Table 4-B-IV-2 Overview Table: Cardiovascular Disease

Organized by dietary trial/dietary pattern

Citation Quality Rating Location		Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
DASH Trial					
1.	Appel et al., 1997 Positive U.S.	Randomized Controlled Trial 8 wks Dietary Approaches to Stop Hypertension (DASH) Trial	Initial N = 459 Final N = 456 Mean: DASH: 44±10 y FV diet: 45±11 y Control: 44±11 y 49% Women 34% Non-minority 60% Black 6% Other minority	Dietary Approaches to Stop Hypertension (DASH) Trial Control diet: Macronutrient profile and fiber content similar to typical American diet--potassium, magnesium, and calcium levels were close to the 25th percentile of U.S. consumption. Macronutrient distribution: 50% CHO, 37% fat, 13% protein. Fruits-and-vegetables (FV) diet: Provided more fruits and vegetables (8-10 svgs/d), and fewer snacks and sweets than the control diet; potassium and magnesium at levels close to the 75th percentile of U.S. consumption. Macronutrient distribution: 52% CHO, 37% fat, 11% protein. Combination diet (DASH): Rich in fruits and vegetables (8-10 svgs/d), and low-fat dairy foods; reduced amounts of saturated fat, total fat, and cholesterol; potassium, magnesium, and calcium content close to the 75th percentile of U.S. consumption, high amounts of fiber and protein. Macronutrient distribution: 58% CHO, 27% fat, 15% protein. Four calorie levels available: 1600, 2100, 2600, 3100 kcals. A 7-day menu cycle with 21 meals used. No more than three caffeinated or diet beverages and no more than two alcoholic beverages per day.	Combination vs control diet: SBP: - 5.5 mm Hg (95% CI = -7.4 to -3.7, P <0.001); DBP: - 3.0 mm Hg (95% CI = -4.3 to -1.6, P<0.001) FV vs control diet: SBP: - 2.8 mm Hg (95% CI = -4.7 to -0.9, P<0.001); DBP: - 1.1 mm Hg (95% CI = -2.4 to 0.3, P=0.07, NS) Combination vs FV diet: SBP: - 2.7 mm Hg (95% CI = -4.6 to -0.9, P = 0.001); DBP: - 1.9 mm Hg (95% CI = -3.3 to -0.6, P=0.002) BP results were achieved after 2 weeks on the combination and the fruits-and-vegetable diets, and sustained for 6 more weeks.
2.	Conlin et al., 2000 Positive U.S.	Randomized Controlled Trial 8 wks Dietary Approaches to Stop Hypertension (DASH) Trial	N = 133 HTN participants Attrition: 6% control 4% FV 0% DASH Mean: 49.2±10.3 y 60% Women 65% Black	DASH Trial As above	DASH vs control diet: SBP: -11.6 mm Hg (95% CI = -15.5 to -7.6, P<.001) DBP: -5.9 mm Hg (95% CI = -8.3 to -3.4, P<.001) HTN: RR = 0.39 (95% CI = 0.23 - 0.65, P<.001) FV vs control diet: SBP: -7.0 mm Hg (95% CI = -10.7 to -3.4, P<.001) DBP: -3.0 mm Hg (95% CI = -5.3 to -0.7, P<.001) HTN: RR = 0.72 (95% CI = 0.52 - 0.97, P<.001) DASH diet produced significantly greater BP effects (P<.05) than FV diet 70% subjects on DASH achieved normal BP after 8 wks, compared to 45% on FV and 23% on control diet

