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ABSTRACT This bibliography consists of 212 recent citations (January 1985 through May 1990) from AGRICOLA, the National Agricultural Library (NAL) computerized database. The bibliography addresses issues concerning childhood obesity and cardiovascular disease. Each citation includes the NAL call number, the title, the author(s) the city of publication, the name and date of the journal in which it is published (if applicable), page numbers, language, descriptors, and abstract. The citations are listed in alphabetical order. An author index is included. (TE)

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Childhood Obesity and Cardiovascular Disease
January 1985 - May 1990

Quick Bibliography Series: QB 90-59
Updates SRB 88-06 and SRB 88-05

212 Citations from AGRICOLA

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Food and Nutrition Information Center

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SEARCH STRATEGY

S1  10679  CHILD?/TI,DE
S2  4984   INFAN?/TI,DE
S3  2789   ADOLESCEN?/TI,DE
S4  582    TEEN?/TI,DE
S5  16501  (CHILD?/TI,DE OR INFAN?/TI,DE OR ADOLESCEN?/TI,DE
         OR TEEN?/TI,DE)
S6  3377   OBES?/TI,DE
S7  11512  WEIGHT/TI,DE
S8  75523  CONTROL/TI,DE
S9  687    WEIGHT/TI,DE(W)CONTROL/TI,DE
S10 11512  WEIGHT/TI,DE
S11 4320   LOSS/TI,DE
S12  990   WEIGHT/TI,DE(W)LOSS/TI,DE
S13  224   OVERWEIGHT/TI,DE
S14  4388  OBES?/TI,DE OR WEIGHT()CONTROL/TI,DE OR
         WEIGHT()LOSS/TI,DE OR OVERWEIGHT/TI,DE
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S16 36776  SF=FNC (FOOD AND NUTRITION)
S17  135   S5 AND S14 AND PY=1985:1990 AND SF=FNC
S18 1666   CARDIO/VASCULAR/TI,DE
S19  2994  CHOLESTEROL/TI,DE
S20  2966  HEART/TI,DE
S21  6940  FAT/TI,DE
S22 13049  CARDIOVASCULAR/TI,DE OR CHOLESTEROL/TI,DE OR
         HEART/TI,DE OR FAT/TI,DE
S23  873   HYPERTENSION/TI,DE
S24 16202  HIGH/TI,DE
S25 14186  BLOOD/TI,DE
S26  4262  PRESSURE/TI,DE
S27  56    HIGH/TI,DE(W)BLOOD/TI,DE(W)PRESSURE/TI,DE
S28  544   CORONARY/TI,DE
S29  471   ATHEROSCLEROSIS/TI,DE
S30  1023  LIPOPROTEIN/TI,DE
S31  2746  HYPERTENSION/TI,DE OR HIGH()BLOOD()PRESSURE/TI,DE
         OR CORONARY/TI,DE OR ATHEROSCLEROSIS/TI,DE OR
         LIPOPROTEIN/TI,DE
S32 14537  S31 OR S22
S33 36776  SF=FNC (FOOD AND NUTRITION'
S34 383766 PY=1985 : PY=1990
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S36 1651   S35 OR S17
S37  434   DT=INSTRUCTIONAL
S38  129   DT=KIT
S39  1199  DT=MEDIA
S40  562   DT=MOTION
S41  21    DT=POSTER
S42 1671   DT=INSTRUCTIONAL OR DT=KIT OR DT=MEDIA OR
         DT=MOTION OR DT=POSTER
S43  71  DT=OTHER ACCOMPANYING MATERIAL
S44  8   DT=POSTERS
S45  243 DT=RECORDING
S46  452 DT=SLIDE
S47  765 DT=OTHER ACCOMPANYING MATERIAL OR DT=POSTERS OR DT=RECORDING OR DT=SLIDE
S48  1   DT=SLIDES
S49  23  DT=TRANSPARENCY
S50  1   DT=VIDEO
S51  41  DT=VIDEOCASSETTE
S52  66  DT=SLIDES OR DT=TRANSPARENCY OR DT=VIDEO OR DT=VIDEOCASSETTE
S53  648 DT=VIDEORECORDING
S54  1   DT=VIDEOTAPE
S55  1216 DT=AV
S56  30  DT=CHART
S57  380 DT=FILMSTRIP
S58  1513 DT=VIDEORECORDING OR DT=VIDEOTAPE OR DT=AV OR DT=CHART OR DT=FILMSTRIP
S59  2   DT=FLIP CHART
S60  23  DT=GAME
S61  25  DT=FLIP CHART OR DT=GAME
S62  2559 S42 OR S47 OR S52 OR S58 OR S61
S63  36776 SF=FNC (FOOD AND NUTRITION)
S64  1695 S62 AND SF=FNC
S65  36  S64 AND S36
S66  1615 S36 NOT S65
S67  156 S35 AND S5
S68  265 S67 OR S17
S69  7   S68 AND S64
S70  258 S68 NOT S69
Accuracy of self-reports of food intake in obese and normal-weight individuals: effects of parental obesity on reports of children's dietary intake.


Abstract The purpose of this investigation was to determine the accuracy of dietary-intake information provided by either normal-weight or overweight (n = 16) children aged 4-9 years. Obese and normal-weight parents in their reports of their children's food intake. Subjects were 36 families with either normal-weight (n = 20) or overweight (n = 16) children aged 4-9 years. Unobtrusive observers recorded the types and amounts of food eaten by the children at one meal. The next day, families were visited in their homes and asked to provide dietary-intake information from the previous day on their child. Results indicated that parental reports of the children's food intake correlated significantly with the observers' measures of food intake. Neither the father's, the mother's, nor the family's obesity status had an effect on the accuracy of recalled information. The results indicated that the lack of differences consistently observed in dietary intake between obese and normal-weight children could not be explained by differential accuracy of recalled dietary information.

Adipogenic activity in sera from obese children before and after weight reduction


Abstract The adipogenic and mitogenic potentials of sera obtained from obese children before and after weight reduction and from lean control subjects were studied in clonal 3T3-L1 fibroblasts. The sera from the lean (n = 14) and obese (n = 12) children under habitual diet contained similar adipogenic activity. However, when the obese children underwent a weight-reduction program for 3 wk (600 kcal/d), the potential of their sera to stimulate glycerol-phosphate dehydrogenase, an index of adipogenic activity, was significantly reduced by 32% (p less than 0.01). Similarly, the mitogenic activity of these sera decreased significantly (202 +/- 15 vs 231 +/- 27 micrograms per dish, p less than 0.01). Testing pooled sera from the different groups in cultured rat adipocyte precursor cells gave similar results. This study suggests that human childhood-onset obesity is not amenable to increased circulatory factors involved in the formation of new fat cells. The adipogenic and mitogenic activity of sera from obese children may be influenced by long-term dietary restriction.
Medical education are discussed. Practice. Implications for continuing as well as the ethnic composition of the geographic location of the pediatrician practices also varied by gender and children. Attitudes and reported advocate and practice risk reduction in pediatricians were most likely to continuing medical education. Older age of the patient. Obesity was the substantial minority do not discuss smoking, even with adolescents. Simple linear regression analysis revealed an association between body mass index and blood pressure, plasma triglyceride and plasma high-density lipoprotein-cholesterol. The level of aerobic fitness as determined by exercise duration was also associated with the same atherosclerotic risk factors. However, multiple linear regression analysis demonstrated that body mass index provided the largest explanation, by those variables examined, of the interindividual variance in blood pressure, plasma triglyceride, and high-density lipoprotein-cholesterol. Aerobic fitness contributed only minimally to the variation in these risk factors. These findings suggest that if aerobic conditioning is used to modify atherosclerotic risk factors, it should be accompanied by a reduction in weight in adolescents with low-to-moderate levels of physical fitness. (Author)

Adoption study of obesity. NEJMAG. Bonds, D.R. ; Crosvy, L.O. Boston, Mass. Massachusetts Medical Society. New England journal of medicine. Jul 10, 1986. v. 315 (2) p. 128-130. charts. Includes 11 references (NAL Call No. DNAL FNC 448.8 N442) Abstract Five letters to the editor criticize a recently published paper that concluded that obesity in offspring was more strongly associated with maternal than paternal size, and that a significant trend existed between the body-mass index of adopted children and that of their biological parents but not of their adoptive parents. A sixth letter to the editor by the authors of the paper provides a defense and commentary in response to these 5 letters (w2)

Adult heart disease prevention in childhood: a national survey of pediatricians' practices and attitudes. PEDIAU. Nader, P.R. ; Taras. H.L.-Sallis, J.F.-Patterson, T.L. Elk Grove Village, Ill. : American academy of Pediatrics. Pediatrics. June 1987. v. 79 (6). p. 843-850. charts. Includes 47 references. (NAL Call No. DNAL FNC R41.4P42) Extract: There is controversy about the role of pediatric care givers in reducing presumed risk factors for cardiovascular diseases in children. A national mail survey of 2,000 pediatricians was designed to determine the attitudes, current practices, and knowledge among primary care pediatricians regarding these risks. The response rate was 60% (779 primary care pediatricians). Responses indicated that a majority of pediatricians take a family history of cardiovascular diseases, assess BP, recommend exercise to school-aged children, and advise patients and parents against smoking. Few pediatricians felt confident in their ability to affect change in patient lifestyles. There was a relatively low level of provision of dietary advice, and most pediatricians do not measure serum cholesterol levels, except in high-risk older children. A substantial minority do not discuss smoking, even with adolescents. Practices and attitudes varied with the age of the patient. Obesity was the topic most frequently chosen for continuing medical education. Older pediatricians were most likely to advocate and practice risk reduction in children. Attitudes and reported practices also varied by gender and geographic location of the pediatrician as well as the ethnic composition of the practice. Implications for improving pediatric health and medical education are discussed. (author)

0008

Aerobic capacity, obesity, and atherosclerotic risk factors in male adolescents. PEDIAU. Fripp, Raymond R. ; Hodgson, James L. ; Kwiterovich, Peter O. ; Werner, John C. ; Schuler, M. Gregg-Whitman, Victor. Elk Grove Village, Ill American academy of Pediatrics. Pediatrics. May 1985. v. 75 (5). p 812-818. charts. Includes 19 references. (NAL Call No. DNAL FNC R41.4P42) Extract: Correlations between aerobic capacity, obesity, and atherosclerotic risk factors were evaluated in adolescents with low-to-moderate levels of physical fitness. Subjects with higher levels of obesity and activity had a more favorable risk profile with decreased body mass index, lower systolic and diastolic blood pressure and plasma triglyceride levels, and higher plasma high-density lipoprotein-cholesterol levels. Simple linear regression analysis revealed an association between body mass index and blood pressure, plasma triglyceride and plasma high-density lipoprotein-cholesterol. The level of aerobic fitness as determined by exercise duration was also associated with the same atherosclerotic risk factors. However, multiple linear regression analysis demonstrated that body mass index provided the largest explanation, by those variables examined, of the interindividual variance in blood pressure, plasma triglyceride, and high-density lipoprotein-cholesterol. Aerobic fitness contributed only minimally to the variation in these risk factors. These findings suggest that if aerobic conditioning is used to modify atherosclerotic risk factors, it should be accompanied by a reduction in weight in adolescents with low-to-moderate levels of physical fitness. (Author)


Anthropometric measurements, rates of obesity, and food intake practices were investigated among 27 Cherokee Indian youths in North Carolina. Mean body weights and triceps skinfold measurements on the Cherokees were significantly higher than national reference data. However, there were no significant differences between height data for the Cherokees and national survey data. Obesity rates were found to be high, but mean energy intakes were not significantly different for lean and fat individuals. It does not appear that the obesity is caused by overeating (author).

Assessing needs for youth health promotion
Perry, C.L., Griffin, G., Murray, C.M.
Orlando, Fla: Academic Press.
Abstract: The activities and design of an ongoing project in youth heart health promotion are described. Based on educational interventions, objectives are aimed at reductions in cigarette smoking, improved nutrition and exercise patterns, and hypertension prevention. A behavioral needs assessment, the results from 2 communities and their association with gender and age, and the implications of the results for developing intervention activities, are discussed. The limitations of this approach also are described.

Assessing body fatness in childhood obesity: evaluation of laboratory and anthropometric techniques
JADDA, Bandini, L.G.; Dietz, W.H., Jr.
Extract: The identification of obesity as a pathological diagnosis depends on an accurate assessment of body fatness and a correlation of fatness with pathological consequences. Because total body fat varies with body weight the proportion of body weight that is fat is probably a more reliable indicator of risk. Among obese children and adolescents, several problems have hindered the development of accurate clinical measures of percent body fat and total body fat. First, the use of direct methods to measure body composition is limited by expense and labor. Second, the relationship between anthropometric indexes and body composition in obese children and adolescents has not been intensively studied. Third, sample sizes of normal weight children have been too small to permit the development of diagnostic criteria. Fourth, the triceps skinfold is less reproducible in overweight subjects. Increases in lean body mass in obese adolescents may confound the use of body mass index as a measure of adiposity. Current laboratory methods for the measurement of body composition include: (1) underwater weighing, (2) 40K counting, (3) isotopic dilution measures, (4) neutron activation, and (5) electrical impedance. This article examines relationships between those methods and anthropometry in the measurement of fatness in children and adolescents, as well as the difficulties in measuring body fatness and the importance of body fat distribution and its relationship to morbidity in children. Current evidence suggests an association of morbidity and upper
basal daily kcal may be best predicted by body surface area and percent fat for obese adolescent boys, and by body surface area and body weight for obese adolescent girls.

0018

Behavioral and psychological traits of weight-conscious teenagers: a comparison of eating-disordered patients and high- and low-risk groups.


Abstract: A study compared the behavioral and psychological traits of adolescent girls having eating disorders (ED) with those of adolescent female athletes and high school students. While the athletes had the highest self-concepts, the ED girls had the lowest self-image scores and scored very low on emotional tone and social relationships scores. Suggesting an association between the presence of eating disorders and low self-image.

0019

Benefits of school-based, family-oriented cardiovascular risk screening and intervention.


Abstract: How to attract high-risk young and middle-aged adults into cardiovascular risk screening and intervention programs. A school-based, family-oriented program can attract into the health care system a significant number of high-risk adults who otherwise might not be identified. Additionally, screening only those children with a positive family history would have failed to identify almost two thirds of the higher-risk children in our study. A more widespread recognition among the general medical community of the familial nature of cardiovascular disease and of the possibilities for risk modification of entire family units is urged.

0020

Beyond baby fat weight-loss plans for children and teenagers / Frances Sheridan Goulart; foreword by Platon J. Collipp.


Abstract: Obese children do not necessarily outgrow their baby fat. Strategies for combating overweight, from infancy through adolescence with diet and exercise programs are offered. The many possible causes of overweight are discussed: heredity, stress, excess...
sugar, metabolic disorders, food allergies, nutritional deficiencies, and their five over-plans to counter these causes are presented, including menus, recipes, junk food alternatives, and eating out advice. Also included are lists of 'good' control foods, the case and camps main-order sources of food, and a reference list (1).

OG2

Blood lipids as related to food intake, body composition and cardiorespiratory efficiency in preschool children. J. POE Perkova, A. Mackova.


Abstract - A cross-sectional study of black male and female adolescents (ages 12-16) assessed whether serum dehydroepiandrosterone sulfate (DHEAS) levels were associated with blood pressure variation independent of the established association between increased DHEAS levels and measures of excess body weight and obesity. High DHEAS levels were associated with higher blood pressure in the girls, even after adjusting for the effect of body fat on DHEAS level. In the boys, high serum DHEAS was associated with a low body mass index and higher blood pressure. Related findings also are discussed. The data are statistically summarized and evaluated (2).

