



4-2013

## Diet Options for Cardiovascular Risk Reduction

Ruth Eckstrom

[How does access to this work benefit you? Let us know!](#)

Follow this and additional works at: <https://commons.und.edu/theses>

---

### Recommended Citation

Eckstrom, Ruth, "Diet Options for Cardiovascular Risk Reduction" (2013). *Theses and Dissertations*. 4842.  
<https://commons.und.edu/theses/4842>

This Independent Study is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact [und.common@library.und.edu](mailto:und.common@library.und.edu).

SP. COL.  
T2013  
E1927

DIET OPTIONS FOR CARDIOVASCULAR RISK REDUCTION

by

Ruth E. Eckstrom

Bachelor of Science in Nursing, University of North Dakota, 2011

An Independent Study

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Science

Grand Forks, North Dakota

April

2013

PERMISSION

Title           Diet Options for Cardiovascular Risk Reduction

Department   Nursing

Degree        Master of Science

In presenting this independent study in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the College of Nursing of this University shall make it freely available for inspection. I further agree that permission for extensive copying or electronic access for scholarly purposes may be granted by the professor who supervised my independent study work or, in her absence, by the chairperson of the department or the dean of the Graduate School. It is understood that any copying or publication or other use of this independent study or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of North Dakota in any scholarly use which may be made of any material in my independent study.

Signature:           Ruth E. Eckstrom          

Date:                   April 30, 2013                  

University of North Dakota Libraries

Diet Options for Cardiovascular Risk Reduction

By Ruth E. Eckstrom

Department of Nursing

University of North Dakota

## Abstract

Cardiovascular disease is a leading killer in the United States and worldwide. Diet as a modifiable risk factor can have a beneficial impact on the reduction of cardiovascular risk. The purpose of this document is to determine the evidence that supports the most effective cardio-protective dietary interventions which can be recommended to patients to reduce the cardiovascular risk factors of elevated low density lipoprotein cholesterol (LDL-C) and hypertension. An extensive review of the literature was conducted to determine the evidence that supports the most effective cardio-protective dietary interventions using Pub Med, CINAHL, and the World Wide Web. Based on the evidence reviewed, whole food diets that emphasize the intake of plants - fruits, vegetables and whole grains - are very important to reduce the cardiovascular risk factors of elevated LDL-C and hypertension. The whole food diets include: DASH, the TLC, and Mediterranean diets - all good options for cardiovascular risk reduction that meet recommended dietary guidelines. Greater emphasis should be placed on diet as a cost effective non-pharmacological health promotion intervention. Although a dietary lifestyle change is challenging for many, clinician information combined with patient preference in choice of options would promote greater long term adherence.

Keywords: cardiovascular, diet, cardioprotective, risk reduction.

## Introduction

Cardiovascular disease is a leading killer worldwide. According to the Centers for Disease Control and Prevention (2012), heart disease is the leading cause of death in the United States and was the cause for 25% of all deaths in 2008. Coronary heart disease (CHD) is the most common form and the projected cost for 2010 for health services, medications and lost productivity was \$108.9 billion (Centers for Disease Control and Prevention, 2012). Diet is a modifiable risk factor can have beneficial impact on reduction of cardiovascular risk. The purpose of this document is to determine the evidence that supports the most effective cardio-protective dietary interventions which can be recommended to reduce the cardiovascular risks of elevated low density lipoprotein cholesterol (LDL-C) and hypertension. The utility of this information for advanced practice registered nurses (APRNs) is its simplicity for implementation and the cost effectiveness of this non-pharmacological first line therapy measure.

Many experts have confirmed the connection between coronary heart disease and diet. Diets that are high in quality nutritionally do demonstrate cardio-protective effects (Mente et al., 2009). Diet can be used as a cost effective non-pharmacological intervention to prevent or reduce LDL-C and blood pressure. According to the American Heart Association (2012), an individual is empowered when they are mindful of the types and amounts of their dietary choices improving their overall health and successfully reducing their cardiovascular risk. This paper will address several types of diets and their relationship with the health outcomes of improvements in LDL-C and blood pressure thus providing information that APRNs may use for nutritional advice and guidance for their patients.

### Process

An extensive review of the literature was conducted over eight months to determine the evidence that supports the most effective cardio-protective dietary interventions using Pub Med, CINAHL, and the guidelines and statistics from government websites of United States Departments of Agriculture, Health and Human Services, and the Preventive Services Task Force. Based on the clinical question, the keywords used were: cardiovascular, risk factors, prevention, control, diet, cardioprotective, coronary heart disease, plant based diet, sodium, diet therapy, risk reduction, adult, atherosclerosis, coronary atherosclerosis, indicators of coronary artery disease, cholesterol levels, vegetarian diet, and low fat diet. Limits were set to English and peer reviewed articles. Then reference lists were searched for additional sources. The result of this literature search reinforces the importance of dietary counseling as a first line of therapy.

### Significance of Diet Effects on Cardiovascular Health

Many patients have cardiovascular risk factors and are being treated for both LDL-C and hypertension. Improvement in nutrition is significant part of successful lifestyle changes are recommended as first line therapy for cardiovascular risk reduction. Hypertension and elevated LDL-C are associated with cardiovascular disease and for the majority of these patients these risk factors are a manifestation of nutritional imbalances and excesses in their current dietary pattern.

Perron (2010, September 21) reported that former President Bill Clinton had been on a low-fat vegetarian diet and discussed research about the reversal of heart disease. The Ornish diet was claimed to have reduced blood lipids and coronary atherosclerosis had regressed (Ornish et al., 1998). The Lifestyle Heart Trial (Ornish et al., 1998) used a whole food vegetarian diet with an extreme low fat composition at 10% fat with the experimental intervention group -

the Ornish diet. This trial manifested evidence that diet alone can accomplish results that are similar to medications for the reduction of plasma lipids (Ornish et al., 1998). The experimental group had significant improvements from baseline at the end of one year with low density lipoprotein cholesterol (LDL-C) decreased 37.2 % and at 5 years a maintained decrease of 20% (Ornish et al., 1998). Ornish et al. (1998) reported coronary arteriography demonstrated a significant improvement with regression of stenosis at 1 year and year 5 - a relative improvement of 4.5% and 7.9% respectively.

The Dietary Approaches to Stop Hypertension (DASH) clinical trial provided proof that dietary patterns can effectively improve blood pressure postponing or avoiding medications for adults with stage I hypertension (Appel et al., 1997). Hypertensive subjects in the DASH trial had blood pressure improvements of -11.4 mm Hg systolic and -5.5 mm Hg diastolic (Appel et al., 1997). The composition of the combination diet used in this trial that demonstrated these favorable results included foods low in saturated and total fats, fruits, vegetables, and low fat dairy.

A second DASH diet study was conducted in 2001 that included a comparison of a control diet versus the Dietary Approaches to Stop Hypertension (DASH) diet with each tested at three levels of sodium intakes – high, intermediate, and low-demonstrated a stepwise reduction in both systolic and diastolic blood pressures with the lowering of sodium intake levels (Sacks et al., 2001). The control diet, similar to a typical American diet, did not yield the significant reductions in blood pressures even with lower sodium levels when compared to the great effect of the DASH diet combined with the lowest sodium level (Sacks et al., 2001). Individuals in this study who had hypertension lowered their mean systolic blood pressure -11.5 mm Hg with the combination of DASH and low sodium as well as a similar reduction of -7.1 mm Hg in



normotensive individuals compared to the control diet at the high sodium level (Sacks et al., 2001). The combination of low sodium intake and DASH diet had the best improvement in blood pressures confirming the findings of the earlier DASH diet trial (Sacks et al., 2001). This second DASH diet trial confirmed the results of the first.

### Dietary Lifestyle Change

When it comes to the topic of cardiovascular disease, most experts will readily agree that diet is an important modifiable lifestyle change. Where this agreement ends is on the question of which diet to follow for best cardio-protective results. For example, some are convinced that low fat or a Mediterranean style diet is best, whereas others maintain that a low carbohydrate or vegetarian diet can even reverse cardiovascular risk factors. The relationship and outcomes between diet pattern interventions and two cardiovascular risk factors, LDL-C and hypertension, will be examined to determine which diets can be confidently used by the primary care nurse practitioner for nutritional counseling of primary care patients with cardiovascular risk factors.

