## Hello, Ladies and Gentlemen, Nice meeting you. I am Shigeru Yamamoto





## What should we do to make dietitians respected by society?

# The importance of research publication for dietitians

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#### The importance of research publication for dietitians

- Dietitians in hospitals are the most important professionals in meals and health. They are not only responsible for making tasty meals, but also for what kind of meals patients need. However, in hospitals, can dietitians guide doctors and nurses on the most appropriate meals for patients? Without adequate knowledge of foods and health, we may not be able to win the trust of doctors and other medical staff. Research publications are essential to obtaining such trust and respect.
- For example, do dietitians have greater knowledge than doctors about whether patients need protein or amino acids, carbohydrates or lipids?
- How much did dietitians contribute to the creation of parenteral and enteral formulas?
- How involved are dietitians in developing dietary reference intakes (DRIs)? Given the therapeutic foods being developed by doctors, pharmacists, and food companies, could dietitians simply become technicians who administer these products?
- Are dietitians educating students to present their on-site experience as researches and in publications?



- Research publications will be essential for dietitians to become socially respected.
- Without researches and the resulting publications, we would not be able to secure a higher status.
- In order to write a good research papers, good research plans and writing skills are indispensable. Recent scientific papers are required to provide evidence.
- It may be relatively easy, if the work is within a specific, narrowly defined area.
- However, the works of a dietitian include a wide variety of complex fields such as medicine, food science, psychology, economics and sociology etc, which makes it difficult for dietitians to write articles. Nevertheless, without publications specifically on the works of dietitians, the social status of dietitians will not rise.
- My lecture today is with the hope that it will help dietitians write scientific publications as often as possible. I myself find it difficult to write articles, and I am not at all confident. I hope that my lecture will stimulate and encourage dietitians to publish their articles.
- I will illustrate using published articles and PowerPoints.



#### Some more questions

- 1. Does rice cause T2DM and obesity?
- 2. Are Asians easy to be T2DM?
- 3. Who do the national nutrition survey? I hope they are dietiaitns.
- 4. Why is obesity definition different between Asians and Americans? Obesity for Asians BMI 25, but for Americans 30.
- 5. How was fiber RDA determined?
- 6. Is protein supplementation meaningful for athletes?
- 7. Is it proper to express protein requirement by energy %?
- 8. Do you have your country standards for child height and weight?



#### **Contents**

- 1. Evaluation of the research in article No.1 (See article No. 1) (Home work for participants before the conference).
- Please read and write your comments on the following and send them to the conference office. Please do not work on English because it will be checked by experts but the content is written by the authors.
- 1) title, 2) abstract, 3) introduction, 4) methods, 5) results, and 6) discussion.
- 2. Evaluation of the research in article No. 2 (See article No.2). An example of an intervention study (Effect on body weight; High protein diet vs High carbohydrate diet). I will explain the research and the article on the intervention research which was published by a journal in the States.
- 3. Evaluation of the research in article No.3 (see article No. 3). A decrease in NaCl for patients decreased food intake. The idea is simple but important. it is really a good example of research by a dietitian.
- 4. Evaluation of the research in articles No.4. What can we learn from the publications in the Journal of the Academy of Nutrition and Dietetics 2021 (official journal of the USA and Canada Dietetic Association, impact factor 4.9). I think that the purpose of studies is not so different from what we think. Perhaps the writing is excellent. If we learn how to do this, we can also publish our articles in such high-quality journals.

#### Home work before the conference:

Please read the Article No. 1 (See article No. 1)) and write your comments on the following and send them to the conference office. Please do not work on English because it will be checked by experts but the content is written by the authors.

- 1. title.
- 2. abstract.
- 3. introduction
- 4. methods
- 5. results
- 6. discussion.



