Separating Fat from Fiction: Exploring Myths, Realities, and Assumptions

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The Situation

- **Food environment**
  - Decreased food prices
  - Increased portion size
  - Increased eating out
  - Snacking

- **Physical environment**
  - Remote controls, cell phones, garage door openers, leaf blowers, lawn mowers
  - Screen time=video games, computers, TV
  - Urban sprawl; need for car to get anywhere

- **Society that worships thinness and abhors fat**
Is Obesity a disease? Is body fat pathological?

- Who benefits from the concept of obesity being considered a disease?
  - Scientists researching obesity
  - Pharmaceutical companies
  - Bariatric surgeons
  - Public health establishment

- 50 Billion Dollar Diet Industry
New Year’s Resolutions

- #1 wish every year-to lose weight
Sobering Statistics

- 116 million adults dieting at any given time
- 80% of teenage girls in the US have been on a diet
- by age 13, approx. 1/2 of girls said they were unhappy with their bodies
Sobering Statistics Continued

- The average model, dancer, or actress is thinner than 95% of the population.
- A generation ago fashion models weighed 8% less than the average woman; today, 23% less.
  - [http://demo.fb.se/e/girlpower/retouch/](http://demo.fb.se/e/girlpower/retouch/)
- Women, weight, and feminism.
Fat Phobic Society

**Diet Drugs**
- usage among female adolescents
- Fen-Phen Fiasco

**Bariatric Surgery (liposuction and gastric bypass)**
- Liposuction. *JAMA* (Oct. 2005). Mortality rates: 30 day follow-up (2%), 90 day (2.8%), and 1 year (4.6%). As elective surgery, high mortality rate.
- Complications 1 in 347. Hospitalization rate doubled in the year post-surgery compared to year prior to surgery. At least 20% will need further surgery.
- Health benefits?
Myths and Misconceptions

- People can control their body size
- You will lose weight when you exercise
- People are thin or fat based on a simple relationship between calories in and calories out (expended calories)
- Obesity causes poor health and increased mortality
Obesity is a poor predictor of:

- Hypertension. 96 obese women per group:
  - no history of dieting; 125/79
  - history of yo-yo dieting (5 or more weight losses of at least 10 pounds in the last 5 years); 147/90

- High cholesterol
  - Low fat diet (6 weeks) and weight loss resulted in improved cholesterol levels. (National Public Health Institute)
  - Exercise or weight loss? 31 obese women were put on a 6 month aerobic program. (Laval University, Canada)
    - most lost weight; average of 6 pounds
    - 11 gained 6 pounds during the program
Obesity is a poor predictor of:
(continued)

- Atherosclerosis ("clogged arteries")
  - 1960 (Int’l Atherosclerosis Project). 23,000 autopsies; concluded “no association”.
  - 1984 (NIH). Autopsies of morbidly obese (300-500 lbs.). Found they had the same coronary vessels of non-obese, same age.
  - 1991. 4,500 angiograms of middle aged and elderly....

- Type II diabetes: condition markedly improves with changes in diet and exercise, independent of weight changes

- Dr. Glenn Gaesser “…it is absolutely unjustifiable to equate behavioral patterns (poor diet and physical inactivity) with a physical characteristic (obesity).”
Fat and Fit

- Cooper Institute for Aerobics Research
  - 1970. 26,000 men; 8,000 women (ages 20-90)
  - being heavy did not increase the risk of premature death
  - when you consider fitness levels, being overweight seemed to be better than being underweight
  - obese fit men and lean-fit men had similar low death rates and death rates 1/2 that of lean-unfit men

- Harvard Alumni Study
  - 17,000 men who attended Harvard between (1916-1950)
  - Who has the best chance of living a long life?
BMI vs. Relative Risk of Death

B All Women According to Age (N=214,218; 19,144 deaths)

B Men According to Age (N=313,047; 42,173 deaths)
DIETS: Atkins to Zone

- Dieters are 18x more likely to develop an eating disorder than non-dieters.
- Recidivism rate ranges from 90-98%
- Needs deprivation leads to overcompensation
  - Dieting begets bingeing.
  - Dieting intensifies preferences for high-fat and sugar-loaded foods.
  - Starving.......... Stuffed.
Keys Study (1944)
- 32 conscientious objectors
- 24 weeks of caloric restriction/one-half of what they were used to eating
- All lost weight, all gained it back plus some, and all in the form of fat.
- Men were irritable, depressed, apathetic, and preoccupied with food.

What to Treblinka and Jenny Craig have in common?
Diet is a four letter word

Emotional toll. Leaves one disheartened, disillusioned, and depressed.

- Body conserves energy/survival mechanism
  - BMR (basal metabolic rate) accounts for 60-70% of total energy used by body
  - BMR drops within 24 hrs. of food deprivation, may reduce a full 20% in 2 weeks
  - Burner analogy
DIETS

- Dieting improves your body’s ability to store fat and limits your ability to burn it
  - Increases lipogenic (fat-storage) enzymes
  - Decreases lipolytic (fat-releasing) enzymes
  - Decreased muscle-used for energy and reduced to lower metabolism

- Ideology of a diet reinforces the split between the dieter’s mind and her body.

