Understanding Weight Control

Prof Deborah Saltman AM MD
Imperial College
Fat: Fact, Factoid or Future?

- Up to 50% of dieters who reduce their weight to a healthy level, put weight back on within five years.
- The more weight we lose the more likely we are to regain it.
- Muscle weighs more than fat. So our weight may not change as we get fitter.
- We need at least 30 different foods over a week provide the optimal range of vitamins and minerals.
- Obesity is not a disease that can be “cured.” It is a lifelong challenge that requires a lot of disruption of our old ways in the beginning and a life-time of managing change.
- Our weight fluctuates on a daily basis, and this shouldn’t scare us. Measuring weight daily can help us stay calm about the fluctuations.
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• Fat signalling starts in the cell and ascends and descends to all parts of the body.

• Our brown fat cells can produce as much energy in a day as 20 Olympic triathletes burn in a minute.

• Most diets are capable of producing short-term changes, and these changes have to be built upon, not just lost and replaced.

• We live in a changing world. We should expect no less from our weight management.

• A disruptive “eating wardrobe” should have utensils that allow only small potions to get into our mouths, like small forks and spoons, chopsticks . . . and outdoor gloves.

• The amount of energy required to achieve any physical activity increases with body size.
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- A disruptive “eating wardrobe” should have utensils that allow only small potions to get into our mouths, like small forks and spoons, chopsticks . . . and outdoor gloves.
- The amount of energy required to achieve any physical activity increases with body size.
Portion Distortion

**Bagel**
- Twenty years ago, a 3-in. diameter bagel contained 140 calories. Today, bagels are generally bigger, with a 6-in. diameter and 350 calories.

**Cheeseburger**
- Twenty years ago, a cheeseburger was 330 calories at about 3 oz. Today, it is 590 calories at about 5 oz.

**Spaghetti and meatballs**
- Twenty years ago, 1 c of spaghetti, sauce, and three meatballs were about 500 calories. Today, we often eat two cups of spaghetti, sauce, and three meatballs at 1,000 calories.

**French fries**
- Twenty years ago, a serving (2.5 oz) of French fries contained 200 calories. Today, a serving (6.5 oz) of French fries contains 600 calories.

**Soda**
- Twenty years ago, a bottle of soda (6.5 oz) contained 85 calories. Today, an average bottle of soda (20 oz) contains 250 calories.

**Turkey sandwich**
- Twenty years ago, a turkey sandwich contained 300 calories. Today, a turkey sandwich contains 800 calories.
Portion Distortion

Bagel
• Twenty years ago, a 3-in. diameter bagel contained 140 calories. Today, bagels are generally bigger, with a 6-in. diameter and 350 calories.

• How much extra gardening?

Cheeseburger
• Twenty years ago, a cheeseburger was 330 calories at about 3 oz. Today, it is 590 calories at about 5 oz.

• How much small weight lifting?

Spaghetti and meatballs
• Twenty years ago, 1 c of spaghetti, sauce, and three meatballs were about 500 calories. Today, we often eat two cups of spaghetti, sauce, and three meatballs at 1,000 calories.

• How much house cleaning?.

French fries
• Twenty years ago, a serving (2.5 oz) of French fries contained 200 calories. Today, a serving (6.5 oz) of French fries contains 600 calories.

• How much low impact physical activity?

Soda
• Twenty years ago, a bottle of soda (6.5 oz) contained 85 calories. Today, an average bottle of soda (20 oz) contains 250 calories.

• How much gardening?

Turkey sandwich
• Twenty years ago, a turkey sandwich contained 300 calories. Today, a turkey sandwich contains 800 calories.

• How much bike riding?
Portion Distortion

**Bagel**
- Twenty years ago, a 3-in. diameter bagel contained 140 calories. Today, bagels are generally bigger, with a 6-in. diameter and 350 calories.

- **To lose that extra 210 calories, we would have to do 50 minutes of moderate strenuous activity, such as raking leaves.**

**Cheeseburger**
- Twenty years ago, a cheeseburger was 330 calories at about 3 oz. Today, it is 590 calories at about 5 oz.