#### Article No. 1

•

## The efficacy of Using OKR to Improve the Quality of Meal for Diabetes Patients in a Japanese Hospital

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• ABSTRACT: Diabetes Mellitus (DM) has been increasing rapidly in Vietnam, we hypothesized that the main reason that Vietnamese people using fiber and vegetable less than the amount of fiber rather than the recommendation of WHO, at about 10-12g/1000 kcal/d. In this crosssectional study we tried to use OKR to improve the amount of fiber in daily meal for diabetes patient and access the acceptability of patient with dishes which contain OKR. 20 patients diagnosed with DM were divide all participant into 2 groups, using 3 consecutive days of OKR meal and 3 days of Hospital meal (not using OKR) and take the sensory test in all patient. At the baseline and final period, anthropometric measurement, there was a significant higher in the amount of fiber of patient who using OKR, from 10.8 to 13.8 (p < 0.05). About sensory test, points for Okara meal sample were higher than from hospital diet sample on color, shape evenly, juiciness, tenderness, and overall. And the differences have the mean points (p<0.05). Point for OKR diet was higher than hospital diet in taste 7.7  $\pm$  0.6 points and 7.0  $\pm$  0.7 points, respectively (p<0.05).

### **Article No. 2**

Effects of high protein and high carbohydrate diets on body weight were similar in healthy young Vietnamese women with normal body weight

## Sample size サンプル数の計算

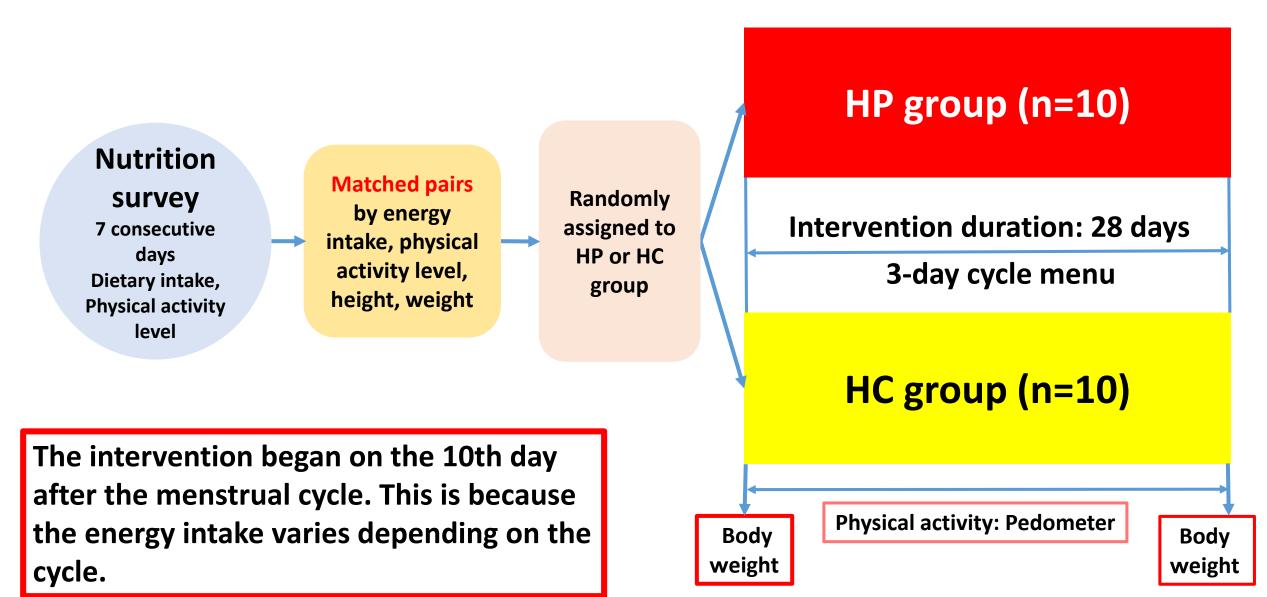
The sample size for testing the differences of two mean values