OG23


Extract: Previous studies show that children of women who are diabetic during pregnancy are more obese and have a higher prevalence of non-insulin-dependent diabetes mellitus (NIDDM) than children of women who first developed NIDDM more than 1 yr after the pregnancy (pre-diabetic mothers) and children of women who have never developed diabetes (non-diabetic mothers). To determine whether lean and obese children of glucose-intolerant pregnancies can be distinguished from similar children of glucose-tolerant pregnancies, we measured body composition, adipose tissue area, and glucose tolerance in pre-pubertal children of glucose-intolerant and pre-diabetic mothers. Each group ranged in adiposity from 6 to >40 per cent body fat. Age, weight, height, and percentage of body fat were similar in the two groups. There were no significant differences in adipocyte size or in glucose, FFA, C-peptide, and insulin concentrations between the groups. The correlation between abdominal adipocyte size and fasting insulin concentration (r = 0.1 and E. t 28. 0.01) was stronger in children from glucose-intolerant than from glucose-tolerant pregnancies, respectively. In terms of the parameters we measured, there are no major differences between children of glucose-intolerant and glucose-tolerant pregnancies (author)
on the relation between body fat percentage and body density. These equations are constructed on the basis of published data on changes in the density of fat-free mass with age in children with the proposed methods. Childhood obesity can be assessed routinely in a more consistent way than with most other routine methods used to evaluate obesity in children. Preliminary validation studies indicate that in children aged 10-11, predicted body density differed or averaged less than 1% from measured body density in prediction. Predicted body density was significantly correlated (r greater than 0.1) with measured body density.

0025


0026


0027


0028


Abstract: To investigate caffeine intake patterns in children, dietary intakes were examined for a biracial sample of 1,284 infants and children. Twenty-four-hour dietary recalls were completed by parents of children aged 6 months and repeated at ages 2, 3, and 4 years; children 10 years old served as their own respondents and were surveyed at ages 13, 15, and 17 years. The sample was 50% white and 40% black. Additional cohorts of 10-year-olds (no. = 686) were studied for temporal trends. Whites consumed significantly more caffeine than blacks as early as 1 year and persisted at a higher intake level from
Significant sex differences in caffeine intake were observed among 16- and 17-year-olds (girls greater than boys). Peak periods of consumption occurred at ages 2, 3, 13, and 17.

Changes in biomedical and physical parameters may likely result from skeletal growth during a period corresponding to rapid growth. Changes in body composition in obese preadolescents during weight reduction are discussed (wz).

Includes 40 references. (NAL Call No.: DNAL RC563.A33). Abstract: A longitudinal study with a 5.5-year follow-up assessed changes in skinfold thickness (ST) and body mass index (BMI) in 117 children who were initially 1-5 years of age. Body fatness increases with age were associated with initially fatter girls, with children who had fatter mothers, and with children having a lower social class status, but parental fatness or social status were not additively related to changes in ST. Differences in changes in BMI were not found between sexes of the children. (wz)

Characteristics of abnormal food-intake patterns in children with Prader-Willi syndrome and study of effects of naloxone. AU: CNA. Zinf., W.E.; Berntson, G.G. Abstract: Prader-Willi syndrome (PWS) is characterized by morbid obesity and abnormal appetite. It has been suggested that appetite is reduced by the administration of the opioid antagonist, naloxone. This has led to the hypothesis that appetite disturbance is a consequence of an abnormal hypothalamic response to appetite effects of endogenous opiates and opiate antagonist may be a useful treatment. To characterize the feeding patterns of PWS children and test this hypothesis, we administered an appetite test to 10 PWS children and 9 obese control children. We also examined the effects of naloxone on eating behavior of the children with PWS. While initial rate of eating did not differ, the PWS group showed a much delayed satiety resulting in a longer period of food intake. No difference in food intake was observed with naloxone (1.6 mg im, 30 min before the feeding test) treatment as compared with saline treatment. (author)
The checkerboard cardiovascular curriculum: a culturally oriented program
Harris, M. E. Da., S. M. Ford, L. L. Kent, & Greg American School Health Association Journal of School Health. Mar 1986 v. 56 p. 104-107 includes 15 references (NAL Call No: DNA8 634Q J6)
Abstract: A technical report describes the results of a pilot study of a culturally oriented cardiovascular curriculum designed for 5th-grade children in rural New Mexico, comprising mostly of Hispanic US Indians and Hispanics. The curriculum was tested with 216 such students incorporating educational materials, examples, and exercises of relevance to the cultures of these children. The study results found increases in knowledge concerning the cardiovascular system, the benefits of exercise, the relation of nutritional habits to obesity, the risks of tobacco usage, and the importance of behavioral habits. It is concluded that such programs may enhance promotion of a healthy lifestyle in children of minor ethnic groups (12).
Childhood obesity and self-esteem.

Children's television: its effect on nutrition and cognitive development.

Childhood obesity: Family perspective.

Children's cognitive concepts of obesity: a developmental study.
Abstract: This text offers a practice program for modifying family diets and eating habits in order to reduce blood cholesterol levels and thereby reduce the risk of heart disease. Intended to give information to parents concerning methods of lowering cholesterol levels in children, this work includes data on cholesterol and heart disease, detailed analysis of the composition of main foods "found in the typical American diet," practical methods for lowering fat and cholesterol intake, and recipes for low cholesterol foods.

0044 Cholesterol in youth unbending the twig

Abstract: This article discusses cholesterol testing for children. Questions discussed include what age should testing begin, how often, what are normal values for LDH, HDL and total cholesterol for different age groups and how aggressive should treatment be. Guidelines and recommendations for managing cholesterol intake are included.


Abstract: Data indicating that plasma cholesterol levels in children are of value in assessing the risk of having high cholesterol levels in adulthood are discussed.

0047 Correlates and predictors of serum total cholesterol in adolescents aged 12-17 years: the National Health Examination Survey.

Abstract: To examine correlates and childhood predictors of serum total cholesterol in adolescence, measures of growth, development, and obesity were related to serum total cholesterol levels of youths aged 12-17 years in the National Health Examination Survey. In this sample, drawn from the U.S. population, serum total cholesterol levels were negatively correlated with indicators of growth and maturation in males aged 12-14 years and positively correlated with overweight or obesity at all ages. All measured variables could account for less than 15 percent of cholesterol variation in males and less than 6 percent in females. In white males, indicators of levels of maturation, growth, and changes in body fatness measured 28-53 months earlier were significant predictors of serum total cholesterol in adolescence, explaining 13 percent of its variation. Despite significant associations, indicators of growth, sexual maturation, and obesity explained only a small fraction of serum cholesterol variation in adolescents.

0048 Culture versus biology: children's attitudes toward thinness and fatness.

Abstract: Many of the studies regarding children's acquisition of prevailing cultural concepts of physical attractiveness are flawed by small and unrepresentative samples, measurement instruments of questionable reliability and validity, and experimental designs that do not protect against bias. Additional studies in which these methodologic flaws are overcome must be carried out if we are to understand truly when and how cultural concepts of beauty are acquired. Nevertheless, the majority of the studies already done find that children acquire prevailing cultural values of beauty before adolescence and that thinness is desirable to girls considerably before puberty. It is suggested that the etiology of eating disorders and the reasons for their increasing prevalence will not be discovered by studying only clinical cases. We propose that those interested in this important health problem study children before adolescence in an attempt to learn how preoccupation with weight begins and why thinness is believed to be attractive. Once these are understood, a greater challenge will be the development and...
testing of interventions—be they in the schools or using the media—which can influence this public health problem. When culture and biology clash, people may suffer. (Author)

0049
Decreased prolactin secretion in childhood obesity

Davila L

Abstract: Decreased prolactin secretion in obese people may suffer. (Author)

Excerpt: Twelve obese patients and 7 control subjects, age and sex matched. Whose weights were greater than 200% of ideal weight and 100% of ideal body weight, respectively, underwent intravenous insulin and thyroid releasing hormone (TRH) tests. Serial prolactin growth hormone, insulin, blood sugar, cortisol, glucagon, thyrotropin stimulating hormone, thyroxine, and triiodothyronine were obtained. Obese patients showed no significant differences from controls in basal and nadir glucose, basal and peak glucagon, cortisol, and thyroid responses to both tests. Basal insulin levels were higher and peak responses after insulin were lower in the obese group than in controls. Where as all control subjects had prolactin response to both tests, 5 of 12 obese patients had no responses to insulin. Obese patients had lower prolactin response at 30 minutes after insulin, and lower prolactin responses at 60 minutes after TRH. Maximum prolactin responses after TRH were lower in obese patients. Maximum prolactin responses after insulin were lower in obese patients. Thus prolactin secretion in childhood obesity is impaired after both stimuli, but more so after IV insulin than TRH and suggests that, as in adult hypothalamic obesity, neuroendocrine regulation of prolactin release in obese children is impaired. (Author)

0050
Design and participation.

Excerpt: Cardiovascular risk factors of children examined in a cohort of 440 infants from birth through 7 years of age. Anthropometric measures, BP, serum lipid and lipoprotein values, and dietary intake data were obtained according to detailed protocols. Various quality controls to ensure the collection of valid and reliable data were implemented throughout the study with 80% of the children examined at 6 months and 60% at 7 years of age. Rates were slightly higher for black than for white children. Children born in the private hospital were more likely to continue in the study than children born in the charity hospital. Children of parents examined when the child was 2 years of age were more likely to be examined during the preschool phases. Parental examination was not related to child examination when the child was 7 years of age. As in studies of school-aged children, measurement errors were lowest for height, weight, and serum total cholesterol. Measurement errors for BP were highest at the younger ages, particularly for diastolic BP. Examination of a newborn cohort throughout time affords the opportunity to study early development of relationships and tracking of cardiovascular risk factors. (Author)

0051
Desire for thinness among high school cheerleaders: relationship to disordered eating and weight control behaviors

Excerpt: The eating disorders of anorexia nervosa and bulimia are increasing in frequency among adolescent females. These increases have been linked to the cultural ideal in American society of thinness. Attempting to control weight is a behavioral manifestation of the desire for thinness. One particular group of adolescents, female cheerleaders, often experience pressure to attain and maintain weight that is lower than other adolescents of the same height. This study examined cheerleaders' desire for thinness in relationship to disordered eating and weight control behaviors. A Desire for Thinness Scale and Selected scales from three eating disorders instruments were administered to 751 high school cheerleaders from the Midwest. Cheerleaders who scored in the upper third on the Desire for Thinness Scale were compared with those who scored in the lower third. Cheerleaders who expressed a strong desire for thinness had significantly higher scores (p less than .0001) on 7 of 8 eating disorders scales. The greater the desire for thinness, the more likely the tendency to report disordered eating and weight control behaviors associated with bulimia. Implications from this study include an awareness of how a cultural ideal of thinness may indirectly increase disordered eating and weight control behaviors by making weight loss a salient goal. A proactive approach to modifying negative aspects of the cultural emphasis on thinness is proposed. (Author)

0052
Detection and treatment of lipid and lipoprotein disorders of childhood

Proceedings of the Third International Atherosclerosis Conference, held in Vienna, Austria, April 4-9, 1983
Determinants of weight and adiposity in the first year of life


Abstract: Overcoming methodologic defects (failure to control for confounding factors, univariate statistical analyses) in previous studies of etiologic determinants of childhood adiposity, we carried out a prospective cohort study of 462 healthy, full-term infants observed from birth to 12 months. Postpartum, we obtained sociodemographic data and administered a recently validated scale of maternal attitudes toward feeding and infant body habitus. Parental heights and weights and infant feeding variables were determined by interview, and at 6 and 12 months we measured height and weight and triceps, subscapular, and suprailiac skinfolds. Multiple regression analysis was used to determine independently predictive factors for weight, body mass index (BMI equals weight/height squared), and the sum of the 3 skinfold measurements. Birth weight, sex, age at introduction of solids, and duration of breast-feeding were all significant predictors of weight at 12 months. Significant determinants for BMI included birth weight, duration of breast-feeding, sex, and IHI; those for total skinfold were age at introduction of solid foods and birth weight. Similar results were obtained at 6 months. Although slight, less of the variance was explained. We conclude that ability to predict which babies will be heavy or obese during the first year is limited. Breast-feeding and delayed introduction of solid foods did offer some protective effect. However, and thus efforts to encourage these practices may be reaping some benefits (author).

Diet of young children and cardiovascular disease


Abstract: A brief report addresses the question of whether the diet of young children should be altered to reduce cardiovascular disease risks. The validity of results of longitudinal studies supporting such a change is discussed. It is concluded that until there is clearer evidence on the importance of early diet on later health, dietary advice for children under 5 years of age should not be radically changed (wz).

Dietary calcium intake in hypertension


Abstract: A letter to the editor discusses and critiques the results reported in a recent publication (using data from National Health and Nutrition Examination Surveys I and II) that found that low dietary calcium intake and hypertension were not related, and presents arguments that the evidence is remarkably consistent in demonstrating a weak, but plausible relationship between dietary calcium and blood pressure. A reply letter from author of the recent publication provides a rebuttal of the arguments of the first letter, rejecting the conclusion of such a relationship, and stating that the data do not support the hypothesis of a negative association between dietary calcium intake and blood pressure and that this issue remains to be resolved in further needed studies (mjs).

Dietary habits in relation to tracking of cholesterol levels in young adolescents: a nine-year follow-up


Abstract: Because the origin of atherosclerosis is often in childhood, an early identification of future adults at risk can contribute to the prevention of solid foods and birth weight. Similar results were obtained at 6 months. Although slight, less of the variance was explained. We conclude that ability to predict which babies will be heavy or obese during the first year is limited. Breast-feeding and delayed introduction of solid foods did offer some protective effect. However, and thus efforts to encourage these practices may be reaping some benefits (author).
of atherosclerosis. In a prospective study on nutrition and health, a cohort of 556 infants was followed from birth to 2 years. Among them, 116 were found at risk for hypercholesterolemia with a cholesterol level greater than or equal to 200 mg/dL. Nine years later, these children at risk and their controls were invited to a follow-up examination of blood lipids, of nutritional status, by anthropometric measurements and personal and family history. From 22 to 42%, of children at risk remained with a high cholesterol level (greater than or equal to 190 mg/dL) in comparison with 15% of controls. The nutritional profile was evidently different, especially the food frequency. The results strongly suggest that the early identification of children at risk and the screening of other family members, siblings and parents for hypercholesterolemia can serve for a sound intervention of nutritional habits.

002


Abstract: A 2-year dietary survey, gathered data on the sources of energy, protein, fat, and fibre in the diet of 375 English adolescents (ages 11-14) for development of health education programs for this target population. The principal food source for energy was potatoes (crisps, crisps), while that for protein and fat was "meat" (although other important sources of fat also were identified). Dietary fibre was found to be contributed by crisp white bread, potatoes, and baking beans. Lower socioeconomic status adolescents appeared to have more non-nutritional food preferences. Differences between sex and social status are discussed (wz).

0058


Abstract: The study was designed to determine the dieting practices and attitudes of overweight, underweight, and ideal weight adolescents in two school systems. Of the 560 girls, 74 and 26 percent were white and black, respectively. Although almost half were underweight according to height-weight tables, most had tried to diet to lose weight. The overweight adolescent appeared to be preoccupied with food and dieting. The underweight student is more likely to have anorexia; whereas, the overweight student is more likely to practice bulimia (author).

