

BEST PRACTICES IN: Helping Patients Eat More Seafood

Introduction

The 2010 Dietary Guidelines for Americans (DGA) published by the US Department of Agriculture (USDA) recommend that all Americans, including pregnant or breastfeeding women, increase the amount of seafood they eat weekly to 8 to 12 ounces (2-3 servings) (age-appropriate portions should be served to children) (Table 1).^{1,2}

Table 1

Key Seafood-Related Recommendations From Dietary Guidelines for Americans, 2010

For the general population:

- Choose a variety of protein foods that include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds
- Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry
- Eat 8 or more ounces per week of seafood (less for young children)

For women who are pregnant or breastfeeding:

- Eat 8 to 12 ounces of various types of seafood per week
 - May include all types of tuna, of which up to 6 ounces can be white (albacore) tuna.
- Do not eat:
 - Tilefish
 - Shark
 - Swordfish
 - King mackerel

Seafood is rich in omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), which are associated with reduced risk for cardiovascular-related deaths among individuals both with and without preexisting heart disease. That is, eating seafood helps prevent the leading cause of death in the United States among both men and women—heart disease. Eating seafood can also reduce stroke risk and improves fetal brain development and cognitive function throughout life. Despite the widely publicized health benefits of seafood consumption, the average American eats only 3.5 ounces, or less than one serving of seafood per week.¹ Americans are confused about how much and what types of seafood to eat, as well as how to buy, prepare, and store seafood, and are concerned about the safety of eating seafood due to reports focused on mercury and other environmental contaminants. Physicians, too, are exposed to mixed information and, consequently, are deterred from encouraging seafood consumption among patients.

To better equip physicians to discuss science-based, practical information about seafood with their patients, *Family Practice News* conducted a survey sponsored by the National Fisheries Institute (NFI) of US family physicians about how they talk about seafood with their patients. The survey results served as the foundation for a subsequent tele-roundtable attended by four physicians with an interest in nutrition (Table 2). The roundtable identified key concerns and challenges for improving physician/patient discussions about seafood consumption as well as strategies for how physicians can help patients meet the current recommendations.

Survey Reveals Knowledge Gap That Inhibits Patient Dialogue

The survey questioned physicians' knowledge of seafood's health benefits and how often they talk about seafood with patients.

Of the 278 respondents, about one third (31.7%) reported that they discuss seafood consumption with only two out of 10 patients, while one third (31.3%) reported never discussing seafood consumption.

Commonly cited reasons were safety concerns about eating fish and shellfish (36.4%), uncertainty about appropriate amounts (40.4%), confusion and conflicting information (44.1%), and a preference for supplements over seafood (42.2%).

Among physicians who reported discussing seafood consumption with patients, only 40% make recommendations consistent with the DGA recommendations. In fact, a quarter of respondents (25.3%) reported not providing any

recommendations about seafood and 14.5% recommend eating 8 or fewer ounces of seafood per week. Overall, the survey results reveal a gap between physicians' knowledge of current dietary recommendations and their recommendations, resulting in little or no patient dialogue about seafood.

Barriers to Eating More Seafood

The tele-roundtable panelists identified a variety of barriers to seafood consumption and physicians' willingness and ability to discuss these issues including confusion regarding safety concerns, time constraints, lack of knowledge about selecting and preparing seafood, and accessibility.

Seafood Safety: According to the survey, because of widespread concerns about mercury, one third (32.4%) of the 278 survey respondents indicated that seafood consumption (quantity and type) should be moderated in adults, half (50.0%) responded that it should be moderated in children, and about three quarters (73%) indicated that it should be moderated in pregnant/breastfeeding women. Also, 42.5% of the respondents stated that many types of seafood should be avoided, with more than one third (36.4%) citing safety concerns as a reason to avoid discussing seafood with patients.

However, health and nutrition experts, including the expert DGA committee, have reviewed the breadth of scientific evidence about seafood and conclude that eating a variety of fish and shellfish is safe.² The DGA recommend that the general population eat a variety of seafood—approximately 20% of the total recommended protein intake—for heart and brain health benefits. Specifically, for pregnant or breastfeeding women, the DGA recommend eating a variety of seafood, including light canned tuna and up to 6 ounces of white (albacore) tuna per week. This population should avoid only four specific types of infrequently eaten fish, which can easily be avoided or substituted: tilefish, shark, swordfish, and king mackerel (Table 1).² The most frequently consumed fish and shellfish in the United States are shrimp, canned tuna, salmon, tilapia, pollock, catfish, crab, cod, pangasius, and clams, which make up about 90% of seafood eaten and none of these are considered high in mercury.¹ All Americans should increase the amount and variety of seafood consumed for the health benefits to the heart, brain, and developing fetuses.

