

Subcommittee 2:

Dietary Patterns, Foods and Nutrients,
and Health Outcomes



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Scope

- To examine the relationship between dietary patterns, foods, and nutrients, *and* preventable diet-related diseases, obesity, and mortality
 - Primary focus is to consider foods and nutrients in the context of dietary patterns
 - Considering evidence on specific foods and nutrients, as needed

Invited Experts and Consultants

Invited Experts

Individuals invited by the SC, usually on a one time basis, to provide their expertise to inform the SC's work. Invited experts do not participate in decisions at the SC level.

Consultant SC Members

Individuals sought by the SC to participate in SC discussions and decisions on an ongoing basis but are not members of the full DGAC. Like DGAC members, consultants complete training and have been reviewed and cleared through a formal process within the Federal government.

Experts and Consultants

Invited Experts (Sept to Nov 2014)

None

Consultant SC Members

None

Update

Anna Maria
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- SC has conducted reviews on dietary patterns and CVD, body weight, T2D, cancer, congenital anomalies, neurological and psychological illnesses, and bone health
- Draft conclusions have been presented at DGAC public meetings 4 and 5 (no substantial changes)
- SC has looked across the dietary patterns evidence to describe common characteristics of the diet associated with health
- Goal for today is to discuss:
 - Common dietary pattern characteristics observed
 - Draft implications for the chapter

Dietary Patterns and Health Outcomes

- Strong evidence:
 - CVD and weight loss among overweight and obese adults
- Moderate evidence:
 - T2D, colorectal cancer, postmenopausal breast cancer, and body weight – weight gain or incidence of overweight and obesity (adults)
- Limited evidence:
 - Premenopausal breast cancer, lung cancer, neural tube defects, depression (adults), age-related cognitive impairment, bone health (adults), and body weight (children)
- Grade not assignable:
 - Prostate cancer, depression (post-partum women; children), congenital heart defects, cleft lip/palate, and bone health (children)

Common Components across Dietary Patterns

- Vegetables and fruits were consistently identified as beneficial components of the diet in every conclusion statement across health outcomes.
- Whole grains were identified slightly less consistently, but were identified in every conclusion with moderate to strong evidence. For studies with limited evidence, grains were not as consistently defined and/or they were not identified as a key characteristic.
- Low-fat dairy was identified as a beneficial component of the diet for most outcomes with moderate to strong evidence and was less consistently identified for those outcomes with limited evidence.

Common Components across Dietary Patterns

- Fish/seafood, legumes, lean meat, and nuts were all identified as beneficial components of the diet. For all conclusions with moderate to strong evidence, higher intake of red and processed meats was identified as detrimental.
- Moderate intake of alcohol was identified as a beneficial component of the diet for conclusions with moderate to strong evidence.
- Higher consumption of sugar-sweetened foods and beverages as well as refined grains were identified as detrimental in almost all conclusion statements with moderate to strong evidence.

Common Components: Summary

- Common components of dietary patterns associated with positive health outcomes include:
 - higher intake of vegetables, fruits, whole grains, low-fat dairy, fish/seafood, legumes, lean meat, and nuts;
 - moderate intake of alcohol;
 - lower consumption of red and processed meat; and
 - low intake of sugar-sweetened foods and drinks and refined grains.

Alcohol

- Moderate alcohol intake was identified as a component of a healthy dietary pattern associated with some health outcomes, which reaffirms conclusions related to moderate alcohol consumption by the 2010 DGAC.
- The impact of alcohol on specific cancers was based upon the 2007 AICR/WCRF report in 2010 and in 2015 the subsequent AICR/WCRF Continuous Update Reports (2010-2014) was also considered.
- The 2010 DGAC additionally considered alcohol intake and unintentional injury as well as lactation, and the SC2 concurs with these conclusions.

Alcohol

2010 Dietary Guidelines Advisory Committee Report NEL Systematic Review Questions and Conclusions Related to Alcohol Consumption (2010 DGAC Report, pgs. 354-362)

Topic	NEL SR Question	Conclusion
Unintentional Injury	What is the relationship between alcohol intake and unintentional injury?	Strong evidence demonstrates that drinking in excess of current guidelines increases the risk of unintentional falls, motor vehicle crashes, and drowning. When alcohol is consumed in moderation, the evidence for risk of unintentional injury is less well established for activities such as driving, swimming, and athletic participation, but abstention from alcohol is the safest.
Lactation	Does alcohol consumption during lactation have adverse health effects? What is the relationship between alcohol consumption and (1) the quality and quantity of breast milk available for the offspring and (2) postnatal growth patterns, sleep patterns, and/or psychomotor patterns of the offspring?	Moderate, consistent evidence shows that when a lactating mother consumes alcohol, alcohol enters the breast milk, and the quantity of milk produced is reduced, leading to reduced milk consumption by the infant. Although limited, evidence suggests that alcohol consumption during lactation is associated with altered postnatal growth, sleep patterns and/or psychomotor patterns of the offspring.

Draft Implications

The U.S. population should consume dietary patterns that are:

- rich in vegetables, fruits, whole grains, low-fat dairy, fish/seafood, legumes, lean meat, and nuts;
- moderate in alcohol; and
- lower in red and processed meat, and
- low in sugar-sweetened foods and beverages and refined grains

for maintaining health, and when coupled with an energy deficit, for achieving a healthy weight.

Draft Implications

- These dietary patterns can be achieved in many ways and should be tailored to the individual's biological needs and socio-cultural preferences.
- A multilevel process at individual and population levels is required to help achieve a healthy diet and other lifestyle behaviors so as to achieve chronic disease risk reduction and overall well-being.
- We recommend the development and implementation of programs and services that facilitate the improvement in eating behaviors consistent with healthy dietary patterns in various settings.

Alcohol: Proposed Implications

- The DGAC concurs with the 2010 DGAC recommendation that if alcohol is consumed, it should be consumed in moderation, and only by adults. Moderate alcohol consumption is defined as an average daily consumption of up to one drink per day for women and up to two drinks per day for men and no more than three drinks in any single day for women and no more than four drinks in any single day for men.

Alcohol: Proposed Implications

- However, it is not recommended that anyone begin drinking or drink more frequently on the basis of potential health benefits because moderate alcohol intake also is associated with increased risk of breast cancer, violence, drowning, and injuries from falls and motor vehicle crashes.

Alcohol: Proposed Implications

- There are many circumstances in which people should not drink alcohol:
 - Individuals who cannot restrict their drinking to moderate levels.
 - Anyone younger than the legal drinking age.
 - Women who are pregnant or who may be pregnant.
 - Individuals taking prescription or over-the-counter medications that can interact with alcohol.
 - Individuals with certain specific medical conditions (e.g., liver disease, hypertriglyceridemia, pancreatitis).
 - Individuals who plan to drive, operate machinery, or take part in other activities that require attention, skill, or coordination or in situations where impaired judgment could cause injury or death (e.g., swimming).

Draft Implications

- The majority of evidence considered focuses on dietary patterns consumed in adulthood on health risks, but these recommendations can also have implications for children.
- The dietary pattern research reviewed by SC2 supports and extends the food group research reviewed by the 2010 DGAC.

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Reminder: DGAC members, please state your name before speaking.