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*Do you for crusty apple pi'ne? . . .
Or is it hamburg' with pop wine? . . .
The contest is even
And therefore we're leavin'
Conclusions for your bottom line.*

Apple Pie vs. Hamburgers

Can you imagine apple pie outselling hamburgers? Do you think apple pie is as nutritious as hamburgers? Whatever your answers, consider these points:

- Putting steel, plastic and rubber into the tank of a car won't help it run. It needs gasoline. The point is, materials good for building and maintenance of an automobile may not be good for fuel.
- The structure of our bodies is mostly protein, fat is mostly an energy reservoir and carbohydrates are the fuel, excesses of which can be converted and diverted to the fat reservoir.

This means that unless your car (body) is a real wreck, what you need mostly is gasoline (carbohydrates) rather than spare parts of steel (protein). Which then would be the better food for a healthy person?

	A	B
Protein	18%	13%
Carbohydrates	0	72
Fat	25%	2

Food A contains plenty of building material but absolutely no readily useable fuel. Large quantities of fat are difficult for the body to use. It doesn't dissolve in water, which is the basic fluid of the body.

Food B on the other hand contains substantial amounts of building and repair material (protein), lots of readily useable energy for power (carbohydrates) and enough fat to provide for the limited needs of the body. It is clear that choice beef (food A) doesn't stack up very well against hard wheat (food B) as an all around nutritious food. Perhaps this accounts for the overwhelming preponderance of carbohydrates in the world food supply over thousands of years. But there are other considerations than energy in the marketplace.

Flavor

No food is nutritious if it is not eaten. This means that it has to taste good to be of any real value as food. Does apple pie taste as good as hamburger? The dominant taste of the pie is sweetness. This sweetness derives from sugar which is a carbohydrate. Carbohydrates give different flavors than the proteins and fats of meats but there are interesting taste parallels:

Item – monosodium glutamate (MSG), a natural component of meat, modifies and enhances flavor; so does sugar. When added to salt cured meat, sugar will minimize the harshness of the salt taste. It can also augment or reduce sourness or bitterness, depending on circumstances.

Item – pleasure in eating is greatly affected by the feel of the food in the mouth. The texture of the meat and lubrication of fat accounts for the mouth feel of the hamburgers. But modified starches, syrups or fibrous carbohydrates are also used to create specific “mouth feels” in a wide variety of beverages, baked goods, etc.

Item – the swelling of hamburger components in the digestive tract can provide a pleasant feeling of fullness (very important to weight control). Carbohydrates, particularly the undigestible fiber, plays a similar role.

Sugars and Vitamin C

The common food carbohydrates include starches, sugars, fibers, gums and tartaric acid. Other carbohydrates that occur in lesser amounts (but which are very important) include Vitamin C, inositol and derivatives such as riboflavin (Vitamin B₂) and vitamin B₁₂. The importance of sugars is suggested by the composition of a variety of foods:

	SUGARS			
	(as a percentage of total solids)			
	Sucrose	Fructose	Glucose	Total
Apples	23.7	37.8	7.3	68.8
Peas	23.1	1.0	1.4	30.2*
Carrots	35.3	7.1	7.1	49.5
Lettuce	2.0	9.3	5.0	16.3
Tomato Juice	0	32.7	23.0	55.7
Strawberries	10.5	22.3	19.2	52.0
Milk	0	0	0	37.6*

*contains other sugars not listed

We see from this that most people getting a healthy diet are eating a substantial amount of sugar. In fact they probably **need** that sugar and just might get it from apple pie

**NUTRITION INFORMATION PER
SERVING**

Serving size	Apple Pie 1 slice	Hamburger Complete
Calories	410	580
Protein	4g	31g
Carbohydrate	61g	40g
Fat	18g	33g

PERCENTAGES OF U.S. RDA

Protein	6	65
Vitamin A	0	6
Vitamin C	4	2
Thiamin	10	20
Riboflavin	15	20
Niacin	15	70
Calcium	0	10
Iron	25	40

The hamburger is overloaded with protein and fat. The apple pie is a bit shy on protein. Actually, if you add a slice of cheese to the pie, it would be difficult to argue that the hamburger is more nutritious.

Comments

The facts cited here are radically at variance with the current status of public opinion. However, three factors will continue to contribute to the increasingly favorable prospects for marketing sweet grain and fruit goods such as pie:

1. Consumers like them
2. Their cost is relatively low.
3. The truth about their nutrition will ultimately be known.

This does not suggest that pie shops will supplant hamburger stands, but does provide some rationale for their competition.