

## EATING COMPETENCE AND HEALTH AT EVERY SIZE

### *Approaches, Consideration And Implications*

#### Selected Annotated References

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American Dietetic Association. *Nutrition and You: Trends 2000*. Chicago: American Dietetic Association; 2000.

Notes: Relative to whether they feel they are doing all they can to achieve balanced nutrition and a healthy diet, three segments emerged, ranging from very involved with diet and nutrition to indifferent. For the survey years 1991, 1993, 1995 and 1997, the three segments, and the percentages fitting that segment remained reasonably steady and consistent: 1) "Don't bother me" 36, 35, 40, and 40; 2) "I know I should, but" 38, 42, 36, and 34; and 3) "I'm already doing it" 26, 23, 24, and 26. The 1999 survey showed a considerable shift in these percentages, with "don't bother me" dropping to 32%, "I know I should but" increasing to 40% and "I'm already doing it" remaining steady at 28%. That may seem to be significant progress, and the "know I should" group is targeted by ADA as being amenable to dietary change. However, it is important to note the gap between perceived importance and care in selecting foods because that gives a measure of the way people *feel* about their eating. For the "I know I should but..." segment, the gap between perceived importance and care in selecting foods has increased steadily from 20% in 1991 to 32% in 1997. This gap, essentially the gap between *knowing* and *doing*, represents pain: the conflict and anxiety of falling short of expectations. Interestingly, that piece of information was deleted from the 2000 study.

Anliker JA, Laus MJ, Samonds KW, Beal VA. Mothers' reports of their three-year-old children's control over foods and involvement in food-related activities. *Journal of Nutrition Education*. 1992;24(6):285-291.

Notes: Parents provided children with structured meals and snacks but controlled food choices and portion sizes at those times. Between times, most children were allowed to help themselves with no limits to the refrigerator, cupboards, etc. ES note: The implications to nurturing and child development are grave. Children need their parents' presence. However, when parents were around they spoiled eating by putting pressure on it. The only way children could eat without interference was by going off on their own to do it. The learning? That to be your own person, you have to be by yourself.

Bacon L, Keim NL, Van Loan MD, et al. Evaluating a 'non-diet' wellness intervention for improvement of metabolic fitness, psychological well-being and eating and activity behaviors. *Int J Obes Relat Metab Disord*. 2002;26:854-65.

Notes: (1 y after program initiation): Cognitive restraint increased in the diet group and decreased in the non-diet group. Both groups demonstrated significant improvement in many metabolic fitness, psychological and eating behavior variables. There was high attrition in the diet group (41%), compared to 8% in the non-diet group. Weight significantly decreased in the diet group (5.9+/-6.3 kg) while there was no significant change in the non-diet group (-0.1+/-4.8

Bacon L, Stern JS, Van Loan MD, Keim NL. Size acceptance and intuitive eating improve health for obese, female chronic dieters. *J Am Diet Assoc*. 2005;105:929-36.

Notes: Six-month, randomized clinical trial; 2-year follow-up. Subjects White, obese, female chronic dieters, aged 30 to 45 years (N=78). Setting Free-living, general community. Interventions Six months of weekly group intervention (health at every size program or diet program), followed by 6 months of monthly aftercare group support. Main outcome measures Anthropometry (weight, body mass index), metabolic fitness (blood pressure, blood lipids), energy expenditure, eating behavior (restraint, eating disorder pathology), and psychology (self-esteem, depression, body image). Health at every size group members maintained weight, improved in all outcome variables, and sustained improvements. Diet group participants lost weight and showed initial improvement in many variables at 1 year; weight was regained and little improvement was sustained.

Birch LL, Fisher JO. Mothers' child-feeding practices influence daughters' eating and weight. *American Journal of Clinical Nutrition*. 2000;71 :1054-1061.

Notes: Mothers' dietary restraint and perceptions of their daughters' risk of overweight predicted

maternal child-feeding practices, which in turn predicted daughters' eating and relative weight. Daughters were heavier when mothers restrained than disinhibited with their own eating.

Bruch H. *Eating Disorders: Obesity, Anorexia Nervosa and the Person Within*. New York: Basic Books; 1973.

