

True Cost of Pie

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Pie-Cost Definition

(From the Urban dictionary)

Pie-cost: adjective used to describe something cheap and of poor quality. Worth about \$1.20 (the cost of a pie). This term is used by Maori and Polynesians in Auckland.



 **Pie I have eaten**

 **Pie I have not
yet eaten**

Pie charts are very inexpensive but can be very informative



(more pie humor)

Pie Joke

Joker: Too bad we don't have a pie-cost.

Victim: What's a pie-cost?

Joker: Oh, about six bucks ...



Store bought Pumpkin Pie



Fresh Baked
Pumpkin Pie
11-inch.

**Low Price
Every Day**

6.99

Pumpkin Pie Ingredients

Pastry: Flour, shortening, water ~\$0.25

Filling: Pumpkin ~\$2.00

Eggs (4x\$0.20@) ~\$0.80

Evaporated Milk ~\$1.00

Spices ~\$0.15

Total Cost of Ingredients ~\$3.95



Cost = Ingredients

Fortunately for us, the cooking style that is most economical is kind to the planet and also yields the best-tasting food. Cooking sustainably means using fresh, in-season ingredients that have not traveled thousands of miles to your kitchen and preparing them simply so that their true flavor comes through.



Costco Pumpkin Pie Cost in Calories

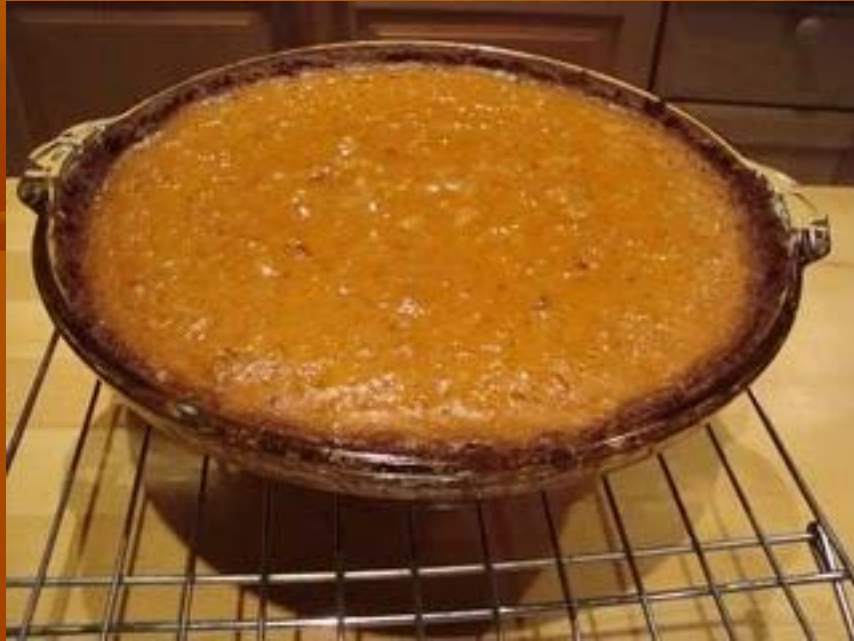
Costco Pumpkin Pie			
Nutrition Facts			
Serving Size 1/15 pie			
Amount Per Serving			
Calories from Fat 80			
Calories 230			
% Daily Values*			
Total Fat 8g	12%		
Saturated Fat 2.5g	12%		
Polyunsaturated Fat 1g			
Monounsaturated Fat 2.5g			
Trans Fat 0g			
Cholesterol 50mg	17%		
Sodium 220mg	9%		
Potassium 200mg			
Total Carbohydrate 36g	12%		
Dietary Fiber 1g	4%		
Sugars 24g			
Other Carbohydrate 11g			
Protein 5g			
Vitamin A 100% • Vitamin C -			
Calcium 10% • Iron -			
*Percent Daily Values are based on a 2000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
Nutrition summary:			
Calories	Fat	Carbs	Protein
230	8g	36g	5g
Calorie breakdown:			
31% fat, 61% carbs, 8% protein			

1/15 of 9" diameter pie
= 230 cal

w/ 8 g Fat/serving
(9 cal/g x 8 = 72 fat calories)
 $72/230 = 31\%$ fat

Whole pie (15x230) = 3,450
kcal

Special Recipe Pumpkin Pie Cost



1/8 of 9" diameter pie
= 174 cals

w/ 1.7 g Fat

(9 cal/g x 1.7

= 15 fat calories)

$15/174 = 9\%$ fat

Whole pie (8x174) =
1,392 kcal

Be rational

Get real.