A dietary lifestyle change is a preventive and health promotion measure that is non-pharmacological. This measure would be cost effective treatment alternative and would avoid any potential adverse reactions to pharmacological treatments in the reduction of blood pressure or an elevated LDL-C that would contribute to atherosclerosis and coronary disease. This document is the result of a literature search for evidence supporting dietary interventions that are most effective to reduce cardiovascular risk factors of LDL-C and hypertension that can be easily utilized by APRNs.

### Conceptual model for dietary health promotion

A conceptual model that could be utilized for dietary patient education and counseling is the Health Promotion Model (HPM) developed by Nola Pender (McEwen & Wills, 2011, pp.

225-227). This model has been used for health promotion interventions that integrate the social cognitive theory and nursing practice. This is a holistic approach to health promotion incorporating individual physical, psychological, sociocultural influences and includes the individual's cognitive behavioral beliefs of self-efficacy that contribute to motivation for personal health promotion (McEwen & Wills, 2011, pp. 225-227). According to Pender, Murdaugh, and Parsons (2011, p. 20), striving to improve one's level of wellness results from their effective actions.

Individuals decide their definition of good health and determine their belief of self-efficacy (McEwen & Wills, 2011, pp. 290-295). It is then necessary for persons with cardiovascular risk factors to recognize and acknowledge any of their health behaviors that are harmful. Finally, these individuals need to believe they can make lifestyle changes and successfully follow through with intentionally acting on those changes.

#### Diets for Reduction of Cardiovascular Risk

According to a systematic review by Mente et al. (2009), there is strong evidence of associations between benefit or harm for coronary heart disease with specific dietary patterns. Some patients are very aware of their diet having a deleterious health effect on their cholesterol and blood pressure levels but may be unsure of how to beneficially improve their diet. The motivated individual will seek guidance regarding nutrition as a strategy for their personal health promotion. The following diets were reviewed regarding their ability to reduce LDL-C and / or blood pressure included these categories: low fat, Mediterranean style, low carbohydrate, vegetarian style diets and low sodium diets. Some of the diets are very restrictive and others allow greater variety of foods which may contribute to the accomplishment or failure of long term diet observance.

National guidelines for acceptable macronutrient dietary ranges are a necessary point to use for determination if a diet under consideration is healthy or not. The recommended macronutrient diet guidelines for adults 19 years and older from the United States Department of Agriculture (2011) include: carbohydrates at 130 grams per day – 45% to 65% total calories; protein at 45 grams to 56 grams-10% to 35% total calories; and fats at 20% to 35% total calories with 7% to 10% calories saturated fat and trans-fat less than 1% calories. The recommended sodium micronutrient diet guideline for adults 19 years and older from the United States Department of Agriculture (2011) is sodium at 2300 milligrams per day or 1500 milligrams per day if over 50 years, African American, diabetic, hypertensive or kidney disease.

#### Cardiovascular Effects of Diet Options

##### *Vegetarian Diet Options*

There are a variety of vegetarian type diets with the range from the vegan which is strictly only plant based to those that do allow some animal proteins such as eggs, milk, cheese, or fish. Vegetarian type diets are generally high in complex carbohydrates and naturally lower in fat with fruits, vegetables, and whole grains. The Ornish diet is an extreme low fat, high carbohydrate (75% of calories), high fiber, and strict whole foods vegetarian type diet with (de Souza et al., 2008; Ornish et al., 1998). Dietary saturated fat and trans-fat are restricted with the daily total fat intake being 10% or less of calories (de Souza, et al, 2008). The Ornish diet reduced LDL-C by 40% after one year and had statistically significant improvement in coronary artery stenosis with regression with a 7.9% relative improvement after five years (Ornish et al., 1998).

Ferdowsian and Barnard (2009), in their review of plant based diets' effects on lipids, agreed that these diets can reduce LDL- cholesterol up to 35% as well as improvement in

triglycerides, hypertension, and blood glucose levels. The lacto-ovo-vegetarian diet had a borderline significant improvement of the LDL-C to high density lipoprotein cholesterol (HDL-C) ratio (Burke et al., 2007). This 18 month randomized trial studied the effects of a standard low fat diet to a lacto-ovo-vegetarian diet with calorie restrictions and fat reduced in both diets to 25% of calories (Burke et al., 2007). Another trial over 74 weeks, compared a low fat (10%) vegan diet with 15% protein and 75% carbohydrates with a conventional diabetes diet that followed the 2003 guidelines of the American Diabetes Association with macronutrients of less than 7% saturated fats, 15% to 20% proteins, 60% to 70% carbohydrates that also included calorie reductions of 500 to 1000 calories (Barnard et al., 2009). This study showed that LDL-C levels had a significantly greater improvement of -13.5 mg/dL with the low fat vegan diet (Barnard et al., 2009). According to Burke et al (2007) the low fat lacto-ovo-vegetarian diet and the standard calorie restricted low fat omnivorous diet had basically similar outcomes in decreasing LDL-C.

Dansinger et al. (2005) commented that the Ornish diet had a higher participant dropout rate which may be because of the extreme character of this diet resulting in less long term dietary coherence. Claims by de Souza et al. (2008) state the Ornish diet does not meet national guidelines for acceptable macronutrient distribution ranges. The reduced intake of calories and fats are responsible for significant lowering of LDL-C, but this outcome was easier to achieve with the lower fat and calorie intake of a vegetarian type diet. Although it is true that there are several types and definitions of vegetarian diets with some including selected animal proteins, most are low in calories, fats, and high in fiber (Ferdowsian & Barnard, 2009). There are several advantages of plant based diets that include: no requirement for portion control; no calorie

counting; the higher fiber content increases satiety; and if properly planned daily nutritional requirements can be met. (Ferdowsian, & Barnard, 2009).

#### *Low Carbohydrate Diet Options*

Low carbohydrate diets have been popular for causing rapid weight loss. One type of very low carbohydrate diet is the Atkins diet. Brehm et al. (2003) conducted a study with healthy obese women comparing a very low carbohydrate diet (20 gram per day initially and increasing to 40 to 60 gram per day) to a low fat diet (30% calories as fat) with a calorie restriction and found that although both groups had improvements over time in plasma lipids there were no differences in the results between the two diets. It was also noted that although blood pressures were within normal ranges at baseline, there were no significant changes over time in blood pressures between the two diets (Brehm et al., 2003).

According to Yancy, Olsen, Guyton, and Baskt (2004), the results of their randomized controlled trial showed a low carbohydrate diet (initiated at restriction of less than 20 gram per day) resulted an unfavorable change of greater than 10% in LDL-C for 30% of participants compared to 16% in LDL-C unfavorable change of the low fat diet (total fat less than 30% which included saturated fat less than 10% of calories with calorie reduction of 500 to 1000 calories daily) participants. The comparison of a low carbohydrate ketogenic diet to a low fat diet resulted in reductions of both systolic and diastolic blood pressures but there was not a statistically significant difference between these diets (Yancy, Olsen, Guyton, & Baskt, 2004).

A randomized trial, which included the Atkins diet and the Ornish diet, compared popular weight loss diets for their cardiovascular risk reduction and found all diets had modestly favorable improvement at one year with several risk factors (Dansinger et al., 2005). The Atkins participants did not have statistically significant improvement in LDL-C ( $P = .07$ ) despite a mean

reduction in LDL -C with the other diets, which included the Ornish diet (Dansinger et al., 2005). A meta-analysis comparing low carbohydrate and low fat diet trials, reported greater improvement with the weighted mean difference in LDL-C with the low fat diet (Nordmann et al., 2006). A trend toward a lighter LDL - C size was found in a carbohydrate controlled diet, making the LDL-C less atherogenic, but differences between the carbohydrate controlled diet and the fat controlled diet with other serum risk factors for coronary artery disease were not significant (Mueller et al., 2010). Low carbohydrate diets may improve triglycerides and increase HDL cholesterol (Dansinger, et al., 2005; Gardner et al., 2007). According to Gardner et al. (2007), the effects on plasma lipids, in their study of several popular weight loss diets found the Atkins diet, a very low carbohydrate high fat diet, and the Ornish diet, an extreme low fat high carbohydrate vegetarian diet, were not statistically significant differences in LDL-C at one year.