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
3.	Moore et al., 1999 Positive U.S.	Randomized Controlled Trial 8 wks Dietary Approaches to Stop Hypertension (DASH) Trial	Initial N = 362 Final N = 345 5% attrition Mean: 45.1±10.4 y 47% Women 62% Minority	DASH Trial AS above	DASH diet vs control: SBP = -5.6 (95% CI = -7.5 to -3.7, P<0.05) DBP = -2.4 (95% CI = -3.7 to -1.1, P<0.05) 24h ASBP = -4.5 (95% CI = -6.2 to -2.8, P<0.05) ADBP = -2.7 (95% CI = -4.0 to -1.4, P<0.05) DASH diet: SBP & DBP fell significantly during 24 h, daytime, and night in all participants combined FV diet vs control: SBP = -3.2 (95% CI = -5.1 to -1.4, P<0.05) DBP = -0.8 (95% CI = -2.1 to 0.5, NS) 24 h ASBP = -3.1 (95% CI = -4.8 to -1.4, P<0.05) ADBP = -2.0 (95% CI = -3.3 to -0.8, P<0.05) Subgroup analysis: NS men versus women, minorities vs nonminorities, or younger vs older HTN subjects had greater SBP and DBP decrease than normotensives during day, night and 24-hr recordings (P<0.05)
4.	Obarzanek et al., 2001 Positive U.S.	Randomized Controlled Trial 8 wks Dietary Approaches to Stop Hypertension (DASH) Trial	Initial N = 459 Final N = 436 5% attrition Mean: 44.6±10.7 y 49% Women 60% Black 34% White 6% Other	DASH Trial As above	DASH diet vs control: Total C = -13.7 mg/dL (95% CI = -18.8 to -8.6, P<0.0001) LDL-C = -10.7 mg/dL (95% CI = -15.4 to -6.0, P<0.0001) HDL-C = -3.7 mg/dL (95% CI = -5.1 to -2.2, P<0.0001) TG = 3.2 mg/dL (95% CI = -5.1 to11.6, NS) TC:HDL = -0.03 (95% CI = -0.19 to 0.13, NS) LDL:HDL = -0.8 (95% CI = -0.22 to 0.06, NS) Subgroup analysis: total and LDL-C: decreases in men > women by 10.3 mg/dL (P = 0.052) and 11.2 mg/dL (P<0.02), respectively, and greater net reductions in TC:HDL and LDL:HDL in men than women NS by race for total, LDL-C, HDL-C, cholesterol ratios, and TG HDL-C greater by 4.1 mg/dL in those with higher baseline HDL (>45 mg/dL)

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
					FV diet vs control: Total C = -3.75 mg/dL (95% CI = -8.9 to 1.4, NS) LDL-C = -1.9 mg/dL (95% CI = -6.6 to 2.7, NS) HDL-C = -0.2 mg/dL (95% CI = -1.6 to 1.2, NS) TG = -8.2 mg/dL (95% CI = -16.5 to 0.2, NS) TC:HDL = -0.14 (95% CI = -0.29 to 0.02, NS) LDL:HDL = -0.10 (95% CI = -0.23 to 0.04, NS) Subgroup analysis: LDL:HDL: decreased in men (P<0.05) TC:HD: decreased in both men and non-African Americans (P<0.05) TG: decreases in subjects with higher baseline TG (P<0.05)
5.	Saneei et al., 2013 Positive Iran	Randomized Controlled Trial 6 wks Dietary Approaches to Stop Hypertension (DASH) Trial (modified)	Initial N = 60 Final N = 49 18% attrition 11–18 y Mean: 14.2±1.7 y Post-pubescent adolescent girls 100% Girls 100% Iranian	Modified DASH Trial Control Diet (UDA/typical Iranian diet): CHO=50-60% Protein=15-20% Fat=<30% Dietary fiber=14 g/d SFA=24 g/d Ca, dairy product, nut, and legume contents of this diet were lower than DASH diet. Dietician gave general oral advice and written information about healthy food choices based on healthy MyPlate. DASH diet (modified for adolescents): CHO=53-58% Protein=15-18% Fat=26-30% High amounts of whole grains, fruits, vegetables, and low-fat dairy products as well as low amounts of saturated fats, cholesterol, refined grains, sweets, and red meat. Ca, K, and Mg contents of the DASH diet were higher than UDA. Contained <2,400 mg Na/d. Diet modified to conform to nutritional needs of adolescents.All diets designed to maintain participants' weight.	DASH diet compared to UDA (control) diet: Change in SBP: P=0.13, NS Change in DBP: P=0.01 DASH diet compared to UDA (control) diet: TG: P=0.90, NS Total cholesterol: P=0.31, NS HDL-C: P=0.31, NS LDL-C: P=0.32, NS

