DIET QUALITY AND HEALTH

Dietary quality is an important determinant of weight gain and obesity, and a vast body of evidence shows that diet quality directly affects the risk of almost all important diseases independent of its effect on body weight. A previous report from the Centers for Disease Control and Prevention (CDC) suggested some reduction in obesity among young children, but the most recent data suggest that this was a statistical aberration, and the trends in obesity among adolescents and adults have continued upwards. The prevalence of obesity in adults has now reached 40 percent, and about 70 percent are overweight or obese. A recent projection based on historical weight trajectories predicted that 57 percent of today’s children will be obese by age 35. Although childhood obesity has appropriately received much attention, the health implications of weight gain among adults is also significant, as it accounts for about half of the excess obesity in the U.S. Weight gained by adults up to age 55 strongly predicts poorer health after age 55, including rates of cardiovascular disease, type 2 diabetes, various cancers, reduced quality of life, and overall mortality after age 55.

The quality of foods and beverages in our diets plays a major role in the cause, and potentially the prevention, of excess obesity. The past year represented one significant milestone, as the U.S. Food and Drug Administration finally determined that partially hydrogenated fats no longer qualified as “generally regarded as safe,” or “GRAS.” This announcement effectively banned industrially produced trans fat in the U.S. Although by this time the large majority of trans fat had already been removed from the food supply, this was still an important development in terms of improving Americans’ diet quality.

DEFINING DIET QUALITY

The indicators of diet quality the Menus of Change initiative has used for tracking trends have been selected because they reproducibly predict risks of major diseases in multiple, large prospective studies. These indicators are discussed in more detail and with additional references on the Harvard T.H. Chan School of Public Health website, Nutrition Source. They are intakes of:

1. **Vegetables** (not including potatoes as they do not provide the same health benefits)
2. **Whole Fruits**
3. **Whole Grains** (especially more intact, or cut, versus milled whole grains, to replace refined grains and potatoes, which are both rapidly converted to glucose and absorbed, elevating blood sugar)
4. **Nuts and Legumes**, including soy-based foods
5. **Fish**
6. **Plant Oils** (rich in polyunsaturated and monounsaturated fats)

In practice, increasing polyunsaturated fat means using plant oils (i.e., liquid at room temperature) instead of butter, lard, or tropical oils (e.g., palm, palm kernel, and coconut oils) wherever possible. These plant oils also contain healthful monounsaturated fats. Because of widespread promotion of coconut oil as a health-promoting fat, the American Heart Association released a review of available evidence. This review emphasized the lack of evidence on long-term health consequences, but clear evidence suggested that coconut oil has adverse effects on blood cholesterol fractions when compared with liquid plant oils high in polyunsaturated fat. Limited use of butter or coconut oil when their special flavor is important is reasonable, but those options are best not used as a primary cooking fat.

7. **Trans Fats** (now eliminated)
8. **Red and Processed Meat** (to be substantially reduced)
9. **Sugar-sweetened Beverages** (to be substantially reduced)
10. **Sodium** (salt added in processing and cooking, to be substantially reduced)

Sodium reduction deserves special attention because it is the only indicator of diet quality that has been moving in the wrong direction. Unprocessed foods contain very little sodium, and foodservice operators (along with food manufacturers) play a major role in determining the amount of sodium consumed by the public.

Our indicators of diet quality do not include dairy foods as they are not essential and are not clearly related to risk of major health outcomes, including fractures. Consumption of cheese has been increasing dramatically over the last several decades in the U.S., becoming almost routine in salads and sandwiches. Cheese provides large amounts of sodium along with less healthy fats and many calories. Consuming smaller amounts of cheese and finding alternative ways to add flavor and variety to these foods—such as using nuts, nut butters, and seeds—are desirable.

Concerns have been raised that plastics or microplastics and synthetic endocrine disrupters in the environment are contributing to obesity, cancer, and other health risks. At this time we have little evidence on the long-term health consequences of these exposures, and we do not necessarily need an explanation for the obesity epidemic because it would be expected given the poor diet quality, general overconsumption of food, and low levels of physical activity in the U.S. population. Nevertheless, while research is ongoing, prudence supports limiting these exposures.

Overall, evidence accumulated over the last several decades strongly supports plant-forward
food choices, meaning a style of cooking and eating that emphasizes and celebrates, but is not limited to, plant-based foods—including fruits and vegetables (produce); whole grains; beans, legumes (pulses), and soy foods; nuts and seeds; plant oils; and herbs and spices—and that reflects evidence-based principles of health and sustainability. This pattern was examined directly in a recent analysis using a plant-based dietary index that gives one point for each serving of healthy plant-based foods, and a negative point for each serving of animal-sourced foods. Among more than 200,000 men and women followed for up to 26 years, a higher plant-based score was linearly related to lower risk of coronary heart disease, consistent with earlier findings for type 2 diabetes.

The findings from the large study on plant-based diets are consistent with a recent meta-analysis in which replacement of red meat with healthy plant protein sources—such as nuts, legumes, and soy foods—improved blood cholesterol fractions. The recent EAT-Lancet Commission report used three different approaches to evaluate the expected outcomes of adopting a healthy, plant-forward eating pattern. The report found that a shift to this flexitarian diet globally could potentially prevent different approaches to evaluate the expected protein sources—such as nuts, legumes, and soy diets are consistent with a recent meta-analysis in the large study on plant-based and that reflects evidence-based principles of health and sustainability. This pattern was examined directly in a recent analysis using a plant-based dietary index that gives one point for each serving of healthy plant-based foods, and a negative point for each serving of animal-sourced foods. Among more than 200,000 men and women followed for up to 26 years, a higher plant-based score was linearly related to lower risk of coronary heart disease, consistent with earlier findings for type 2 diabetes.

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