$$n > (Z_{\alpha} + Z_{\beta})^2 \times 2 \times \sigma^2 / d^2$$

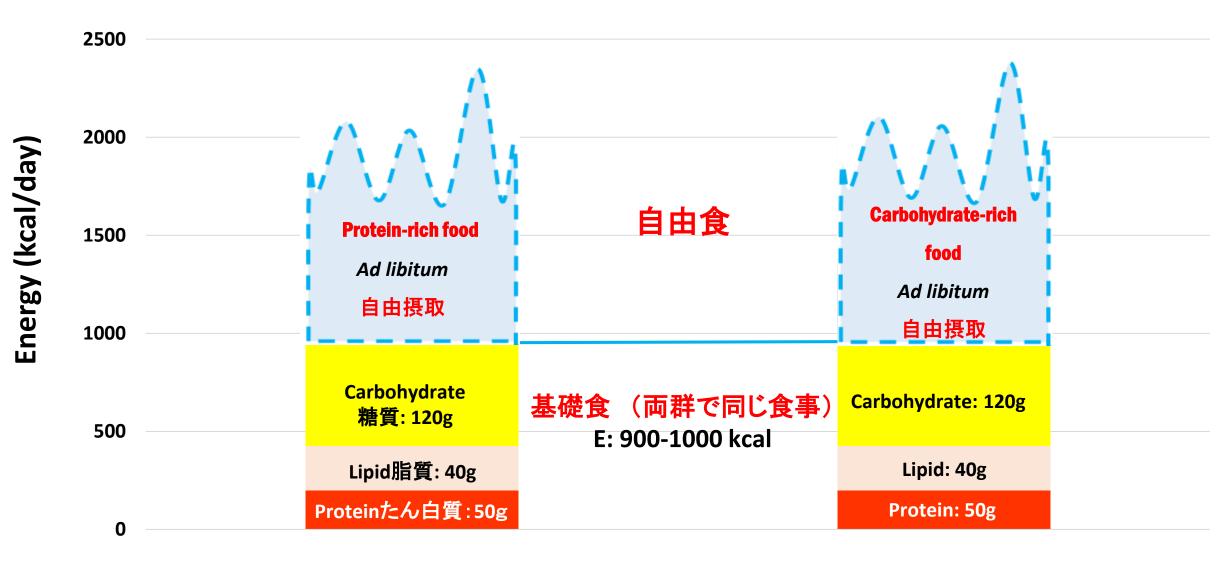
- · In which:
- n: Study sample size of HP group and HC group
- d: The difference in mean of changes in body weight between two groups after intervention, d=1.5
- $\sigma$ : Standard deviation is estimated from previous study,  $\sigma$  =1.0
- · Z is 1.96 for a confidence level of 95% and  $Z_{\beta}$  is 0.84 for a power of 80%
- $\cdot => n > (1.96+0.84)^2 \times 2 \times 1.05^2 / 1.5^2 = 6.9 => n=7$
- The dropout rate was estimated at 15%. Finally, we selected 10 subjects in each group.

Note: The smaller the sample size, the easier it is to carry out tresearch. However, if sample size is too small, the statistical result is not often shown, even if there is.