Nordmann et al. (2006) did not recommend low carbohydrate diets for the prevention of cardiovascular disease because these diets showed changes that were unfavorable with LDL-C and did not show evidence of a reduction in morbidity or mortality. Caution is advised regarding low carbohydrate diets, such as the Atkins diet (9% carbohydrate and 62% fats which includes 23% saturated fats), because of the liberal allowance for fat intakes primarily from red and processed meats that may contribute to increasing cardiovascular risk (de Souza et al., 2008). Additionally, the higher protein intake with the low-carbohydrate diet may prove detrimental to individuals with osteoporosis, kidney stones, chronic kidney disease, or in persons with potential for renal impairment related to their hypertension or diabetes (de Souza et al., 2008; Mueller et al., 2010).

*Mediterranean Diet Options*

A systematic review looking at dietary associations with heart disease noted that there was evidence for cardio-protective factors related to the components of the Mediterranean diet (Mente et al., 2009). The Mediterranean Diet had the best strength of evidence from multiple randomized controlled trials with the consistency and quality of patient orientated cardiovascular relative risk reduction of mortality and morbidity for coronary heart disease (Mente, et al., 2009).

The Medi-RIVAGE study examined a Mediterranean type diet (up to 38% calories from fat) and a low fat diet (fat limited to 30% of calories) over a three month period and found that groups improved total cholesterol levels -7.5% and -4.5% respectively and trended over time to LDL-C reductions (Vincent-Baudry et al., 2005). Both groups changed their diet over time to a decreased intake of saturated fats, meat and dairy, as well as an increased intake of vegetables, fruits, and fish (Vincent-Baudry et al., 2005). The Medi-RIVAGE study concluded that both diets could significantly predict cardiovascular risk reduction with the Mediterranean type diet at 15% and the low fat diet at 9% (Vincent-Baudry et al., 2005). It was noted that with the Mediterranean diet there was an diastolic blood pressure increase that was weakly, but statistically significant (Vincent-Baudry et al., 2005).

The PREDIMED study compared two types of Mediterranean diets-one supplemented with olive oil and the other was supplemented with nuts (Estruch et al., 2006). A comparison was made to a low fat diet for the effects on cardiovascular risk factors (Estruch et al., 2006). Both Mediterranean diets demonstrated a decrease in blood pressure with the hypertensive participants having statistically significant systolic blood pressure improvements at -6.2 mm Hg for the olive oil group and - 7.4 mm Hg for the nut group (Estruch et al., 2006). The low fat diet group had unfavorable changes of systolic blood pressure with a mean group change of 1.2 mm

Hg (Estruch et al., 2006). Despite all groups increasing their plant consumption only the diet supplemented with nuts had favorable improvements in total cholesterol levels (Estruch et al., 2006).

The Mediterranean diets trial by Rallidis et al. (2009) claimed that close adherence to a Mediterranean diet, in spite of a higher fat content, brought beneficial improvements in cardiovascular risk factors with the greatest reduction seen in diastolic blood pressure reduction. According to Rallidis et al. (2009), patients with the intervention of close dietician supervision were more successful with dietary compliance in comparison with the intervention group that was given instructions only.

#### *Dietary Approaches to Stop Hypertension (DASH) Diet Option*

Elevated levels of sodium consumption have been associated with elevated blood pressures resulting in an increase in cardiovascular risk. Minimizing sodium consumption combined with a diet high in vegetables, fruits, and whole grains can help reduce blood pressure (U.S. Department of Health and Human Services, 2006). The DASH diet is high in whole grains, fruits, vegetables, includes low or fat free dairy, lean meats, nuts, seeds, and legumes (U.S. Department of Health and Human Services, 2006). The DASH diet composition includes fat 27% calories (includes 6% saturated fat), 18% calories from protein, 55% calories from carbohydrate, and 2300 milligrams of sodium (U.S. Department of Health and Human Services, 2006).

The PREMIER trial compared a group with only advice and standard recommendations for behavioral changes to reduce blood pressures versus the standard recommendations plus DASH diet over an 18 month period with middle aged participants who had prehypertension or stage I hypertension at baseline (Elmer et al., 2006). The standard recommendations for



behavioral changes included: any needed weight reduction, physical activity, and a healthy diet i.e. DASH but did not include instructions to keep a diary for diet or physical activity with the advice only participants (Elmer et al., 2006). The DASH diet significantly increases fruits, vegetables, minerals, dairy, and reduces fats and calories which contribute to reduction of blood pressure and weight loss (Elmer et al., 2006).

The ENCORE study examined exercise, weight loss, autonomic and vascular functioning, and left ventricular mass with the DASH diet in overweight or obese participants with prehypertension and stage I hypertension comparing DASH diet alone, DASH diet with exercise and weight loss and a usual diet as control (Blumenthal et al., 2010). They found that better stated reductions in blood pressure was demonstrated (- 16.1 mm Hg systolic and -9.9 mm Hg diastolic) with the DASH diet when combined with exercise and weight loss (Blumenthal et al., 2010). The DASH diet alone reduced systolic blood pressure by 11.2 mm Hg systolic and 7.5 mm Hg (Blumenthal et al., 2010). The DASH diet can reduce blood pressures without medication but there are greater beneficial changes in blood pressures if exercise and weight loss are part of the individual's lifestyle change.

Cook et al. (2007), in an observational study, examined cardiovascular outcomes in subjects 10 to 15 years after the end of their participating in the Trials of Hypertension Prevention (TOHP) 1 and 2 trials. Dietary sodium reduction was studied for any long term effects on cardiovascular and morbidity (Cook et al., 2007). After obtaining morbidity data on all participants in both trials, it was determined that a dietary sodium reduction intervention may promote future cardiovascular risk reduction by 25% to 30% (Cook et al., 2007).

According to Gardner et al. (2007), the effects on blood pressure reduction of several popular weight loss diets demonstrated the Atkins diet had the greatest systolic and diastolic

improvement at all the time points in this one year trial. In contrast, the meta-analysis by Nordmann et al. (2006) comparing low carbohydrate diets with low fat diets, demonstrated an initial trend of reduction in both the systolic and diastolic blood pressures with the low carbohydrate diet but by one year the difference disappeared. Dansinger et al. (2005) found in their comparison trial of popular weight loss diets, which included the Atkins and the Ornish diets, that there was no significant change after one year in blood pressures. The low carbohydrate diet and the low fat diet in the study by Yancy et al. (2004) , found similar reductions in blood pressure from baseline but not significantly different between the two diets.

Researchers agree that the DASH diet can reduce blood pressure similar to a single antihypertensive medication when sodium restriction is in the 1500 mg to 2500 mg range, but also stressed that long term dietary adherence is key to success (Appel et al., 2011; Elmer et al., 2006).

#### Conclusion

Elevated LDL-C levels are associated with dietary saturated fat consumption and increased cardiovascular risk with trans-fats being the worst offenders. A dietary pattern that has increased fiber, potassium, and lower in sodium through the consumption of vegetables, fruits, and whole grains is one way to reduce fat. Higher consumption of vegetables and fruits appear to have a greater reduction of LDL-C and systolic and diastolic blood pressures. Although diets can be modified to improve lipid profiles, care also needs to be taken with which macronutrients will replace the fat calories. High carbohydrate intakes can unfavorable effects on triglyceride levels and HDL-C levels which are also biomarkers for greater cardiovascular risk (Mente et al., 2009). Not all fats are associated with an increase in the cardiovascular risk, but the type and

quality of dietary fats need to be considered, especially with the consideration of the Mediterranean diet pattern.

Dietary patterns, over the course of time, can significantly impact cardiovascular health. There is much evidence linking cardiovascular risk to dietary patterns and nutrition excesses or deficits. There is a substantial amount of literature available regarding trials, meta-analyses, and systematic reviews that have been done relating diet patterns and their associated effects on LDL-C and blood pressure. Based on the evidence of the literature reviewed, whole food diets that emphasize the intake plants - fruits, vegetables and whole grains are very important to reduce cardiovascular risk and improve health. The following whole food diets: DASH and Mediterranean diets are all good options for cardiovascular risk reduction that meet dietary guidelines.