Notes: Hilde Bruch was a Texas child psychiatrist who spent her long professional life working with eating disordered children, adolescents and adults. Because she was an astute and disciplined clinical observer, her books and articles are highly regarded and have stood the test of time. Behavioral psychologists have spent the last 30 years testing her clinical hypotheses and found them to hold up very well. She described children who had been controlled with feeding and other issues as acting "as if their body and behavior were the product of other people's influences and actions." Children eat in accordance with what the parent wants rather than in accordance with their own hunger, appetite and satiety. According to Bruch, an eating disorder is the *misuse of eating in an attempt to solve or camouflage problems of daily living that to them seem otherwise insoluble* (p 1). Relative to obesity, Bruch contrasted people who had done well with those who had not. "The common factor in those who had done well was a warm and accepting attitude on the part of the parents, with support and encouragement, and absence of being persecuted for being fat (p 142)." In those had done poorly, in "embarrassing contrast...the more medical treatment the poorer the outcome. The determining factor appears to be the aggressive dissatisfaction of the parents with their child, which finds an unfortunate collaboration by physicians who, by believing in the magic of symptom relief, fail to deal with the underlying problems (p 147)." Relative to those who consistently maintain their weight at a level lower than is physiologically normal for them, whom Bruch calls "thin-fat," she commented: "Never having permitted themselves to eat adequately, they are unaware of how much of their tension, bad disposition, irritability and inability to pursue an educational or professional goal is the direct result of chronic "undernutrition." (p 198)

Council of Economic Advisers to the President (CEAC) . *Teens and Their Parents in the 21st Century: an Examination of Trends in Teen Behavior and the Role of Parental Involvement*. 2000.

Notes: Analysis of the Adolescent Health Study, using a national probability sample of adolescents and parents. This is the largest federally funded study of American teenagers. It found a strong association between regular family meals (five or more dinners per week with a parent) and academic success, psychological adjustment, and lower rates of alcohol use, drug use, early sexual behavior and suicide risk. Results held for both one-parent and two-parent families and after controlling for social class.

Drewnowski A, Hann C. Food preferences and reported frequencies of food consumption as predictors of current diet in young women. *American Journal of Clinical Nutrition*. 1999;70:28-36.

Notes: Reported frequencies of food consumption, the core of the food-frequency approach, were associated with food likes and dislikes. Food preferences were a predictor of dietary intakes. College-age women (n = 87) completed a 98-item food-frequency questionnaire and rated preferences for many of the same foods on a 9-point category scale. Estimated intakes of fat, fiber, and vitamin C were obtained by using 3-d food records.

Eisenberg ME, Olson RE, Neumark-Sztainer D, Story M, Bearinger LH. Correlations Between Family Meals and Psychosocial Well-being Among Adolescents. *Archives of Pediatric and Adolescent Medicine*. 2004;158:792-6.

Notes: 1998-1999 school-based survey of 4746 11- to 18-year-old middle school and high school students from ethnically and socio-economically diverse communities in metropolitan Minneapolis/St Paul, Minn.

**Family meals eaten together per week:**

Never: 14%  
1-2 : 19%  
3-4 22%  
5-6: 19%  
7: 10%  
>7: 18%

As family meals and family connectedness went up, grade point average and self esteem went up and negative parameters went down: depression, suicidal ideation and attempts, cigarette, alcohol and marijuana. Authors dropped out family connectedness in an attempt to illustrate that family meals alone affected dependent variables. Associations with all parameters were considerably weakened and remained significant only between boys with substance use and depressive symptoms.

All items were self-report from the adolescents. Frequency of family meals was assessed with the question, "During the last 7 days, how many times did all or most of your family living in your house eat a meal together?" Family connectedness was measured with two questions, worded to consider each parent separately and therefore add up four questions: "How much do you feel your (mother, father) cares about you?" and "Do you feel you can talk to your (mother, father) about your problems?"

Ernsberger P, Koletsky RJ. Biomedical rationale for a wellness approach to obesity: An alternative to a focus on weight loss. *Journal of Social Issues*. 2000;55:221-259.