0059


Abstract: In this study, 1,753 schoolchildren from the area of Petah-Tikva, Israel, were analyzed for levels of plasma total cholesterol (TC), high density lipoprotein cholesterol (HDL-C), and triglycerides (TG). TC levels decreased in boys as age increased 10-11 to 14-15, and in girls became progressively lower until 12-13 and then gradually increased. TC levels were only partly accounted for by lower HDL-C levels at these ages. In boys, TG levels were inversely related to HDL-C levels. Overall, TC and HDL-C were higher among girls than boys beginning at ages 12-13, with little or no sex differences in TG. (13p)
0061
Does a vigorous feeding style influence early development of adiposity?
JOPDA Agras, W S ; Kraemer, 
H C -Berkowitz, R I -Korner 
L E-Arbeit, L D-St Louis, C V 
Mossb. The journal of pediatrics May, 1987 V 110 (S) P 789-804 111 
charts includes 31 references. (NAL Call No. DNAL FNC RJ1 A445) 
Abstract: A prospective study of a cohort of healthy infants observed from birth to 2 years of age was carried out to investigate factors influencing the development of early adiposity. Infant sucking was measured in the laboratory twice during the first month of life. Multiple regression analyses revealed that parental educational level and a measure of feeding behavior, the interval between bursts of sucking, accounted for 18% of the variance in triceps skinfold measures at 1 year of age. A lower level of education and shorter interburst interval were associated with increased adiposity. Two feeding variables, pressure of sucking and the number of reported feeds per day, accounted for 21% of the variance in skinfold thickness at 2 years of age. Fewer, but larger, feeds and a higher sucking pressure were associated with a greater degree of adiposity. It seems that a vigorous infant feeding style, consisting of sucking more rapidly, at higher pressure, with a longer suck and burst duration, and a shorter interval between bursts of sucking, is associated with higher caloric intake and greater adiposity. The early development of this feeding style suggests that it may be a genetically endow behavior. Breast-feeding protected against early adiposity only to the age of 6 months in this cohort of infants (author)

0062
Does infant nutrition affect adiposity and cholesterol levels in the adult?
Abstract: The effects of breast feeding during infancy on incidence of obesity and atherosclerosis in adult life are reviewed. The physiological differences between breast fed and bottle fed infants are discussed, particularly with respect to gastric hormones, cholesterol metabolism, and adipose tissue development and obesity. Implications are that genetics as well as postweaning nutrition may need to be closely examined to assess the relationship between breast feeding and incidence of obesity or atherosclerosis.

0063
A dynamic family approach for the prevention of cardiovascular disease. 
Abstract: The Family Health Promotion Program draws on the strength of the family and the school to promote healthful life-styles among children with elevated cardiovascular risks.

0064
Early childhood diet recommendations of pediatric health care providers. 
Abstract: With the abundance of literature on cardiovascular disease (CVD) prevention during childhood, recommendations for restricted dietary sodium and fat intakes during infancy and childhood are both advocated for preventive health care and criticized because the safety is undetermined. Dietitians, nurse practitioners, and pediatricians were surveyed to determine what dietary recommendations they give to parents and what source of information most influenced their decisions. A fourth group, pediatricians with particular expertise in nutrition, were surveyed as well. The overall response rate was 76%, with a total usable sample of 252. In all professional groups, 54% had no preference for any one commercially prepared formula. More importance was given to sodium content than to fat composition of formulas. On the choice of whole, low-fat, or non-fat milk for both 1- and 6-year-old children, professional groups differed significantly. Dietitians and the subgroup of pediatricians with nutrition expertise were more likely to recommend milk with higher fat content than other professional groups. Recommendations for both sodium- and fat-modified diets for children depended on CVD risk, and opinions varied between groups. Pediatricians and nurse practitioners were more likely to recommend dietary modifications for children with higher CVD risk. The variation in dietary recommendations within and between professional groups strongly indicates the need for research on the safety and efficacy of dietary restrictions in childhood.

0065
Early weight control concerns affect entire life. 
Abstract: The facts that one in four elementary school children are obese and that the incidence of heart disease and diabetes are increased with obesity substantiate the need for weight control early in life. However, also of concern are the psychological problems relating
to obesity in children (i.e., peer abuse and discrimination). Heredity, environmental, and behavioral factors in influencing obesity are reviewed. Recommendations are provided for promoting physical activity and appropriate food choices to children. Techniques for applying behavior modification to control weight are pointed out.

0066
Eating disorders and diabetes.
Abstract: This article discusses the problems associated with diabetic patients who also have eating disorders. The discussion includes detection of the eating disorder, medical complications and treatment.

0067
Eating disorders in youth becoming major concern.
Abstract: A technical commentary discusses the increasing prevalence of childhood obesity and the growing epidemic nature of eating disorders in the US. Specific attention is given to findings of obesity prevalence, the relationship of eating disorders to mental depression, and the observed limited success in the management of eating disorders. Research recommendations to determine the nature of eating disorders and the need for strong education and prevention programs are also discussed (wz).

0068
Eating habits, food, physiology and learned behavior / edited by Robert A. Boakes, David A. Popplewell, Michael J. Burton.
Boakes, Robert A.; Popplewell, David A.; Burton, Michael J. Chichester ; New York : Wiley, c1987. xii, 225 p. : ill.; 24 cm. Includes bibliographies and indexes. (NAL Call No.: DNAL TX357.E23)
Abstract: A reference text addressing various aspects of eating behavior presents 8 authoritative reviews by experts from 5 countries (US, England, France, Australia, Scotland) on clinical psychologists and psychiatrists dealing with patients having adverse eating behaviors. Attention is focused on: the nature, etiology, clinical aspects, and treatment of bulimia and anorexia nervosa; behavior modification approaches in treating obese patients; hunger, satiety, and eating behaviors and preferences in early infancy and childhood; the concept and underlying mechanisms of palatability, mental signals affecting meal size; and the cognitive experimental psychology of appetite. Eating behavior. diagnoses, behavioral therapies, and theoretical models are presented throughout the text.

0069
Echocardiographic and electrocardiographic measures in obese children after an exercise program.
Abstract: Exercise training and its influence on anthropometric, hemodynamic, and anatomic adaptive changes in the cardiovascular system were studied in 8 obese children, ages 10 to 11. Children participated in a jogging program that met 5 days/week for 1 or 2 years. Weight decreased after 1 year of exercise training. There were no changes in left ventricular wall thickness. Total voltage in SV1 + RVS decreased after 3 months of exercise training but returned to pre-training voltage after 1 year of training. Implications are that a program of jogging 5 days/week may produce a weight reduction, a decrease of the resting heart rate and an increase in left ventricular end-diastolic dimension. The effects of exercise on cardiac structure may differ among normal weight children, obese children and adults.

0070
Education helps teenagers alter their food habits.
Abstract: In an effort to help students commit themselves to a healthier lifestyle, a high school in Louisiana has taken an innovative approach to the topic of fitness. Concerned about low female participation in the school lunch program, question-able salad bar selections, excessive snacking and misconceptions about sports nutrition, a meaningful nutrition education unit was developed. The program begins with students completing a 24-hour dietary recall based on the food groups. Following sessions feature dietary guidelines, weight management, salad building, snacking, and sports nutrition. Topics are presented by involving students in various activities; sessions last one week. The program was developed by the Louisiana Cooperative Extension Service and the Nutrition Education and Training Program of the state.(jcb)

0071
Effect of diet and controlled exercise on weight loss in obese children.
Extract: The effects of adding exercise
to diet for weight control in obese children were evaluated by randomizing obese girls to one of two groups: diet and diet plus exercise. During the first 6 weeks of the treatment, children exercised in a supervised three times a week exercise program, in which they walked or ran 3 miles. Significant decreases from baseline weight and in percent overweight were observed for both groups during the year of treatment. Significant decreases in percent overweight were observed at 0 to 2 months and then at 2 to 6 months for the children who were exercising, whereas percent overweight in children in the diet-alone group decreased only from 0 to 2 months. In addition, a significant improvement in fitness was observed only for children in the diet plus exercise group.

**0072**
The effect of weight loss on the sensitivity of blood pressure to sodium in obese adolescents.

Abstract. Obese and non-obese adolescents were studied to determine the effect of weight loss and the effect of sodium intake on blood pressure. The subjects were put on a weight loss, low sodium diet. The results showed that blood pressure was sensitive to dietary sodium intake in obese adolescents. Details of the study and tables of results are included.

**0073**
Elementary school principals’ perceptions of childhood obesity.

Abstract. A random survey of 277 elementary school principals assessed their perceptions of childhood obesity and the school’s role in dealing with this. The results indicated that half of the principals believed normal weight children could not change, 35% thought schools were not doing enough to combat childhood obesity, a number felt that the school should not be involved. Nonetheless, they favored providing low-calorie lunches, eliminating junk food machines, and the role of school nurses in treating childhood obesity. Survey results are statistically summarized.

**0074**
Emotions and obesity among Mexican-American children.

Abstract. A postnatal study assessed possible relationships between high body fat levels and emotional motivations for eating in 17 Mexican-American children, ages 10-14. The results indicated that high body fat correlated with emotional motivation of stimulation in the male children, and that high body fat correlated with handling and craving motivators in the female children. The statistical summaries of the survey data are presented and discussed. (wz)

**0075**
Energy and macronutrient intake of New Zealand adolescents.

Abstract. During the months of April and May (autumn season in the Southern hemisphere) 1985, a 24-hour dietary recall was collected from 255 female and 246 male third form students (12-14 years old) from secondary schools of an urban region in the South Island of New Zealand. Energy and macronutrient intake information was derived from this recall data. The median intake of energy for girls was 7.5 MJ and boys 10.1 MJ. Although these intakes were only 83% and 92% of the daily recommended energy levels for girls and boys respectively, the anthropometric measurements taken did not indicate that they were underweight. Their protein intake was more than adequate: the median intake value was 55g for girls and 74g for boys. Sixty-five percent of protein source was of animal origin and this also largely accounted for the high intake of fat (79g for girls and 104g for boys) and in particular saturated fat (37g for girls and 49g for boys). Intake of complex carbohydrates and dietary fibre (17g for girls and 23g for boys) was low but sucrose intake (50g for girls and 66g for boys) was relatively high. Sucrose was derived mainly from common white cane sugar and manufactured foods. The cholesterol intake was moderately high with about 25% of girls and 40% of boys having an intake greater than 300mg per day. The main dietary sources of cholesterol came from the meat group as well as milk and dairy products, but not eggs.

**0076**
Energy expenditure and intake in infants born to lean and overweight mothers.

Abstract. A postnatal study assessed the contributions of low energy expenditure (EE) and high energy intake to excessive
weight gain in infants born to 6 lean and 12 overweight mothers. No significant difference in weight, length, skinfold-thickness, metabolic rate at 0.1 and 3 months after birth, and metabolizable energy intake at 3 months after birth in infants who became overweight and metabolizable energy intake at 3 months after birth in infants who did not, but total EE 3 months after birth was 20% lower in those who became overweight. The results indicated that reduced EE influenced excessive weight gain in infants from overweight mothers.

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Energy expenditure of young men from obese and non-obese families.


Abstract: This study reassesses a previous study of energy expenditure of obese and non-obese parents. Metabolic rates were observed during sleep, at rest, in response to food and during a variety of exercises for the whole body calorimetric effects. Conclusions were that consistent demonstration of metabolic abnormalities in individuals who are normally considered prone to obesity is difficult. Only some of this adult group confirmed the observation of low energy requirements in children from obese families.

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Energy intake in children at high and low risk of obesity.


Abstract: A study of energy intakes of 37 young children at low or high risk of subsequently developing obesity (degree of risk judged from parental body weight status) found higher intakes for the high-risk group. The results supported those of an earlier study, suggesting that, since basal metabolism and body weight are correlated, studies of child obesity risks be directed at studies of differences in energy expenditure.

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Energy need for weight maintenance in human beings: effect of body size and composition.


Abstract: We estimated energy requirement by determining the amount of food needed to maintain body weight in a controlled environment. In a study of 28 adolescents and adults of widely varying weight and body fat content, we found that the energy required for weight maintenance was directly proportional to body weight (r = 0.92). The increased energy requirement of the obese is due in part to their larger lean weight and in part to their greater fraction of body fat. Together these account for 87% of the variance. For these subjects, who were engaged in light physical activity, the ratio of total energy to basal metabolic rate was 1.52 +/- 0.16.

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An epidemiologic study of maladaptive eating attitudes in a Canadian school age population.


Abstract: Although cases of anorexia nervosa and bulimia are being seen increasingly by health care professionals, little data is available on the prevalence of these disorders in the general population of school age children. Using a validated eating attitude test (EAT), a total of 5150 students, aged 12-20, from public schools and one university in the Province of Manitoba were surveyed. Overall, 5 per cent of males and 22 per cent of females scored 30 or above on the scale. Significant concerns and attitudes regarding eating. These concerns were somewhat higher in urban versus rural settings and seemed to increase between the ages of 12 and 15 and remain high thereafter. Many of the students who scored high on the EAT were overweight. suggesting that these attitudes or concerns are not specific to anorexia nervosa and/or bulimia.* (Author)

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Epidemiological studies on cardiovascular risk factors during childhood: total and HDL cholesterol in relation to diet.


Abstract: A brief summary is presented on the results of 2 recent international epidemiological studies that were directed toward finding answers to questions posed by the World Health Organization in 1977 concerning relationships between dietary and circulating levels of cholesterol and risk factors for cardiovascular disease in children. The first study was designed to obtain data on serum total and high-density-lipoprotein (HDL) cholesterol levels in 7-8 year-old boys from 16 countries with different
The evolution of serum lipoproteins in infancy is associated with relatively high serum total and HDL cholesterol levels in boys from Finland, the Netherlands, Italy, the Philippines and Ghana. The results show that serum triglyceride, free and esterified cholesterol, phospholipid) differ markedly from adult lipoproteins.


Abstract: The significance of sodium-potassium ATPase activity in children of varied ages, body weight, and ethnic origin. In addition, the enzyme's activity showed no relationship to the diabetic state of the mother. It was concluded that erythrocyte sodium-potassium ATPase activity in children of varied ages is primarily regulated by genetic factors which are generally independent of body weight.


Abstract: A 11-year longitudinal study (1972 and 1983) examined overweight prevalence in a cohort of 6-17 year-old Mexican-American children. The results indicate that body mass index (BMI) and triceps skinfold (TSF) measurements may vary in sensitivity as predictors of overweight and obesity. Children classified as obese by BMI had larger estimated midarm muscle circumferences than those classified as obese by TSF alone or by both TSF and BMI.

The evolution of serum lipoproteins in infancy is summarized and discussed. The results demonstrate that the concentration of these lipoproteins and the proportions of their components (protein, triglyceride, free and esterified cholesterol, phospholipid) differ markedly from adult lipoproteins. The possible influence of feeding on these differences is discussed.
External responsiveness to food and non-food cues among obese and non-obese children.


Abstract & study assessed the hypothesis that obese (relative to non-obese) children were less able to delay an immediate small gratification for a larger, delayed reward when exposed to food items (but not non-food items). The ability of preschool children to delay gratification was significantly lower than that of school children. Obese preschool and school children had lower gratification delay scores for food items (e.g., candy, cupcakes) than non-obese ones. Delay scores for non-food items (e.g., toys, balloons, comic books) were similar for obese and non-obese children. Hence, the findings of this study support the hypothesis (w).

Factors related to obesity in preschool children.


The purpose of this research was to examine the following variables for their relationship to the prevalence of preschool obesity: familial aggregation of obesity, infant feeding practices, socioeconomic status, and parents' attitudes toward the use of food for non-nutritive purposes. Parents completed a biographical data form. Height, weight, and skinfold measurements were obtained from 94 preschool children and their biological parents. Both parents answered a Child Feeding Opinion Questionnaire. Anthropometric measurements were evaluated using percentile rankings from NHANES. On the assumption that subjects over the 75th percentile for triceps skinfold were overweight and those above the 90th percentile were obese, 23.4 per cent and 7.5 per cent of the children, 9.6 per cent and 5.3 per cent of the mothers, and 29.8 per cent and 10.6 per cent of the fathers were overweight or obese, respectively. Most parent-child anthropometric correlations were statistically significant. No statistically significant relationships were found between infant feeding practices and childhood obesity. Mothers' occupational level varied inversely with the children's weight for height. Mothers and fathers opposed the use of food for reward, punishment, soothing, or affection. The parents' child feeding attitudes had no obvious relationship with the children's anthropometric measurements. (Author)

Family-based behavioral weight control in obese young children.