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued

Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
DASH-Sodium Trial					
6.	Sacks et al., 2001 Positive U.S.	Randomized Controlled Trial 30 d Dietary Approaches to Stop Hypertension (DASH)-Sodium Trial	Initial N = 412 Final N = 390 DASH diet: 5% attrition Control diet: 6% attrition Intent to treat analysis Mean: DASH: 47±10 y Control: 49±10 y ~55% Women 56% Black, 40% Non-Hispanic White 4% Asian	DASH-Sodium Trial Control diet: Typical American diet was a diet with potassium, magnesium, and calcium ~ 25th percentile of U.S. consumption, and macronutrient and fiber at average U.S. consumption. DASH diet: Combination diet, high in fruits and vegetables and low-fat dairy foods with reduced total fat, SFA, and cholesterol; potassium, magnesium, and calcium ~ 75th percentile of U.S. consumption; and high amounts of fiber and protein.	DASH vs control diet: SBP, high sodium = -5.9 mm Hg (95 % CI: -8.0 to -3.7, P<0.001) SBP, intermed sodium = -5.0 mm Hg (95 % CI: -7.6 to -2.5, P<0.001) SBP, low sodium = -2.2 mm Hg (95 % CI: -4.4 to -0.1, P<0.05) DBP, high sodium = -2.9 mm Hg (95 % CI: -4.3 to -1.5, P<0.001) DBP, intermed sodium = -2.5 mm Hg (95 % CI: -4.1 to -0.8, P<0.01) DBP, low sodium = -1.0 mm Hg (95 % CI: -2.5 to 0.4, NS) Control diet, comparing high to low sodium: SBP = -6.7 mm Hg (95 % CI: -5.4 to -8.0, P<0.001) DBP = -3.5 mm Hg (95 % CI: -2.6 to -4.3, P<0.001) DASH diet, comparing high to low sodium: SBP = -3.0 mm Hg (95 % CI: -1.7 to -4.3, P<0.001) DBP = -1.6 mm Hg (95 % CI: -0.8 to -2.5, P<0.001) Control diet/high sodium compared to DASH diet/low sodium: SBP = -8.9 mm Hg (95 % CI: -6.7 to -11.1, P<0.001) DBP = -4.5 mm Hg (95 % CI: -3.1 to -5.9, P<0.001) Sodium effect greater in HTN participants (P=0.01 control diet; P=0.003 DASH diet), in Blacks on control diet than other races (P=0.007), and in women on DASH than in men (P=0.04). The combination of the two dietary interventions lowered SBP more in participants with HTN than in those without HTN (P=0.004), and more in women than in men (P=0.02).

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
7.	Svetkey et al., 2004 Positive U.S.	Randomized Controlled Trial 30 d Dietary Approaches to Stop Hypertension (DASH)-Sodium Trial	Initial N = 412 Final N = 390 5% attrition Mean: ~50 y ~60% Women 60% Black ~37% Non-Hispanic White ~ 3% Other	DASH-Sodium Trial As above	HTN subjects BP Control (30 d): Control = 32% (NS), 51% (P <0.01), and 74% (P<0.01) at high, intermed, and low sodium DASH = 63% (P<0.01), 65% (P<0.01), and 84% (P<0.01) DASH vs Control diet: high sodium in DASH diet, increased BP control 2X (95% CI = 1.4 - 2.9); at intermediate sodium, increased BP control 2 X (95% CI = 1.4 - 3.0); at low sodium, increased BP control 2.6 X (95% CI = 1.9 - 3.7) Maximum BP control rate (84%) was achieved with the DASH/lower sodium diet. DASH vs Control diet: SBP: high sodium = -6.8 mm Hg (P<0.0001), intermed sodium = -6.2 mm Hg (P<0.0001), and low sodium = -3.0 mm Hg (P<0.05) ISH subjects, comparing DASH to control diet: SBP: high sodium = -4.4mm Hg (P<0.0001), intermed sodium = -6.3 mm Hg (P<0.0001), and low sodium = -4.3 mm Hg (P<0.05) High-normal BP subjects, DASH vs control diet: SBP: high sodium = -4.5 mm Hg (P<0.0001), intermed sodium = -3.5 mm Hg (P<0.0001), and low sodium = -0.7 mm Hg (NS)