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MATH JOKES

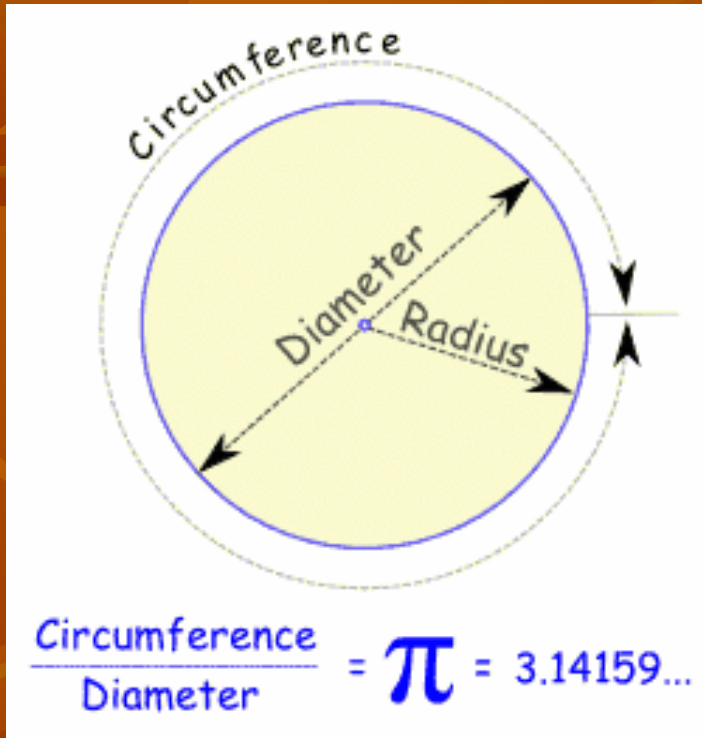
If you get them, you probably don't have friends.

$$\text{Circumference} = \pi \times \text{Diameter}$$

8 inch pie x 3.14 = 25.12
inch circumference

9 inch pie x 3.14 = 28.26
inch circumference

10 inch pie x 3.14 = 31.14
inch circumference



Pie Portion

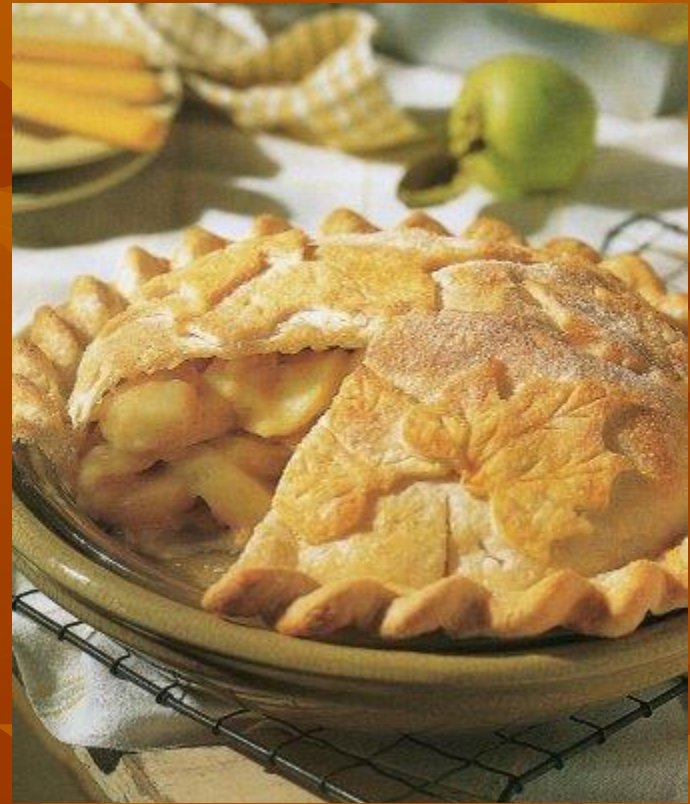
1/6 of a 9" apple pie (478 calories/slice)

$9 \times 3.14 = 28$ inches

$28/6 = 4.7$ inches

$478/4.7$

$= 100$ kcal/inch



Pie Portion

1/8 of a 10" sweet potato pie

(280 calories/slice)

$$10 \times 3.14 = 31.4$$

$$31.4/8 = 3.9 \text{ inches}$$

$$280/3.9 = 71 \text{ kcal/inch}$$



Pie Portion

1/8 of a 9" pumpkin pie (320 calories/slice)

$$9 \times 3.14 = 28 \text{ inches}$$

$$28/8 = 3.5 \text{ inches}$$

$$320/3.5$$

$$= 91 \text{ kcal/inch}$$



Pie Portion

1/8 of a 9" special recipe pumpkin pie

(174 calories/slice)

