Seafood Nutrition:
UNDERSTANDING THE SCIENCE, COMMUNICATING TO CLIENTS, RESOURCES AND RECIPES TO SHARE
RDN Toolkit
Seafood Nutrition Partnership is here to inspire Americans to enjoy seafood at least twice a week by showing how selecting, ordering and preparing seafood is simple and delicious!

As an expert, you know that customers are often overwhelmed by the options, or confused about how best to prepare a tasty seafood dish. The Seafood Nutrition Partnership can help! This guide should assist you in answering their questions and inspiring customers to make healthier choices for themselves and for their families.

Fun ways to use this toolkit

- **TAKE IT TO THE SUPERMARKET** — tour a seafood counter at a local market with your client and make selections for tonight’s dinner.

- **IN THE KITCHEN** — try recipes together, teach cooking techniques and show them how easy it can be.

- **BE CREATIVE** — take tried and true recipes from your client’s own kitchen and make them special with seafood.

- **TALK ABOUT SEAFOOD** — tell your followers and share the seafood news in articles and blogs.

seafoodnutrition.org
What is seafood?

Seafood includes any form of food from the waters, including fish, shellfish such as mollusks and crustaceans, and even sea vegetables like seaweed and algae. In the United States, that includes freshwater. And, at Seafood Nutrition Partnership, that definition must also take into account the sustainability of the food supply and the waters that provide life.

Short answer: It’s any way you can get the good nutrients, vitamins and essential omega-3s that come from the sea.

And what is Seafood Nutrition Partnership?

• SNP is an independent nonprofit grounded in science and guided by respected researchers, healthcare professionals, and academics, with a mission to create a healthier America through consumption of seafood. SNP addresses the biggest barriers to eating seafood — a lack of confidence in knowing how to select, buy, prepare and eat seafood — to encourage more Americans to consume fish, shellfish and omega-3s as part of a balanced diet.

• SNP provides resources to health and nutrition professionals that helps answer consumers’ questions about seafood and health and encourages balanced nutrition throughout the lifespan. SNP’s outreach materials emphasize seafood at all price points, ease of prep and cooking, and provide culturally relevant recipes — many of which feed a family of four for less than $10 and can be made in less than 15 minutes.

Why we need your help.

Research shows eating seafood two to three times per week reduces the risk of death from any health-related cause.1 Seafood provides unique health benefits as a lean protein and is the best source for omega-3 fatty acids, which are healthy fats essential to human health and development.

However, only 1 in 10 Americans follow the recommendation in the Dietary Guidelines to eat seafood at least twice a week. Health professionals recommend 250-1,000 mg/day of omega-3s EPA and DHA. However, the average American intake is only 90 mg/day.2 We need your expert help to reach consumers and improve their health.

Take the pledge to eat #Seafood2xWk

Eating seafood regularly can significantly improve overall health. Eating two servings per week — as recommended by the Dietary Guidelines for Americans, American Heart Association, American Diabetes Association and many other leading health organizations — is an easy way to make a positive commitment to your health and the health of those around you. Take the pledge at seafoodnutrition.org/pledge.

The pledge is an easy, voluntary way to let friends and family know that you’re making a positive commitment to your health. Sign the pledge to eat seafood twice each week. Your heart — and your loved ones — will thank you for it!

I pledge to eat two servings of seafood each week.

I recognize seafood is a healthy choice for me and my family. It is one of the leanest proteins with a variety of nutrients beneficial for heart and brain health.

By pledging to eat at least two servings of seafood each week as recommended by the USDA HHS Dietary Guidelines for Americans and supplement with omega-3s, I know I will help me and my family improve our health.

The Seafood Nutrition Partnership aims to reduce the risks of heart disease, improve baby brain wellness and increase memory for seniors by educating Americans about the health benefits of sustainable seafood and building awareness of seafood’s essential nutritional value.

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1 Mozaffarian G, Rimm EB. Fish intake, contaminants, and human health: evaluating the risks and the benefits. JAMA. 2006; 296:1885–99
2 What We Eat in America, NHANES 2013-2014, individuals 2 years and over (excluding breast-fed children); day 1. Available: www.ars.usda.gov/nea/bhnrc/fsrg.

