Editorial Round Table

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Editorial Round Table on Dietary Guidelines For Americans (DGA) 2015-2020, 8th Edition

The Dietary Guidelines for Americans 2015-2020 has been in the limelight recently, across print and online media. It has fuelled controversy, mainly regarding the status of dietary cholesterol. Is it worth all the debate, or is it yet another instance of much ado about nothing?

Recommendations At A Glance

Guideline 1.
Follow a Healthy Eating Pattern Across the Lifespan

A healthy eating pattern includes:

- A variety of vegetables from all of the subgroups-dark green, red and orange, legumes (beans and peas), starchy, and other
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

A healthy eating pattern limits:

- Saturated fats and trans fats, added sugars, and sodium

Guideline 2.
Focus on Variety, Nutrient Density, & Amount

Healthy eating patterns include nutrient-dense forms of:

- A variety of vegetables: dark green, red and orange, legumes (beans and peas), starchy, and other vegetables
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), soy products, and nuts and seeds
- Oils, including those from plants (canola, corn, olive, peanut, safflower, soybean, and sunflower) and oils that are naturally present in foods (nuts, seeds, seafood, olives, and avocados)

Note that these foods are only nutrient dense if they’re prepared with little or no added solid fats, sugars, refined starches, and sodium.

Guideline 3.
Limit Calories from Added Sugars & Saturated Fats & Reduce Sodium Intake.

- Added Sugars: Limit to less than 10% of total calories daily
- Saturated & Trans Fats: Limit saturated fats to
less than 10% of total calories daily by replacing them with unsaturated fats and limit trans fats to as low as possible.

- **Sodium:** Limit to less than 2,300 mg daily (for adults and children 14 years and older).
- **Alcohol:** Limit to no more than 1 drink daily for women and no more than 2 for men

**Guideline 4.**
**Shift to Healthier Food & Beverage Choices.**
- Full-fat cheese or whole milk to low-fat cheese or milk
- White bread to whole wheat
- Fatty cuts of meat to seafood or beans
- Butter to olive or canola oil
- Soft drinks to water
- Potato chips to unsalted nuts

**Guideline 5.**
**Support Healthy Eating Patterns for All**
- At home. In schools. At work. In the community

**Don't forget physical activity!** In addition to the Dietary Guidelines, Americans should follow the Physical Activity Guidelines.

**Adults need:** At least 150 minutes of moderate intensity physical activity each week. Muscle-strengthening exercises on 2 or more days each week

**Children aged 6 to 17 need:** At least 60 minutes of physical activity per day, including aerobic, muscle strengthening, and bone strengthening activities

**Q 1. SAZ: The DGA statement runs into more than 500 pages ! What is your overall opinion about its message in brief ?**

**RJM:** I think it generally falls in line with most of the accepted guidelines for healthy food habits. The report states that saturated fat, trans fat, sugar and salt are bad and are hence to be restricted or avoided. Saturated fat and sugar intake should be less than 10% each of the total calorie requirement.

**TN:** DGA statement is good but is interpreted wrongly by the media and lay public.

**AGK:** It is not a balanced statement. We should be more careful when guidelines are framed, especially for the public.

**KVG:** DGA statement emphasizes on good dietary practices for the US population. It emphasizes the role of fruits and vegetables as nutrients and reduction of trans fats, red meat, salt and high calorie liquid supplements. However, as with all guidelines, the emphasis has been shifted to fat consumption alone by the media and the public and attention given to how many eggs one can eat!

**SS:** As expected, the guidelines are exhaustive, based on available evidence, huge and heavily sedative to read, unless you are so much interested to understand what it means. Hence it gave lot of fuel to cholesterol protagonists. The only change the dietary guidelines did was to take away the dietary cholesterol limit of 300mg/day, which definitely made eggs and fish a more freely consumable item since it contained more protein, PUFAs and far less saturated fat compared to other meat and dairy products for people who are non-diabetic. Rest of the dietary fat guidelines remains unchanged. This knowledge was available to us with the publication of the blood lipid profile of a poultry worker who lived on 25 eggs/day in NEJM 20 years back. Dietary cholesterol, because of the regulation at the level of absorption, affects only 10 to 20% of the blood level.

**Q2. SAZ: Eventhough the DGA is primarily for the American diet, there are a lot of positive messages for people across the globe. How relevant do you think is it in the Indian/Kerala context?**

**TN:** The relevance is only that media - press and social network are trying to sensationalize something that is non existent and hence confuse the lay public.

**RJM:** The recommendations are applicable to Indians/Keralites also. We in general consume larger quantities of sugar and refined carbohydrates which are now recognised as more harmful items than other dietary components.

**SS:** As I had noted in my write up, we need to approach the guidelines with caution. We are at the peak of the epidemic, whereas the epidemic is on the decline in US with 28% of adult population taking statins for one or other reason and another equal number avoiding it, though indicated. We are a susceptible population (3 times more risk compared to US). We have more diabetic and hypertensive population at a younger age and our female protection is almost lost. Fish has not shown its protection in Kerala, because of the unhealthy cooking. Egg also is consumed after deep frying using unhealthy oils, or after baking.

**AGK:** In Kerala, already youngsters are consuming food rich in saturated fat and cholesterol. ‘Eating out’ culture is already catching up. This DGA statement will send a wrong message.

**KVG:** What ails the US is affecting us also. All the risk factors for CVD are more prevalent in our population. We should give our opinion about what is good for Indians. We should shift emphasis on reducing calorie intake in our diet and increasing physical activity. We should adopt the good things like vegetables, fruits and reducing salt in our diet.