Notes: Despite considerable moderating evidence, the prevailing wisdom is that obesity is a severely life-threatening condition. Health professionals, the media and the general public remain convinced that even modest elevations in BMI drastically shorten life expectancy and increase incidence of degenerative diseases such as heart disease, cancer and diabetes. Ernsberger gives abundant evidence that current thinking on extreme health risks associated with obesity has survived due to biased thinking and selective perception of both clinical practice and the literature. Obesity experts have maintained their certainty by reviewing and citing articles that assign a high risk to obesity, including relying primarily on cross-sectional morbidity studies. Participants are asked height and weight and diseases their doctors have told them they have. Physicians expect certain diseases in obese persons and diagnose them more readily. Obesity experts cite with far less frequency clinically unbiased mortality studies which show elevated body weight to be more benign and even show low body weight and/or weight loss to carry health risks. The resulting conviction that obesity is medically extremely dangerous has produced health policy that consistently recommends weight loss as the first line of intervention, even though it is abundantly clear that there is no method for achieving and maintaining weight loss. In fact, the conviction is so powerful that policy makers have even stated that it is better to lose and *gain weight back again* than it is not lose at all. Defining the problem so narrowly (and fervently) as *excess weight* and the solution as *weight loss* has denied ill patients medical treatment as well as delayed framing the problem in a way that it can be solved. Weight stabilization (or the avoidance of weight fluctuation secondary to attempts at weight loss) is associated with positive health benefit, as is improved nutritional status and improved physical fitness.

Farshchi HR, Taylor MA, Macdonald IA. Beneficial metabolic effects of regular meal frequency on dietary thermogenesis, insulin sensitivity, and fasting lipid profiles in healthy obese women. *Am J Clin Nutr*. 2005;81:16-24.

Notes: Regular eating (6 meals at regular times) versus irregular eating (3-9 meals, irregular times) was associated with lower energy intake, greater postprandial thermogenesis, and lower fasting total and LDL cholesterol. Fasting glucose and insulin values were not affected by meal pattern, but peak insulin concentrations and area under the curve of insulin responses to the test meal were lower after the regular than after the irregular meal pattern.

Flegal KM, Graubard BI, Williamson DF, Gail MH. Excess Deaths Associated With Underweight, Overweight, and Obesity. *JAMA*. 2005;293:1861-1867.

Notes: Current analyses of NHANES surveys of BMI found a slight decrease in relative risk of mortality of in 25-to-59-year-olds with BMIs of 25 to 30 compared with the "normal" weight category of 18.5 to 25. Relative risks for age categories in BMI ranges <18.5; 18.5 to 25; 25 to 30; 30 to 35; and 35 plus were:

25-to-59-years old: 1.38, 1.00; 0.83; 1.20, 1.83. older: 30 to 35 and less than 18.5, compared with BMI reference 60-to-69 years old: 2.30; 1.00; 0.95; 1.13; 1.63

>70 years old: 1.69; 1.00; 0.91; 1.03; 1.17

Excess deaths in 2000 in the United States relative to reference BMI category (BMI 18.5 to <25), obesity (BMI 30-35) was associated with 111 909 excess deaths and underweight (BMI <18.5) with 33 746 excess deaths. Overweight (BMI 25 to 30) was associated with decreased mortality: 86 094 fewer deaths.

Longitudinal analysis of the data showed that overweight that had persisted for at least 10 years was still associated with no excess risk and underweight was still associated with an increased relative risk.

FMI Research Department; Nature of concern about nutritional content, 1989-1998. *Trends in the United States. Consumer Attitudes & the Supermarket*. Washington, DC: Food Marketing Institute; 2003:72.

Notes: The primary nutritional concern of 59 percent of respondents was dietary fat avoidance (up from 27 percent in 1988), with nutritional value of food assigned priority by only 12 percent of respondents and a "desire to be healthy and eat what's good for us" 3 percent. By 2003, the concern about fat had fallen to 49%, concern about nutritional value remained at 12% and the "desire to be