## **Study Design**



#### **Energy and Macronutrients Composition in Intervention Diets**



**HP Diet** 

**HC Diet** 

## Intervention study





## Cycle menu - No. 1

#### **HP Diet**









#### **HC Diet**









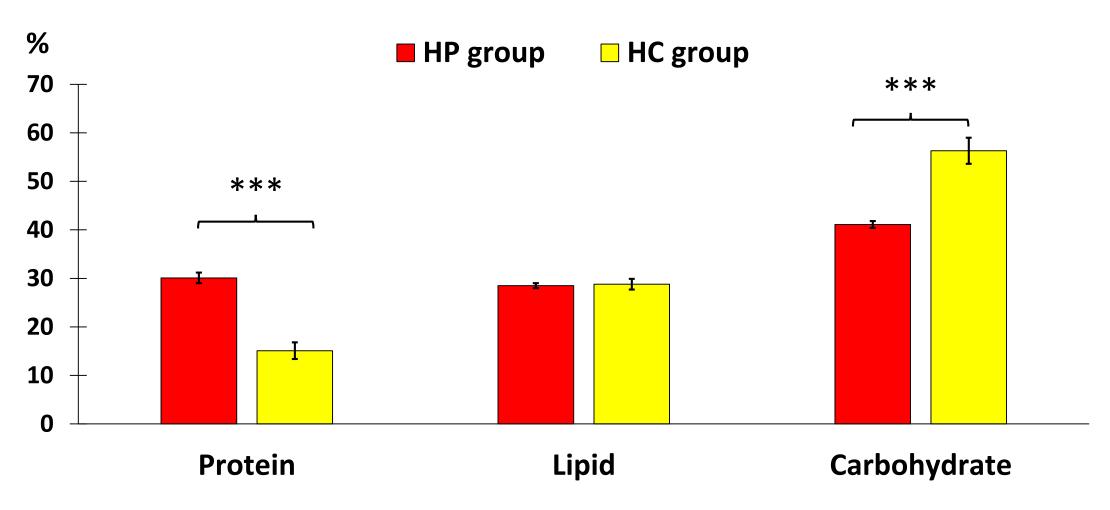
## Subject characteristics at baseline 開始時の値

	HP group (n=10)	HC group (n=10)	P-value
Age(y)	20.8±0.9	20.7±0.9	0.81
Height (cm)	156.3±5.5	155.5±5.6	0.37
Weight (kg)	47.8±3.3	45.8±4.1	0.92
BMI (kg/m²)	19.5±1.5	18.9±1.4	0.32
Energy (kcal/day)	1686±159	1654±146	0.66
Protein (%)	16.1±1.6	16.7±1.0	0.28
Lipid (%)	28.8±7.3	28.1± 3.8	0.81
Carbohydrate (%)	55.1±8.4	55.3±4.1	0.95
Physical activity (step/day)	7847±1696	8185±3558	0.79

Values are means  $\pm$  SD

P-value using a Mann-Whitney U-test. All the data were similar between the groups.

## **Nutrient intakes (Energy%)**



Values are means  $\pm$  SD. P-value using Mann-Whitney U-test between the groups. \*\*\* P<0.001

## **Energy and Nutrient intakes**

	HP group (n=10)	HC group (n=10)	P-value
Energy (kcal)	1558±99	1551±242	0.94
Protein (g)	116.2±4.6	57.1±2.3	<0.001
Lipid (g)	49.4±3.7	49.5±6.2	0.98
Carbohydrate (g)	160.8±12.8	219.9±44.9	0.002
Fiber (g)	8.9±0.1	8.9±0.1	0.61

Values are means  $\pm$  SD

P-value using a Mann-Whitney U-test between groups.

## **Changes in body weight**

	HP群 (n=10)		HC群 (n=10)	
	Initial	Final	Initial	Final
Body weight (kg)	47.8 ± 3.3	47.8 ± 3.2	45.8 ± 4.1	45.8 ± 4.4
Change (kg)	0.0 ± 3.4		0.0 ± 0.7	

Values are means  $\pm$  SD. Comparison were made between baseline and final values within a group by Wilcoxon signed-rank test and no differences were found (P>0.05). There was not statistical difference between changes in the two groups by a Mann-Whitney U-test (P>0.05)

#### **Article No. 2**

Diets on Body Weight Were Similar in Healthy Young Vietnamese Women With Normal Body Weight

Title: Write so that readers can understand

Nguyen Mai Phuong, BS Nguyen Huong Giang, BS Nguyen Thuy Linh, MD, MS Vu Thi Thu Hien, MD, PhD Le Thi Huong, MD, PhD Shigeru Yamamoto, PhD, RD Title: Write so that readers can understand the study.

Better to avoid, XEffects ...., Study on...., because we can not know the results until we read well.