$9 \times 3.14 = 28$ inches

$28/8 = 3.5$ inches

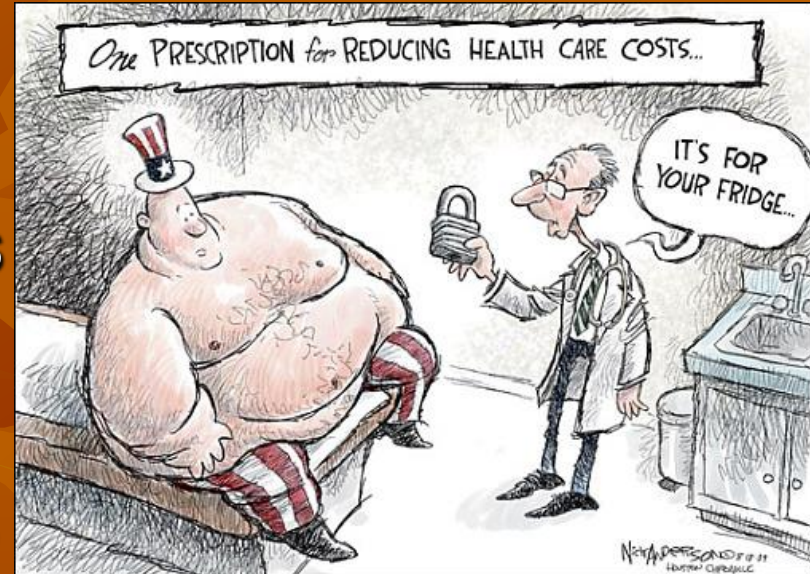
$174/3.5$

$= 49$ kcal/inch



What does it mean to be overweight/ obese?

- Body Mass Index (BMI)
 - Calculated from weight & height
 - Reliable indicator of body fatness
 - A screening tool not a diagnostic tool
- $\text{Weight (lbs)} \div [\text{height (in.)}]^2 \times 703$



BMI	Weight Status
< 18.5	Underweight
18.5 – 24.9	Normal
25 - 29.9	Overweight
30 +	Obese

WEIGHT lbs 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215
 kgs 45.5 47.7 50.0 52.3 54.5 56.8 59.1 61.4 63.6 65.9 68.2 70.5 72.7 75.0 77.3 79.5 81.8 84.1 86.4 88.6 90.9 93.2 95.5 97.7

HEIGHT in/cm	Underweight					Healthy					Overweight					Obese			Extremely obese					
5'0" - 152.4	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
5'1" - 154.9	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	36	37	38	39	40
5'2" - 157.4	18	19	20	21	22	22	23	24	25	26	27	28	29	30	31	32	33	33	34	35	36	37	38	39
5'3" - 160.0	17	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	32	32	33	34	35	36	37	38
5'4" - 162.5	17	18	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	31	32	33	34	35	36	37
5'5" - 165.1	16	17	18	19	20	20	21	22	23	24	25	25	26	27	28	29	30	30	31	32	33	34	35	35
5'6" - 167.6	16	17	17	18	19	20	21	21	22	23	24	25	25	26	27	28	29	29	30	31	32	33	34	34
5'7" - 170.1	15	16	17	18	18	19	20	21	22	22	23	24	25	25	26	27	28	29	29	30	31	32	33	33
5'8" - 172.7	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	32	32
5'9" - 175.2	14	15	16	17	17	18	19	20	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31
5'10" - 177.8	14	15	15	16	17	18	18	19	20	20	21	22	23	23	24	25	25	26	27	28	28	29	30	30
5'11" - 180.3	14	14	15	16	16	17	18	18	19	20	21	21	22	23	23	24	25	25	26	27	28	28	29	30
6'0" - 182.8	13	14	14	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28	29
6'1" - 185.4	13	13	14	15	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28
6'2" - 187.9	12	13	14	14	15	16	16	17	18	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27
6'3" - 190.5	12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	21	22	23	23	24	25	25	26	26
6'4" - 193.0	12	12	13	14	14	15	15	16	17	17	18	18	19	20	20	21	22	22	23	23	24	25	25	26

Complications of Too Much Pie

- High blood pressure
- Diabetes
- High cholesterol
- Cancer
- Arthritis
- Gallstones
- Cardiac Disease risk
- Sleep Disorders
- Depression



Benefits of Eating Less Pie



- Lowering blood pressure
- Lowering HbA1c
- Lowering triglycerides
- Lowering blood glucose levels
- Lowering total cholesterol
- Lowering LDL cholesterol
- Reducing risk for certain types of cancer

What is a Healthy Weight Loss Goal?