- healthy and eat what's good for us" had fallen so low that it could not be counted.
- Glanz K, Basil M, Maibach E, Goldberg J, Snyder D. Why Americans eat what they do: taste, nutrition, cost, convenience, and weight control concerns as influences on food consumption. *Journal of the American Dietetic Association*. 1998;98:1118-1126.
- Notes: A national survey of 2,967 adults. Respondents reported that taste is the most important influence on their food choices, followed by cost, nutrition, then convenience. Caveat: "One implication is that nutrition education programs should attempt to design and promote nutritious diets as being tasty and inexpensive. "
- Hadigan CM, Kissileff HR, Walsh BT. Patterns of food selection during meals in women with bulimia. *American Journal of Clinical Nutrition*. 1989;50: 759-766.
- Notes: Binge eaters are characterized by extremes in their eating. Binge eaters who were instructed to binge ate longer, ate more than their usual food intake, and ate at a faster rate, ate less main dish foods and tended more to eat more dessert and snack foods than did the non-binge eaters who received the same instructions. When the binge eaters were not instructed to binge, they ate less than the control subjects.
- Haines PS, Hama MY, Guilkey DK, Popkin BM. Weekend Eating in the United States Is Linked with Greater Energy, Fat, and Alcohol Intake. *Obes Res*. 2003;11(8):945-949.
- Notes: 1994 to 1996 Continuing Survey of Food Intakes by Individuals was used for this analysis. Dietary intake was assessed using two independent days of dietary recall data. For the 19- to 50-year-old age group, average weekend day consumption was 115 kcal/d. higher than the average weekday consumption. ES note: This survey measures of a pattern of weekly restraint and disinhibition. No weight measures were done in this study.
- Hammond-Meyer A. *Stabilizing Eating and Weight Using a Nondiets Treatment As a Means to Improve Biomedical Health Parameters in an Overweight Population of Women: A Health at Any Size Perspective*. Seattle Washington: Seattle Pacific University; 2005.
- Notes: Six subjects using eating competence model improved after 24 weeks (12 treatment, 12 followup) in eating attitudes and behaviors, blood lipids, blood glucose and circulating insulin. Weight stabilized.
- Hays NP, Bathalon GP, McCrory MA, Roubenoff R, Lipman R, Roberts SB. Eating behavior correlates of adult weight gain and obesity in healthy women aged 55-65 y. *American Journal of Clinical Nutrition*. 2002;75(3):476-483.
- Notes: Current dietary restraint, disinhibition, and hunger were assessed with the use of the Eating Inventory ( Stunhard 3-factor scale) in 638 healthy, nonsmoking women aged 55-65 y. In addition, subjects reported their current weight and height, their weight for 6 age intervals, and changes in voluntary dietary energy restriction over the past 10 y. Current disinhibition strongly predicted weight gain and current BMI Neither restraint nor hunger was a significant independent predictor of either variable, but the positive associations between disinhibition and both weight gain and BMI were attenuated by restraint. Higher disinhibition is strongly associated with greater adult weight gain and higher current BMI, and dietary restraint may attenuate this association when disinhibition is high.
- Herman CP, Polivy J, Esses VM. The illusion of counter-regulation. *Appetite*. 1987;9:161-169.
- Notes: Compared to non-restrained eaters, adults who are restrained eaters tended to "counter-regulate": eat disproportionately large amounts in response to stress and to external cues like the presence of attractive food. ES note: These authors coined the term "restrained eating" and began the research that demonstrate that dieting makes people fat. Eventually the concepts of restraint and disinhibition grew out of their work: the cyclical process of eating less than desired, then compensating by overeating.
- Higgins L, Gray W. What do anti-dieting programs achieve? A review of research. *Australian Journal of Nutrition and Dietetics*. 1999;56:128-136.
- Notes: A search of major bibliographic data bases yielded reports of nine studies in which an anti-dieting program was evaluated with an acceptable degree of methodological rigor. Program participation was associated with improvement in eating behavior and psychological well-being, and with weight stability rather than weight change. The nine articles included Carrier, Steinhardt and Bowman; Ciliska; Goodrick, Poston, Kimball et. al.; Higgins and Gray; Kalodnar and DeLucia; Omichinski and Harrison; Polivy and Herman; Roughan, Seddon and Vernon-Roberts; Tanco, Linden, and Earle.
- Hill, J. O. and Wing, R. National Weight Control Registry. accessed September 14, 2005. Web Page.

Available at: <http://www.nwcr.ws/>.

Notes: To date, there are over 4,000 people, from all over the United States, enrolled in the NWCR. People usually hear about the Registry from media releases and from word-of-mouth. To enroll in the NWCR, participants must have lost at least 30 lbs. (13.6 kg) and have maintained that loss for at least 1 year. Successful weight losers report making substantial changes in eating and exercise habits to lose weight and to maintain their losses. On average, registrants report consuming about 1400 kcal/day (24 percent calories from fat) and expending about 400 kcal/day in physical exercise. Walking is the most frequently cited physical activity. -The average registrant has lost about 60 pounds and kept it off for about 5 years. -Two-thirds of these successful weight losers were overweight as children and 60 percent report a family history of obesity. -About 50 percent of participants lost weight on their own without any type of formal program or help. -Successful weight losers appear similar to normal weight individuals in terms of resting metabolic rate.