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People feel good about seafood — they agree it’s good for their health, it’s a perfect choice when they want something special, or they love how it tastes. In fact, Americans are eating more seafood as they discover its great taste and healthy benefits. In 2017, a third of consumers reported they increased their fish consumption at home in the past year.

Despite this, few people are eating seafood on a regular basis — only one in 10 consumers meet the goal of having seafood two times per week.

1. To help consumers make the leap, give them these reasons:


### Live (Healthier) Longer

- **Fish literally saves lives. Eating seafood two to three times per week reduces the risk of death from any health-related cause by 17 percent.**
- **Seven out of 10 deaths in the U.S. are preventable through nutrition and lifestyle changes, like adding omega-3s to your diet. Low seafood intake contributes to 55,000 deaths each year, making seafood deficiency a leading dietary contributor to preventable death in the U.S.**
- **Older adults with highest fish consumption lived an average of 2.2 years longer.**

### Fish Is Brain Food

- **“As calcium is to the bones, DHA is to the brain,” says Dr. Tom Brenna, member of the 2015-2020 Dietary Guidelines Advisory Council. Seafood provides docosahexaenoic acid (DHA), a type of omega-3 essential for brain development and function, helping neurons trigger and cells regenerate. It is such an important building block that people with low levels of it have measurably smaller brains!**
- **The FDA and EPA agree seafood consumption is especially important for pregnant or nursing women because eating fish regularly helps with the growth and development of children’s brains and even helps boost IQ. Babies from moms who ate seafood twice a week had a higher IQ averaging 5.8 points.**
- **People who regularly eat fish are 20 percent less likely than their peers to have depression.** In fact, the American Psychiatric Association has endorsed the fatty acids in fish as an effective part of depression treatment.

### Seafood Is Delicious, Versatile, Budget-Friendly and Fast

- **From delicate, mild flounder to rich, flavorful salmon, or sweet and savory shrimp, seafood can please any palate.**
- **Seafood fits with all of your favorite flavors — it can be incorporated into a spicy Latin dish, flavorful Creole recipe, light and refreshing salad, or a rich Italian pasta bowl.**
- **Fresh, local, seasonal catches are easy on the wallet, as are frozen options and canned seafood, like tuna or salmon.**
- **From start to finish, fresh, frozen, or canned seafood can make a meal in 15 minutes or less.**

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Buying seafood doesn’t need to be complicated. Utilize this guide to find the perfect seafood to satisfy your taste, schedule, budget and diet.

I’M IN THE MOOD FOR:
• For a light, delicate fish, choose a lean fish, such as striped sea bass, cod, flounder, grouper, haddock, halibut, mahi mahi, perch, pollock, red snapper, rockfish, sole or yellowfin tuna.
• For a richer taste, choose a fattier fish usually with darker flesh, such as herring, mackerel, salmon, sardines, swordfish, trout or albacore tuna.
• Tip: For a richer taste, choose a fattier fish. For a light, delicate fish, choose a lean fish.

TO PREPARE AND COOK MY SEAFOOD, I’D LIKE TO:
• Use my outdoor grill
  - Many fish stand up to the heat, and it can bring out a delicious grilled flavor. Try salmon, snapper, tuna, mahi mahi, swordfish, catfish, scallops or shrimp.
• Steam or poach it
  - Try lean fish — mild-flavored with tender, white or pale flesh — such as sea bass, cod, flounder, grouper, haddock, halibut or pollock.
• Broil or bake
  - Try a medium-fat fish, such as bluefish, catfish, mullet, salmon or swordfish.
• Eat it without having to cook it
  - Choose a precooked fish that’s frozen (so you just have to warm it up), or opt for canned tuna, salmon or crab.

Tip: Let freshness be your guide. It’s easy to substitute one fish for another in a recipe, so if the mahi mahi looks and smells fresher than the pompano, buy it instead. Also, keep in mind the frozen and canned sections offer the same health benefits and often a wider variety to choose from.