**Q3. SAZ: Is cholesterol the ‘master villain’ or the ‘innocent victim’? Please throw some light on the cholesterol controversy...**

**RJM:** I feel there is no real ‘cholesterol controversy’. The present 2015 guideline recommends that individuals should eat as little dietary cholesterol as possible while following a healthy eating pattern. The key recommendation from the 2010 guideline to limit dietary cholesterol to <300 mg/day has now been excluded. However, this does not mean that dietary cholesterol is not important. Dietary cholesterol is found in animal foods like egg yolk, dairy products, shell fish, meat and poultry. Egg yolk and
some shell fish are rich in dietary cholesterol and not in saturated fats. The DGA 2015 recommends that eggs and shell fish can be consumed along with a variety of other recommended food items. It is this statement which provoked a controversy.

**TN:** Cholesterol in food was never considered a strong contributor to blood cholesterol and that is what is highlighted in DGA 2015. The adverse implications of saturated fat and transfat in diet continue to remain the same.

**SS:** The controversy was clearly sorted out in the review article by Steinberg in 1989 (The cholesterol controversy is over. Why did it take so long?). Unquestionably the single unavoidable risk factor for atherosclerosis is blood cholesterol level (Twenty questions on atherosclerosis by William C. Roberts). Factors that make it atherogenic differ from species to species. The marine mammals tolerate 3 times more blood cholesterol levels. Terrestrial carnivores tolerate a good cholesterol level as long as they are euthyroid. Human beings make cholesterol more atherogenic by oxidising it and by generating atherogenic dyslipidemia (portal insulin resistance). Further, maximal evidence for preventing and reverting atherosclerosis is by lowering the blood cholesterol levels by statins.

**AGK:** I don’t think there is any controversy. Dietary restriction to the extent possible should be strongly encouraged, along with advice on exercise and weight reduction. It is true that there is no direct relation between serum cholesterol and dietary fat consumption. The basic cholesterol value is genetically determined and dietary restriction can reduce it by at the most 20%. Severe dietary cholesterol reduction may accelerate the endogenous cholesterol biosynthesis. Restriction of saturated fat and calories/sugar in diet is equally or even more important. But that does not mean that any quantity of cholesterol can be consumed in diet. Moreover, most of the foods which are rich in cholesterol are rich in saturated fat also.

**KVG:** For every idea there will be an opposite view. It is clear from very early days that dietary cholesterol gives only 30% of our total body cholesterol. We have enough scientific data on the role of cholesterol in atherosclerosis and reduction of events with cholesterol reduction. The previous guidelines limited the total amount of cholesterol that could be taken in a day. The current recommendation regarding cholesterol came from the observation that if fat is restricted, people tend to go for more easily available junk food rich in carbohydrates and transfats. The other source of cholesterol for us, is red meat which is not advocated. This therefore is an unwanted controversy.

**Q5.** **SAZ:** It would be great if the CSI (Cardiological Society of India) Kerala can formulate practical solutions which can be used by the administration. What do you think can be done at the policy level to improve dietary practices in the State?

**AGK:** Public awareness programs should be organised. Emphasis should be on dietary restriction of all three components - saturated fat, cholesterol and sugar. Advertisements like ‘100% cholesterol-free coconut oil’ etc should be banned! Health awareness among school children should be top priority.

**KVG:** All food items should have labeling of contents. Like smoking and alcohol, labeling of harmful foods should come in visual and print media. Stress on physical activity especially in schools and colleges.

**RJM:** Creating public health awareness about healthy eating habits, especially from the school-going age is the answer. Kerala can celebrate a ‘How to eat healthy day’ as a Governmental program under the Health Department when meetings can be held at the community level. Radio and TV channels too need to be roped in.

**SS:** Dietary policy should be strong to change the dietary patterns of Keralites from the heavily fried dishes backed by bakery products, marketed
foods and regular feasts. Educated nibbling, heart healthy plate and traditional practices of porridge with pulses (kanji and payaru) needs to replace the sumptuous feasts and energy dense snacking. Doctors' meeting and hospitals needs to show the way with heart healthy kitchens. Fruit and vegetable production needs to be increased so that they are made available as healthy snacks. Frying, pickling and bakery products are to be discouraged as unhealthy food practices. Naturally restricting the dishes to 10 or so instead of 30 to 90 dishes currently provided in a buffet or sadhya will go a long way to help ourselves in limiting calories. Coffee and tea should be served without sugar and milk (they should be made optional).

**TN:** Ban food items with trans fat. Clearly label saturated fat and trans fat in food. Restrict and label soft drinks with high fructose corn syrup (HFCS).

**SAZ: Reflections...**

- There are a lot of good things about the DGA guidelines, but a few areas need further study.
- Contrary to the messages being circulated in the media, the guideline actually does not encourage anyone to consume more cholesterol.
- Restriction of sugar consumption has been given significant weightage.
- A guideline for Indians/Keralites (CSI can be a torch bearer in the initiative) should take into consideration a lot of factors, including local food preferences, availability, cooking methods, economics and of course state policy.
- Any such guideline for the public should be framed keeping in mind the fact that it is meant primarily for the apparently 'healthy' population (and not for 'patients' with an established cardiovascular disease).
- Normally, nobody would eat after calculating percentages of dietary components. The recommendations should be practical, applicable across a wide cross-section of the population, sustainable throughout life and should include clear messages on not just what not to eat, but also on what can be eaten and in what quantity.
- The best time to initiate a healthy eating pattern is during childhood.

The opinions voiced in this discussion are solely that of the participants, meant for academic purpose, and do not imply or represent the official statement of the Cardiological Society of India – Kerala Chapter or the Kerala Heart Journal.