How to weigh yourself and get the most accurate result.
I can't believe I have been doing it wrong all these years!

We must get the word out!
Yo-Yo, Uh Oh

- Weight loss begets weight gain - with serious health consequences
- Framingham Heart Study.
- Harvard Alumni Study (follow-up 1998)
  - compared with men who maintained fairly stable weights, those who had lost and gained the most total pounds:
    - 80% higher risk of heart disease
    - 123% higher rate of type II diabetes
  - alumni who dieted frequently (compared to non-dieters):
    - 2x risk of diabetes, hypertension, and coronary heart disease
Consequences of weight loss/gain cycling

- Just one weight-loss/gain cycle can impair glucose metabolism and elevate cholesterol, triglycerides, and blood pressure, even if the weight regain takes up to 4 years. (Big Fat Lies)
- Leningrad, before and after the siege of 1941
- “Weight cycling is associated with lower HDL cholesterol in women of a magnitude ... associated with an increased risk of cardiac event”. (Journal of the American College of Cardiology, November 2000)
Athletics

- Scales are scarce
- Educate the coaches/staff
- Programming for athletes
- No weigh-ins or % body fats
SCALES ARE FOR FISH NOT WOMEN!
DON'T WEIGH YOUR SELF-ESTEEM.

Change the rules... NOT your body!

Break the barriers. Voice your opinion. Make room for every body. Get physical for fun. Be a role model.

DON'T WEIGH YOUR SELF-ESTEEM

Sponsored by Fox College Women's Body Image Coalition
Ready, Set Point, Go

○ “home” weight; where your body feels at home
○ natural weight “when you are not doing anything to control your weight, but are eating a relatively low-fat, fiber-rich diet abundant in fruits, vegees, and whole grains, and being physically active” (Big Fat Lies)
○ 70% of our weight is genetically determined
Location, location, location

- more upper-body accumulation of fat (abdominal area)
- more prevalent in males
- visceral (or deep) body fat—metabolically hyperactive, results in high levels of FFA (free fatty acids) released in the bloodstream, etc.
- associated with increased risk for atherosclerosis and diabetes.
Location, location, location

- lower body accumulation of fat (hips and thighs)
- more prevalent in females
- subcutaneous fat
- associated with a lower risk of heart disease and diabetes
- Stanford University, 1991. 133 men and 130 women, ages 25-49. The fatter the thighs, the lower their heart disease risks (low LDL, high levels HDL, i.e. blood fat profiles).
20/20
(Dr. Glen Gaesser, PH.D. Big Fat Lies)

- Fat intake: 20% of diet (% of daily caloric consumption)
  - 2,500 calorie-per-day diet = 56 grams of fat
  - 2,000 calories = 44 grams of fat

- Mediterranean Diet: fruit and vegetables, whole grains, olive oil, seafood, nuts, lean meats (small portions), red wine. Eat slowly and pleasurably.
  - Compared to typical American Diet: 2x the fruit and seafood, 2/3 more veges, 1/5 more grains and beans, and only ½ as much meat
  - High fiber
20/20 Fitness

- **CARDIOVASCULAR**
  - 60 minutes
  - “no pain, no gain”
  - “working out”/exercise
  - how well your body can deliver O2 to the muscles
  - structured activities, often at a gym (aerobic classes, stairmaster,...)

- **METABOLIC**
  - 20 min./day average (140 min./week)
  - physical activity
  - spontaneous, unstructured (natural part of daily life)
  - increases insulin sensitivity, thereby reducing blood insulin levels
“That weight figure is a guess, because I haven’t actually been on a scale in 10 years or so. I was a fat baby, a fat kid, a fat teen, a fat adult, and now I’m nearing my dotage as a fat old bat. I no longer attempt to lose weight. At this point in my life I am unapologetically and unrepentantly fat....It’s what I am –but not who I am.”

Cynthia, 52 yrs. old, weight 375. (The Obesity Myth)
HAES (Health At Every Size)

- People who engage in normal healthy eating (balanced diet; eat in response to hunger; stop eating when satiated) and who are physically active- vary enormously in weight

  - overfed 12 sets of identical twins 1,000 cal./day, 6 days/week
  - identical levels of physical activity
  - 7 weeks later; weight gain among 24 men varied 300%, from 9-30 lbs.
Suggestions, Solutions, Solace

- Marcia Germaine Hutchinson, “Feminist Perspectives on Eating Disorders”, “So what does it mean to have a healthy body image?....”

- What if? What if women collectively woke up one morning and felt good about themselves, and were happy and content with their bodies?
More Suggestions, Solutions, Solace

- Substance over image.
- Redefine beauty.
- Challenge the images/media.
- Be critical consumers of information.
- Avoid mentioning weight.
Peace with food

- Shift focus from weight and dieting to enhancement of quality of life and health.
  - Healthy foods. Listen to your body.
  - Honor your hunger. Recognize satiety. (www.intuitiveeating.org)
  - Set point theory (role of genetics)
Resources

Resources (Continued..)