Hood MY, Moore LL, Sundarajan-Ramamurti A, Singer M, Cupples LA, Ellison RC. Parental eating attitudes and the development of obesity in children. The Framingham Children's Study. *International Journal of Obesity*. 2000;24:1319-1325.

Notes: Parents who displayed high levels of disinhibited eating, especially when coupled with high dietary restraint, appeared to foster the development of excess body fat in their children. Children whose parents had particularly high scores on both restraint and disinhibition had particularly high increases in BMI. Children of parents who "successfully" restrained, ie, had no disinhibition, had no increases in BMI. This 6-year longitudinal study of ninety-two 3-5 year old children and their parents was of subjects enrolled in 1987 in the Framingham Children's Study. Self-reported levels of parental dietary restraint, disinhibition and perceived hunger were estimated using Stunkard and Messick's Three Factor Eating Questionnaire. Parental scores on the perceived hunger scale (one of the three factors on the questionnaire) had no clear effect on body fat change of children.

Jahns L, Siega-Riz AM, Popkin BM. The increasing prevalence of snacking among US children from 1977 to 1996. *Journal of Pediatrics*. 2001;138:493-498.

Notes: Used data from the 1977-78 National Food Consumption Survey (NFCS77) and the Continuing Surveys of Food Intake by Individuals for 1989-91 (CSFII89) and 1994-96 (CSFII96). The sample consisted of 21,236 individuals aged 2 to 18 years. The prevalence of snacking increased in all age groups. The average size of snacks and energy per snack remained relatively constant; however, the number of snacking occasions increased significantly, therefore increasing the average daily energy from snacks. Compared with non-snack eating occasions, the nutrient contribution of snacks decreased in calcium density and increased in energy density and proportion of energy from fat. **ES note:** This study gives evidence of grazing. This is problematic from the point of view of lack of necessary structure in child feeding and, instead, giving children unlimited access to food.

Jerome NW; On determining food patterns of urban dwellers in contemporary United States society. *Gastronomy: The Anthropology of Food and Food Habits*. Mouton Publishers; 1975:91-111.

Notes: Core foods are the essentials of the diet, e.g., those foods and beverages are consumed from 2-3 times per week to 2-3 times per day. These are the preferred and most important items of the diet. People often refer to them as "common," "regular" or "ordinary" foods or foods that must be included in the diet and consumed regularly alone or as ingredients.

Kendall A, Olson CM, Frongillo EA. Relationship of hunger and food insecurity to food availability and consumption. *Journal of the American Dietetic Association*. 1996;96:1019-1024.

Notes: Worsening food insecurity brought significant decrease in the frequency of consumption of fruits and vegetables and decrease in the amount of food in the household. In addition, with worsening of food insecurity, scores indicative of disordered eating patterns also worsened.

Kendall A, Olson CM, Frongillo EA. Validation of the Radimer/Cornell Measures of Hunger and Food Insecurity. *Journal of Nutrition*. 1995;125:2793-2801.

Notes: This group defined food security as "access by all people at all times to enough food for an active, healthy life and includes at a minimum: the ready availability of nutritionally adequate and safe foods, and the assured ability to acquire acceptable foods in socially acceptable ways. Food insecurity exists whenever the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain."

Luepker RV, Rastam L, Hannam PJ, et al. Community education for cardiovascular disease prevention: Morbidity and mortality results from the Minnesota Heart Health Program. *American Journal of*

*Epidemiology*. 1996;144:1795-1801.

Notes: The Minnesota heart health programme, a non-randomised, hugely funded, community trial of intensive health promotion. Changes in risk factors and mortality showed no difference between intervention, control communities and the secular trend. However, people in the intervention group did have markedly increased awareness and concern about the connection between diet and disease.

**ES note:** In other words, although it is difficult to change disease incidence through diet, it is less difficult to make people wary about eating.

Maslow A. A theory of human motivations. 1943;50:370-396.

Notes: Hierarchy of needs. sic needs have to be satisfied before self actualization can be approached. From the bottom up, the needs are: 1) Physiological needs: air, water, food, shelter, sleep, sex; 2) Safety, security and order 3) Social affection: Love and belongingness; 4) Esteem, status: Self esteem and esteem by others 5) Self actualization. Being all the individual can be. The first two are considered basic needs or deficiency needs: failure to satisfy creates a fundamental deficiency. The last three are considered growth needs. Included in the growth needs, but not hierarchical in importance, are: meaningfulness, self-sufficiency, effortlessness, playfulness, richness, simplicity, order, justice, completion, necessity, perfection; individuality; aliveness, beauty; goodness, truth.