Background:
What is the problem?
What is known and
what is not known,

Therefore, what are you going to do?

Methods

Recently, attention has been paid to the effects of certain nutrients on body weight. High-protein (HP) diets are recommended, and high-carbohydrate (HC) diets are discouraged. However, HP is costly, and recently, some adverse effects of prolonged HP diets have been reported, involving risk factors for coronary artery, kidney, bone, and liver disease and other effects. Given this background, the question arises whether an HP diet is appropriate for healthy young people with normal body mass indices, and so we compared it with an HC diet in such individuals We recruited 20 healthy women subjects with normal body weight and formed 10 pairs matched by energy intake, physical activity, height, weight, living conditions, and other factors. One member of each pair was then randomly assigned to 1 of 2 groups—HP (approximately 30% energy from protein, 40% from carbohydrate, and 30% from fat) or HC (approximately 55% energy from carbohydrate, 15% from protein, and 30% from fat)—for 4 weeks. They were provided all food and drinks in 3-day cycle

menus for 28 days. Diets provided basal and ad libitum components. Physical activity level was monitored everyday by a pedometer. The pedometers were worn everyday aside from sleeping and bathing. Body weight was measured before and after the intervention. During the 4-week intervention period, the HP group's protein intake was significantly higher at 30.1% energy than that of the HC group at 15.1% energy (P < .001). The HP group's carbohydrate intake was 41.1% energy, and that of the HC group was 56.3% energy; they were significantly different (P < .001). Daily energy, lipid, and fiber intakes were similar among the 2 groups (1558 and 1551 kcal, 49.4 and 49.5 g, and 8.9 and 8.9 g, respectively). Changes in body weight during the intervention period were similar in the HP and HC groups, being  $0.00 \pm 3.43$  and  $0.04 \pm 0.65$  kg, respectively (P > .05). In healthy young Vietnamese women with a normal body mass index, those who consumed the HP and HC diets were similar in their energy intakes and changes in body weight, indicating that neither an HP nor an HC diet had any advantage or disadvantage in weight control in healthy young nondieting women. Nutr Today 2019;54(6):271-276

Methods

Results
Conclusion

Nguyen Mai Phuong, BS, is the first graduate of the first dietetics course in Vietnam at Hanoi Medical University and, at present, an MS student in

#### Simple but dietitian's observation can be a good article

#### Decreasing Salt in Hospital Meals Reduced Energy Intake in Elderly Japanese Inpatients

Keiko Hirose<sup>1,2</sup>, Thao Phuong Tran<sup>1,2,\*</sup> and Shigeru Yamamoto<sup>2</sup>

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<sup>2</sup>Jumonji University, Niiza, Saitama 352–8510, Japan
(Received September 17, 2020)

Summary Japanese salt consumption is high, about 10 g salt/d. Low salt intake reduces the risk of hypertension and cardiovascular disease. However, saltiness is an important taste in daily meals, greatly influencing eating habits. When hospital admission is shortterm, reducing salt supply may have an adverse effect on food intake. The aim of this study is to find the effect of sudden change in dietary salt content on energy intake in elderly Japanese inpatients. The study is an observational study of 83 patients and was conducted in a hospital in Tokyo, Japan. The research period was three weeks, and included 8 g salt/d meals for the 1st week, 7 g salt/d meals for the 2nd week, and 7 g salt/d meals with total 1 g/d salt packs that patients were allowed to use freely for the 3rd week. The energy supply satisfied the individuals' energy requirements and was the same throughout the three weeks. Nutrition surveys and blood pressure measurements during the three weeks were conducted by dietitians and nurses, respectively. The results showed that energy intake of patients was reduced by about 90 kcal/d in the 2nd week compared with the 1st week and increased about 130 kcal/d in the 3rd week compared with the 2nd week. Blood pressure did not change during the research period. When high salt intake has become a habit, reducing salt supply suddenly in a short time period may lead to decreased energy intake in elderly inpatients but does not affect blood pressure.