- 1-2 lb weight loss per week

or

5-10% decrease from starting weight



· GOALS ·

"Set goals, but remember... to get to the top, you must first start at the bottom."

Calorie Reminders

If you take in more calories than you burn, you will gain weight

- 3500 calories = 1 pound
- **500** calorie per day excess



500 cal/day → 1 pound/week weight gain

How many inches of pie is this?

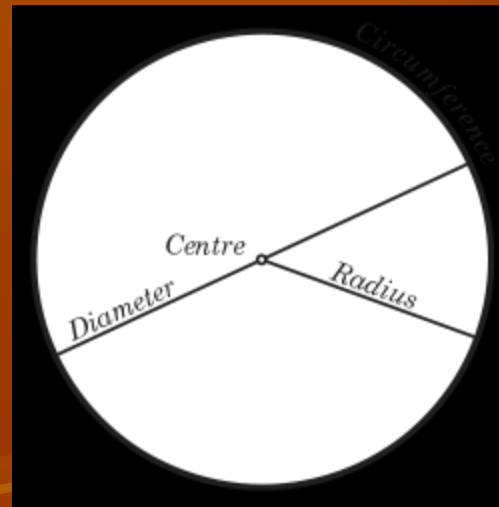
Portion Control

- When we are served more we eat more
- Serving vs Portion
- When in doubt...
measure & weigh
- Read food labels
- Use smaller plates, bowls, mugs & glasses
- Eat slowly!