Extract: The effects of a behavioral weight control program for children aged 1 to 6 were documented. Significant weight change associated with no decrease in child height percentile was observed. Nutrient analysis showed significant decreases in caloric and fat intake. Significant decreases in percent RDA were observed only for iron. Increases in nutrient density were observed for all nutrients except fat. (Author)

Fat-free mass in children and young adults predicted from bioelectric impedance and anthropometric variables.


Abstract Fat-free mass (FFM) values calculated from densitometry by using a multicomponent model were significantly (p less than 0.05) larger than those from the Siri two-component model (465 males, 441 females) especially in children and females. The multicomponent model assumes the density of FFM 'varies by age and sex because of differences in its constituents. With FFM values from the multicomponent model as the dependent variable and impedance and anthropometry as the independent variables, prediction equations were derived by all possible subsets of regression (140 males, 110 females). These equations had RMSEs of 2.2-2.3 kg and CVs of 5.0-5.8%. Cross-validation results were excellent for young adults but less satisfactory for children for whom a different calf skinfold had been measured. The selected equations are applicable to healthy white individuals aged 7-25 y.

Fat in the diets of adolescent girls with emphasis on isomeric fatty acids.


Abstract: To determine the amount of isomeric fatty acids in the diets of a segment of the American population, daily food intake was collected, using the duplicate portion method, from eight healthy white adolescent girls for 7 days. The fifty-six diets were analyzed for fatty acids by gas-liquid
chromatography. The amount of trans isomers of octadecenoic acid (18: 1) in the diets of the eight girls ranged from 3.5 to 8.2 per cent of total fatty acids with an average of 5.3 per cent. Other trans fatty acids included trans-18:2 of 4.1 and 6.1, and cis trans and trans cis of 4.0 and 5.0. No measurable amounts of trans octadecadienoic acid (18: 2t) were found in the diets of the girls. The total trans fatty acid content of the diets averaged 6.5 per cent of total fatty acids. The daily consumption of total trans fatty acids by the eight girls over a 4 week period averaged 3.7 g, with 2.6 g of this being 18:1.

009

Abstract: A brief review highlights the importance of dietary fat intake for infants with respiratory distress syndrome (RDS) noting that uncooked RDS infants require intravenous therapy with a fat emulsion to correct low linoleic acid status. It also is noted that such therapy should include carnitine to ensure the absence of a carnitine deficiency. It is argued that this therapy is appropriate for low birth weight infants as well as those with RDS.

0092

Fatness and obesity among the parents of lean probands.


Abstract: As shown in 1419 pairings of obese probands with their parents drawn from a larger series of greater than 9000 proband-parent pairings, the fathers and mothers of obese probands are of increased fatness level (+0.27 Z scores) and more often obese than expected (odds ratio 1.50 overall). However, the tendency towards increased fatness and a greater prevalence of obesity among the parents of obese probands bears a curvilinear relationship to the age of the proband, being least when the probands are young, peaking when the sons and daughters are teen-agers, and declining thereafter. Parents of lean probands in turn tend to be lean themselves (averaging -0.25 Z scores) and least often obese when their progeny are teen-aged. As shown in a two-generation context, early-onset obesity is best demonstrated in adolescents and their parents, either reflecting years spent in common or a specific etiology for adolescent-onset obesity.

0093

Fatness and obesity of the parents of obese individuals.


Abstract: As shown in 1419 pairings of obese probands with their parents drawn from a larger series of greater than 9000 proband-parent pairings, the fathers and mothers of obese probands are of increased fatness level (+0.27 Z scores) and more often obese than expected (odds ratio 1.50 overall). However, the tendency towards increased fatness and a greater prevalence of obesity among the parents of obese probands bears a curvilinear relationship to the age of the proband, being least when the probands are young, peaking when the sons and daughters are teen-agers, and declining thereafter. Parents of lean probands in turn tend to be lean themselves (averaging -0.25 Z scores) and least often obese when their progeny are teen-aged. As shown in a two-generation context, early-onset obesity is best demonstrated in adolescents and their parents, either reflecting years spent in common or a specific etiology for adolescent-onset obesity.

0094

Fatty acid composition of serum cholesterol esters in 3- to 18-year-old Finnish children and its relation to diet.


Extract: The composition of fatty acids in serum cholesterol esters (CE) was analyzed by gas chromatography in 1348 boys and girls aged from 3 to 18 yr. A dietary survey was carried out simultaneously using the 48-h recall method. The dietary P/S ratio had highly significant correlations with CE fatty acids: positive with linoleate and total omega 6 fatty acids and negative with saturated, monounsaturated, and omega 3 polyunsaturated fatty acids. The highest mean percentage of CE-linoleate was found in 15-yr-old girls and lowest in 3-yr-old girls. Age, sex, and the degree of puberty had no independent effect on CE-linoleate after it had been adjusted for the effect of dietary P/S ratio by analysis of covariance. These results indicate that the fatty acid composition of serum CE depends on the quality of dietary fat and that CE-linoleate is a useful reflector of the dietary P/S ratio. The negative correlation between CE omega 3 fatty acids and dietary P/S ratio may be due to displacement of the...
omega 3 acids in serum CE by the much higher proportion of dietary linoleate.

0095 Fear of obesity among adolescent girls. PEDIA Moses, N.; Hamill, M.M.-Lifshitz, W.N.; Elk Grove Village, Ill. American Academy of Pediatrics. Pediatrics Mar 1989 v 82 (3) c 393-398. Includes 43 references (NAL Call No. DNAL FNC R1.P42) Abstract The perceptions concerning weight, dieting practices, and nutrition of 3127 adolescent girls attending an upper middle-class parochial high school were studied in relation to their body weight. Underweight or overweight students were those with greater than 10% body weight differential from height. The high school students reported an exaggerated concern with obesity regardless of their body weight or nutrition knowledge. Underweight, normal weight, and overweight girls were dieting to lose weight and report frequent self-weighing practices. As many as 5% (n = 60) of the underweight adolescents described themselves as extremely fearful of being overweight and 36% (n = 43) were preoccupied with body fat. Distorted perception of ideal body weight was documented, particularly among the underweight students: the greater the underestimation of perceived ideal body weight, the greater the actual deficit in ideal body weight of the students (r = .73, P less than 0.001). Normal weight and overweight girls had better concordance between their actual and perceived ideal body weight. The frequency of bingeing and vomiting behaviors was similar among the three weight categories. The data suggest that fear of obesity, and inappropriate eating behaviors are pervasive among adolescent girls regardless of body weight or nutrition knowledge.

0096 Food intakes of children, the DHSS, and the prevention of heart disease. NUHEE Crawford, M.A.; Doyle, W.; Drury, R.J.; Meadows, N. Berkhamstead A.B. Academic Publishers. Nutrition and health. 1987, v 5 (1/2), p. 65-77. charts. Includes 21 references. (NAL Call No. DNAL RC620.A1N84) Abstract A reanalysis was conducted on data developed in a British Department of Health and Social Security (DHSS) survey of the food intakes of school children to assess the effect of such intakes on heart disease prevention. The reanalyzed data are presented according to the consumption patterns of energy, nutrients, cholesterol, junk food, fat quality, lean meats, unsaturated and saturated fatty acids, and dietary changes. It was concluded that the children's diets were unsatisfactory for preventing cardiovascular disease in later life.

0097 Food patterns in youth and their effect on later life. Boulton, T.U.C.; -Nichols, J.; Magarey, A. London Libbey. 1987. Food and health issues and directions / edited by Mark L. Wanliss; v. 5-11. charts. Includes 33 references (NAL Call No. DNAL R2784.F6) Abstract Data are summarized and discussed concerning food and energy intakes of Australian boys and girls and the intakes of micronutrients at different meals, relative to their effect on subsequent heart disease risks in later life. The data indicate that children in Australia have lower total fat intakes and a lower polyunsaturated/saturated fatty acid ratio than children in Finland, a country having one of the highest rates of ischemic heart disease. Mean daily nutrient intake patterns also are discussed.

0098 Foods, fads, and fats in under fives. NUHEE Taitt, L.S. Berkhamstead A B Academic Publishers Nutrition and health. 1986, v 4/3, p. 203 (3/4). p. 213-209 charts. Includes 26 references. (NAL Call No. DNAL RC620.A1N84) Abstract The relationship between diet and atherosclerosis of children, 5 years old or younger, is reviewed. Childhood atherosclerosis is discussed as follows: cardiovascular risk factors such as blood lipid levels, high blood pressure and glucose tolerance; and screening and dietary intervention. Finding: of the Bogalusa heart study which associates obesity and low density lipoprotein cholesterol to cardiovascular disease, are compared with the Committee on Medical Aspects of Food Policy's report on diet and cardiovascular disease.

0099 Frontiers in clinical nutrition / edited by Norman Kretchmer. , Kretchmer, Norman.: 1923-. Rockville, Md Aspen Systems Corp. 1986. c1985. x11. 258 p. ; 11. ; 24 cm. Includes bibliographies and index. (NAL Call No. DNAL RM217.F76) Abstract: A reference text for clinical nutritionists and health professionals focuses on various clinical nutrition aspects as related to mothers and their children. The 14 papers comprising the text were presented by experts in their respective fields of investigation at a recent conference and are grouped among 3 principal themes: (1) clinical nutrition during pregnancy and lactation (including maternal nutrition, pregnancy-induced hypertension, and diabetes); (2) clinical nutrition concerning the fetus and the infant (including perinatal nutrition and premature birth, growth-retarded and high-growth infants, inborn metabolic errors, diarrhea and malnutrition in children, and hypocalcemia and rickets in newborns); and (3) clinical nutrition in children and adolescents (including adolescent obesity, anorexia, and bulimia; and nutritional requirements for growth and development).
for iron) - illustrations and data are presented throughout the text and literature citations follow each of the text chapters.

0100

Genetic-environmental considerations

Abstract: Interactions of genetic and environmental factors upon growth in infancy and are assessed in terms of their significance in infant development and related problems. Specific attention is given to anthropometric indices of early maturity (e.g., head circumference, bone and muscle growth, body fat pattern). Maternal genetic factors appear to be more important than paternal genetic factors, contributing to about 25% of the variance in fetal growth. Differences in female and male growth patterns and demography are discussed.

0101

Genetic-environmental considerations

Abstract: Aspects of the interaction of genetic and environmental factors upon growth in infancy and an assessment of their significance in infant development and related problems are reviewed. Specific attention is given to anthropometric indices of early maturity (head circumference, body weight, bone growth) and other measures of growth and maturity (e.g., head circumference, bone and muscle growth, body fat pattern). Maternal genetic factors appear to be more important than paternal genetic factors, contributing to about 25% of the variance in fetal growth. Differences in female and male growth patterns and demography are discussed.

0102

Good nutrition for your growing child.

Abstract: While the adults of America seem to be shaping up in terms of nutrition/health practices, many experts feel that this lifestyle improvement has not yet hit the general ranks of younger Americans. In efforts to change this trend, research institutions and medical organizations are turning their attention to the special dietary needs of children, with an emphasis on prevention of such diseases as obesity, coronary heart disease, cancer and osteoporosis. Although disagreement exists on how to best accomplish this, there is agreement that children have an increased need for all nutrients and calories, particularly iron, calcium, folic acid, vitamin B12 and copper.

0103

Growth and adiposity of term infants fed whey-predominant or casein-predominant formulas or human milk.

Abstract: Growth, estimated composition of weight gained, and stool patterns of term infants who were fed either a whey-predominant formula or casein-predominant formula in a random design and of breast-fed infants were compared. All infants (N=111) were healthy, singleton products of uncomplicated pregnancies. Birth weights and other anthropometric measurements in the first few days of life were not different among the three feeding groups. Formula or breast milk was the infants' principal source of energy from birth to age 16 weeks. Average energy intakes of formula-fed infants and change of intakes with age were similar in both groups at all ages. Feeding groups were not significantly different at any age in weight, length, weight or length gain, head circumference, skinfold measurements, upper arm fat area and muscle area, or estimated total body fat. Stools of infants on the whey-predominant formula differed from both the breast-fed and casein-predominant formula groups.

0104

Habitual daily energy expenditure and activity levels of lean and adult-onset obese women.

Extract: The energy expenditure (EE) of eight lean, eight adult-onset obese (A00), and eight child-onset obese (C00) women was determined over three 24-h periods by the factorial method, modified by subject-keypunched and mechanically recorded activity diaries. Mean daily EE was significantly higher in the pooled obese women (2472 +/- 488 kcal) than in lean women (1979 +/- 302 kcal) due to higher energy costs of sedentary and light activity in the obese. EE during moderate-to-strenuous activity was similar between groups because lean women performed these activities more vigorously. A00 and C00 differed significantly in neither mean EE nor habitual activity. Fat-free mass
energy cost of activity. These data indicate that EE is positively related to obesity. Obese women tend to limit possible EE by reducing the vigorousness of weight-supported activity. (Author)


Abstract: The second part of a 2-part review of health screening in schools discusses the necessity, treatment, and recommendations of 4 health-related themes (scoliosis, dental problems, growth and nutrition, and hypertension), and describes program decisions that are needed at the community level. It is argued that, once a screening program is adopted, it needs to be efficiently administered and regularly evaluated, and that all school districts, regardless of the current level of health services, should form a school health committee to study the health needs of the students and the available local health sources. (wz)


Abstract: Studies show that 4.5 million teenagers are overweight, and most of these are female. The primary factor in adolescent obesity is lack of exercise. Poor eating habits also contribute to overweight in this population group. More teenagers are home alone today than 10 years ago, and snacking has become a major contributor to adolescent diets. Parents play an important role in helping their overweight children change habits and lose the extra weight. Parents must be understanding and reassuring rather than ridiculing and reprimanding. Because of the wide range of physical and emotional changes occurring in the teenager, weight loss can be a challenge to both the adolescent and the parent. (isp)


Abstract: Obesity among juveniles is difficult to explain and treat yet easy to describe. This article points out that obesity is a major contributor to adolescent diets. Parents play an important role in helping their overweight children change habits and lose weight. Parents must be understanding and reassuring rather than ridiculing and reprimanding. Because of the wide range of physical and emotional changes occurring in the teenager, weight loss can be a challenge to both the adolescent and the parent. (isp)


Extract: Data on the levels of high-density lipoprotein-cholesterol (HDL-C) and subfractions in 102 adolescent twin pairs and their parents are presented. Children with a family history of premature cardiovascular death had lower levels of HDL2-C than those without such a history. White
girls reporting a high level of physical activity had higher levels of HDL-C and HDL2-C than did their more sedentary peers. In general, children of mothers who smoked had lower HDL2-C than did children of non-smoking mothers. These findings suggest that low levels of HDL2-C in children may identify families in which there is a increased risk of coronary heart disease and that parental smoking may contribute to changes in this risk factor in the children of smokers as well as in the smokers themselves. (author)

0110


Abstract: A genetic and anthropometric study tested the presence of associations between the alleles or the genotypes at the A, B, and C loci of the HLA system and percent body fat, subcutaneous fat, and fat distribution in 1578 volunteers 705 adults (mean age, 43.2) and 873 children and adolescents (mean age, 14.6) of both sexes who lacked metabolic disorders and who were not grossly obese. The results did not support earlier reports of an association between high fat content and antigens B18, Bw35, or Cw4. No consistent pattern of association was present between alleles or genotypes of the HLA system and percent body fat, subcutaneous fat, or fat distribution. (wz)

0111


Abstract: School children, ages 5-11, were given cholesterol screening tests as part of a school health program. Students identified as being at risk were eligible for a cholesterol reduction intervention workshop.