Key Words salt, hospital, Japan, DRI, elderly, nutrition status, nutrition intake



## Article No. 3 Simple but dietitian's observation can be a good article

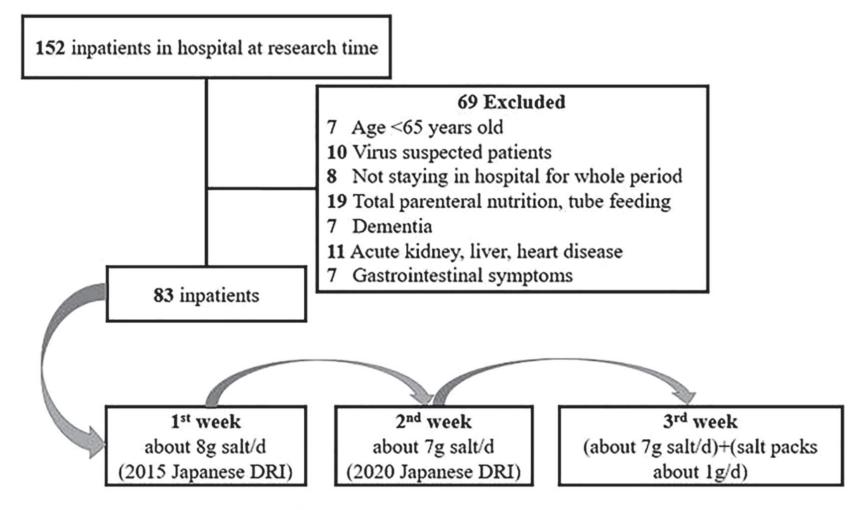


Fig. 1. Cohort flow diagram of study participants.

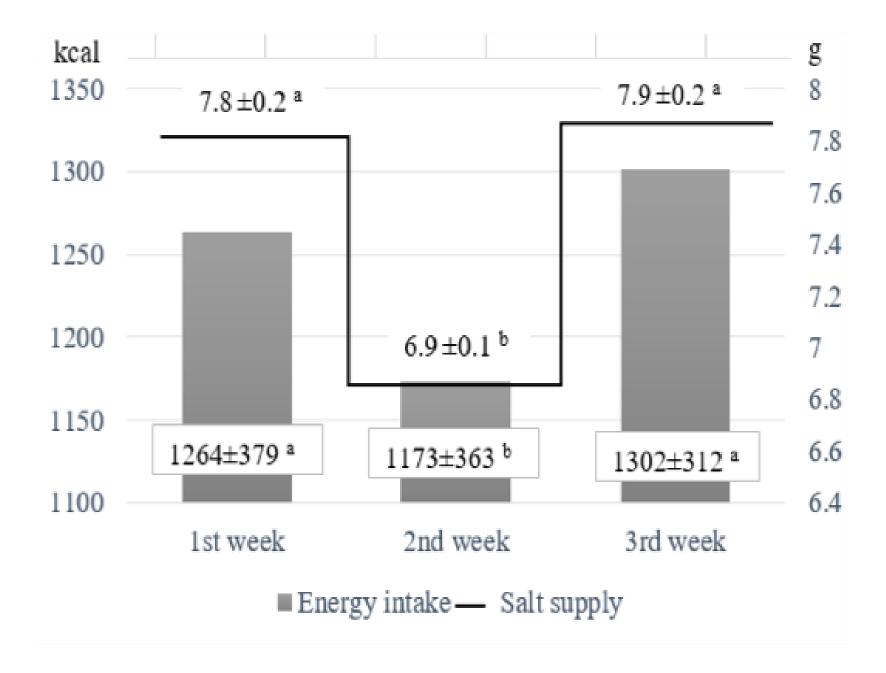
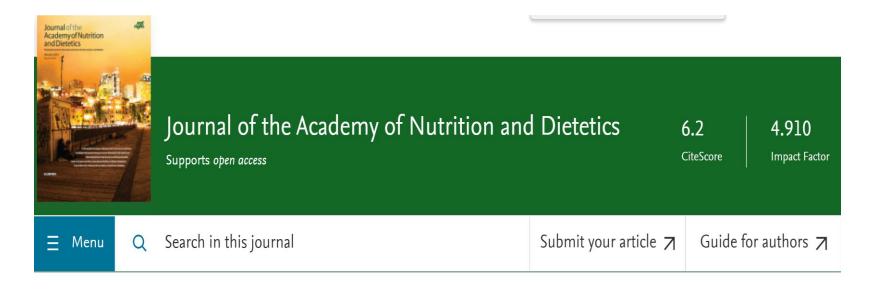