#### *Implications for Practice*

Healthy People 2020 objectives include reducing hypertension and LDL-C first through lifestyle interventions and then, if necessary, with medications (U.S. Department of Health and Human Services, 2013). Since 2003, the U. S. Preventive Services Task Force (USPSTF, 2013) has recommended diet counseling for primary care patients with known cardiovascular disease risk as a grade B recommendation (USPSTF, 2013). APRNs need a working knowledge base to provide dietary recommendations and a greater emphasis should be placed on diet as a cost effective non-pharmacological cardiovascular health promotion intervention.

The ability to maintain a lifestyle change is a challenging undertaking for patients and APRNs in a busy clinical setting. Although a dietary lifestyle change is challenging, clinicians need to make the time and give the dietary information combined with patient preference in choice of diet options would promote greater long term adherence. Dansinger et al., (2005)

reminds us that an individual's culture, lifestyle, food preferences, and particular cardiac risk issues are an important consideration in making the recommended diet option that will result in greater long-term dietary compliance. Compliance with a recommended diet and the ability to maintain high adherence can meet several potential obstacles and barriers for patients. For example, socioeconomic status and limited financial resources to purchase healthy food— social service consults may be necessary, lack of social support from family members, or stressful psychosocial issues that contribute to overeating. These are additional considerations that may require multidisciplinary interventions for the benefit of the patient, such as social services for access to food programs, dietitians for more intensive counseling for the highest risk patients, and support groups for encouragement leading to better diet adherence. Dietary counseling can improve patient nutrition and help improve cardiovascular risk factors of LDL-C and hypertension.

## References

- Appel, L. J., Moore, T. J., Obarzanek, E., Vollmer, W. M., Svetkey, L. P., Sacks, F. M., Bray, G. A., Vogt, T. M., Cutler, J. A., Windhauser, M. M., Lin, P., & Karanja, N. (1997, April 17). A clinical trial of the effects of dietary patterns on blood pressure. *The New England Journal of Medicine*, 336(16), 1117-1124.
- Barnard, N. D., Cohen, J., Jenkins, D. J. A., Turner-McGrievy, G., Gloede, L., Green, A., & Ferdowsian, H. (2009, May). A low-fat vegan diet and a conventional diabetes diet in the treatment of type 2 diabetes: A randomized, controlled, 74-wk clinical trial. *American Journal of Clinical Nutrition*, 89(5), 1588-1596.
- Blumenthal, J. A., Babyah, M. A., Hinderliter, A., Watkins, L. L., Craighead, L., Lin, P., Caccia, C., Johnson, J., Waugh, R., & Sherwood, A. (2010, January 25). Effects of the DASH diet alone and in combination with exercise and weight loss on blood pressure and cardiovascular biomarkers in men and women with high blood pressure. *Archives of Internal Medicine*, 170(2), 126-135.
- Brehm, B. J., Seeley, R. J., Daniels, S. R., & D'Alessio, D. A. (2003, April). A randomized trial Comparing a very low carbohydrate diet and a calorie-restricted low fat diet on body weight and cardiovascular risk factors in healthy women. *The Journal of Clinical Endocrinology and Metabolism*, 88(4), 1617-1623. Doi: 10.1210/jc.202-021480.
- Burke, L. E., Hudson, A. G., Warziski, M. T., Styn, M. A., Music, E., Elci, O. U., & Sereika, S. M. (2007, September). Effects of a vegetarian diet and treatment preference on biochemical and dietary variables in overweight and obese adults: A randomized clinical trial. *American Journal of Clinical Nutrition*, 86 (3) 588-596.
- Centers for Disease Control and Prevention. (2012). Heart disease facts: America's disease

burden. Retrieved July 23, 2012 from <http://www.cdc.gov/heartdisease/facts.htm>

Cook, N. R., Cutler, J. A., Obarzanek, E., Buring, J. E., Rexrode, K. M., Kumanyika, S. K.,

Appel, L. J., & Welton, P. K. (2007, April). Long term effects of dietary sodium reduction on cardiovascular disease outcomes: Observational follow-up of the trials of hypertension prevention. *British Medical Journal*, 334(7599), 885-8.

Dansinger, M. L., Gleason, J. A., Griffith, J. L., Selker, H. P., & Schaefer, E. J. (2005, January

5). Comparison of the Atkins, Ornish, Weight Watchers, and Zone diets for weight loss and heart disease risk reduction. *Journal of the American Medical Association*, 293(1), 43-53.

de Souza, R. J., Swain, J. F., Appel, L. J., & Sacks, F. (2008, July). Alternatives for

macronutrient intake and chronic disease: A comparison of the OmniHeart diets and popular diets and with dietary recommendations. *American Journal of Clinical Nutrition*, 88(1), 1-11.

Elmer, P. J., Obarzanek, E., Vollmer, W. M., Simons-Morton, D., Stevens, V. J., Young, D. R.,

Lin, P., Champagne, C., Harsha, D. W., Svetkey, L. P., Ard, J., Brantley, P. J., Proschan, M. A., Erlinger, T. P., & Appel, L. J. (2006, April 4). Effects of comprehensive lifestyle modification on diet, weight, physical fitness, and blood pressure control: 18-month results of a randomized trial. *Annals of Internal Medicine*, 144 (7), 485-495.

Estruch, R., Martínez-Gonzalez, M. A., Corella, D., Salas-Salvado, J., Ruiz-Gutierrez, V., Covas,

M. I., Fiol, M., Gomez-Gracia, E., Lopez-Sabater, M. C., Vinyoles, E., Aros, F., Conde, M., Lahoz, C., Lapetra, J., Saez, G., & Ros, E. (2006, July 4). Effects of a Mediterranean-style diet on cardiovascular risk factors: A randomized trial. *Annals of Internal Medicine*, 145 (1), 1-11.

Ferdowsian, H. R. & Barnard, N. D. (2009, October). Effects of plant-based diets on plasma lipids. *American Journal of Cardiology*, 104 (7), 947-956.

DOI: 10.1016/j.amjcard.2009.05.032.

Gardner, C. D., Kiazand, A., Alhassan, S., Kim, S., Stafford, R. S., Ballise, R. R., Kraemer, H. C., & King, A.C. (2007, March 7). Comparison of the Atkins, Zone, Ornish, and LEARN diets for change in weight and related risk factors among overweight premenopausal women. *Journal of the American Medical Association*, 297 (9), 969-977.

McEwen, M. & Wills, E. M. (2011). *Theoretical basis for nursing* (3rd ed.). Philadelphia, PA: Wolters Kluwer, Lippincott Williams & Wilkins.

Mente, A., de Koning, L., Shannon, H. S., & Anand, S. S. (2009, April 13). A systemic review of the evidence supporting a causal link between dietary factors and coronary heart disease. *American Medical Association*, 169 (7), 659-669. DOI: 10.3945/ajcn.2009.28877.

Mueller, C., Masri, B., Hogg, J., Mastrogiancomo, M., & Chiu, Y. (2010, October). Carbohydrate vs fat controlled diet effect on weight loss and coronary artery disease risk: A pilot feeding study. *Nutrition in Clinical Practice*, 25 (5), 542-547.

Nordmann, A. J., Nordmann, A., Briel, M., Keller, U., Yancy, W. S., Brehm, B. J., & Bucher, H. C. (2006, February 13). Effects of low-carbohydrated vs low-fat diets on weight loss and cardiovascular risk factors: A meta-analysis of randomized controlled trials. *American Medical Association*, 166 (3), 285-293.

Ornish, D. Scherwitz, L. W., Billings, J. H., Gould, K. L., Merritt, T. A., Sparler, S., Armstrong, W. T., Ports, T. A., Kirkeeide, R. L., Hogeboom, C., & Brand, R. J. (1998, December 16). Intensive lifestyle changes for reversal of coronary heart disease. *The Journal of the American Medical Association*, 280 (23), 2001-2007.