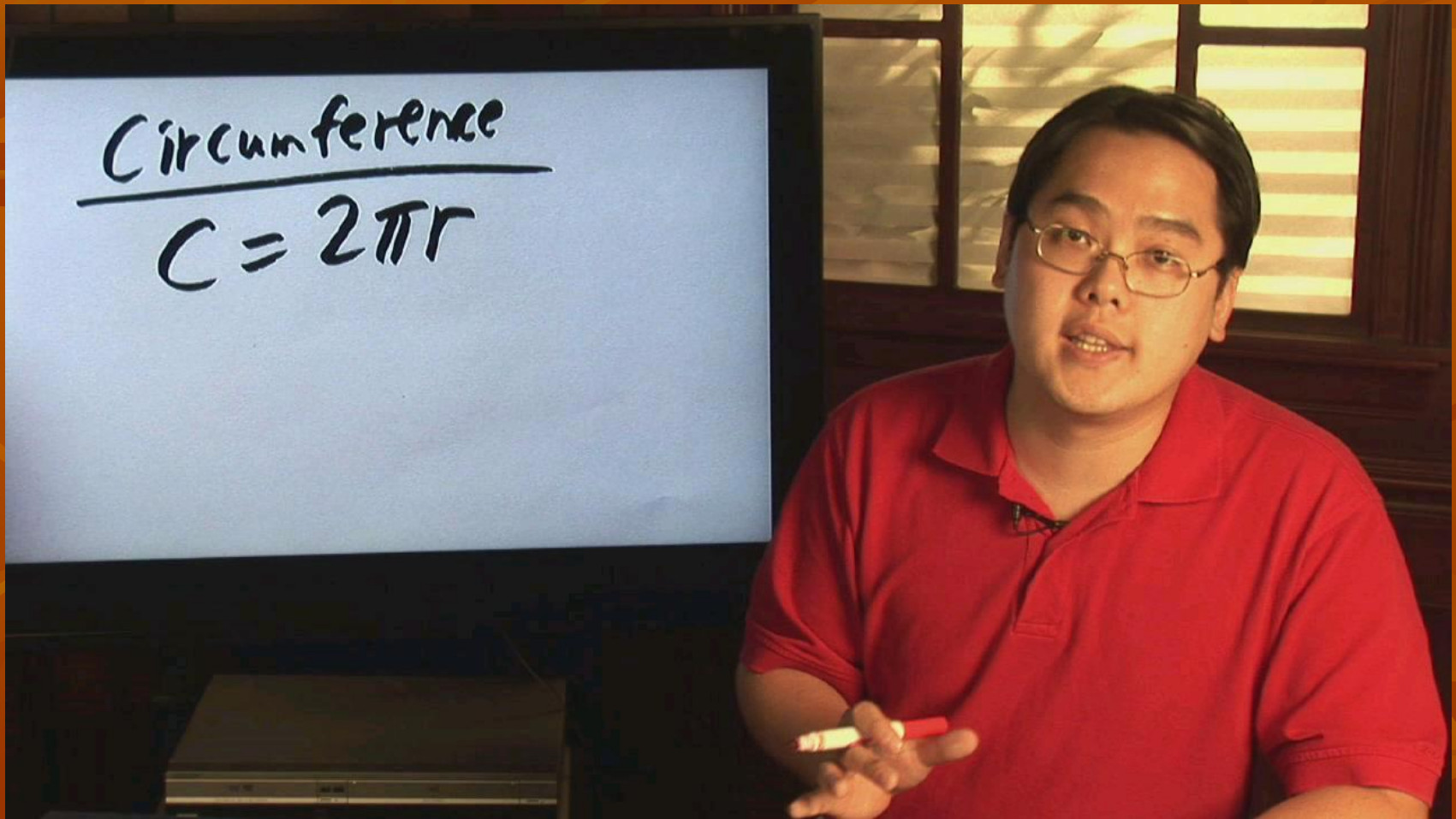


Calculating Energy in Pie

- If you can remember basic geometry and can read labels, you can easily calculate how many calories in a piece of pie. Think about your slice of pie in terms of how many inches along the circumference (outer edge) it is.



Pie Circumference



Pie Portion

- 1/6 of a 9" apple pie
 - (478 calories/slice)
 - $9 \times 3.14 = 28$ inches
 - $28/6 = 4.7$ inches
 - $478/4.7 = 100$ kcal/inch
- 1/8 of a 10" sweet potato pie
 - (280 calories/slice)
 - $10 \times 3.14 = 31.4$
 - $31.4/8 = 3.9$ inches
 - $280/3.9 = 71$ kcal/inch



More Math

- What if you eat the whole pie??
 - $478 \text{ kcal} \times 6 = 2869 \text{ calories (apple)}$
 - $280 \text{ kcal} \times 10 = 2800 \text{ calories (sweet potato)}$





All's I'm saying is why can't we do something different this year? How do we know the Pilgrims didn't enjoy a nice fat-free meal once in a while?

If you do overindulge...

- If you are feeling guilty and want to make some amends, offset your caloric intake by getting up and moving.
- Remember this general rule of energy expenditure:
100 kcal burned for every mile walked/jogged
- 4 inches of apple pie = 4 miles

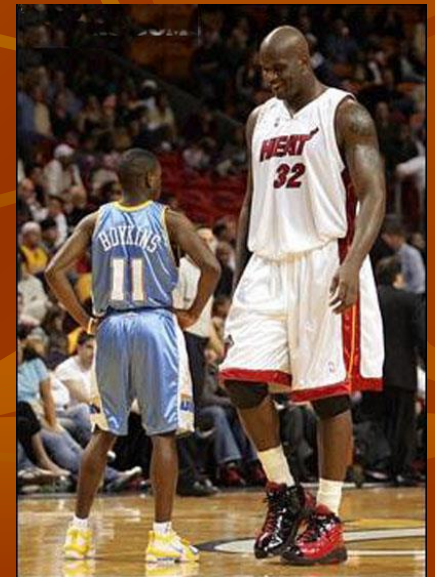


Burning 150 calories

- Climbing stairs 20 min
- Shoveling Snow 20 min
- Running 2 miles 20 min
- Cycling 4 miles 20 min
- Walking 2 miles 35 min
- Raking Leaves 35 min
- Pushing a stroller 1 ½ miles 35 min
- Gardening 45 min
- Playing Volleyball 50 min
- Washing and waxing a car 60 min

Physical Activity

- The Surgeon General recommends all individuals accumulate at least 30 minutes of moderate-intensity physical activity on most days of the week.
- To prevent weight gain and promote weight loss:
60-90 minutes daily



Quiz:

1. How many calories/inch of apple pie?

About 100

2. How many calories/inch of pumpkin pie?

About 91 store bought, 49 special recipe

3. How many calories are in a pound of fat?

3,500

4. How big of calorie deficit do we need to create a 1-2 pound weight loss per week?

500-1000 calories per day

Quiz Continued...

5. How many miles to burn off that inch of apple pie?.

~1 mile (~100 calories/mile)

6. What kind of substituting can you do to make a pie that has fewer calories?.

Egg substitute, sugar substitute, fruit purees for oil

7. What is our physical activity goal to promote weight loss?

Aim for at least 60-90 minutes most days of the week

Take Home Messages

- Making your own pies is more economical than store-bought.
- Making your own pies give you more control over ingredients used.
- No matter where the pie came from, moderation and balance are key concepts.

If it was just pie.....