Table 3. Blood pressure at the 1st, 2nd and 3rd week (n=83).

Variable	1st week	2nd week	3rd week
SBP (mmHg)	126±14 <sup>a</sup>	124±17 <sup>a</sup>	125±11 <sup>a</sup>
DBP (mmHg)	72±13 <sup>a</sup>	72±11 <sup>a</sup>	71±9 <sup>a</sup>

Data are mean  $\pm$  SD. ANOVA with post-hoc Tukey HSD test was used. In each line, different letters above the data indicate significantly different means (p<0.05).

# No. 4 Research articles in Journal of Academiyof Nutrition and Dietetics 2021 by the USA and Canada Dietetic Association (Details are shown in the last part of this PPts)



Volume 121, Issue 1

Pages 1-184 (January 2021)

⟨ Previous vol/issue

Next vol/issue >

 What can we learn from this journal to be accepted by good journals?





#### Original articles in the Journal of Academy of Nutrition 2021

- Relationships Among the Physical and Social Home Food Environments, Dietary Intake, and Diet Quality in Mothers and Children
- A Mixed-Methods Evaluation of a School Wellness Initiative: An Examination of Longer Lunch Periods and More Physical Activity Opportunities
- Associations of Dairy Intake with Circulating Biomarkers of Inflammation, Insulin Response, and Dyslipidemia among Postmenopausal Women
- Examining Associations Between Dietary Inflammatory Index in Pregnancy, Pro-inflammatory Cytokine and Chemokine Levels at Birth, and Offspring Asthma and/or Wheeze by Age 4 Years
- Relationships Among the Physical and Social Home Food Environments, Dietary Intake, and Diet Quality in Mothers and Children



- A Qualitative Study Unpacking Factors That Influence Infant Feeding at Hospital Discharge Among Urban, Socioeconomically Disadvantaged Women
- Associations between ultraprocessed food consumption and total water intake in the US population
- Moving Beyond Breastfeeding Initiation: A Qualitative Study Unpacking Factors That Influence Infant Feeding at Hospital Discharge Among Urban, Socioeconomically Disadvantaged Women
- The Value of Programmatic Assessment in Supporting Educators and Students to Succeed: A Qualitative Evaluation
- Association Between Frequency of Eating Away-From-Home Meals and Risk of All-Cause and Cause-Specific Mortality



- Revising the Academy's Research Priorities: Methods of the Research Priorities and Strategies Development Task Force, 2017-2019
- Diet Quality Indices in the SUN Cohort: Observed Changes and Predictors of Changes in Scores Over a 10-Year Period
- A Mixed-Methods Evaluation of a School Wellness Initiative: An Examination of Longer Lunch Periods and More Physical Activity Opportunities
- Associations of Dairy Intake with Circulating Biomarkers of Inflammation, Insulin Response, and Dyslipidemia among Postmenopausal Women
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- Association Between Diet Quality and Cardiometabolic Risk Factor Clustering Stratified by Socioeconomic Status Among Chinese Children
- Relationships Among the Physical and Social Home Food Environments, Dietary Intake, and Diet Quality in Mothers and Children
- <u>Diet Quality and Cardiometabolic Risk Factor Clustering Stratified by Socioeconomic Status Among Chinese Children</u>
- Pilot Study of a Farm-to-Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Intervention Promoting Vegetable Consumption
- Relationships Among the Physical and Social Home Food Environments, Dietary Intake, and Diet Quality in Mothers and Children