Pender, N., Murdaugh, C., & Parsons, M. A. (2011). *Health promotion in nursing practice* (6th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Perron, C. (2010, September). Bill Clinton's life-saving veggie diet. Retrieved from <http://health.lifegostrong.com/article/bill-clintons-life-saving-veggie-diet>

Rallidis, L. S., Lekakis, J., Kolomvotsou, A., Zampelas, A., Vamvakou, G., Efsthathiou, S., Dimitriadis, G., Raptis, S. A., & Kremastinos, D. T. (2009, August). Close adherence to a Mediterranean diet improves endothelial function in subjects with abdominal obesity. *American Journal of Clinical Nutrition*. 90 (2) 263-8. DOI: 10.3945/ajcn.2008.27290.

Sacks, F. M., Svetkey, L. P., Vollmer, W. M., Appel, L. J., Bray, G. A., Harsha, D., Obarzanek, E., Conlin, P. R., Miller, E. R., Simons-Morton, D. G., Karanja, N., & Lin, P. (2001, January 4). Effects on blood pressure of reduced dietary sodium and the dietary approaches to stop hypertension (DASH) diet. *The New England Journal of Medicine*, 344 (1), 3-10.

United States Department of Agriculture. (2011). Center for nutrition policy and promotion: Dietary guidelines for Americans. Retrieved January 2, 2013 from <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

U.S. Department of Health and Human Services. (2006). Your guide to lowering your blood pressure with DASH: DASH eating plan. Retrieved June 10, 2012 from [http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new\\_dash.pdf](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf)

U.S. Department of Health and Human Services. (2013). Healthy people.gov: Heart disease and stroke. Retrieved March 23, 2013 from <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=21>

U. S. Preventive Services Task Force. (2013). Behavioral counseling in primary



care to promote a healthy diet in adults at increased risk for cardiovascular disease.

Retrieved March 23, 2013 from

<http://www.uspreventiveservicestaskforce.org/uspstf/uspsdiet.htm>

Vincent-Baudry, S., Defoort, C., Gerber, M., Bernard, M., Verger, P., Helal, O., Portugal, H., Planells, R., Grolier, P., Amiot-Carlin, M., Vague, P., & Lairon, D., (2005, November). The Medi-RIVAGE study: Reduction of cardiovascular disease risk factors after a 3-mo intervention with a Mediterranean-type diet or a low-fat diet. *American Journal of Clinical Nutrition*, 82(5), 964-971.

Yancy, W.S., Olsen, M. K., Guyton, J. R., Bakst, R. P. (2004, May). A low-carbohydrate, ketogenic diet versus a low-fat diet to treat obesity and hyperlipidemia. *Annals of Internal Medicine*, 140 (10), 769-777.

APPENDIX

**Table of contents**

**Section 1: Overview and General Information**

- 1.1 - Aims and Scope**
- 1.2 – Correspondence**
- 1.3 – Review and Response**

**Section 2: Manuscript Submission Criteria**

- 2.1 - Publication Ethics**
- 2.2 - Manuscript Files and Format**
- 2.3 - Categories of Articles**
- 2.4 - Size / Length / Fonts**
- 2.5 - Style and References**
- 2.6 - Footnotes**

**Section 3: Additional Guidelines**

- 3.1 - Title Page**
- 3.2 - Cover Letter**
- 3.3 - Abstract**
- 3.4 - Acknowledgements**
- 3.5 - Electronic File Formats**
- 3.6 - Tables, Figures and Graphics**
- 3.7 - Permissions**
- 3.8 - Copyright Transfer Agreement (CTA)**

**Section 4: Guidelines for the online submission process**

- 4.1- Prior to LOGIN**
- 4.2 - Be Prepared**
- 4.3 - After You Have Logged In**
- 4.4 - Keyword Tips**
- 4.5 - Manuscript File Naming for Submission**
- 4.6 After Your Submission is Complete**

**Section 5: Manuscript Submission Checklist**

## **Section 1: Overview and General Information**

### **1.1 - Aims and Scope**

The *Journal of the American Academy of Nurse Practitioners (JAANP)* is a monthly scholarly, peer-reviewed journal for Advanced Practice Registered Nurses (APRNs) and is the official journal for all members of the American Academy of Nurse Practitioners (AANP; see [www.aanp.org](http://www.aanp.org) for more information). Formed in 1985, the AANP is the largest and only full-service professional membership organization in the United States for NPs of all specialties. The *JAANP* supports the mission of AANP to:

- Promote excellence in NP practice, education and research;
- Shape the future of healthcare through advancing health policy;
- Be the source of information for NPs, the healthcare community and consumers;
- Build a positive image of the NP as a leader in the national and global healthcare community.

The mission of the *JAANP* is to help serve the information needs of nurse practitioners (NPs) and others with an interest in advanced practice nursing and primary health care. The readers of the *JAANP* are mostly primary care NPs and other advanced practice registered nurses (APRNs), who practice in domestic and international settings where they serve clients of all ages, manage a broad spectrum of acute and chronic conditions, prescribe a variety of medications and treatments, and function to the full scope of advanced practice nursing in their respective states and countries. We have experienced a growing membership of acute care NPs and a steady increase in NPs who have completed DNP programs; therefore, there is a need for information related to system issues such as quality improvement, translational research, and conditions more commonly encountered in acute care settings.

The *JAANP* encourages submission of articles addressing evidence-based clinical practice, integrative/comprehensive reviews, research, novel case studies, NP education, legislation, health policy, practice improvement, and other advanced practice nursing issues. International submissions that address advanced practice nursing issues throughout the world are also encouraged. Manuscripts must be original, unpublished works submitted for the exclusive use of the *JAANP* in accordance with these guidelines. The review process is double-blinded.

### **1.2 - Correspondence**

All editorial queries and commentary should be sent by email to:  
[jaanp.eic@gmail.com](mailto:jaanp.eic@gmail.com)

It is not necessary to send a pre-submission query. We recommend instead that authors visit the online journal website ([http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1745-7599/earlyview](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1745-7599/earlyview)) and check the table of contents and abstracts for the previous 12-24 issues to view the scope of topics covered in *JAANP*.

### 1.3 – Review and Response

All reviews are completed on-line via the ScholarOne Manuscripts™ program and the results of reviews are sent to the authors at the email address entered into the system by the submitting author. We try to provide a first response within 60 days, however, this depends on the timeliness of the reviewers' responses. Careful consideration is given to all submissions and decisions are rarely changed. If the author believes that misconduct on the part of the reviewers may have occurred (a conflict of interest for example), the author should contact the editor-in-chief and request a review of the decision. A decision of Reject is not sufficient reason to request a review, nor is the fact that the reviewers did not understand what the author meant to say. Poorly written material, flawed research, or a focus that is not appropriate for the journal's audience are valid reasons for rejection.

## **Section 2: Manuscript Submission Criteria**

Manuscripts must be submitted via the ScholarOne Manuscripts™ JAANP online submission site at <http://mc.manuscriptcentral.com/jaanp>. The steps must be followed exactly to assure your submission is complete. If you do not receive an automated e-mail response, your manuscript has not been successfully entered into the system.

### **2.1 - Publication Ethics**

The *JAANP* adheres to the principles stated in the Uniform Requirements for Manuscripts Submitted to Biomedical Journals. ([http://www.icmje.org/urm\\_main.html](http://www.icmje.org/urm_main.html)) All authors should meet the criteria for authorship as stated in the ICMJE Uniform Requirements. The required Cover Letter must include the statement "All authors meet the criteria for authorship as stated by the ICMJE in the Uniform Requirements for Manuscripts Submitted to Biomedical Journals."

All authors should have made substantial contribution to the manuscript submitted and be prepared to defend any content included therein. To fully understand the issues of Authorship and Conflicts of Interest, authors are encouraged to read the full text of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals at ([http://www.icmje.org/urm\\_full.pdf](http://www.icmje.org/urm_full.pdf)). If changes are made to authorship following a revised submission, all authors must agree to the change by completing the Change of Authorship Form, available from the editor on request.

The *JAANP* is a member of the Committee on Publication Ethics (COPE) and adheres to the ethical publication practices. The *JAANP* adheres to the Good Publications Practice Guidelines, version 2, available online at <http://www.gpp-guidelines.org/> for all sponsored material.