ACROSS THE STORE
• FRESH: A great option if you’re planning to eat fish today or tomorrow. Seafood should be consumed within one to two days when it’s fresh or thawed. If you’re eating it right away, prepared seafood is a quick and easy option, as well. Swing by the sushi station or prepared foods section for a meal on the run.
  - For the wallet: Seasonal or local fresh options tend to be more budget-friendly at your fish counter. Both farm-raised and wild fish are good nutritional choices, so talk to your seafood counter expert about best deals, what’s freshest and recipe ideas.
• FROZEN: If you plan to save your seafood for a later date, this is the way to go. It’s also great for fast family-friendly meals such as pre-seasoned fish that can be cooked quickly in the oven or even microwave. Frozen seafood is just as good for you, especially with today’s flash-frozen-at-sea technologies and can be saved for up to six months.
  - For the wallet: Frozen seafood is often a budget-friendly option, especially if you can buy larger packages and store them. Check for sales and coupons for even better values.
• CANNED, TINNED OR POUCHED: There are many canned seafood options for a quick and easy meal or snack, and they serve as a great source of protein.
  - For the wallet: Canned seafood is often the most budget-friendly option. Keep an eye out for sales and stock up on this shelf-stable pantry protein.

SUSTAINABILITY
• Sustainable means that seafood has been caught or farmed with minimal impact to the environment.
• The majority of U.S. retailers have sustainability practices in place. Always buy seafood from a reputable market where the employees are able to answer your questions.
• When at the store, look for a trusted certification such as Certified Sustainable Seafood from the Marine Stewardship Council or Best Aquaculture Practices administered by the Global Aquaculture Alliance.
• You can also download the Seafood Watch app from the Monterey Bay Aquarium or visit FishWatch.gov, both of which list sustainable seafood choices based on where the fish is from, how it was caught and other factors.

Farmed vs. Wild
• Both farmed and wild seafood are safe to eat.
• The two main types of seafood farming are marine, which is net enclosures in the open ocean or in tanks on land, and freshwater, usually man-made ponds. In the U.S., the most common farmed species include oysters, clams, mussels, and shrimp, and fish such as catfish, trout, salmon and black sea bass.
• Farming fish, shellfish and even seaweed helps produce food while restoring habitats, replenishing wild stocks, and rebuilding populations of threatened and endangered species.
• When it comes to the environment, both farmed and wild fish and shellfish can be harvested responsibly, or not, so it is best to find out the sustainability policy of your grocer or look for a trusted certification on the package.

Additional Considerations

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## The Ultimate Guide to Cooking Seafood

### BEST WAY TO COOK YOUR SHELLFISH

Often, shellfish are boiled, poached, steamed or microwaved. They can also be baked, broiled or grilled, as with scallops or shrimp.

**IS IT DONE?**
- **Raw shrimp:** will turn pink and become firm.
- **Live oysters, clams and mussels:** shells will open when they are done.
- **Shucked oysters, clams and mussels:** will become plump and opaque. The edges of the oysters will start to curl.
- **Scallops:** will turn white or opaque and become firm to the touch.
- **Crab and lobster:** shells will turn bright red and the meat will become white or opaque.

### BEST WAY TO COOK YOUR FISH

Fish can be divided into categories based on the amount of fat it contains. Within each category, you can swap types of fish in recipes and cooking techniques.

- **Steamed or poached:** Lean, mild-flavored fish with tender, white or pale flesh, such as sea bass, cod, flounder or grouper are usually delicate, so this cooking method works well. Shrimp, crab and lobster can be cooked in this method.
- **Grilled, baked or broiled:** Medium-to-fatty fish with a firmer texture and richer flavor are perfect for these methods because they can withstand the heat. Try black cod (sablefish), bluefish, catfish, mackerel, salmon, swordfish or trout.

**IS IT DONE?**
- Many types of fish are delicate and tender, so you want to avoid overcooking them. The best way to tell if a fish is done is by testing it with a fork. Insert the fork at an angle, at the thickest point, and twist gently. The fish will flake easily when it’s done, and it will lose its translucent or raw appearance.
- If you are new to preparing seafood, a good rule of thumb is to cook the fish to an internal temperature of 140° to 145°F.
- Try the 10-minute rule, which says you should measure the fish at its thickest point and cook it for 10 minutes per inch, turning halfway through the cooking time.