The panel suggested that, to allay concerns about limiting the type and frequency of seafood, physicians emphasize the health benefits of eating a variety of seafood and encourage patients to strive for the DGA-recommended two to three servings a week.

Seafood Knowledge: According to the panel, there is a misconception among Americans that seafood is expensive and difficult to select and prepare. To correct misconceptions, physicians can talk to patients about slightly modifying their diet to include more seafood, and offering tips and resources about how to select and prepare seafood. Having nutrition- and dietary-focused discussions should become an increasingly important part of patient care. Physicians can encourage patients by referring them to reliable resources regarding selecting and preparing seafood, including recipes (Table 3). To impress a sense of medical necessity, the panel suggested writing information on a prescription pad to give patients easy ways to improve their health through changing their diet rather than taking medicine.

When fresh seafood is unavailable or cost prohibitive,

the panel advises steering patients toward canned and frozen fish. These products can be more accessible and affordable and are sometimes easier to prepare. It is important to emphasize that positive health benefits from eating seafood are obtainable from all seafood, not just fresh fish. Equally as important is that fresh, frozen, and canned fish contain nutrients that supplements do not. The panelists recognized that it is better to encourage food-based solutions rather than supplements, as they are not an equal substitute for the complex nutrient package of fish as a whole food. For example, literature suggesting pregnancy-related health benefits from seafood is based on population studies examining fish consumption, rather than omega-3 supplementation. The panel recommends that physicians describe the advantages of seafood consumption rather than dietary supplementation.^{3,4}

Finally, physicians can point patients to ways to eat more seafood, which does not need to be eaten in vast quantities to derive health benefits. Simply replacing other proteins twice per week (for example, a tuna sandwich instead of chicken breast) is sufficient to achieve the recommended amounts.

Conclusions

Seafood is a healthy but underconsumed food in the American diet. The average level of consumption is less than one seafood meal per week, or less than half of the current DGA recommendations. Physicians can help patients understand the importance of improving personal health through diet and take action by eating more seafood. Emphasizing the health benefits and ease of adding seafood to patients' diets, while providing usable tools and information necessary to make seafood consumption part of normal lifestyle, is key to making real and lasting changes.

References

1. Seafood Health Facts: A joint project of Oregon State University, Cornell University, the Universities of Delaware, et al. *Seafood Choices: Overview of the U.S. Seafood Supply*, 2012. http://seafoodhealthfacts.org/seafood_choices/overview.php. Accessed May 16, 2012.
2. US Department of Agriculture, US Department of Health and Human Services. *Dietary Guidelines for Americans*, 2010. 7th ed. Washington, DC: US Government Printing Office; December 2010.
3. Hibbeln JR, Davis JM, Steer C, et al. Maternal seafood consumption in pregnancy and neurodevelopmental outcomes in childhood (ALSPAC study): An observational cohort study. *Lancet*. 2007;369:578-585.
4. Oken E, Østerdal ML, Gillman MW, et al. Associations of maternal fish intake during pregnancy and breastfeeding duration with attainment of developmental milestones in early childhood: A study from the Danish National Birth Cohort. *Am J Clin Nutr*. 2008;88:789-896.

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Table 3

Resources for Physicians and Patients

Dietary Guidelines for Americans	www.dietaryguidelines.gov
Nutrition.gov	www.nutrition.gov
US Department of Agriculture	
Center for Nutrition Policy and Promotion	www.cnpp.usda.gov
Food and Nutrition Service	www.fns.usda.gov
Food and Nutrition Information Center	www.fnict.nal.usda.gov
National Institute of Food and Agriculture	www.nifa.usda.gov
US Food and Drug Administration	www.fda.gov/food/foodsafety/Product-SpecificInformation/Seafood/default.htm
Get Real About Seafood	www.getrealaboutseafood.com
Eating Well	www.eatingwell.com
Seafood Health Facts	www.seafoodhealthfacts.org

Table 2

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