Mattes RD, Pierce CB, Friedman MI. Daily caloric intake of normal-weight adults: Response to changes in dietary energy density of a luncheon meal. *American Journal of Clinical Nutrition*. 1988;48:214-219.

Notes: Variation in food/calorie intake from day-to-day. 10 free-living, normal weight subjects, nonrestrained eaters, 5 men, 5 women. Lunches with 66% more or less calories than their customary midday meal for 2-wk periods which were interposed between 1-wk baseline or recovery periods. More or less calories appeared to immediately increase or decrease total calorie intake for the day, respectively. Long-term, total energy intake was significantly higher relative to all other periods when subjects ingested the high-calorie meal.

McCullough ML, Feskanich D, Stampfer MJ, et al. Adherence to the Dietary Guidelines for Americans and risk of major chronic disease in women. *American Journal of Clinical Nutrition*. 2000;72:1214-1222.

Notes: Nurses health study: 67272 US female nurses who were free of major disease completed detailed questionnaires on diet and chronic disease risk factors in 1984 and repeatedly over 12 y. Adherence to the 1995 Dietary Guidelines for Americans, as measured by the HEI-f (the Healthy Eating Index as calculated from food frequency questionnaires), will have limited benefit in preventing major chronic disease in women.

Najjar MF, Rowland M; Anthropometric reference data and prevalence of overweight, United States, 1976-80. *Vital and Health Statistics, National Center for Health Statistics*. Washington, D.C.: U.S.

Government Printing Office; 1987;Series 11: No. 238; DHHS Pub. No. (PHS) 87-1688.

Notes: This report represents descriptive data for triceps skinfold and BMI (body mass index) including tables for means and percentiles of BMI by age, race, and sex for ages 18-74 years. Provides estimates of overweight and severe overweight (as defined by >85th or 95th %tile). BMI 25 is roughly at the 50th percentile for men throughout life and for women at age 45-54 or younger. BMI 25-30 encompasses women up to the 75th percentile from age 35 onward and men in the 75th to 85th percentile throughout life. BMI 30 to 35 encompasses women at the 85th to 90th percentiles and men at the 90th to 95th percentiles, again throughout life.

Neumark-Sztainer D, Butler R, Palti H. Dieting and binge eating: Which dieters are at risk? *Journal of the American Dietetic Association*. 1995;95(5):586-589.

Notes: In 340 Israeli 10th grade girls, the incidence of binge eating behavior increased with dieters using unhealthful or dangerous weight control methods and among those with a high-risk psychological profile. Prevalence of bingeing among dieters who used moderate methods or had a lower-risk psychological profile was much lower, and indeed similar to that found among nondieters.

Neumark-Sztainer D\*, Hannan P, Story M, Perry C. Weight-control behaviors among adolescent girls and boys: Implications for dietary intake. *Journal of the American Dietetic Association*. 2004;104:913-920.

Notes: Of 6400 adolescent girls, 65% reported dieting to lose weight, 31% of the total surveyed using extreme methods. Of 2100 adolescent boys, 70% reported dieting to lose weight, 32% of the total surveyed using extreme methods.

Patterson RE, Satia JS, Kristal AR, Neuhouser ML, Drewnowski A. Is there a consumer backlash against the diet and health message? *Journal of the American Dietetic Association*. 2001;101:37-41.

Notes: Random study of cancer-risk behavior of 1751 adults found evidence of nutrition backlash. 70% felt Americans are obsessed with fat and 40% said they were tired of being told what to eat. The

highest level of backlash was in young men and people over age 60 and these people had about 4% higher fat in the diet--presumably, about 38% rather than 34%.

Peck RE, Marks JS, Dibley MJ, Lee S, Trowbridge FL. Birth weight and subsequent growth among Navajo children. *Public Health Reports*. 1987;102(5):500-507.