#### Original articles in the Journal of Academy of Nutrition 2021

- Food Insecurity, Dietary Quality, and Health Care Utilization in Lower-Income Adults: A Cross-Sectional Study
- The Cost of Diets According to Nutritional Quality and Sociodemographic Characteristics: A Population-Based Assessment in Belgium
- Favorable Commercial and Health Behavior Impacts of a Healthy Vending Policy at an Australian University
- Infant and Early Child Appetite Traits and Child Weight and Obesity Risk in Low-Income Hispanic Families
- Coffee Consumption and the Risk of All-Cause and Cause-Specific Mortality in the Korean Population
- Healthy Eating Index-2015 Scores Among Adults Based on Observed vs Recalled Dietary Intake
- Applying the Healthy Eating Index-2015 in a Sample of Choice-Based Minnesota Food Pantries to Test Associations Between Food Pantry Inventory, Client Food Selection, and Client Diet
- Associations Between Diet Quality and Dental Caries in Low-Income Women
- Limited Association between the Total Healthy Eating Index-2015 Score and Cardiovascular Risk Factors in Individuals with Long-Standing Spinal Cord Injury: An Exploratory Study
- Food Insecurity and Dietary Intake among College Students with Unlimited Meal Plans at a Large, Midwestern University



- Subtypes and Severity of Irritable Bowel Syndrome Are Not Related to Patients' Self-Reported Dietary Triggers: Results From an Online Survey in Dutch Adults
- Opportunities to Promote Healthy Weight Through Child Care Licensing Regulations: Trends in the United States, 2016-2020
- Protein Intake During Infancy and Subsequent Body Mass Index in Early Childhood: Results from the Melbourne InFANT Program
- Stress and Depressive Symptoms Are Not Associated with Overall Diet Quality, But Are Associated with Aspects of Diet Quality in Pregnant Women in South Carolina
- Identification and Critical Appraisal of Food Service Satisfaction Questionnaires for Use in Nursing Homes: A Systematic Review
- Disaster Management and School Nutrition: A Qualitative Study of Emergency Feeding During the COVID-19 Pandemic
- A Qualitative Exploration of Predominantly White Non-Hispanic Tennessee WIC Participants' Food Retail and WIC Clinic Experiences During COVID-19
- Strategies to Reduce Consumption of Unhealthy Foods and Beverages: Scenario Modeling to Estimate the Impact on the Australian Population's Energy and Nutrient Intakes
- Differences in Dietary Patterns Identified by the Gaussian Graphical Model in Korean Adults With and Without a Self-Reported Cancer Diagnosis
- Qualitative Study on Participant Perceptions of a Supermarket Fruit and Vegetable Incentive Program
- Skin Carotenoid Scores Assessed with Reflection Spectroscopy Are Associated with Self-Reported Fruit and Vegetable Intake Among Latino Early Adolescents



- Examining Parent Preferences for the Use of Behavioral Economic Strategies on Children's Menus in Restaurants
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- Development and Qualitative Pretesting of Child Feeding and Obesity Prevention Messages for Parents of Infants and Toddlers
- Initial Development and Evaluation of the Food Processing Knowledge (FoodProK) Score: A Functional Test of Nutrition Knowledge Based on Level of Processing
- The Effect of Meal Replacement on Weight Loss According to Calorie-Restriction Type and Proportion of Energy Intake: A Systematic Review and Meta-Analysis of Randomized Controlled Trials
- Updates to the Definition of Evidence-Based (Dietetics) Practice: Providing Clarity for Practice
- Disaster Management and School Nutrition: A Qualitative Study of Emergency Feeding During the COVID-19 Pandemic
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# Thanks a lot for your patience