A separate statement regarding conflicts of interest is also required and is covered in great detail in the section titled Acknowledgements (3.4).

All manuscripts are submitted to iThenticate, a plagiarism detection program, prior to peer review. Manuscripts that appear to be duplicate submissions will not be reviewed and all authors will be notified of the iThenticate report. Significant issues of apparent ethical misconduct will be addressed according to the COPE guidelines (available at <http://publicationethics.org>), which may include notification of Deans, supervisors, and/or funding agencies of ethical breaches.

## **2.2 - Manuscript Files and Format**

This section provides general guidelines for format and length of manuscripts and some specific guidelines for selected types of manuscripts. It is important that the submitter review the submission to assure that files are uploaded properly and that any author identifying information is removed to assure a fair and blinded review process.

Manuscript text should not include page numbers, running heads, headers/footers, or hard returns at the end of each sentence (use the word wrapping feature of the word processor). Tables and figures should not be included in the body of the Main Document file. They should be in separate Table and Figure files and labeled appropriately (e.g., Table 1).

Prior to submission you will need to do a word count (available on the MS Word Tools menu) of the Main Document file, excluding the abstract and references. This word count is to be entered in a specified data field during the submission process.

## **2.3 - Categories of Articles**

**Research:** The general format for research articles is Introduction, Methods, Results, and Discussion (IMRaD). For quality improvement research, the SQUIRE Guidelines should be followed. For quality or practice improvement projects, the research format is not appropriate and more specific guidelines can be found in a subsequent section.

All research reports must contain a statement in the methods section about the protection of human subjects and approval by the appropriate review committee. Checking the appropriate box on the Manuscript Details form in the submission process is also required.

Research references are limited to no more than 50 and should be the most current references available. Classic articles related to methods or instruments are acceptable. Additional references may be included in a table for on-line supporting information.

For randomized control trials (RCTs), the CONSORT (Consolidated Standards of Reporting Trials) Statement should be used as a guide. Authors should refer to the website (<http://www.consort-statement.org/>) for the most current guidelines. For reporting of company sponsored research, authors should also refer to the Good Publication Practices Guidelines, version 2 (also known as GPP2) for guidance on transparency of the process, which is available at <http://www.gpp-guidelines.org/>

For qualitative research, the type of analysis and control for rigor and credibility must be clearly stated. Any identifying information in responses from subjects must be removed.

**Reviews:** Systematic reviews are encouraged either with or without meta-analysis. A systematic approach to finding relevant studies, for example the PRISMA Statement (<http://www.prisma-statement.org>), the Joanna Briggs Institute (<http://www.joannabriggs.edu.au/about/home.php>) or the Cochrane Collaboration (<http://www.cochrane.org/reviews/clibintro.htm>), should be used as a guideline for reporting reviews. Authors should clearly describe the system they used to assure they have produced an unbiased review.

Sponsored Reviews, developed by authors in collaboration with medical communications companies or independent medical writers and funded by pharmaceutical or device companies, cannot be considered at this time unless the sponsoring company is willing to pay for the supplement pages required to print the article. If sponsorship includes paying for supplementary pages to the journal, sponsored articles will be considered as long as they are unbiased and focus on entire drug/device classes or diseases, not just a single product. Off-label use of drugs in any drug review must be clearly identified. Conflict of Interest declarations must be completed by anyone submitting reviews of drug or devices. Sponsored material will be peer reviewed and must be relevant to NP practice. Contact Kurt Polesky ([kpolesky@wiley.com](mailto:kpolesky@wiley.com)) for further information on sponsored material. We adhere to the principles stated in *Good Publication Practices Guidelines, version 2*, which is available at <http://www.gpp-guidelines.org>

**Practice Improvement/Quality Improvement/Decision analysis projects:** The synthesis and application of research to questions of clinical relevance for NPs is a focus of many DNP programs. Manuscripts reporting such projects do not usually conform to the standard research reporting guidelines. The importance of these projects is the local application of research; thus, the focus should be on local context, lessons learned, and process. We suggest authors consider using the recommended guidelines for Quality Improvement Reports (QIR) published in *Quality in Health Care* (Moss & Thompson, 1999, vol 8, p. 76). These projects may be exempt from human subjects review; however, a clear statement of any ethical review process, including exemption, must be made. For further guidance, see sample article (freely available without subscription) Cox, S., Wilcock, P., & Young, J. (1999) Improving the repeat prescribing process in a busy general practice. A study using continuous quality improvement methodology. *Quality in Health Care*, 8: 119-125.

**Case Study:** All identifying material must be changed, and a statement to that effect made in the manuscript, so that the patient cannot be easily identified. Any photos or diagnostic studies of the patient must also be anonymized. In cases where complete anonymity might not be possible, an informed consent by the patient is necessary.

**Clinical Articles:** Manuscripts reporting new or novel clinical insights will be considered for publication. Information already available in textbooks or considered general knowledge is not considered new or novel and will not be reviewed.

**Brief Reports.** Pilot studies or clinical reports with limited focus will only be considered for Brief Report formats. These manuscripts are no longer than 3000 words and limited to 30 references.

**CE Articles:** Articles with potential for continuing education (CE) are selected by the editor and the editorial board based on content and the needs of the members. Authors who think their manuscript might be suitable for CE credit may indicate this in the cover letter but there are no additional specific requirements for objectives or questions on submission. Authors who wish to contribute CE materials to the AANP should visit the CE Center on the AANP website for more information.

**Supplements:** Supplements must have sponsorship and all proposals for supplements are first reviewed by the Wiley-Blackwell Development Team ([kpolesky@wiley.com](mailto:kpolesky@wiley.com)) and referred to the Editor. All material submitted for supplements must follow all these guidelines and go through the peer-review process. The JAANP adheres to the GPP-2 Guidelines available online at <http://www.gpp-guidelines.org/> for all sponsored material.

## **2.4 - Size / Length / Fonts**

The title should be no longer than 30 words and should reflect the content of the paper.

The body text of a typical manuscript, excluding abstract, references, tables, figures or graphics, should not exceed 4,000 words. Longer articles may be considered at the editor's discretion. Text should be double-spaced, with approximately one inch margins.

Standard Fonts such as "Times New Roman" or "Times" are preferred. For maximum clarity, use sans serif fonts "Arial" or "Helvetica" for labeling figures, and "Symbol font" for Greek letters and the MS Word symbol menu for other unusual characters. Unusual fonts may not be supported on all systems and may be lost on conversion of your documents at the time of online submission.

If you have used the Track Changes feature in the process of writing and editing your manuscript, please save a final version that accepts all the changes you intend to include before you upload your file.

## **2.5 - Style and References**

The *Publication Manual of the American Psychological Association* 6th edition (APA) is the style manual used by the JAANP to format citations, references, headings, and other matters. The use of electronic bibliographic citation managers (such as EndNote™) is both acceptable and desired. There are special provisions for submission



within the ScholarOne Manuscripts™ system that may make submission easier for those who use EndNote™.

DOI numbers are acceptable in citations and are the preferred method for “on-line ahead of print” or “early-view” manuscripts. References for manuscripts in-press are acceptable but they must be updated before the manuscript is published. There is extensive information about the use of DOIs in the *APA 6th edition* if you have questions.

References are limited to 50 for most articles except Brief Reports which are limited to 30. Pay particular attention to the *APA* requirements for citation of on-line material. This has changed significantly in the latest edition.

References should be listed alphabetically in a separate section at the end of the body of the manuscript Main Document file, double-spaced under a heading titled References. Do not put them in a separate file.. References should be current and journal titles should not be abbreviated. For most manuscripts, citations older than five years, other than classic works, are rarely required. It is the author’s responsibility to assure that all references are complete and accurate. Manuscripts that do not conform to referencing guidelines will not be reviewed.

Reference works not cited in the main text should be deleted from the manuscript. In some cases it may be useful to create a table titled Useful Resources or Useful Websites for inclusion as on-line supporting information.. There is also helpful information about references for systematic reviews included in the latest edition of the *APA*.