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
			OmniHeart Trial		
8.	Appel et al., 2005 Positive U.S.	RCT 6 wks OMNI-Heart (Optimal Macronutrient Intake Trial to Prevent Heart Disease)	Initial N = 191 Final N = 164 14% attrition Mean: 53.6±10.9 y 73% Women 55% Black 40% White 5% Other	OmniHeart Trial with DASH 3 healthful diets that model the principles of the Dietary Approaches to Stop Hypertension (DASH) dietary pattern. Each study diet differed in the amount of carbohydrates, protein, and unsaturated fat while keeping the calorie levels the same. Each diet was reduced in saturated fat, cholesterol, and sodium, and rich in fruits, vegetables, fiber, potassium, and other minerals at recommended levels. CHO diet: (similar to DASH) CHO = 58% Fat = 27% (6% SFA) Pro = 15% Protein diet: CHO = 48% Fat = 27% (6% SFA) Pro = 25% Unsaturated Fat diet:: CHO = 48% Fat = 37% (21% MUFA, 10% PUFA) Pro = 15%	CHD risk: estimated using Framingham equation Compared with baseline, 10 y CHD risk was lower for each diet: 16.1% (Carb) 21.0% (Protein) 19.6% (Unsat Fat) Protein vs Carb diet: ↓10 y CHD risk by 5.8% Unsat Fat vs Carb: ↓ 10 y CHD risk by 4.2% Resting BP: (post-treatment vs pretreatment) Carb: SBP = -8.2 mm Hg (95% CI = -9.6 to -6.8) DBP = -4.1 mm Hg (95% CI = -5.0 to -3.3) Protein: SBP = -9.5 mm Hg (95% CI = -10.9 to - 8.2) DBP = -5.2 mm Hg (95% CI = -6.1 to - 4.4) Unsat Fat: SBP = -9.3 mm Hg (95% CI = -10.6 to -8.0) DBP = -4.8 mm Hg (95% CI = -5.6 to - 4.0) Protein vs Carb diet: lowered SBP (P=0.002) and DBP (P<0.001) in all participants Unsat Fat vs Carb diet: lowered SBP (P=0.005) and DBP (P=0.02) in all participants Protein vs Carb diet: lowered SBP (P=0.006) and DBP (P=0.008) in hypertensives Unsat Fat vs Carb diet: lowered SBP (P=0.02) and DBP (P=0.02) in hypertensives For the 32 hypertensives, 38% remained hypertensive on the Carb, 22% on the Protein, and 19% on the Unsat Fat diets Protein vs Carb diet: Decreased Total-C (P<0.001), LDL-C (P=0.01), HDL-C (P=0.02), and TG (P< 0.01) in all participants Unsat Fat vs Carb diet: Increased HDL-C (P=0.03) in all participants Decreased total-C (P=0.04) and TG (P=0.02) in all participants Protein vs Unsat Fat diet: Decreased Total-C (P < 0.001), HDL-C (P<0.001), and TG (P=0.03) in all participants

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
PREMIER Trial					
9.	Lien et al., 2007 Positive U.S.	Randomized Controlled Trial 6 mos PREMIER: Lifestyle Interventions for Blood Pressure Control Trial	Initial N = 810 Final N = 796 1.7% attrition No Metabolic syndrome Mean: 49.9±9.0 y 65% Women 39% Black Metabolic syndrome Mean:49.7±8.6 y 58% Women 30% Black	PREMIER Trial with DASH Control group: Advice only Both the EST and EST+DASH interventions included weight loss of ≥15 lb (6.8 kg) for those with a body mass index ≥25, ≥180 min/wk of moderate-intensity physical activity, ≤100 mmol/d of dietary sodium, and ≤1 oz/d of alcohol (men) or 0.5 oz/d (women). EST+DASH followed DASH dietary pattern, consuming 9-12 serv of fruits and vegetables and 2-3 serv of low-fat dairy products daily and limiting total and SAF to ≤25% and <7% of total calories, respectively.	MetSyn Est vs control: SBP: -1.58 mm Hg (95% CI = -3.78 to 0.63, P<0.05 MetS vs no MetS) DBP: -0.9 mm Hg (95% CI = -2.54 to 0.55, NS) EST + DASH vs control: SBP: -3.01 mm Hg (95% CI = -5.26 to -0.76, P<0.025) DBP: -1.55 mm Hg (95% CI = -3.12 to 0.02, P<0.05) No MetSyn Est vs control: SBP: -5.80 mm Hg (95% CI = -8.04 to -3.56, P<0.025 treatment) groups, P<0.05 MetS vs no MetS) DBP: -2.37 mm Hg (95% CI = -3.98 to -0.80, P<0.025) EST + DASH vs control: SBP: -4.97 mm Hg (95% CI = -7.15 to -2.80, P<0.025) DBP: -3.18 mm Hg (95% CI = -4.70 to -1.67, P<0.025) MetSyn Est vs control: Total-C: -7.98 mg/dL (95% CI = -13.61 to -2.35, P<0.025) LDL-C: -4.63 mg/dL (95% CI = -9.69 to 0.43, NS) HDL-C: 0.67 mg/dL (95% CI = -0.82 to 2.16, NS) TG (LN): -0.16 mg/dL (95% CI = -0.25 to -0.07, P<0.025) EST + DASH vs control: Total-C: -5.91 mg/dL (95% CI = -11.67 to -0.15, P<0.05) LDL-C: -3.41 mg/dL (95% CI = -8.63 to 1.82, NS) HDL-C: 0.09 mg/dL (95% CI = -1.44 to 1.61, NS) TG (LN): -0.08 mg/dL (95% CI = -0.17 to 0.02, NS) No MetSyn Est vs control: Total-C: -7.41 mg/dL (95% CI = -13.06 to -1.76, P<0.025) LDL-C: -6.89 mg/dL (95% CI = -11.84 to -1.95, P<0.025) HDL-C: 1.42 mg/dL (95% CI = -0.07 to 2.92, NS) TG (LN): -0.10 mg/dL (95% CI = -0.19 to -0.01, P<0.025) EST + DASH vs control: Total-C: -7.06 mg/dL (95% CI = -12.51 to -1.62, P<0.025) LDL-C: -5.13 mg/dL (95% CI = -9.91 to -0.34, P<0.05) HDL-C: -0.63 mg/dL (95% CI = -2.07 to 0.81, NS) TG (LN): -0.05 mg/dL (95% CI = -0.14 to 0.04, NS)