0112


Abstract: Based on data developed during a 12-year study of 8000 children to identify cardiovascular (CV) risk factors (Bogalusa, Louisiana Heart Study), a comprehensive, research-based CV school health promotion program, "Heart Smart," was developed. This report describes the development, implementation, and evaluation of this program versus a "high-risk" approach in 4 elementary schools. The program's objectives, and goals of the program are specified, together with a description of its theoretical framework, design, evaluation methods, and intervention strategies.

0113


Abstract: An overview of adolescent obesity addresses its incidence, natural history, its effect on adult morbidity, and its causes, diagnosis, treatment, and prevention. While adolescent obesity is the most prevalent morbid nutritional disease in the US, therapeutic effects have produced a low rate of short-term remission. It is argued that epidemiologic and clinical data indicate that family interactions appear to be the best vehicle for prevention and that television viewing may be the most logical behavior to select for adolescent behavior modification. The results of various weight reduction regimens for adolescents also are discussed. (wz)

0114


Abstract: A case study is presented of a 2-year-old boy with inherited mevalonic aciduria (mevalonic kinase deficiency). Complicated with an interruption of isoprene compound biosynthesis, including hypocholesterolemia. After diagnosis, treatment, and hospital discharge on palliative therapy, the subject was rehospitalized with diarrhea, dehydration, hypotension, and hypokalemia several weeks later, and died from infection and his metabolic disorder. It is suggested that such patients be fed the unavailable, essential isoprene biosynthesis products. (wz)

0115


Abstract: To characterize the
abnormalities of glucose homeostasis and insulin action early in the course of human obesity, we studied in vivo glucose kinetics in seven children who were recently massively overweight. At time of study these were gaining weight at a rate of 5.5 +/- 1.4 kg/yr. They were compared with six age-matched control subjects. Six adults with long-term obesity and five normal adults were studied in parallel. The obese children and adults were nonobese and insulinemic. Recently obese children are already established insulin resistance, underlying processes for increased IHD mortality in 1968-78 and infant mortality in 1961-65 and adult mortality from IHD and other leading causes between 1968-78. When the division of the country into 212 local authority areas was considered, a strong geographical association was found between IHD mortality in 1968-78 and infant mortality in 1968-78 (bronchitis, rheumatic heart disease, stomach cancer) were related as well to infant mortality in 1921-25. It is argued that the results indicate that poor nutrition in early life increases subsequent health risks in adult life. (wz)
cause a high-risk distribution of subcutaneous fat. (wz)

0120
Insulin and blood pressure during weight loss in obese adolescents.
Abstract: A 20-week weight loss study of 50 obese adolescents assessed whether a relationship exists between fasting serum insulin and blood pressure in obese adolescents, and what effect weight loss might have on such a relationship. Weight loss was correlated with significant declines in insulin and blood pressure, with the decrease in blood pressure significantly correlating with changes in insulin and body weight. However, the effect that weight loss had on blood pressure was corrected for blood pressure and insulin remained correlated only for those subjects involved in both diet and exercise, suggesting that exercise was critical in determining the role of insulin in blood pressure regulation during weight loss. (wz)

0121
Interrelationships of glucose and protein metabolism in obese adolescents during short-term hypocaloric dietary therapy.
Abstract: We studied the interrelationship of nitrogen balance (N-bal) and rates of glucose appearance (Ra) determined isotopeically using U-13C-glucose, in 14 obese adolescents consuming either (7 g protein and 1.0 glucose)/kg ideal body weight/day or a isonitrogenous diet made isocaloric with fat. Nitrogen balance was significantly more positive with added glucose. Changes in plasma insulin, free fatty acids, or beta-hydroxybutyrate did not reliably predict N-bal. The Ra of glucose decreased significantly on both diets, but was significantly lower after the addition of fat. A significant correlation of N-bal with Ra was observed only in the absence of dietary glucose. Insulin levels correlated with N-bal only in the presence of dietary glucose. Nitrogen balance in the absence of dietary carbohydrate may be a consequence of net peripheral protein catabolism that is not directly mediated by the need for gluconeogenic precursors. (author)

0122
Is there a transient, obesity-related hypertension of adolescence?
Abstract: A technical commentary raises the question of appropriateness for diagnosing overweight children with diastolic blood pressure above the 95th percentile as having hypertension. Noting literature reports recommending that such children be considered as having an obesity-related elevated blood pressure, it is argued that, while it has been recommended that caution be exercised in labeling children as hypertensive because of psychosocial and economic implications and the term "high normal blood pressure" be used, it is not clear whether this approach will avoid the development of symptoms that appear in association with being labeled "hypertensive." It is concluded that the difficulty in the appropriate choice of terminology and of treatment requires further definition and evaluation. (wz)

0123
Is there an excess of saturated fat in infant formula?.
Abstract: A "letter to the editor" from 5 medical doctors at the UCLA School of Medicine raises the concern that recent increases in the saturated fat content of commercial infant formulas may present an increased cardiovascular (CV) disease risk to infants in later life because high saturated fat intakes in later years have been associated with increased CV risk and because the American Heart Association has cautioned that CV disease has its beginnings in childhood. The authors also cite expert opinion that saturated fat intake should not be reduced for infants to less than 10% of total calories, as recommended for older children and adults, since infants usually have very low cholesterol levels. It also is noted that infant formula producers claim that infant formula producers claim that the increased saturated fat levels (from 20% up to 55-80%) in the "improved" formulas more closely represent the saturated fat content of breast milk. (wz)

0124
Issues in childhood nutrition.
Abstract: This review provides coverage of the advances in pediatric nutrition for the dietetic practitioner. Issues on childhood nutrition: recommended dietary allowances: obesity in childhood and adolescence: etiology of obesity: obesity and therapeutic interventions: implications for diet: childhood origin of atherosclerosis: cardiovascular risk factors (blood pressure, hypercholesterolemia):
carbohydrates: osteoporosis prevention, and implications for dietary practice are discussed. A pretest, posttest with their answers, and references are included. (rah)

0125
Kids & diet.
Abstract: Discussing the controversies surrounding children's diets and heart disease, this article presents differing views of such organizations as the American Heart Association and American Academy of Pediatrics. The former recommends a lower fat diet for the young child, while the latter feels there is no clear evidence that fatty streaks found in the arteries of this age group progress to atherosclerosis. A point of debate appears to be at what age cholesterol levels of 200 or more becoming damaging to arteries. Other discussions center around diet and anemia and breast cancer. It is concluded that all will benefit from developing good eating habits at a young age, and that the schools can be instrumental in helping to achieve this. (jdb)

0126
Lipid and lipoprotein levels of Newfoundland school children.
Extract: Serum Concentrations of total cholesterol, HDL, LDL, and VLDL cholesterol were measured in 1,033 boys and girls age 8-10 years and 14-16 years who were living in two geographically distinct areas on the East and West coast of Newfoundland. The respondents enrolled to this study were school children attending four schools selected at random from all schools in the area. Ninety percent of the invited students participated in the study. The Newfoundland children had higher total cholesterol levels than those reported for children matched for age, sex and race living in the United States. However, their LDL cholesterol levels were found to be similar to those observed in US samples. It was concluded, therefore, that the higher total cholesterol levels of the Newfoundland children were due to their higher HDL cholesterol levels. (author)

0127
Lipids, lipoproteins and alpha-tocopherol: Relationship and changes during adolescence.
Extract: From May 1976 until June 1982 a longitudinal study in 54 apparently healthy Austrian schoolchildren with a mean age of 11.2 years at their first visit was performed. The aim of this study was to determine if there are any age-related changes in serum lipids, lipoproteins and alpha-tocopherol concentrations during adolescence and whether a permanent relationship between lipoproteins and alpha-tocopherol can be observed. Total cholesterol showed a significant decrease from age 11 to 14 years in boys as well as in girls; thereafter, a slight increase could be shown. Similar changes could be observed for LDL cholesterol. No significant sex differences were found either in total or in LDL cholesterol, whereas in HDL cholesterol concentrations, a decrease in boys between 12 and 14 years and an increase in girls from 13 years onwards led to significantly lower values in boys than in girls from the age of 16 years onwards. No consistent changes could be shown for alpha-tocopherol blood levels. Nevertheless, a close relationship between total cholesterol and alpha-tocopherol could be observed during all our investigations and, to a lesser degree, between LDL cholesterol and alpha-tocopherol. Significant correlations between alpha-tocopherol and HDL cholesterol and between alpha-tocopherol and triglycerides occurred only occasionally. (author)

0128
Lipoproteins in the progeny of young men with coronary artery disease: children with increased risk.
Extract: The authors studied 173 progeny from 63 families in which the father had angiographically diagnosed coronary artery disease by 50 years of age. To assess the nature of the coronary risk factors in these families, we measured their height and weight to calculate Quetelet index (wt/ht2), BP, fasting plasma cholesterol, triglyceride, low-density lipoprotein cholesterol, and high-density lipoprotein cholesterol were measured in the affected fathers, their wives, and their progeny. These values were compared with age- and sex-specific values from the Lipid Research Clinic data. Sixty-five percent of the affected fathers and 54% of the progeny had elevated triglycerides, elevated low-density lipoprotein cholesterol, diminished high-density lipoprotein cholesterol, or combinations thereof. The distribution of the lipids and lipoproteins in the children bore a close resemblance to those observed in the affected fathers. A significant number of the mothers had diminished high-density lipoprotein cholesterol, which was attributed to their obesity. Screening the progeny of young coronary
artery disease patients is therefore highly productive in identifying young people at excessive risk for future coronary artery disease. Early identification of this young high-risk population offers an opportunity for early initiation of preventive measures.(author)

0129
A long-term aerobic exercise program decreases the obesity index and increases the high density lipoprotein cholesterol concentration in obese children.
Abstract A 2-year study of the effect of aerobic exercise on body weight and serum lipids in 41 obese children (20 girls, 21 boys, initial age, 11) revealed a significant decline in obesity index and a significant increase in high-density-1ipoprotein cholesterol in both sexes. Total serum cholesterol, however, was unchanged. The overall health benefits of the exercise program are discussed (wz)

0130
Magnesium and other nutrient deficiencies as possible causes of hypertension and low birthweight
Abstract 7.2 percent of babies born in England and Wales in 1986 had birthweights below 2,500 g. Low birthweight and hypertension are associated. European trials have reported that oral supplementation with physiological amounts of magnesium during pregnancy reduces pregnancy hypertension and also miscarriage, preterm birth and fetal growth retardation. Magnesium deficiency causes hypertension and low birthweight in animals. In humans deficiency of thiamin and other B vitamins has also been reported to cause pregnancy hypertension and low birthweight. Magnesium and B vitamins are essential for the same biochemical reactions in energy metabolism. There is evidence that magnesium consumption of substantial numbers of women in Europe and North America is too low to support a healthy pregnancy. Magnesium and thiamin are lost in processing many foods. British trials of magnesium supplementation are advocated. It is suggested that more attention should be given to magnesium in nutritional advice.

0131
Maternal variables related to potentially high-sodium infant-feeding practices.
Extract Infant-feeding practices potentially associated with high-sodium intake were assessed for 87 white and 66 black mothers and were analyzed for associations with epidemiological correlates of hypertension. Race and education affected breast-feeding incidence. Education affected breast-feeding duration. Introduction of solid foods, salting of infant food, and use of salty snack foods. Salting of infant food was also associated with maternal salt use and with positive family hypertension history; black mothers more often fed salty snacks (author)

0132
Metabolic evaluation of obese and nonobese siblings.
Abstract Objective To test the hypotheses that obese adolescents have a lower resting metabolic rate and less aerobic endurance than their nonobese siblings. Design Case-referent study of obese and nonobese siblings from the same kindred. Setting Tertiary referral center Participants. Telephone screening of community volunteers resulted in a consecutive sample of 16 kindreds. Obese and nonobese siblings were similar in age, height, and pubertal status. Significantly more female subjects were in the obese group (p less than 0.01). Measurements and main results Body composition studies revealed that the obese siblings had higher body fat (p less than 0.01) but that fat-free mass was similar to that of the lean siblings. Resting metabolic rates determined by indirect calorimetry for the obese and nonobese pairs did not differ. Although the obese siblings appeared less fit when maximal oxygen consumption was measured in relation to total weight, maximal oxygen consumption did not differ when values were standardized for fat-free mass. Conclusions The obese adolescents did not have a reduced resting metabolic rate. As in adults, the relationship between resting metabolic rate and fat-free mass was similar for obese and nonobese children and adolescents. Any decreased sport participation by the obese siblings was not due to inherent reductions in aerobic capacity.

0133
Modification of risk factors for coronary heart disease.
Abstract: A 5-year study of 3388 school children in 37 New York City schools assessed the effectiveness of an educational intervention program aimed at reducing coronary heart disease risk factors. Significant decreases in plasma total cholesterol and favorable dietary and health knowledge trends were obtained. However, not all targeted risk factors were altered. (wz)

O134

Modifying the eating behavior of young children.
Perry, C.L.; Mullis, R.W.-Maile, M.C.
Kent, Ohio American School Health Association Journal of school health. Dec 1985. v. 55 (10) p. 399-402. illi., charts. Includes 17 references. (NAL Call No.: DNAL LB3401.06)

Abstract: A pilot study carried out in eight 3rd-grade and 4th-grade classrooms assessed the effectiveness of a nutrition education curriculum stressing the importance of a low-salt, low-fat, increased-complex-carbohydrate diet for promoting cardiovascular health. The results indicated that the students had altered their diets to produce a marked decrease in their intake of fat and salt and a concomitant increase in their intake of complex carbohydrates, relative to a control group involving 18 additional 3rd-grade and 4th-grade classrooms. The characteristics of this curriculum, based on social learning theory, are described. (wz)

O135

AJCNA Nicklas, T.A.; Weber, L.S.; Thompson, E.; Berenson, G.S.

Abstract: Eating patterns were studied in 1276 adolescents and young adults (aged 12-24 y). Factor analysis of 64 foods consumed weekly revealed 17 eating-pattern factors, accounting for 57% of the item variance. Factor I (12 food items from either the seafood or meat group) accounted for 8% of the variance, factor II (snacks), 5%, and factors III (fats and pastas) and IV (beer and chicken), 4% each. Remaining factors accounted for from 1.5% to 3.5%. The factors were effective in discriminating eating patterns across race and gender. Significant age effects were also noted for 10 of the 17 factors. Eating patterns for persons in the upper or lower quartiles differed consistently for specific cardiovascular (CV) risk factors. Use of this statistical model to identify differences in eating patterns by race, gender, and CV risk factors during maturation can assist health professionals in targeting food sources for changing eating behavior.

O136

The natural history of serum lipids and lipoproteins during childhood.

Abstract: A clinical review provides a brief description of and data on changes in serum cholesterol (C), triglycerides (TG), and lipoprotein (LP) and apo-LP levels occurring with age during the first week of life, and a notable decline in total C, TG, LDL, and high-density-LP-cholesterol (HDL) during adolescence. The data also reveal a considerable degree of tracking (probably from infancy) of serum C, LDL, HDL, and apo-LP levels with age during childhood. (wz)

O137

The news about overweight teens.

Abstract: According to studies, obesity in adolescents has increased substantially over the last 20 years. Many of these terms will become obese adults, predisposing them to a number of health problems. Inheritance exercise, psychological influences, and dietary habits are discussed as influencing factors in weight gain. Suggestions for proper diet and weight control are included.

O138

No correlation between adiposity and food intake: why are working class children fatter?

Extract: Many studies have failed to show a correlation between individual energy intake and obesity. However, the prevalence of overweight is higher in populations with higher caloric intake. In this study on a population of French children, no correlation was found between energy intake and individual corpulence (wt/ht2 index or skinfold thickness), but a higher proportion of overweight children was found in lower social classes where energy intake is traditionally higher. A hypothesis is
Proposed to account for this apparent contradiction the typical lifestyle or diet in a given population challenges individual adaptive capacities. The more caloric the socially accepted diet, the higher the proportion of individuals who are challenged beyond their adaptive threshold. Socially determined factors such as a high calorie diet act in a permissive way in the development of obesity. Thus, no matter what the calorie intake of obese individuals may be different from that of nonobese peers (author).