Notes: Navajo children studied from birth to 2 years tended to have low length/age (around the 40th %tile or lower) and high weight/age (around the 60th %tile) and high weight/length (between the 60th and 75th %tile). Even the low birth weight children had weight/lengths that increased to the 60th %tile by age 24 months. Like the Mexican children discussed in the Ryan article, the weight/length of Navaho children must be interpreted in the context of their longitudinal growth pattern, not by comparing with Caucasian norms. Average weight/length for Navajo children appears to be above the 60th or even the 75th %tile.

Raynor HA, Jeffery RW, Phelan S, Hill JO, Wing RR. Amount of Food Group Variety Consumed in the Diet and Long-Term Weight Loss Maintenance. *Obes Res*. 2005;13:883-890.

Notes: Weight loss maintainers consume a diet with limited variety in all food groups.

Ryan AS, Martinez GA, Roche AF. An evaluation of the association between socioeconomic status and the growth of American children: Data from the Hispanic Health and Nutrition Examination Survey--NHANES 1982-1984. *American Journal of Clinical Nutrition*. 1990;51:944S-952S.

Notes: Mexican American children from poor and nonpoor groups tended to be shorter, heavier and fatter than either white or black children. The norm is around 85th percentile W/H. ES note: When evaluating the size and shape of Mexican children, it is important to remember that 85th percentile weight/height is closer to normal growth than 50th percentile. In fact, rather than evaluating growth based on any one plotting, it is far better to evaluate integrity of growth by following for several months or years.

Satter EM; Chapter 2, You and your eating. *Secrets of Feeding a Healthy Family*. Madison, WI: Kelcy Press; 1999.

Notes: The trouble with our eating is that the official attitude about it is "don't." Don't eat too much fat, too much sugar, too much salt, too much *food*, period. Lose weight, eat more fiber. We worry more about *avoiding* than about *eating*. That takes the joy out of eating, makes us fatter than we otherwise would be, and makes us do worse nutritionally. Instead, cultivate a positive and joyful attitude toward eating. Provide yourself with rewarding food and trust yourself to eat as much as you need. Do the same for your child. Here are the basic principles: **1) Be dependable about feeding yourself**. You have to have meals at reliable and pleasant times. Go to the table hungry and eat in a tuned-in fashion and then stop, knowing another meal or snack is coming and you can do it again--and again. Don't be shy about loving to eat. Eating well is one of life's great pleasures. **2) Have food you enjoy**. Be sure you *really* enjoy it, and aren't just kidding yourself by saying, "that's really quite good." Think about what will taste good when you plan your meals. Honor both delicious and nutritious--you don't have to choose. Added fat or sugar often builds the bridge between the two. **3) Emphasize variety**. Cultivate an attitude of curiosity toward your food. Do force yourself. Do as children do, sneak up on new food and learn to like it. Emphasizing variety is the best way to hedge your bets against disease. **4) Give yourself permission to eat**. Work with your natural drives of hunger and satiety, rather than fighting against them. Paradoxically, it will allow you to be more orderly and positive about your eating. **5) Stop being phobic about sugar, fat and salt**. Health claims about these taste-enhancing ingredients are much exaggerated. Trying to avoid sugar, fat and salt takes the fun out of eating and makes you sneak around to get them. Including sugar, fat and salt at regular eating times lets you get enough--not overdo it as the food police fear. **6) Give your body a break**. Take good care of yourself with your eating and your activity, then let your body be healthy and weigh what it will in response. You do not have to be thin to be healthy--or happy.

Serdula MK, Mokdad AH, Williamson DF, Galuska DA, Mendlein JM, Heath GW. Prevalence of attempting weight loss and strategies for controlling weight. *JAMA*. 1999;282:1353-1358.

Notes: The prevalence of attempting to lose and maintain weight was 28.8% and 35.1% among men and 43.6% and 34.4% among women. Among those attempting to lose weight, a common strategy was to consume less fat but not fewer calories (34.9% of men and 40.0% of women); only 21.5% of men and 19.4% of women reported using the recommended combination of eating fewer calories and engaging in at least 150 minutes of leisure-time physical activity per week. Among men trying to lose weight, the median weight was 90.4 kg with a goal weight of 81.4 kg. Among women, the median weight was 70.3 kg with a goal weight of 59.0

