

ReadMe for WHI's Dietary Approaches to Stop Hypertension (DASH) diet component and total scores computed from the food-frequency questionnaire (FFQ)

Data.

Data are not provided, but investigators are welcome to create DASH components and total score using these guidelines. This DASH algorithm (1) is reliant on quintile values from the sample population of interest, so is dependent on the investigator's research objectives. Specifically the eight DASH components described below, are integer ranked (1 to 5), with cutpoints based on the corresponding quintiles from the designated study population, and then summed (ranges from 8 to 40). Higher scores indicate closer conformance to a popular interpretation of the DASH diet (1). It is important to note that this is a two-step process. Investigators must first determine the quintiles for each of the variables used in the DASH scoring for the cohort of interest (e.g., WHI OS). The component scores are then computed using the cohort-specific cutpoints. These guidelines apply only to [FFQs](#) collected during the [WHI study phase \(1993 to 2005\)](#).

Description of DASH scores.

Component	DASH scores	MPED/FFQ variables	Standard: max score (5) ¹	Standard: min score (1) ¹
Fruits	<i>DASH1_FRUIT</i>	<i>F_TOTAL</i>	Q5	Q1
Vegetables	<i>DASH2_VEG</i>	<i>V_TOTAL - V_POTATO</i>	Q5	Q1
Nuts and legumes ²	<i>DASH3_NUT</i>	<i>M_SOYESM + M_NUTSD + (LEGUMES X 4)</i>	Q5	Q1
Whole grains	<i>DASH4_WGRAINS</i>	<i>G_WHL</i>	Q5	Q1
Low-fat dairy ³	<i>DASH5_LFDAIRY</i>	<i>MLKDRNK MLKCERL CREAM LFCOTCH NFCHEES LFCHEES NFYOGUR LFDESST MILKFAT MLK2 MLK1 MLKSKIM MLKCRM MLKWHOL MLKEVAP MLKSOY MLKNDCRM MLKC2 MLKC1 MLKCSKIM MLKCCRM MLKCWHOL MLKCEVAP MLKCSOY MLKCND CR</i>	Q5	Q1
Sodium ⁴	<i>DASH6_SODIUM</i>	<i>F60SODUM</i>	Q1	Q5
Red & processed meat ⁵	<i>DASH7_REDMEAT</i>	<i>M_MEAT + M_FRANK + M_ORGAN</i>	Q1	Q5
Sweetened beverages ⁶	<i>DASH8_SWEETB</i>	<i>(POP x 1.5) + (KOOLAID x 0.75)</i>	Q1	Q5

¹ Standards for maximum and minimum scores; points awarded correspond to quintile ranking.

² Fung's algorithm lists tofu; soy beverages not mentioned (1). A multiplier for legumes (x 4) was used to convert number of cooked dry beans and peas cup equivalents to ounce equivalents of lean meat from cooked dry bean and peas; see [MPEDs user's guide](#).

³ Algorithm used to compute low-fat dairy can be found here [WHI's low-fat dairy algorithm](#). It is critical to use this algorithm when computing the DASH score.

⁴ The sodium nutrient data is reliant on the WHI FFQ, which did not target dietary sodium assessment and did not assess all sources of sodium. If interested in sodium as a primary exposure, the FFQ sodium should be biomarker-calibrated (2). However, calibrating within a dietary quality index does not apply.

⁵ Fung's algorithm includes organ meat (1).

⁶ Multipliers for POP (x 1.5) and KOOLAID (x 0.75) were used to harmonize scoring for a medium serving of POP (12oz) or KOOLAID (6oz) to an 8oz serving of sweetened beverage.

SAS-code.

A DASH scoring algorithm, based on FFQ data ([MPEDs](#), [nutrients](#) or [items](#)) for the WHI OS & CT relative to enrollment, is described in *f60_dash_pseudoCode_inv.sas*. Reference (1), listed below, provides further motivation.

References.

(1) Fung, T.T., Chiuve, S.E., McCullough, M.L., Rexrode, K.M., Logroscino, G. and Hu, F.B., 2008. Adherence to a DASH-style diet and risk of coronary heart disease and stroke in women. *Archives of internal medicine*, 168(7), pp.713-720.

(2) Huang, Y., Van Horn, L., Tinker, L.F., Neuhouser, M.L., Carbone, L., Mossavar-Rahmani, Y., Thomas, F. and Prentice, R.L., 2014. Measurement error corrected sodium and potassium intake estimation using 24-hour urinary excretion. *Hypertension*, 63(2), pp.238-244.