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
ENCORE Trial					
10.	Blumenthal et al., 2010 Positive U.S.	Randomized Controlled Trial 4 mos ENCORE (Exercise & Nutrition interventions for Cardiovascular Health)	Initial N = 144 Final N = 140 3% attrition Mean: 52±10 y 67.4% Women 60% White 39% Black 1% Asian	ENCORE Trial with DASH Control diet (UC): Participants maintained their usual diet and exercise habits; 34% E from fat, 15% from protein; K, Mg, Ca and fiber levels ~ 25th percentile of U.S. consumption. DASH diet: Rich in fruits and vegetables (8-10 svgs/d), and low-fat dairy foods; reduced amounts of saturated fat, total fat, and cholesterol; K, Mg, Ca content at ~ 75th percentile of U.S. consumption, high amounts of fiber and protein; 27% E from fat, and 18% E from protein. Sodium content: 2400 mg/2000 kcal. DASH diet alone (DASH-A): Subjects received instruction to meet DASH guidelines, told not to exercise or attempt to lose weight; met weekly in a small group for coaching on diet. DASH plus Weight Management (DASH-WM): Subjects received instruction on the DASH diet with a 500 kcal deficit, attended a weekly cognitive-behavioral weight loss intervention and participated in supervised exercise 3X/wk.	Clinic-measured BP: (reduction, post-treatment vs pretreatment) DASH-WM: SBP = 16.1 mm Hg (95% CI = 13.0 - 19.2) DBP = 9.9 mm Hg (95% CI = 8.1 - 11.6) DASH-A: SBP = 11.2 mm Hg (95% CI = 8.1 - 14.3) DBP = 7.5 mm Hg (95% CI = 5.8 - 9.3) UC diet: SBP = 3.4 mm Hg (95% CI = 0.4 - 6.4) DBP = 3.8 mm Hg (95% CI = 2.2 - 5.5) DASH-WM + DASH-A vs UC: lowered SBP and DBP (P<0.001) DASH-WM vs DASH-A: lowered SBP P<0.02) and DBP (P=0.048) ABP: (reduction, post-treatment vs pretreatment) DASH-WM: SBP = 10.2 mm Hg (95% CI = 6.8 - 13.6) DBP = 5.4 mm Hg (95% CI = 3.4 - 7.4) DASH-A: SBP = 5.3mm Hg (95% CI = 2.0 - 8.6) DBP = 2.9 mm Hg (95% CI = 1.0 - 4.9) UC diet: SBP = 0.2 mm Hg (95% CI = -3.4 - 7.4) DBP = 0.003 mm Hg (95% CI = -1.8 - 1.9) DASH-WM + DASH-A vs UC: lowered ASBP and ADBP (P<0.001) DASH-WM vs DASH-A: lowered ASBP (P<0.01) and ADBP (P=0.03) Hypertension post-treatment: 38.8% UC group participants were hypertensive compared with 12.2% in DASH-WM and 7 15.2% in DASH-A
11.	Blumenthal, Babyak, Sherwood et al., 2010 Positive U.S.	Randomized Controlled Trial 4 mos ENCORE (Exercise & Nutrition interventions for Cardiovascular Health)	Initial N = 144 Final N = 138 4% attrition Mean: 52±10 y 67% Women 60% White 39% Black 1% Asian	ENCORE Trial with DASH As above	DASH-WM vs DASH-A: Total-C (P=0.008) LDL-C (P=0.054, NS) HDL-C (P=0.115, NS) TG (P<0.001) DASH-WM vs UC: Total-C (P<0.001) LDL-C (P=0.005) HDL-C (P=0.911, NS) TG (P<0.001) DASH-A vs UC: Total-C (P=0.364, NS) LDL-C (P=0.715, NS) HDL-C (P=0.047) TG (P=0.900, NS)