O139
Nutrition and obesity.
Abstract: A brief report reviews some of the nutritional aspects of obesity in children and adolescents. Topics include the definition, prevalence, and pathophysiology of childhood obesity, the role of environmental factors, clinical manifestations, evaluation and assessment; weight reduction and dietary and behavioral modification treatments. Patient compliance and the role of the community in combating childhood obesity are also discussed.

O140
Nutrition and the heart.
Abstract: A technical report initially describes the cardiovascular changes that accompany suboptimal nutritional states including an under- or over-abundance of essential nutrients and pediatric atherosclerosis. This is followed by an examination of somatic and nutritional changes that occur in children whose initial problem is cardiac in nature. Topics include: the heart in suboptimal nutritional states; vitamin, mineral, and trace element imbalances; the characteristics and pathophysiology of atherosclerosis; and the nutritional status of the heart. Factors influencing dietary therapy are discussed.

O141
Nutrition curriculum for families with high blood pressure.
Abstract: A nutrition education curriculum was designed for 48 students (ages 6-18) having high blood pressure. The curriculum promoted reduced Na and energy intakes, increased K intake, nutrition education games, taste tests promoting acceptable snacks, and self-monitoring of intake behavior. While no association was found between curricular compliance and medication use and blood pressure change, children with the highest post-test scores had low Na/creatinine ratios.

O142
Abstract: A reference text for parents and professionals details the nutritional needs of infants and children for promoting optimal growth and provides practical guidelines for infant/child nutritional feeding based on current scientific knowledge. The text addresses 3 specific areas of child nutrition: the role of nutrition in health and disease; the etiology, treatment, and management of overweight and obesity in children; and the role of vitamins and minerals in promoting child nutritional health. Information also is included on catabolic states, enteral feeding in children, infant feeding and weaning, and special therapeutic dietary regimens. Reference information is included in tabular form throughout the text and in 4 appendices; literature citations are appended to each of the 3 principal sections of the text.

O144
Abstract: The one-hundredth session of the Australian National Health and Medical Research Council resulted in the incorporation of the recommended dietary intakes for the following nutrients: magnesium, iron, calcium and vitamin A. A table of acceptable weights-for-height was recently adopted and definitions for obesity and overweight were proposed. Infant feeding was considered regarding the marketing of unconventional foods for infants and the discouragement of the use of skim milk and goat milk. Hair analysis techniques marketed by commercial businesses for nutritional assessment were criticized as scientifically unacceptable by the Council.

30
Nutritional status, birth weight and breast feeding of elementary first grade Chilean students.


Abstract: The purpose of this study was to assess the nutritional status of elementary first grade Chilean students from different socioeconomic statuses (SES) and to determine the influence of birth weight and the duration of breast feeding on it. A random sample of 306 students from public and private schools, of both sexes and from high, medium and low SES, was chosen from the Metropolitan Area of Santiago, Chile. Results showed a high prevalence of overweight (23.9%) and obesity (8.9%) and very low incidence of undernutrition (1%), expressed as percentage of OMS standard weight for height. In relation to WHO classification, the greater part of the students presented an adequate nutritional status (85.0%), a smaller proportion 0.3%, was moderately or severely wasted and only 0.7% was seriously malnourished. Students from high SES registered a significantly better nutritional status and birth weight than low SES but lesser duration of breast feeding. Moreover, nutritional status was significantly and positively correlated with birth weight and not with duration of breast feeding. Results confirm the nutritional status improvement in Chilean school population.

Obesity a family matter: Creating new behavior.


Abstract: The family experience has a significant effect on overweight/obesity among family members. Success may depend on the extent of family functioning and on finding a support system within and/or outside the family. This aspect of weight control is considered in the nonmedical weight control program described. (Author)

Obesity among children: It's growing bigger.


Abstract: A health report concerning the increase in obesity prevalence in the US notes that measurements of fat deposits in children 6-11 years of age indicate that obesity prevalence in this age group may have increased up to 5% from 1963 to 1980, with cases of gross obesity rising almost 100%. Major increases in obesity and gross obesity prevalence in adolescents also are noted. The characteristics of such children and the associated physical and psychological risks they face are discussed. Constructive strategies for reducing body weight in obese children also are described. (Wire)

Obesity and atherosclerosis as consequences of early weaning.


Abstract: A technical review presents a variety of data and experimental results (principally from animal studies and limited human studies) to indicate that early prenatal and postnatal nutrition and other factors have lasting effects on subsequent infant development. The review focuses on evidence that low birth weight and small size at birth are thought to be influenced by early nutrition, viz. atherosclerosis and obesity. Specific attention is given to the late effects of early nutritional changes. The review includes 24 figures and 2 tables. A brief commentary on this review is appended. (Wire)

Obesity and food intake in children: evidence for a role of metabolic and/or behavioral daily rhythms.


Abstract: The distribution of daily energy intake was studied in 339 French children age 7-12 years. The results were compared among groups of different weight status from lean to obese. Obese and fat children ate less at breakfast and more at dinner than leaner peers.

Obesity and television viewing in children and adolescents.


Abstract: This paper discusses the limitations of a recently published pediatric study that found a significant correlation between television watching and obesity, particularly in 12-17 year-old children. Limitations included the use of data collected in the 1960s (NHANES), the definition of obesity based solely on triceps skinfold, the lack of energy expenditure data, and the development of data from different sources (children or parents).

Additional studies are needed that overcome these limitations, use more recent data, and that are designed to determine whether it is television and...
consequent inactivity that cause obesity, or whether obese children choose to watch television (wz).

0150

Obesity in boys: the distinction between fatness and heaviness

Abstract: A longitudinal anthropometric study of 2350 preschool boys revealed no definitive association between obesity (triceps skinfolds) and the development of heaviness (weight-for-height ratios). The results of this study indicate that in children obesity studies it is important to identify 3 categories of children who are heavy but not fat, children who are fat but not heavy, and children who are both fat and heavy. The study results are statistical and the implications are discussed (wz).

0151

Obesity in children.

Abstract: A literature review examines the assessment of organic causes, genetic causes, consumption pattern, energy expenditure, psychological causes, physiological effects, and treatment of obesity in children. Due to the difficulties in ensuring the reduction of food intake and exercise, the motivation to lose weight and patient compliance, the authors do not recommend treatment of otherwise normal children who are not motivated to lose weight. Besides reducing food consumption, increasing exercise, and therapy with certain thermogenic drugs, psychiatric referral and hospitalization also are discussed as therapeutic approaches (wz).

0152

Obesity in offspring of diabetic Pima Indian women despite normal birth weight.

Abstract: A clinical study evaluated the relative influences of birth weight and maternal diabetes on the development of obesity in the offspring of Pima Indian women. The offspring were grouped among 3 age groups (5-9, 10-14, and 15-19 years old) for each of 3 categories of maternal diabetes status (diabetic, non-diabetic, pre-diabetic). Birth weight was not predictive of subsequent obesity for offspring of diabetic and pre-diabetic mothers, although offspring of diabetic mothers were heavier than those of non- and pre-diabetic mothers, independent of birth weight. (wz).

0153

Obesity in the school age child.
Bennett, S. K. Denver, Colo. American School Food Service Association. School foodservice research review. Fall '86. V. 10 (2) p. 82-86. Includes 32 references. (NAL Call No. DNA. TX945 S344)

Extract: A longitudinal study associated with the development of child and adolescent obesity, long-term health implications, and treatments for successful management are reviewed. Comprehensive programs including behavior modification, nutrition education, and physical activity are effective in the treatment of mild to moderate obesity in children. The setting is appropriate for treatment and prevention programs (author).

0154

Onset of obesity in a 36 year birth cohort study.

Abstract: Data on the change in prevalence of obesity with age and for individual differences in the course and pattern of obesity are presented from a longitudinal study designed to assess the predictability of childhood obesity for adult life for a large cohort of children who were followed from birth to 36 years of age. The study revealed that only 2% of the obese 36-year-olds were obese at age 11. The implications of the observed inaccuracy in the prediction of adult obesity from childhood obesity and the need for developing preventive measures are discussed (wz).

0155

Oxygen uptake and energy output during walking of obese male and female adolescents.

Extract: Oxygen uptake and steady-rate energy output of 7 obese male and 13 obese female adolescents (greater than 178% ideal body weight) walking at four different speeds (1.167, 1.5667, 1.7833, and 2.123 m/s) were studied. Body composition was measured by hydrostatic weighing, and steady-rate energy output by open circuit spirometry. Energy output was expressed as kcal/min (kcal/min) and indexed to body mass and fat-free mass. A 2-by-4 ANOVA (sex by speed) revealed significant differences...
in the energy output between the speed conditions. There was no significant difference between the mean non-linear increase in calorie output with increasing speed indicated a decreasing efficiency with increasing speed of walking. Possible reasons include biomechanical factors such as increased workloads, forward lean needed to maintain balance at faster speeds of movement. Increased energy output due to increased inertial extra energy output needed to accelerate the mass, and increased body fat (author).

0156

**Pediatric Hypertension**

AJCC American Journal of Diseases of Childhood Aug 1986 p. 405-416. Includes 10 references (NAL Call No. DMA449.9 AM3)

Abstract: Due to the dissatisfactory diagnosis of physically well children with high blood pressure values recorded in the NHL's report of the National Heart, Lung and Blood Institute's NHBP: "Ask force of Blood Pressure Control in children as well as the report's nonconsideration of weight and height, and lack of data for children younger than 5 years, the NHL's 'Current report' offers new recommendations in January, 1986.' These new recommendations were based on a 'large number of children and results were based on age, height and weight.' The 95th percentile of blood pressure values were considerably lower than the previous reports. Blood pressure values of children younger than 2 years were also included. Use of the phase V of 'cortical sound muffling of sound.' For the elastic blood pressures could be helpful during the transition for childhood to adolescence. In conclusion, the new NHBP report offers a unique opportunity to study blood pressure prospectively in children and adolescents.

0157

**Perception of eating and exercise in children as a function of child and parent weight status.**


Abstract: The present study assessed the effects of child body weight (obese/lean) and familial loading for obesity (two obese parents/two lean parents) on the psychophysics of sweetness, fatness and exercise workload, as well as subjective ratings of foods varying in sugar and fat and activities varying in energy expenditure. Children were measured in a baseline state and at 6 months after the obese children had participated in a family-based behavioral weight control program. No differences between obese and lean children in perceptual ratings were observed. However, offspring of obese or lean parents differed on intensity ratings, food palatability and activity enjoyment ratings. Intensity ratings for sweetness in offspring of obese parents was increased, with a similar trend for intensity ratings for fatness. Offspring of obese parents rated all foods and activities with lower palatability and enjoyment ratings than offspring of lean parents. After a 6-month family-based behavioral weight loss treatment, obese children had significant decreases in percent overweight while lean children remained stable. Changes in the pattern of food ratings were observed for the obese child, with a reduction in liking for foods high in fat and/or sugar, and an increase in ratings for foods lower in fat and sugar. The effects of parental obesity on food and exercise intensity ratings and hedonic ratings were maintained. Overall, these results suggest parental weight influences behavioral factors related to obesity in children.

0158

**Persistence of juvenile-onset obesity over 8 years: The Bogalusa Heart Study.**


Extract: The persistence of obesity and overweight over 8 years was assessed in a biracial (Black-White) cohort of 1,490 two- to 14-year-olds. Initial levels of triceps skinfold thickness (TRSF) and Rohrer index (weight/height^2) were moderately predictive of subsequent levels (r = 0.54 and 0.67, respectively). However, TRSF and Rohrer index tended to track most strongly in Black females (r = 0.64 and 0.72) and less well in both White females (r = 0.45 and 0.57) and preschool children (r = 0.45 and 0.54). Based on elevated levels of TRSF or Rohrer index, children were classified as obese or overweight, respectively. Of the 222 children who were initially above the 85th percentile for TRSF, 43 per cent remained obese after 8 years. Persistence of overweight was slightly greater at follow-up, with 50 per cent initially overweight children staying above the 85th percentile for Rohrer index. Severe, initial obesity/overweight (greater than 95th percentile) and consecutively elevated levels increased the probability of remaining obese/overweight. Results indicate that moderate, juvenile-onset obesity is malleable, but that the child who is extremely obese after consecutive examinations is likely to become an obese adult. (Author)

0159

**Persistently low blood retinol levels during and after parenteral feeding of very low birth weight infants.**

Examination of losses in intravenous administration sets and a method of
weight children, and examined the role children are less active and have a

Abstract: A study assessed whether obese children are less physically fit than normal weight children. It was observed, however, that weight reduction in obesity improves the maximum oxygen consumption towards normal. The study involved 31 obese and 31 normal weight children (ages 6-16 years).

0161

Physiology of fat absorption


Abstract: A technical report stresses aspects of fat digestion and uptake relative to clinical conditions commonly encountered in the infant and young child, and highlights new advances in the understanding of the processes of lipid digestion that relate to patho-physiologic aspects of fat malabsorption. Following a brief historical review of fat digestion and uptake, attention is focused on the forms of dietary lipids; the sources and activity of principal lipid-digestive enzymes; the physico-chemical states of lipids during fat digestion; fat absorption related to the intraluminal environment in infants; and intracellular events affecting triglyceride and cholesterol absorption. Schematics illustrating various aspects of lipid digestion, metabolism, and transport are included.

0162

Plasma cholesterol levels of 6585 children in the United States: results of the know your body screening in five states.


Abstract: Medical and public health recommendations regarding detection and treatment of hyperlipidemia in children have generally been based on two principal epidemiologic studies: the Lipid Research Clinics Population Study (1972 to 1976) and the Bogalusa Heart Study (1972 to 1974). The present study was initiated to further describe the distribution of plasma cholesterol levels in a multiracial sample of American children. Between 1984 and 1986, the total cholesterol levels of 6585 children from 22 schools were measured as part of the Know Your Body School Health Program. For the entire population, ages 5 to 18 years, the mean total cholesterol concentration was 166.4 mg/dL. Total cholesterol was significantly lower in girls (168 mg/dL) than in boys (165 mg/dL), although sex differences were inconsistent across race/ethnicity. The mean value for blacks, 173 mg/dL, and

0160

Physical activity and fitness in obese children.


Abstract: A study assessed whether obese children are less active and have a lower working capacity than normal weight children, and examined the role of physical activity in overweight reduction and the possible consequences of weight reduction on physical fitness. It was concluded that obese children are less physically fit than normal weight children. It was observed, however, that weight reduction in obesity improves the maximum oxygen consumption towards normal. The study, involved 31 obese and 31 normal weight children (ages 6-16 years).
Hispanics, 166 mg/dL, was lower than for Asians 165 mg/dL, and whites 163 mg/dL. Across race/ethnicity, values tended to peak between ages 8 and 10 years for girls and approximately 10 years of age for boys. These values are slightly higher than those reported in the Lipids Research Clinics and Bogalusa Studies. Public health implications of these findings are discussed.

0163

Plasma vitamin E values at birth and in 3 and 6 month old infants.

Abstract: A clinical study was designed to assess the normal level of plasma vitamin E (alpha-tocopherol (AT)) in newborns and in infants 3 and 6 months of age in the urban Black population of Cape Town, South Africa. Mean plasma AT levels in newborns was found to be 3.2 mg/L, and for infants 3 and 6 months of age was 10.8 and 9.2 mg/L, respectively. At these 3 respective ages (0, 3, and 6 months), mean plasma cholesterol was 1.6, 5.3, and 3.8 mmol/L, respectively, and mean plasma triglyceride was 0.4, 1.4, and 1.3 mmol/L, respectively. Statistically significant correlations were found between plasma AT and cholesterol, between AT and triglycerides, and between AT and cholesterol plus triglycerides, but no correlation was found between maternal plasma AT and plasma AT in newborns. The implications of these findings are discussed (W2).