- Shide DJ, Rolls BJ. Information about the fat content of preloads influences energy intake in healthy women. *Journal of the American Dietetic Association*. 1995;95:993-998.
- Notes: This study illustrates the distortions that occur in energy regulation resulting from conflicts between internal and external control. Irrespective of *actual* fat content, healthy, nondieting women who received a yogurt labeled low fat consumed more energy during a subsequent lunch meal than they did after they received yogurt with a similar energy content but unlabeled or labeled high fat. Apparently the women responded to the low-fat label with license to ignore internal regulators, eat larger quantities. They seemingly disinhibited their eating, even though they didn't label themselves as restrained eaters.
- Skinner JD, Carruth BR, Houck K, et al. Mealtime communication patterns of infants from 2 to 24 months of age. *Journal of Nutrition Education*. 1998;30:8-16.
- Notes: Documented mealtime communication behaviors used by 98 Caucasian infants who were studied longitudinally from 2 to 24 months of age. Lists age-related food-acceptance and food-refusal behavior of infants. Mothers' responses to food rejection, which fell into 3 categories: "don't worry," "offers alternative" and "tries force or bribery." Percentage of related responses to each of the three categories were 16 months: 25, 70 and 5; 20 months: 30, 60 and 10; 24 months: 40, 45 and 10. ES note: The norm in feeding appears to be short order cooking. Mothers plan meals based on what they think their child will eat, then make alternatives if the child refuses the offering.
- Taubes G. The soft science of dietary fat. *Science*. 2001;291:2536-2545.
- Notes: Mainstream nutritional science has demonized dietary fat, yet 50 years and hundreds of millions of dollars of research have failed to prove that eating a low-fat diet will help you live longer. The history of the national conviction that dietary fat is deadly, and its evolution from hypothesis to dogma, is one in which politicians, bureaucrats, the media, and the public have played as large a role as the scientists and the science. As for women, if anything, the higher their cholesterol, the longer they lived. Numerous studies now suggest that high-carbohydrate diets can raise triglyceride levels, create small, dense low-density lipoprotein particles, and reduce high-density lipoproteins-- a combination, along with a condition known as "insulin resistance," has been labeled "syndrome X."
- Townsend MS, Peerson J, Love B, Achterberg C, Murphy SP. Food insecurity is positively related to overweight in women. *Journal of Nutrition*. 2001;131:1738-1745.
- Notes: This study used data from the nationally representative 1994-1996 Continuing Survey of Food Intakes by Individuals (CFSII). Food insecurity was related to overweight status for women (n = 4509), but not for men (n = 4970). Excluding the 11 severely insecure women, the prevalence of overweight among women increased as food insecurity increased, from 34% for those who were food secure (n = 3447), to 41% for those who were mildly food insecure (n = 966) and to 52% for those who were moderately food insecure (n = 86). Food insecurity remained a significant predictor of overweight status, after adjustment for potentially confounding demographic and lifestyle variables.
- Wadden TA, Bartlett S, Letizia KA, Foster GD, Stunkard AJ, Conill A. Relationship of dieting history to resting metabolic rate, body composition, eating behavior, and subsequent weight loss. *American Journal of Clinical Nutrition*. 1992;56:203S-208S.
- Notes: Neither number of diets nor total lifetime weight loss correlate with depression. No evidence that weight cycling, as measured by either of these variables, was associated at baseline with a reduced resting metabolic rate or an increased percentage of body fat. Nor did we find that weight cycling was associated with smaller weight losses in a prospective trial in very-low-calorie diet and behavior therapy intervention. Patients frequently remark that "I gained back the weight I lost plus an additional 10 pounds." Figure one illustrates mean weights and dieting history of 31 subjects over 25 years, all of whom reported a minimum of 4 diets. Examination of Figure 1 confirms this statement because subjects clearly began each diet weighing more than they did at the start of the previous one. ES Note: Despite the fact that the data clearly indicated a weight destabilization effects of dieting, authors denied that and went ahead with the trial, declaring it successful on the ground that subjects (again) achieved weight loss.
- Westenhoefer J, Stunkard AJ, Pudel V. Validation of the flexible and rigid control dimensions of dietary restraint. *Int J Eat Disord*. 1999;26:53-64.
- Notes: Two subscales for the Eating Inventory (Three-Factor Eating Questionnaire) are developed and validated: Rigid and Flexible control of eating behavior. Rigid control is associated with higher scores of Disinhibition, with higher body mass index (BMI), and more frequent and more severe binge eating episodes. Flexible control is associated with lower Disinhibition, lower BMI, less frequent and less

severe binge eating episodes, lower self-reported energy intake, and a higher probability of successful weight reduction during the 1-year weight reduction program.

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