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
Vegetarian Diets					
12.	Burr and Butland, 1988 Neutral U.K.	Prospective Cohort Study 10–12 y Cohort not identified	N = 10,896 >10 y at date of entry 60% Women Not Reported	Vegetarian pattern Participants were asked if they were vegetarian. ~43% of vegetarians identified themselves as lacto-ovovegetarians. Vegetarian pattern not defined further other than participants did not consume "meat" (also undefined).	Comparing vegetarians to non-vegetarians: Ischemic heart disease: Standardized Mortality (SMR) = 42.8 for vegetarians Standardized Mortality (SMR) = 60.1 for nonvegetarians (p<0.01) Effect seen in both men and women, but greater in men (significance not indicated). NS difference between vegetarians and nonvegetarians in cerebrovascular deaths
13.	Chang-Claude et al., 2005 Neutral Germany	Prospective Cohort Study 21 y German Vegetarian Study	N = 1,724 31% ≤34 y 30% ≤54 y 29% ≥55 y 10% ≥75 y 55% Women Not Reported	Vegetarian pattern Vegan (no meat, fish, eggs, and dairy) and lacto-ovo vegetarian (no meat and fish, but ate eggs and/or dairy). Non-vegetarian (occasionally or regularly ate meat and/or fish).	Comparing vegetarians to health conscious non-vegetarians: Mortality from circulatory diseases: RR = 0.83 (95% C I = 0.62 - 1.12, NS) Mortality from ischemic heart disease: RR = 0.70 (95% CI = 0.41 - 1.18, NS)
14.	Crowe et al., 2013 Positive U.K.	Prospective Cohort Study 11.6 y European Prospective Investigation into Cancer and Nutrition (EPIC)-Oxford Study	Initial N = 57,446 Final N = 44,561 (IHD analysis) Final N = 1,546 (non-cases for blood lipids) Final N = 1,519 (non-cases for BP) Nonvegetarian Men = 49±13.3 y Women = 46.3±13.2 y Vegetarian Men = 41.8±13.3 y Women = 38.4±12.7 y 76.2% Women Not Reported	Vegetarian pattern FFQ used estimated the intake of 130 different food items over the past 12 mo. Participants were asked if they ate any meat, fish, eggs, or dairy products and were categorized for this analysis as vegetarians if they did not eat meat and fish.	IHD: 1,235 cases of IHD Angina pectoris (N=332; 27%), acute MI (N=261; 21%), chronic IHD (N=619; 50%) IHD, comparing vegetarians to nonvegetarians: HR=0.68 (95% CI = 0.58 - 0.81) P<0.001 SBP: comparing vegetarians to nonvegetarians: SBP decrease = -3.3 mm Hg (95% CI = 0.7 - 5.9) DBP: NS Non-HDL Cholesterol: comparing vegetarians to nonvegetarians: Non-HDL-C decrease = 0.45 mmol/L (95% CI = 0.30 - 0.60)
15.	Key et al., 1996 Neutral U.K.	Prospective Cohort Study 16.8 y Cohort not identified; includes Seventh Day Adventists	N = 10,771 Mean: Men: 45.7±17.7 y Women: 45.9±18.3 y ~60% Women Not Reported	Vegetarian pattern Subjects asked if vegetarian, but not described further. Dietary variables were dichotomized as vegetarian or non-vegetarian. or daily vs <daily intake of whole meal bread, bran cereals, nuts or dried fruit, fresh fruit, and raw vegetable salads as individual components.	Comparing vegetarians to non-vegetarians: Ischemic heart disease: Mortality ratio = 0.85 (95% CI = 0.68 - 1.06, NS) Cerebrovascular disease: Mortality ratio = 0.96 (95% CI = 0.69 - 1.34, NS)