0164

Potassium, magnesium, and calcium balance in obese adolescents on a protein-sparing modified fast.

Extract: Ten obese adolescents consumed the protein-sparing modified fast (PSMF), a high-protein, low-carbohydrate diet, for 92 +/- 19 d and lost 14.7 +/- 5.3 kg. The effect of weight loss using the PSMF on potassium, magnesium, and calcium was evaluated using balance method at days 2-4 and 12-20. RBC-Mg, RBC-K and total body K (TBK). The vitamin- and mineral-supplemented PSMF allowed positive Ca and K balance and improved Mg balance (p less than 0.005). TBK decreased significantly, 118.7 +/- 13.7 to 97.4 +/- 17.6 kg (3.04 +/- 0.35 to 2.6 +/- 0.35 mmol/L) from baseline to 90 d (p less than 0.001), with no change in the RBC-K concentration. An unexpected finding was a significant decrease in RBC-Ca 2 +/- 1 to 1.6 +/- 0.3 mmol/L (p less than 0.001) after 60-90 d on the diet despite maintenance of normal serum Mg level (author).

0165

Potential history of cardiovascular disease as an indication for screening for lipoprotein abnormalities in children.

Abstract: We studied the relationship between parental history of cardiovascular disease and risk for adverse lipid and lipoprotein levels in a total community study of 3313 children (ages 4 to 17 years, 63% white, 37% black). Older white children (11 to 17 years) with a parental history of heart attack or diabetes were 4.2 and 5.6 times, respectively, more likely to have high levels (greater than or equal to 95th percentile) of serum total cholesterol than those without such a history (all p less than 0.05). White children with a parental history of heart attack or diabetes were twice as likely to have an elevated (greater than or equal to 95th percentile) low-density lipoprotein cholesterol (LDL-C) level than those without such a history (both p less than 0.05). In contrast, parental history of cardiovascular disease did not predict elevated levels of total cholesterol or LDL-C in black children. However, older black children with a parental history of heart attack, hypertension, or diabetes were 4.1/2 to 5 times more likely to have low levels (less than or equal to 5th percentile) of high-density lipoprotein cholesterol than those without such a history (all p less than 0.05). Only 40% of white children and 21% of black children with elevated LDL-C levels had a parental history of vascular diseases. These findings raise questions about the current practice of screening only children with a family history of cardiovascular disease to identify those with elevated total cholesterol and LDL-C levels.

0166

Preliminary report from a conference entitled "Prevention of Adult Atherosclerosis During Childhood."

Abstract: A preliminary report from the Ross Conference which was held on September 20 to 22, 1987, reviewed and discussed the role of diets in children and adults in producing arterial lesions that cause coronary occlusions. There was widespread agreement, for adult populations, that not only is lowering of low density lipids desirable for the genetically high-risk population, but a general population strategy for diet change is also warranted. Attendees agreed that fat intake over 40% of calories is excessive for the general population of children. There was
unanimous agreement on the appropriateness of advising a "fetis," for children and adolescents that includes not only a prudent diet, but also regular exercise and no smoking. Four positions; broadly agreed to by the participants are included in an abstract. Prevention of adult atherosclerosis during childhood: report of the 85th Ross Conference on Pediatric Research. Columbus, Ohio (625 Cleveland Ave Columbus 43216). Ross laboratories. c1988 "August 1988." 4 of 4 over v. 130 p. 22 cm. Includes bibliographies. (NAL Call No. DNAL RC692 B 65 1987.) Abstract: This conference report discusses dietary and lifestyle changes in childhood that have been proposed as ways to prevent atherosclerosis in later life. Evidence that atherosclerosis begins in childhood and that it can be modified by dietary changes was presented. Top subjects include cholesterol metabolism, evolution of the atherosclerotic process in childhood, diet and lifestyle recommendations, cholesterol screening in children, changing diets to lower fat and cholesterol, and obesity, physical activity, and smoking.


Progeny's lipid and lipoprotein levels by parental mortality. CIRCAZ, Glueck, C. J., Laskarzewski, P. M., -Suchindran, C. M., -Chambliss, L. E. -Barrett-Connor, E., -Stewart, P., -Heiss, G., -Tyrolder, H. A. Dallas American Heart Association, Inc. Circulation, Jan 1986. v. 73 (1,pt.2) p. 1-51-1-61. 111 charts. Includes 61 references. (NAL Call No.: DNAL RC681.A1CB.) Abstract: An hypothesis that parental mortality attributed to cancer or heart disease in adults is predictive of lipid and lipoprotein (LP) levels in the progeny of adults was examined using data from over 6000 participants in the Lipid Research Clinics study. Most of the significant correlations were found for parent-son pairs, with sons showing higher plasma cholesterol and low-density LP cholesterol levels who had fathers die of heart disease before age 60. Maternal heart disease mortality before 60 was associated with lower high-density LP cholesterol. Maternal and paternal mortality from cancer before 60 was associated with higher triglyceride levels in sons.

Protein-sparing diet for severely obese adolescents: Design and use of an equivalence system for menu planning 1986. JADAA, Bell, Louise; Chan, Linda-Pencharz, Paul B. Chicago, Ill. The Association Journal of the American Dietetic Association Apr 1985. v. 85 (4) P 459-464 charts. Includes 18 references. (NAL Call No.: DNAL FNC 389 B 8 AM34.) Abstract: A protein-sparing, low-energy diet is suitable treatment for severely obese adolescents. The dietary regimen requires adequate protein and fluid, plus nutrient supplements. Meal planning is simplified by the use of a protein equivalence system developed for this diet. Recent experience with 21 adolescents resulted in satisfactory weight control. (Author)

Prudent lifestyle for children: dietary fat and cholesterol. PEDIAU Finberg, L. ; Dweck, H.S.,-Holmes, F.;-Kretchmer, N.-Mauer, A.M.,-Reynolds, J.W.,-Siskind, J.D.,-Benson, R.M.-Purvis, S.G.-Purvis, G.A. Elk Grove Village, Ill. American Academy of Pediatrics. Pediatrics. Sept 1986. v. 78 (3). p. 521-525. Includes 29 references. (NAL Call No.: DNAL FNC R11.P42.) Abstract: A brief report by the Committee on Nutrition of the American Academy of Pediatrics discusses ancillary findings of the 1983 Committee's statement, "Toward a Prudent Diet for Children," with respect to dietary fat and cholesterol. Particular attention is given to coronary artery disease risk and hypercholesterolemia, the advantages and disadvantages of decreasing serum cholesterol levels, and to recommendations for changes in the infant diet. It is argued that there is no direct evidence for prospective studies that dietary recommendations proposed by the NIH Consensus Development panel for subjects older than 2 years of age will be effective in decreasing serum cholesterol during the first 2 decades of life, or that they will adequately support growth and development. Recommendations include infant feeding practices, use of a varied diet, screening for obesity and hazardous cholesterol and lipoprotein profiles, and the use of optimal total fat intakes at 30-40% of calories. (wz)


Extract: The relation of body fat distribution to plasma levels of glucose and insulin during an oral glucose tolerance test was examined in 355 Black and White school-age children. Both central and peripheral fat were significantly related to fasting, 30-min, and 1-h glucose. Unlike peripheral fat, central body fat was more strongly related to the 1-h insulin response (r = 0.35 vs 0.26), this association remained significant for central fat independently of peripheral fat (r = 0.18). The strong relation of central fat to insulin response was noted in both races and sexes but not in either sexually immature or relatively thin children. These findings indicate that, even in early adolescence, a central body fat pattern relates positively to insulin response to glucose load. Thus, knowledge of body fat localization may help identify persons most susceptible to hyperinsulinemia in early life.(author)


Abstract: Although a truncal distribution of adipose tissue in adults is associated with several metabolic complications, its importance in early life has received little attention. The relation of several anthropometric measures to serum concentrations of lipids, lipoproteins, and apolipoproteins was therefore examined in 361 children who were between ages 6 and 18 y. (Children had been selected previously because of extreme levels of very-low-density and low-density lipoprotein cholesterol.) Analyses revealed two groups of anthropometric variables: truncal measures (waist circumference and subscapular, subcostal, and suprailiac skin-fold thicknesses) and thickness of peripheral skinfolds (femoral, triceps, calf, and biceps). After generalized obesity was adjusted for children with high concentrations of both cholesterol fractions had more truncal fat but less peripheral fat than did children with low lipoprotein cholesterol concentrations. A truncal fat pattern was also associated with decreased concentrations of high-density lipoprotein cholesterol and apolipoprotein A-1. Knowledge of fat patterning may help identify persons prone to hyperlipidemia.


Abstract: A 4-year study assessed trends in biomedical measures, health behavior, and attitudes in 93 high school students clinically classified as being at risk for subsequent cardiovascular disease. Most subjects reported negative health behavior changes in smoking, diet, alcohol usage, and stress, although smokeless tobacco use declined with age and the students acknowledged the potential harmful effects of smoking. A positive correlation was found among health status, attitudes, and behavior.


Abstract: A 5-year longitudinal study of the relationship of changes in triceps skin-fold thickness (TSFT) to changes in the levels and profiles of serum lipids (cholesterol, triglycerides, and low-density and very-low-density lipoprotein cholesterol, while weaker (but significant) inverse relationships were found between TSFT changes and serum changes of high-density lipoprotein cholesterol. The implications of these and related findings are discussed. (WZ)


Abstract: Sixty two adolescents, 27 boys and 35 girls, participated in a study to evaluate the relationships between anthropometrical measurements, lipemia and apolipoproteinemia. None of adolescents had a body mass index (BMI) higher than 25. Lipemia and apolipoproteinemia patterns were similar to...
those described as low risk levels for cardiovascular disease in subjects younger than 20. BMI showed a very significant correlation with weight, height, and body fat. In boys and girls in boys, total cholesterol (>1 and triglycerides (Tg) showed a very significant correlation (r = 0.48) and significant correlation (r = 0.48). No consistent correlations were seen between body fat or percent overweight and TC or Tg. However, a significant correlation (r = 0.35) was found between fat percentage and apo protein A in girls and apo B in girls. A very significant correlation (r = 0.98) and percent overweight in boys and girls respectively.


Extract: The researchers observe the relationship between obesity and nutrient intake. They investigate 821 adolescent schoolers from elementary and high school in the Metropolitan Area of Santiago, Chile. The sample included adolescents of both sexes and from public and private schools. The results indicate that obesity affects mainly older adolescents, with a slight majority in low SES and no significant association with low nutrient intake. The study shows that obesity is associated with a lower nutritional intake and percentage of weight for age. This is the variable with the greatest explanatory power of the present nutritional intake status. Males show no significant differences were found between nutrient intake of obese and nonobese. The study suggests that further research is necessary to approach this problem from a multicausal context.


Abstract: Two studies were conducted to assess differences in metabolic rate as a function of child weight (study 1), and the interaction of child and parent weight (study 1). In both studies, obese children had higher resting metabolic rates (RMRs) than lean children (p < 0.05). Child weight accounted for 72 to 78% of the variance in RMR in studies 1 and 2 respectively. Including parental weight did not improve the prediction of RMR. After 6 mo of treatment, obese children showed decreased percent overweight, whereas lean children showed no change (p < 0.01). RMR in both groups remained unchanged after 6 mo. The results indicate that the RMR is higher in obese than in lean children, that changes in percent overweight that result from increases in height and no change in weight do not decrease RMR over 6 mo, and parent weight does not improve the prediction of child RMR.


Abstract: The authors studied a group of healthy children aged 1-16 living in France. Their blood cholesterol and triglycerides were measured. The results indicate that the RMR is higher in obese than in lean children, that changes in percent overweight that result from increases in height and no change in weight do not decrease RMR over 6 mo, and parent weight does not improve the prediction of child RMR.


Abstract: A brief summary report discusses the technical highlights of the 1987 meeting organized to discuss the current state of knowledge concerning the role of body fat distribution during child development on subsequent health. Topics discussed included the relationship of body fat distribution to health risks; methods for measuring body fat and its distribution; the major patterns of fat distribution in young boys and adolescents, and hypotheses offered to explain the regional distribution of body fat. The potential for altering body fat distribution also is discussed.

Abstract: Coronary heart disease is the leading cause of death in the United States and there is reason to believe that it begins in childhood. Evidence is accumulating that early diagnosis and treatment of hypercholesterolemia, a major coronary risk factor, can markedly reduce the incidence of arteriosclerotic heart disease in later life. A pediatric group practice consisting of six pediatricians and a pediatric nurse practitioner performed a cholesterol surveillance study of 6500 children between 3 and 18 years of age. Parents and patients were counseled regarding other coronary risk factors, and the American Heart Association diet was recommended. According to the results of the study, 1251 children (19%) exceeded the acceptable 90th percentile for cholesterol and that 143 of 299 significantly hypercholesterolemic children (48%) had no family history of premature myocardial infarction or known hypercholesterolemia. The current recommendation is that only those children from high-risk families should be screened for an elevated cholesterol level. The authors conclude, as a result of this study, that all children older than 3 years of age should have a cholesterol test and that advice regarding avoidance of high-risk coronary life-style behaviors should be a routine part of pediatric anticipatory guidance.

0182 Safety and efficacy of long-term diet and diet plus bile acid-binding resin cholesterol-lowering therapy in 73 children heterozygous for familial hypercholesterolemia.


Abstract: Our specific aim was to examine the efficacy and safety of long-term cholesterol-lowering diet and bile acid-binding resin therapy in 73 children heterozygous for familial hypercholesterolemia (FH). We prospectively followed accrual of height and weight in 40 FH children for 5.8 years on diet alone and in 33 FH children for 4.3 years on diet and bile acid-binding resins (8 to 20 g/d). In 67 of these 73 children, sequential data on plasma cholesterol lowering was obtained, including 32 children on diet plus bile acid-binding resins and 35 on diet alone. For all children, age, sex, and race-specific percentiles for height and weight at entry were 50 and 50, respectively, and, 5.7 years later, were unchanged at 50 and 50. Initial and final percentiles for height and weight were closely correlated. Percentile distributions for height and weight at entry into the study did not differ from those at the end of follow-up, in both the 40 FH children on diet alone and the 33 on diet plus bile acid-binding resins. Tracking of height and weight did not differ in the 40 children on diet alone vs the 33 on diet plus bile acid-binding resins. During 6 years of follow-up there were no significant differences in the percentage of serial, postbaseline measurements for height which were either less than or greater than or equal to baseline percentiles. Comparing FH children on diet alone, 33 FH children on diet plus resin, and 39 normal children (on ad libitum diet) FH children on diet or plus resin had a smaller percentage of weight measurements equal to or more than baseline percentiles than normals on follow-up probably reflecting restriction of total fat intake to less than 35% of calories. On diet alone, 32 FH children had total plasma cholesterol of 307 +/- 8 mg/dL (mean +/- SE); bile acid-binding resins were added to diet in these children at an average age of 11.5 years. With this regimen maintained for 4.6 +/- 0.4 years, leading to a mean reduction in 11.5 years. with this regimen maintained for 4.6 +/- 0.4 years, leading to a mean reduction in...
Abstract: The objective of the current study was to investigate possible relationships between self-selected animal to vegetable protein intake ratios and serum lipid levels in adolescent humans. Negative correlations were found between blood serum lipids and the protein intake ratios. Negative correlations were also found between percent total fat and serum lipids. These results were not consistent with those obtained from adult populations implying that the physiological demands of growth were possibly more influential on serum lipids than dietary components.

0188

Serum cholesterol, triglyceride levels, and fat consumption patterns among Jerusalem Arab and Jewish schoolchildren.