- **Losing those extra 260 calories requires 90 minutes of moderate strenuous activity, for example lifting small weights.**

**Spaghetti and meatballs**
- Twenty years ago, 1 c of spaghetti, sauce, and three meatballs were about 500 calories. Today, we often eat two cups of spaghetti, sauce, and three meatballs at 1,000 calories.

- **Losing those extra 500 calories requires 2.5 hours of moderate activity, for example active house cleaning.**

**French fries**
- Twenty years ago, a serving (2.5 oz) of French fries contained 200 calories. Today, a serving (6.5 oz) of fries contains 600 calories.

- **Losing those extra 400 calories requires an hour of low-impact physical activity like walking.**

**Soda**
- Twenty years ago, a bottle of soda (6.5 oz) contained 85 calories. Today, an average bottle of soda (20 oz) contains 250 calories.

- **Losing those extra 165 calories requires 30 minutes of moderate physical activity, for example gardening.**

**Turkey sandwich**
- Twenty years ago, a turkey sandwich contained 300 calories. Today, a turkey sandwich contains 800 calories.

- **Losing those extra 500 calories requires 1.5 hours of strenuous physical activity, for example bike riding.**
The Diet Courtroom: Unanimous decision/Majority Decision/Hung Jury/Judges Call

• What is the decision?
  • Unanimous
  • Majority decision
  • Hung jury
  • Judges call

• Which of the following are:
  • Beneficial
  • Harmful
  • Little effect
1. 100% fruit juice
2. Antioxidants, vitamins, calcium
3. Certain vegetable oils (eg corn, sunflower, safflower)
4. Certain vegetable oils (eg, soybean, canola, extra virgin olive)
5. Cheese, low fat milk
6. Coconut oil
7. Coffee, tea, cocoa
8. Concepts of local, organic, farmed/wild, grass fed
9. Dietary fiber, potassium
10. Fruits, nonstarchy vegetables, nuts, seeds, legumes, yogurt
11. Genetic modification
12. Greater than moderate alcohol use
13. High glycemic index
14. High sodium
15. Mediterranean style diet
16. Moderate alcohol use
17. Moderate salt
18. n-3 and n-6 polyunsaturated fats, plant-derived monounsaturated fats
19. Noncaloric sweeteners
20. Partially hydrogenated vegetable oils, processed meats
21. Poultry
22. Saturated fats, dietary cholesterol
23. Seafood, whole grains
24. Starchy vegetables other than potatoes
25. Sugar-sweetened beverages, foods rich in refined grains, starches, added sugars
26. Total carbohydrate
27. Total fat
28. Total protein, specific amino acids
29. Unprocessed red meats, eggs
30. Vitamin D, magnesium
31. White potatoes
32. Whole-fat milk

The Diet Courtroom: Unanimous decision
## The Diet Courtroom: Unanimous decision

<table>
<thead>
<tr>
<th>The defendant</th>
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<tbody>
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The Diet Courtroom: Majority Decision
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#### Majority decision

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The Diet Courtroom: Hung jury

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My Ten Top Dietary Disturbances

- Vary the diet you are on every month or so until you find the range of healthy foods and drink you can live with for a few years.
- Always make sure you like the look and smell of what you are about to eat. It helps reinforce the diet.
- Make weight loss album or scrapbook (NOT a diary) in which you store diets and foods that work for you. It doesn’t have to be written down it can just be in your mind.
- If you like counting chose a diet where you can count easily eg low fat diet where amounts are easy to count – only up to 30)...  
- Move the dish away from your reach when you have decided it should be enough or put your napkin over it. If you are really in trouble spill some drink onto the plate – that should make it unappetizing.
- Before you finish think how much you can leave on the plate
- Remove one thing from your diet every couple of months by telling yourself “it doesn’t agree with me” eg I don’t like chocolate cake. It doesn’t agree with me.
- Don’t let yourself have too many blowouts. One a week is acceptable.
- Rotate the type of diet and length of the time you are on it.
- Always think about stopping eating before you start. How and when are you going to stop? Before you start have something that makes you less hungry. Carry it around with you eg chili or fizzy water.