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
16.	Key et al., 1999 Neutral U.S., U.K., Germany	Prospective Cohort Study 5.6–18.4 y (mean=10.6 y) 5 studies: Adventist Mortality, Health Food Shoppers, Adventist Health, Heidelberg, and Oxford Vegetarian	N = 76,172 16–89 y 60% Women Not Reported	Vegetarian pattern In the Health Food Shoppers Study, vegetarians were people who replied "yes" to the question "Are you a vegetarian?", whereas in the 4 other studies, vegetarians were defined as people who reported that they did not eat any meat or fish; all others were defined as nonvegetarians.	Comparing vegetarians to nonvegetarians: Ischemic heart disease (IHD), death rate ratio = 0.76 (95% CI: 0.62 - 0.94, p<0.01) Cerebrovascular disease, death rate ratio = 0.93 (95% CI: 0.74 - 1.17, NS) IHD for men, death rate ratio = 0.69 (95% CI: 0.56 - 0.84) IHD for women, death rate ratio = 0.80 (95% CI: 0.67 - 0.95) Cerebrovascular disease for men, death rate ratio = 0.77 (95% CI: 0.57 - 1.02, NS) Cerebrovascular disease for women, death rate ratio = 0.98 (95% CI: 0.80 - 1.20, NS)
17.	Orlich et al., 2013 Positive U.S.	Prospective Cohort Study Positive Adventist Health Study 2	Initial N = 96,469 Final N = 73,308 Mean: Vegan: 57.9±13.6 y Lacto-Ovo: 57.5±13.9 y Pesco: 58.8±13.7 y Semi: 57.8±14.1 y Nonvegetarian: 55.9± 13.1 y ~66% Women All: Vegan: 63.8% Lacto-Ovo: 64.9% Pesco: 68.0% Semi: 69.7% Nonvegetarian: 65.3% Black: Vegan: 21.0% Lacto-Ovo: 13.6% Pesco: 39.1% Semi: 17.8% Nonvegetarian: 34.0%	Vegetarian pattern Vegan: eggs/dairy, fish, and all other meats less than 1 time/month Lacto-ovo: eggs/dairy 1 time/month or more, but fish and all other meats less than 1 time/month Pesco: fish 1 time/month or more, but all other meats less than 1 time/month Semi: nonfish meats 1 time/month or more and all meats combined (fish included) 1 time/month or more, but no more than 1 time/week Nonvegetarians: nonfish meats 1 time/month or more and all meats combined (fish included) more than 1 time/week	Cause-Specific Mortality: 2,932 deaths among 73,308 participants: Ischemic heart disease = 372; Cardiovascular disease = 987 Comparing all vegetarians combined to nonvegetarians: IHD: All: HR=0.81 (95% CI = 0.64 - 1.02), NS; Men: HR=0.71 (95% CI = 0.51 - 1.00); Women: HR = 0.88 (95% CI = 0.65 - 1.20), NS CVD: All: HR=0.87 (95% CI = 0.75 - 1.01), NS; Men: HR=0.71 (95% CI, 0.57-0.90); Women: HR=0.88 (95% CI = 0.65 - 1.20), NS Comparing pesco-vegetarians to nonvegetarians: IHD: All: HR=0.65 (95% CI = 0.43 - 0.97); Women: HR=0.51 (95% CI = 0.26 - 0.99); Men, NS CVD: All, NS; Men: HR=0.66 (95% CI, 0.44 - 0.98); Women, NS Comparing lacto-ovo vegetarians to nonvegetarians: CVD: All, NS; Men: HR=0.77 (95% CI = 0.59 - 0.99); Women, NS Comparing vegans to nonvegetarians: IHD: All, NS; Men: HR=0.45 (95% CI = 0.21 - 0.94); Women, NS CVD: All, NS; Men: HR=0.58 (95% CI = 0.38 - 0.59); Women, NS Comparing vegetarians to nonvegetarians: Stroke: All: HR=1.10 (95% CI = 0.82 - 1.47), NS; Men: HR=0.83 (95% CI = 0.52 - 1.31), NS; Women: HR=1.27 (95% CI = 0.89 - 1.80), NS