Characteristics of the program are detailed and justified. (wz)

0186

Secular trends of obesity in early life the Bogalusa Heart Study


Extract: Secular changes in height and weight measurements were examined in five to 14-year-olds from 1973 to 1984. The age-sex specific 50th percentile was used to classify persons as overweight (based on pondera' index, kg/m2).

Secular increases in weight (2.5 kg), and ponderosity (0.5-0.7 kg/m2) were found. Gains in ponderosity over the 11-year period were greater at the 75th percentile than at the 25th percentile, and the prevalence of overweight increased from 15 per cent to 24 per cent. (author)

0186

Self-esteem of adolescents enrolled in a weight reduction program


Abstract: The relationship between obesity and self esteem in female adolescents enrolled in a weight reduction program is examined.

0187

Self-selected dietary protein sources and serum lipid patterns of adolescent humans.


Abstract: The objective of the current study was to investigate possible relationships between self-selected animal to vegetable protein intake ratios and serum lipid levels in adolescent humans. Negative correlations were found between blood serum lipids and the protein intake ratios. Negative correlations were also found between percent total fat and serum lipids. These results were not consistent with those obtained from adult populations implying that the physiological demands of growth were possibly more influential on serum lipids than dietary components.
0191

Serum transport of cholesterol in adolescents in four different socioeconomic levels

NURBE, Saitua, M.T., Ivanovic, C. Los Altos, Calif: Gerot-4, Inc Nutrition reports international April 1985 \#3:141 p 943-954 charts includes 22 references (NAL Call No. DNAL RC629 ATW9) Extract: The purpose of this study was to evaluate the serum transport of cholesterol in Chilean students. Total cholesterol (Total-C) and cholesterol in LDL and HDL were measured in 152 elementary and high school students from Santiago, of both sexes and belonging to a high, medium, and low socioeconomic level (SEL), as determined by the Graffar Modified Scale. Total-C and LDL-C serum concentrations were higher in females over sixteen years of age from high socioeconomic level. This same group had one of the lowest values for HDL-C in our sample so LDL-C/HDLC ratio is significantly higher in females over sixteen years of age from high socioeconomic level. Our results confirm that socioeconomic level[dictates a certain lifestyle; that reflects in a lipoprotein pattern enhances the possible atherogenic risk. (Author)

0192

Skinfold assessment as an intervention technique: one aspect of a nutrition education program

JADDA, Hunt-Pellow, J. Chicago, Ill. The Association. Journal of the American Dietetic Association. Mar 1986, v 86 (3). p. 369-370. Includes 10 references. (NAL Call No. DNAL FNC 389.8 AM34) Abstract: Various interventions for nutrition education used by a registered dietitian at a small rural school for grades 1-4 are described, including the monitoring of skinfolds in the 4th grade class over several school years to see whether body fat proportion would be altered over time. Obesity incidence in 4th grade girls and boys was about 54 per cent (7 girls) and 33 per cent (2 boys). A year later in the 5th grade, obesity incidence had dropped to 2 girls (ca. 38 per cent) and 2 boys (22 per cent). A year later, the number of obese girls and boys remained the same but their body weight gains were reduced. (WZ)

0193

Socio-demographic differences in fat and sugar consumption patterns among Finnish adolescents.

ECFNE, Prattala, R. London: Gordon & Breach Science Publishers. Ecology of food and nutrition 1988, v 22 (1) p 52-64 charts includes 35 references (NAL Call No. DNAL TX341 E3) Abstract: A representative sample (response rate 83%) of 3734 Finnish adolescents was surveyed on habits reported in a mailed questionnaire in 1983. Questions included use of different milk types, butter, margarine, sweet pastry, coffee, sugar, coffee, sweetened yogurt, candies and soft drinks. Food consumption patterns were analysed by age, sex, place of residence (rural/urban) and father's occupation and education using logistic regression analysis. Father's socio-economic status (SES) had a strong effect on the use of margarine, butter, high and low-fat milks, and sweet pastry: age affected coffee, sweets and sweetened yoghurt, and sex affected coffee sugar and soft drinks. Children of farmers and lower socio-economic groups used high-fat milks, butter and sweet pastry more often than children of white-collar families. SES effect was stronger among the younger age groups. Coffee and soft drink usage increased by age, sweetened yogurt decreased, whereas use of drinks was highest around age 15. Girls, especially in the older age groups, used less coffee sugar and soft drinks than boys. The SES effect on the use of foods consumed daily in Finnish homes was strong, whereas those adolescents buy outside home was independent of family background. Indicating multidimensionality of food consumption and distinctions between adolescent and adult life styles.

0194

Some questions you may have about overweight children.

Oklahoma City, OK: Chickasaw Nation, WIC Program. 1987. Cover title. 3 p. : 22 cm. (NAL Call No. DNAL E75.A5 no.A-34) Abstract: A discussion of overweight children is presented in a question and answer format. Included is information on whether a fat child is healthy; why some children are overweight and others are not; and tips for parents on what to do if their child is overweight.

0195

SomeBODY's companion /by Lynda Corby and Patti Clark.

Corby, Lynda, 1949-: Clark, Patti, 1951-. Saskatoon, Saskatchewan : Fifth House Ltd., 1985. Companion to the authors' You're SomeBODY: how to be a slim kid. 44 p. : 28 cm. Includes bibliographical references. (NAL Call No. DNAL JRU399.C5661) Abstract: A children's activity book and companion's guide are the major components of this weight management program for children. The book is designed for a parent-child partnership but can also be used by a variety of...
Storage of medium-chain triglycerides in adipose tissue of orally fed infants.

C.C.-Chessex, P. Bethesda, Md.

Adipose tissue of orally fed infants. Storage of medium-chain triglycerides in

0197

parents and children. and a diet contract to be signed by
guidelines, menu ideas, exercise chart

weight chart, basic four food group

Diet food guide color classifications

children. The appendix contains a

sections, one for parents and one for children. The

activities are

activities with handicapable conditions, and 4)

addresses of federal and local resource
groups

0196

The stop-light diet for children an

eight-week program for parents and

children (Leonard H Epstein and Sally

Squires, foreword by Jane E. Brody

Epstein. Leonard H. Squires. Sal1) Boston

Little, Brown, c1988 xi, 232

p. forms .25 cm (NAL Call No. DNAL

Ru399.CC66 1988).

Abstract: The stop-light diet is a

comprehensive weight reduction diet for

children which emphasizes nutrition,

physical activity, behavior modification

and family teamwork. The approach to

this diet enables parents to work with

children to learn good eating habits in

the Stop-Light Diet program, foods are

classified by a color-colored system-
green for very low calorie, nutritious,

"all-you-can-eat" foods. yellow for

foods moderate in calories and rich in

nutrients, and red for foods which

provide very little nutrition but are

very high in calories. The text is

divided into two sections, one for

parents and one for children. The

parent's guide provides tips on

following the diet, giving

reinforcement, learning nutrition,

setting a good example, exercise, etc.
The children's section describes the

food classification system, provides

tips on good eating, exercise, and

following the rules in easy-to-read

text. - Weekly quizzes and charts appear

in each section to assist parents and

children. The appendix contains a

weight-for-height table, the Stop-Light

Diet food guide color classifications

with serving size suggestions and

calorie content, daily food chart. daily

weight chart, basic four food group

guidelines, menu ideas, exercise chart

and a diet contract to be signed by

parents and children.

0197

Studies of the dietary habits, food

consumption and nutrient intakes of

adolescents and young adults.

WROLA. Bull, N.L. Basc: S. Karger

World review of nutrition and dietetics


24-74, charts. Includes 133 references

(NAL Call No. DNAL 389.1 W892).

Abstract: It is the purpose of this

review to bring together the findings of

recent dietary studies among 10- to

25-year-olds and to identify any common

features or dietary patterns which

appear to be characteristic of young

people. Tables referring to original

studies are included on food, nutrient,

and energy intakes for subjects in

several different age groups. Factors

affecting adolescent diets and

recommendations for ways in which

adolescents and young adults could be
encouraged toward dietary change are discussed.

0200

Sweet Preference and body fatness. neonatal data
Extract: An examination of studies relating sensory responsiveness (for sweet detection and recognition threshold, as well as preference) fails to reveal systematic differences in the response of obese compared to nonobese individuals. Also, studies report food consumption data that fail to show a direct linear relationship between sweet or sugar intake and body weight in normal-weight and obese individuals. Recent studies have, however, reported enhanced fat-carbohydrate preference in the obese compared with normal-weight individuals. The current study reports sucking responses to a variety of sucrose solutions (0.061m-0.5m) by neonates from families with or without maternal obesity. No significant differences in any sucking parameters were seen in spite of increased birth weight and fatness in infants of obese mothers. These results from the "preobese" are in agreement with earlier data reporting no enhanced sweet preference in obese individuals. The possibility of different feeding strategies once infants receive solid foods by obese and normal-weight mothers was also examined. (author)

0201

Thin Kids the proven, healthy, sensible program for children who want to lose weight ... Mindy Cohen and Louis Abramson with Ruth Winter. --.
Abstract: A healthy, sensible diet plan designed specifically for children and used successfully in the "Thin Kids" weight loss program is introduced. Practical guidance is provided for beginning a weight loss program on topics such as: 1) placing the child in control of his/her own weight, 2) settling reasonable weight loss goals and keeping accurate detailed food and activity records, 3) recognizing common dieting "pitfalls" and targeting behaviors that need to be changed, and 4) differentiating among behavior, response, reinforcement and reward. The comprehensive and balanced diet plan considers all facets of a child's life, including 1) challenges at home and at school, 2) class-time seat duty, 3) after-school snacking, 2) temptation times-birthday parties, holidays, vacations, eating out and 3) food "pushers"—well intentioned friends and relatives who equate food with love and affection. Complete menus and calorie values are provided for 10 weeks on the weight loss program, along with recipes, food shopping suggestions, and meal preparation ideas. A complete exercise program that provides an easy-to-follow schedule of activities is presented, with illustrations. Relaxation techniques to help children cope with stress and perhaps respond better to a food program are outlined. A number of first-person success stories and practical advice on making weight loss a family project highlight the 'Thin Kids' program's basic principles and components. (age)

0202

A three-year study of obesity and its relationship to high blood pressure in adolescents.
Abstract: A 3-year behavioral and clinical study followed 356 cases of adolescents during their high school years to assess the relationship between obesity and high blood pressure. The results indicated that more girls than boys were overweight as seniors; while overweight trends between sexes and between blacks and whites were relatively constant, obesity increased among black girls; and positive correlations were found between percent ideal body weight, body mass index, skinfold thickness, and blood pressure in black and white females. Related findings also are discussed.

0203

Today's children are fatter not fitter say experts.
Abstract: The incidence of obesity in children now is greater than in past decades. Less structured exercise, snacking, more television watching, promotion of sugar-laden food, poor eating habits and psychological or family problems are Contributing factors. The author believes that obese children should lose weight but dieting needs to be monitored by a qualified professional. Obesity prevention tips and weight loss programs for youths are included.

0204

Extract: Height, weight, and skinfold measurements were obtained on a cohort
of 447 children from birth (weight) or 6 months of age (height and skinfold) and monitored yearly, thereafter until 7 years of age. At age 7 years, 250 remained for follow-up screening. A significant degree of tracking was found for all variables from age 1 to age 7 years. Height and skinfold tracked most strongly (age 1- to 7-year correlations = .42 and .44 respectively), whereas skinfold tracked somewhat lower (.28) earlier levels of each anthropometric variable were the best predictor of later levels; of that parameter. Implications for early detection and treatment of growth abnormalities are discussed (author).

0205

Update in maternal and infant nutrition. Cheua, Johnston, E.M. Ottawa: Canadian Home Economics Association Canadian home economics journal literature review. Summer 1989 vol 39 (3) P. 119-120. Includes 98 references (Nal Call No. DNAL C 321.8 C162). Abstract: Results from a number of recent studies in maternal and infant nutrition may influence a variety of our nutrition recommendations for pregnancy and infancy. The purpose of this review is to summarize some of these research findings that either confirm or question established practice. Currently, controversial issues concerning maternal nutrition include weight gain for the obese pregnant woman, the use of vitamin and mineral supplements during pregnancy, and the effects of secondhand smoke on the fetus. Topics in infant nutrition which require clarification are the use of unmodified cow's milk, the appropriate level of fat for the infant, and the prevention of obesity. All health professionals should participate in continuing education activities to ensure that current recommendations are based on the best available information.

0206

The validity of self-reported weight loss and weight gain efforts in adolescents. IND1U. Rosen, J.J.; Poplawski, D. New York, N.Y.: John Wiley & Sons. The International journal of eating disorders. July 1987 vol 6 (4) p 515-523. 111. Includes 17 references. (Nal Call No. DNAL R 784.A115). Extract: There has been a proliferation of epidemiological survey studies of weight-reducing and eating behaviors in adolescents; however, the validity of these self-report questionnaires has received little attention. The present study was designed to determine whether self-report measures of efforts to lose or gain weight and use of specific weight control methods are consistent with other measures. There were 48 high school volunteers who completed a questionnaire about weight change efforts. Parallel versions of the questionnaire were also returned by a parent or friend or sibling. There were 166 high school subjects who completed the questionnaire and also recorded food intake, exercise, and various weight control methods for 7 days. External raters agreed with subjects' reports that they were trying to lose weight, and weight losers consumed much less food according to their eating records. Self-reported weight-gainers consumed much more food than others. But agreement was low; external raters were lower than others but agreement with external raters was lower. External raters agreed with subjects who reported skipping meals and exercising to lose weight and the subjects exhibited these behaviors more frequently in their eating records. However, there was low agreement between the self-report questionnaire and external measures of drastic weight control behaviors such as vomiting and fasting. With the exception of drastic weight control behaviors, the results of this study were generally positive for the validity of self-report questionnaires. (author)

0207

Vitamin E status of northern Canadian newborns: relation of vitamin E to blood lipids. Vogl-Maier, B.; Baltimore, Mc. American Society for Clinical Nutrition. American journal of clinical nutrition. Aug 1989 vol 50 (2). P. 375-380. Includes 22 references (Nal Call No. DNAL FNC 369.8 J824). Abstract: Vitamin E status was determined in two groups of Canadian newborns: a northern group, mainly aboriginal (Indian and Inuit), and a southern group. Mainly maternal serum vitamin E, cholesterol, and triglyceride levels were measured in cord blood and ratios of vitamin E to both cholesterol (E:cholesterol) and cholesterol plus triglyceride (E:cholesterol+TG) were calculated. For the combined groups the mean serum concentration of vitamin E (8.77 +/- 2.45 micromole/L) cholesterol (1.77 +/- 0.46 mmol/L), and triglyceride (0.65 +/- 0.30 mmol/L) as well as the ratio E:cholesterol (5.00 X 10^-4 +/- 1.26 X 10^-3) and E:cholesterol+TG (3.60 X 10^-3 +/- 0.77 X 10^-3) were within normal limits. Significant north-south differences were found only in the mean triglyceride concentration, which was lower (p = 0.03), and E:cholesterol+TG, which was higher (p = 0.002), in the northern than in the southern group. No differences attributable to differences in race were found. Only one infant, an Inuit in the northern group, was found to be deficient in vitamin E.

0208

Weights of British and French children was undertaken in a residential setting for 26 days each of 3 years to determine weight reduction, nutrition awareness, physical fitness, and social adaptability. Parent education was also undertaken. The nutrition education included a red, yellow, and green diet system. An exercise program and social program with a behavior modification system of rewards was established. Selected measures were taken before and after the program. Over a 2-year period, the 8 children who came for each of 3 summers maintained their weight control instead of vastly increasing their weight as unit-eaten. 

The children improved to some extent on measures of physical fitness. Guidelines are suggested for school personnel and parents who are in contact with such children (author).
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