## **2.6 - Footnotes**

Do not use footnotes in the abstract or the main body of the manuscript. Footnotes to tables or figures should clearly spell out all abbreviations used. Statistical significance may also be indicated with footnotes.

## **Section 3: Additional Guidelines**

The following section details specific elements of the submission that are required at the time of submission.

### **3.1 - Title Page**

The information on Title Page contains more than just the title and will be used at production time to properly identify the authorship of the manuscript. The title of 30 words or less should be descriptive, unambiguous, and entice the audience to read your work.

Following the title should be a list of, all authors in the order in which they will appear in published form, along with institutional roles and affiliations, must be listed. The contact author must be clearly identified (this does not have to be the first author) along with complete contact information. Alternative email addresses and phone numbers are helpful in case we encounter difficulty contacting you.

Any disclaimers required by Federal law (e.g., military) should be included on the title page.

### 3.2 - Cover Letter

The cover letter must contain the title of the manuscript, a statement about authorship as described previously (see section 2.1 *Publication Ethics*), and attestation that the manuscript is submitted in accordance with the current GFA (see version number top left of this page) for the sole consideration of the JAANP and the material has not been published in any form previously. If the material has been presented at a conference or is part of a larger study (e.g., a subgroup analysis), that should also be stated.

If the paper reports findings from a clinical trial that has been registered, include the registration information. If the paper requires special consideration related to the NIH Public Access Mandate, please alert us with a statement in the cover letter.

### 3.3 - Abstract

The JAANP Abstract follows a structured style. It must be formatted with the following four specific headings -- each separated by a blank line: **Purpose**; **Data Sources**; **Conclusions**; and **Implications for Practice**. (You can see examples while you are online going through the previous 12-24 issues of the JAANP). Do not use references in the abstract. The abstract (the first item in the main document) must be copied into a designated abstract field during the submission process. Reviewers receive the abstract from this field when they are asked to perform a review – so it is the first impression you make on a reviewer. . NOTE: There is a firm 200 word limit for the abstract.

### 3.4 - Acknowledgements

Acknowledgements fall into two categories - Personal and Expository.

**Personal acknowledgements** are used to acknowledge such things as competitive grant funding and unpaid editorial assistance from mentors and colleagues. To avoid compromising the author's anonymity, these acknowledgements are to be uploaded in a separate file during submission designated as a "Supplementary file **not** for review".

**Expository acknowledgements** are used to divulge those items pertaining to conflicts of interest (COI) and funding for the development or editing of any article that mentions

specific drugs, devices, or other proprietary content. This includes any editorial or writing assistance provided by pharmaceutical, manufacturing, or medical communications companies, which must be clearly acknowledged including the name of the editor/writer and the source of funding. These acknowledgements are to be uploaded in a separate file during submission and designated as a "Supplementary file for review." Details of this support must also be copied into the corresponding fields of the online Manuscript Details form. This file will be included in the information accessible by reviewers, so it's important to use author initials or author 1, 2, etc, when disclosing any funding to maintain anonymity.

**NOTE:** If the submitter checks "no" to the "Do you have any conflict of interest?" statement, you are declaring that: No relationship exists between any of the authors and any commercial entity or product mentioned in this article that might represent a conflict of interest. There was no solicitation of the author(s) by any commercial entity to submit the manuscript for publication.

If you have no COI to declare, checking the box on the Manuscript Details page in your submission is sufficient. If a failure to disclose a relevant COI is discovered after final publication of the manuscript, the editor may decide to retract the article, or at least publish an erratum or statement of concern, and may preclude the authors from future submissions.

To review the scope of COI go to the link on the ICMJE home page ([http://www.icmje.org/ethical\\_4conflicts.html](http://www.icmje.org/ethical_4conflicts.html)) that explains in detail what are considered relevant COI. Whenever there is a possibility of a COI regarding commercial interests and the content of a manuscript, all authors are required to complete the ICMJE COI Disclosure form disclosing this potential or actual conflict-of-interest. (See editorial related to use of the uniform disclosure form at (<http://www.icmje.org/format.pdf>)). This form is available in the public domain for authors to complete and upload with their submission at [http://www.icmje.org/coi\\_disclosure.pdf](http://www.icmje.org/coi_disclosure.pdf)

### **3.5 - Electronic File Formats**

The Main Document file of the submission must be in a .DOC, .DOCX (not DOCM or .WKS), .RTF or other Microsoft Office compatible file format. Further information on file formats can be found under the Get Help Now tab of ScholarOne Manuscripts™ manuscript central website.

### **3.6 - Tables, Figures and Graphics**

Tables, Figures, and Graphics must not simply duplicate what has been said in the body of the manuscript. If they do not enhance the text, they may be eliminated for space considerations. Tables, figures, and graphics must be cited in the text in the appropriate location (e.g., see Table 1). Footnotes to tables or figures should clearly spell out all abbreviations used. Statistical significance may also be indicated with footnotes. Online

only supporting materials (such as data tables, maps, a review matrix, and interview forms) may be considered at the time of publication at the editor's discretion.

Tables should be numbered with Arabic numbers in the order in which they are mentioned in the text. Each table should be double-spaced and include an appropriate caption. Every column must have a description or heading. Demographic tables must clearly indicate the total N either as a footnote or in a column heading. Use a table function to create your table – do not use tabs or the spacebar to create columns (this will result in columns that do not align properly when your submission is converted to HTML or PDF).

Figures and Graphics for the print edition should be grayscale. (Color graphics may be considered for paid insertion or as online supporting materials). Figures and graphics should use one of the file formats recommended by the publisher at: <http://authorservices.wiley.com/bauthor/illustration.asp> All figures must have captions, which can be included as a separate file labeled "Figure Captions" if it is not possible to include the caption on the figure itself.

Tables and figures should be uploaded as separate files during the submission process.

### **3.7 - Permissions**

All authors must obtain any necessary permissions to reproduce previously copyrighted materials. Permissions to reprint Tables, Figures, Graphics, Instruments, or any other previously copyrighted information should accompany the manuscript at the time of submission. The copyright holder may be a publisher, an author, an agency, or any combination thereof. Be sure you have requested permission from the actual copyright holder.

If a payment for permission to reprint is required, it will be the author's responsibility to pay all fees prior to publication and submit evidence of such payment to the editor. **NOTE:** Do not pay fees until the manuscript has been accepted and scheduled for publication. Permissions should be scanned or copied into a file and uploaded as a "Supplementary file not for review." Permissions must include both print and electronic publication. Permissions granted to students for materials included in a dissertation or project do not cover publication in commercial journals; therefore, a separate permit is required.

### **3.8 - Copyright Transfer Agreement (CTA)**

**NOTE!!! Manuscripts cannot be reviewed until a signed CTA Contributor's Signature Page for each author has been attached to your submission.**

The CTA, a **legal document** required by the *JAANP* publisher on all submitted manuscripts, serves to transfer copyright for publication and, more importantly, outlines the contributor's (author's) representations (see Section G) of the CTA form. (CTA

forms are available online at <http://www.aanp.org/> under publications>journal>author information.

The CTA further outlines your retained rights and permitted uses and allows for the posting of NIH grant-funded work to PubMed Central upon acceptance of the final manuscript. There are also special provisions for work produced by employees of the U.S. Federal Government (which includes all military services), as well as other government employees, so that your work will reside in the public domain.

Only one copy of the first page of the CTA needs to be completed by the submitting author; additional pages for signatures of all authors should be appended to the first page of a single CTA. The completed CTA must be uploaded at the time of submission as a "Supplementary File not for review" (pdf, tif or jpg files are all OK).

To avoid an administrative processing delay you should attach the complete CTA file to your original submission. If you are unable to do this, the CTA pages may be faxed to the number on the bottom of the CTA form and a *JAANP* Administrator will combine them and attach them to your submission. If the CTA pages will be faxed please note this in your Cover Letter.

#### **Section 4: Guidelines for the online submission process**

The JAANP uses the ScholarOne Manuscripts (S1M) online submission processing system.

**Submission site URL:** <http://mc.manuscriptcentral.com/jaanp>

To make a submission you must login to your S1M JAANP account. If you do not have such an account you must create one. (NOTE: most S1M JAANP MC Accounts are dual role Author/Reviewer accounts so if you are an active JAANP reviewer you should already have an account.)