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
18.	Margetts et al, 1985 Neutral Australia	Randomized Controlled Trial 14 wks Cohort not identified	Initial N = 60 Final N = 58 3% attrition Mean: 49.1±9.6 y 28% Women Not Reported	Ovo-lacto vegetarian pattern Dietary goals: Avoid all meat, fish, and poultry; eat only whole grain cereal when possible; double fruit intake; increase vegetable consumption; replace all butter, cooking fats, and oils with only PUFA vegetable margarine/oils; maintain intake of cheese, eggs, salt, and total calories at pre-study levels.	OLV vs usual control diet: SPB: ~ -5 mmHg (P<0.05) DBP: NS Subjects with pre-study SBP >160 mm HG: SBP = -12.3 mmHg (OLV diet) SBP = -8.5 mmHg (control diet) Subjects with pre-study SBP >140 mm Hg: 30% SBP ↓ <140 mmHg (OLV diet) 8% SBP ↓ <140 mmHg (control diet)
			WHI-DM Trial		
19.	Howard et al., 2006 Positive U.S.	Randomized Controlled Trial 8.1 y (3 y for blood pressure and blood lipids) Women's Health Initiative (WHI) Dietary Modification (DM) Trial	Initial N = 48,835 Final N = 44,351 Intent to treat analysis 50-69 y Mean: 62 y 100% Women (Postmenopausal) White= ~81% Black= ~11% Hispanic= ~4% Other= ~4%	Low-fat dietary pattern Dietary goals: Reduce total dietary fat to 20% and increase intake of vegetables and fruit to 5 or more servings and grains (whole grains encouraged) to 6 or more servings daily; intervention did not encourage weight loss or caloric reduction.	Intervention compared to control group: CVD: HR = 0.98 (95% CI = 0.92 - 1.05, NS) CHD: HR = 0.97 (95% CI = 0.90 - 1.06, NS) Intervention group that reached the lowest SFA* (< 6.1%E) compared to control: CHD: HR = 0.81 (95% CI: 0.69 - 0.96, P for trend <0.001) Intervention group that reached the lowest trans fat* (< 1.1%E) compared to control: CHD: HR = 0.81 (95% CI: 0.69 - 0.95, P for trend <0.001) Intervention group that reached highest intakes of vegetables/fruits* (≥6.5 serv/d) compared to control: CHD: HR = 0.88 (95% CI: 0.76 - 1.03, P for trend <0.001) *Individuals stratified by quartiles of achieved levels of key nutrients at year 1 Intervention compared to control group: Stroke: HR = 1.02 (95% CI = 0.90 - 1.15, NS) Intervention vs control group: SBP: Mean difference = -0.17 mm Hg (95% CI = -0.49 to 0.15, NS) DBP: Mean difference = -0.31 mm Hg (95% CI = -0.50 to -0.13, P< 0.001)

Table 4-B-IV-2 Overview Table: Cardiovascular Disease—continued
Organized by dietary trial/dietary pattern

	Citation Quality Rating Location	Study Design Duration Study/Cohort	Sample Size Age Gender Race/Ethnicity	Dietary Pattern Overview	Health Outcomes
					Intervention vs control group: Total Cholesterol: Mean difference = -3.26 mg/dL (95% CI = -6.53 to -0.00, P< 0.05) LDL C: Mean difference = -3.55 mg/dL (95% CI = -6.58 to -0.52, P<0.05) HDL C: Mean difference = 0.43 mg/dL (95% CI = -1.42 to 0.57, NS) Total/HDL C: Mean difference = -0.04 (95% CI = -0.13 to -0.5, NS) TG: Mean difference = 0.00 mg/dL (95% CI = -0.03 to 0.04, NS)
NORDIET Trial					
20.	Adamsson et al., 2011 Positive Sweden	Randomized Controlled Trial 6 wks NORDIET (Nordic Diet)	Initial N = 88 Final N = 86 2% attrition Mean: ~53 years ~63% Women Not Reported	Nordic pattern Dietary goals: Consume Nordic Diet (ND) based on Nordic nutrition recommendations. ND rich in high-fiber plant foods from fruits, berries, vegetables, whole grains (oats and barley), rapeseed oil, nuts, fatty fish and low-fat dairy products, but low in salt, added sugars and saturated fats. Contains some poultry, red meat, fish and low-fat milk. Macronutrient distribution: 27%, 52%, 19% and 2% of energy from fat, carbohydrate, protein and alcohol, respectively.	ND vs control diet: SBP: −6.55±13.18 mmHg (P=0.008) NS when adjusted for weight change over 6 wks DBP: NS ND vs control: Total-C: −0.98±0.75 mmol/L (P < 0.0001) LDL-C: −0.98±0.67 mmol/L (P < 0.001) HDL-C: −0.08±0.23 mmol/L (P < 0.001) LDL/HDL: −0.42±-0.57 (P = 0.003) Difference between groups in LDL-C (P < 0.001) and total-C, HDL-C, and LDL/HDL (all P<0.05) remained after adjusting for weight change