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16:40 - 16:55 Don't Fat People Just Need to Eat Less and Exercise More?

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08-11 JUNE 2017 | Energy Events Centre | Rotorua









Goal of a 3,500 calorie deficit/day. Quit his job

Wake at 5 am, run on treadmill 45 minutes.

Breakfast — an egg, two egg whites, half a grapefruit

Run on treadmill another 45 minutes.

Rest 40 minutes

Bike ride nine miles to gym, work out 2 ½ hours. Shower, ride home

Lunch — grilled skinless chicken breast, cup of broccoli, 10 spears asparagus.

Rest 60 minutes

Drive to gym for more exercise.

If had not burned enough calories, back to the gym after dinner

“The biggest Loser” Study

14 participants in season 8 in prospective study weight & energy expenditure

At 6 years:

- 13 of 14 participants regained weight

- 66% of all lost weight was regained

- 4 became heavier than before the competition

Resting metabolic rates, which had been normal, slowed

Danny now burns 800 Cal less than expected for a man his size

Weight loss resisted by drop in metabolic rate, long term

Can eating less stop weight regain?

Weight control subject to multilayered control mechanisms

body's systems for regulating calories consumed vs. burned are tightly coupled. Difficulty in keeping weight off reflects biology

Leptin: satiety hormone, but resistance with obesity

Ghrelin: hunger hormone, lower after bariatric surgery

Numerous hormones, complex pathways, incompletely understood

Differences between individuals in how/whether these work

How about exercise?

Resistance training

Building muscles has minimal effect on resting metabolism

A man weighing 80kg lifting weights puts on 2kg muscle
burns an extra 24 calories a day

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Double down burger 1228 Cal

ie 51 days of output from that 2kg

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Cardiovascular exercise

As long as you do not eat more calories to make up for those burned

Brain controls your hunger and your cravings, easy to consume more

After losing 10% of your weight, your muscles use genes to be more efficient, burn 20-30% less calories for same exercise

So are diets a waste of time?

For most of us but not all

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But with any diet, some will do well, some poorly, some no change

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National Weight Control Registry: maintain 14kg > 1 year

Now 10 000 people, average 30kg loss for 5 years, range of approaches:

- 98% modified diet in some way

- 94% increased physical exercise (1hr/day)

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Most: <10hrs TV/week, weigh weekly,
motivated by more than slimness

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Set appropriate goals for weight loss

Significant benefits for 10% excess weight loss

More likely to be effective if health related goals

Lessons from Weight Control Registry

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Populations measures to reduce drivers of population obesity

Thank you

Questions?