A submission by an author's agent is acceptable. If you are a submitting agent for the manuscript (i.e., a project manager or administrative assistant), you should enter all the required submitter information under your own name and check the appropriate box so that you will not be listed as an author.

#### **4.1- PRIOR TO LOGIN**

Before you log in to create/update your account and start a submission we suggest that you print out this file, read it, and then use it as a reference.

Have an email address for all authors and have a permanent backup webmail address (e.g., hotmail, yahoo, Gmail) for yourself and any second author.

Decide how you wish you and your co-author(s) to be addressed:

Dr. Miss Mr. Mrs. Ms or Prof

(NOTE: If your manuscript is accepted for publication you will be able to update your credentials, address, affiliation, etc. at proof reading time.)

Make sure that there are no page numbers in your main document. (Nothing should be in the header or footer.)

Determine the approximate number of words in your main document.

Select keywords for both your account and submission. (See Key word Tips below)

Limit your Title to 30 words.

Limit your Running Head to 50 characters (letters, punctuation, and spaces.

Limit your Abstract to 200 words and ensure it is structured according to the *JAANP* Author Guidelines.

Create a cover letter document that includes the required information described above. You may enter or copy and paste your cover letter text into a "Cover Letter" box OR you can attach a file containing your cover letter following the onscreen instructions.

**NOTE: All submissions must include a CTA signed by all authors and a Cover Letter that includes an ICMJE statement. Submissions that don't comply with the GFA will incur delays or may be rejected immediately.**

#### **4.2 - Be prepared to:**

Confirm that the manuscript has been submitted solely to this journal and is not published, in press, or submitted elsewhere.

Confirm that all the research, citations, and authorship statements meet appropriate ethical guidelines, including adherence to the legal requirements of the study country.

By confirming this statement you are declaring that you have read and understood the ethical guidelines published by the International Committee of Medical Journal Editors (ICMJE) available online at <http://www.icmje.org/>

Confirm that you have prepared a complete text minus the title page, acknowledgments, and running head with no author names, to allow blinded review.

State if you have any conflicts of interest.

#### **4.3 - AFTER YOU HAVE LOGGED IN**

NOTE: If necessary, you may interrupt the submission process and logout. When you are ready to resume, just login, go to the author dashboard and click the "Continue submission" button.

TIP: Pressing the letter U five times on the "Country" field lands you on "United States"

In the "Degree" field please enter only your highest academic degrees.

#### **4.4 - KEYWORD TIPS**

You will be required to select four keywords for the creation of your account and each submission. The JAANP keyword selection list found in S1M is fixed. It contains almost 800 broad-based nursing science keywords that should be suitable for most submissions. Your account keywords should reflect your areas of professional expertise and interest. The keywords selected for your submission should reflect the content of your manuscript. You may provide a list of additional keywords in the TitlePage.doc if you do not find suitable ones in the S1M list but you will need to select 4 keywords from the list in order to proceed.

TIP: When selecting keywords from the list, enter three or four letters AND an asterisk (wild card symbol) to filter the list.

Upload your submission files in the upload-order specified below.

NOTE: The JAANP conducts a blinded peer-review. When uploading your manuscript you must upload a Main Document file with no author identifying information in it (designated as the Main Document) and a separate title page (designated as the Title Page) with all author identifying details including an email address for all authors. This is the author information you would like the readers to see in a published article. The next section details file type and naming conventions.

#### 4.5 - Manuscript File Naming for Submission

The S1M system will demand that you designate your files as one of the following types:

Title Page is required. It should include the title of the submission and complete author contact and work affiliation information. Authors should be listed in proper order of contributorship and the corresponding author must be clearly identified.

NOTE: This page is not included in the reviewer files when the manuscript is sent out for review.

Main Document is required. It includes the body of the text and references with all author identifying information removed, no page numbers, no running head (which is entered in S1M in a separate data field), and no embedded tables or figures. If you have been using Track Changes to make final editorial corrections to your document, be sure to accept all changes and save the corrected file with Track Changes turned off. (Track changes leaves contributors' names visible in the document unless this step is completed.)

Tables and Figures should be separated into individual files and uploaded with appropriate labels applied as requested during the submission process.

Supplementary Files Not for Review may be uploaded to provide specific information such as permission to reprint material, a completed and signed ICMJE conflict of interest disclosure if required, or a copy of the letter of approval to conduct research from the appropriate review board. If possible a scanned copy of your signed CTA form(s) should be uploaded here as well -- otherwise fax it to 512-442-6469 and state in the Cover Letter that the CTA has been faxed to AANP

Suggested upload-file name conventions:  
(Contact Author Last name and \_Initial followed by file type).

NOTE: The S1M system uses the following user selectable file designations Title Page, Main Document, Figure, Table, or Supplemental (may or may not be designated for review) This is the specified upload-order.

Smith\_A TitlePage.doc  
Smith\_A MainDoc.doc  
Smith\_A Figure-1.tif  
Smith\_A Table-1.doc  
Smith\_A SupFile-CTA.doc  
Smith\_A SupFile-Permit.doc

In all cases the Main Document file should have the Contact Author's name prepended to it. eg. Smith\_A Adolescent Obesity article MainDoc.doc



During the upload process your files will be converted into both HTML and PDF format for use by the reviewers. Sometimes the conversion process takes a while or fails. If it seems to be taking too long, close the conversion-in-progress window and check to see if a file conversion actually occurred. If the file conversion appears stalled or failed, follow any instructions that appear on the screen. Otherwise delete any corrupted files and start the process over.

Please be aware that S1M services millions of users and sometimes you may experience a glitch in file conversion processing (e.g. "Unable to convert file Author\_N1 CL.doc (PDF)" it did make an HTML) and you may have to delete a botched job and restart the process.

Once your submission is complete you will receive an automatic email from the S1M system verifying your submission and providing you with your Manuscript ID Number. You will be able to track the progress of your submission from your Author Center in the S1M system.

It is not possible for authors to change or add anything once the submission is complete. If you fail to follow the guidelines or you need to add or change something to your submission, we will have to "unsubmit" your manuscript for you to resubmit your corrected files. This can cause major aggravation and delays!

NOTE: Email inquiries regarding your submitted manuscripts should be directed to the ADM through your Author Center or to [jaanp.eic@gmail.com](mailto:jaanp.eic@gmail.com) Be sure to include your Manuscript ID so we can easily find your file in the S1M system.

#### **4.6 After your submission is complete**

All authors will receive an automated confirmatory email that the submission has been accomplished. Any further communication regarding the review, revisions, decisions, or production details are only sent to the contact author (or submitting agent). It is the contact author's (or agent's) responsibility to maintain communication with all other authors throughout the process. Failure to do so may result in production delays.

**Section 5: MANUACRIPT SUBMISSION CHECKLIST JAANP**

This is a summary checklist of the essential elements for your submission. Please be sure that everything is included as directed in your submission to avoid administrative delays.

Title Page (See Section 3.1)	Contains title of manuscript in 30 words or less, complete author list in correct order with contact and work information, contact author clearly identified with active email address
Abstract (See Section 3.3)	Formatted with required elements: Purpose, Data Sources, Conclusions, Implications for Practice
Cover Letter (See Section 3.2)	Contains the title, statement of authorship and exclusive submission to JAANP, states the work conforms to Guidelines for Authors version 110106
Main Document (See Section 2)	All identifying author information removed, no page numbers or running head included, any drugs named as follows: generic (Trade - optional)
Tables, Figures, Graphics (See Section 3.6)	Captions are complete, footnotes added where necessary, each table, figure or graphic is cited in the text in the appropriate location
Acknowledgements (See Section 3.4)	Expository information does not identify authors by name, funding sources and writing/editing support is explicitly acknowledged by name
Permits (See Section 3.7)	Required for previously copyrighted material and must be uploaded with the submission
Copyright Transfer Agreement (CTA) (See Section 3.8)	Signed by all authors, scanned and uploaded with submission

Room: CRSC 103  
Location: Thesis/Independent Study  
Cabinet

Diet for Cardiovascular Risk Reduction



CSC11550