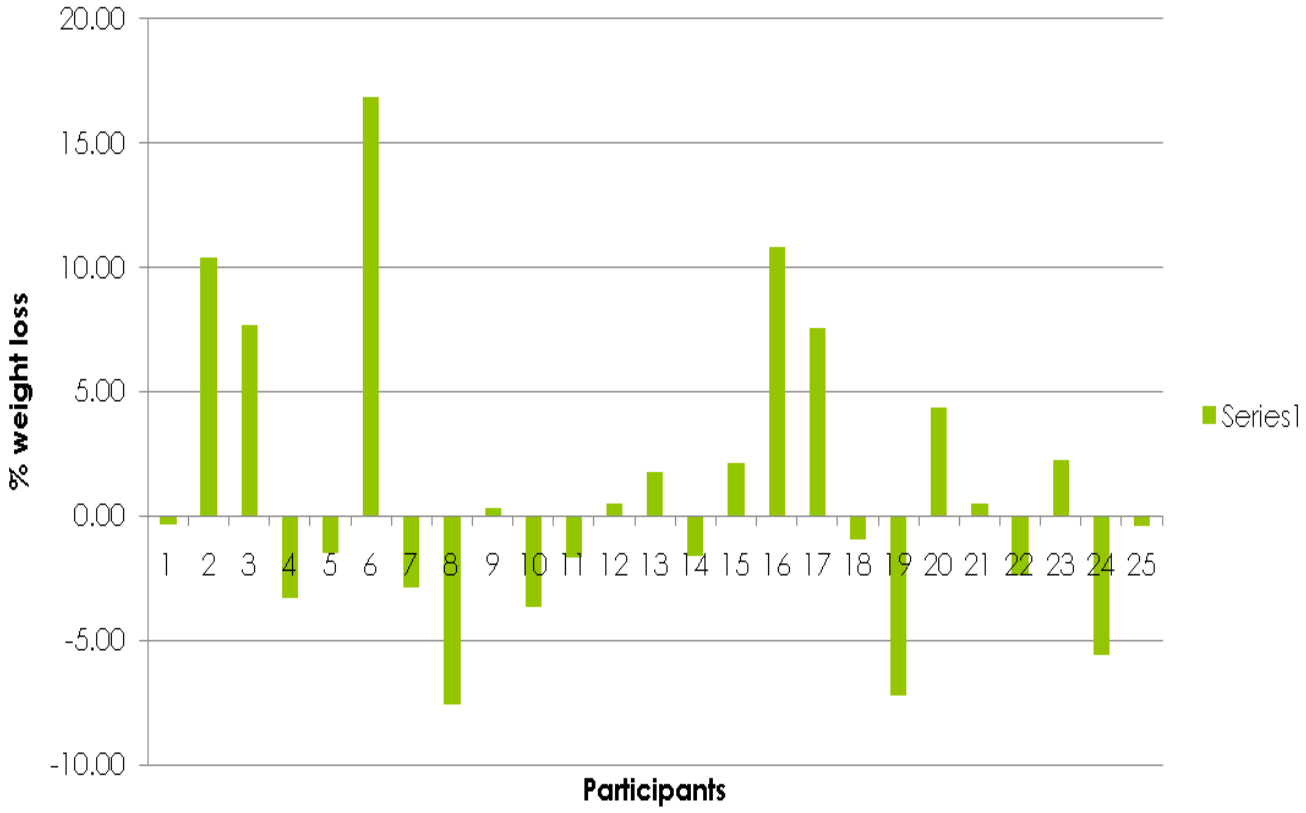
Kia Akina Options

- Quarterly workshop
- Monthly individual weigh in
- Fortnightly support group
- Weekly email, ongoing email discussion
- Daily texting of weight

Demographics

Variables	n=25
Age	48 years (34-63 years)
Gender Female	 19 (76%)
Ethnicity Maori Non-Maori	 13 (52%) 12 (48%)
Mean Baseline Weight	106kg

% Weight Loss at Last Weigh in (Up to 18 months)



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