Fish is versatile and can be paired with a variety of cuisines and flavors. Try a few of our favorite ways to enjoy it!

### MILD FISH COOKING METHODS

<table>
<thead>
<tr>
<th><strong>FISH</strong></th>
<th><strong>COOKING METHODS</strong></th>
<th><strong>WAYS TO ENJOY</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cod</td>
<td>Broil, pan-fry, bake, or poach</td>
<td>Baked with vegetables</td>
</tr>
<tr>
<td>Flounder</td>
<td>Broil, pan-fry, or bake</td>
<td>Dress it with toasted almonds and lemons</td>
</tr>
<tr>
<td>Grouper</td>
<td>Grill, pan-fry, pan-sear, bake, or poach</td>
<td>Try a zesty lime sauce or marinade</td>
</tr>
<tr>
<td>Haddock</td>
<td>Broil, pan-fry, bake, or poach</td>
<td>In a sandwich topped with slaw</td>
</tr>
<tr>
<td>Halibut</td>
<td>Grill, broil, pan-sear, or bake</td>
<td>Marinated in soy sauce and miso paste, paired with vegetables</td>
</tr>
<tr>
<td>Mahi mahi</td>
<td>Grill, saute, bake, or poach</td>
<td>Topped with a spicy pesto sauce or in a curry sauce</td>
</tr>
<tr>
<td>Monkfish</td>
<td>Grill, pan-roast, or pan-fry</td>
<td>Cubed, coated with Jamaican jerk spices, grilled and served as kabobs</td>
</tr>
<tr>
<td>Pollack</td>
<td>Broil or saute</td>
<td>Coated with breadcrumbs and parmesan</td>
</tr>
<tr>
<td>Red Snapper</td>
<td>Roast, fry, or saute</td>
<td>Served in a spicy tomato sauce with pasta</td>
</tr>
<tr>
<td>Sea Bass</td>
<td>Grill, broil, pan-sear, or bake</td>
<td>Baked with a citrus dressing or pan-seared with vegetables</td>
</tr>
<tr>
<td>Sole</td>
<td>Broil, saute, or bake</td>
<td>Simple saute or stir-fry</td>
</tr>
<tr>
<td>Tilapia</td>
<td>Broil, pan-fry, or saute</td>
<td>Pan-fry with a lemon and kalamata olive sauce</td>
</tr>
</tbody>
</table>

### RICHER-FLAVORED FISH COOKING METHODS

<table>
<thead>
<tr>
<th><strong>FISH</strong></th>
<th><strong>COOKING METHODS</strong></th>
<th><strong>WAYS TO ENJOY</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Catfish</td>
<td>Grill, pan-fry, or bake</td>
<td>In gumbo or pan-fried</td>
</tr>
<tr>
<td>Salmon</td>
<td>Grill, broil, bake, poach, or use canned</td>
<td>Form into cakes or dust with cumin and pair with black bean stew</td>
</tr>
<tr>
<td>Sardines</td>
<td>Grill, broil, bake, or use canned</td>
<td>In meatballs or puttanesca sauce</td>
</tr>
<tr>
<td>Swordfish</td>
<td>Grill, broil, or bake</td>
<td>In meatballs or puttanesca sauce</td>
</tr>
<tr>
<td>Trout</td>
<td>Grill, broil, or pan-fry</td>
<td>Saute with vegetables, rice, and pecans</td>
</tr>
<tr>
<td>Tuna, Yellowfin</td>
<td>Grill, broil, pan-fry, bake, or use canned</td>
<td>In a panini, atop a salad, or grilled as a steak</td>
</tr>
</tbody>
</table>
Tour Talking Tips

SEAFOOD IN THE SUPERMARKET

Shoppers often hesitate when it comes to choosing seafood. A supermarket tour is a perfect opportunity to help shoppers get comfortable with the variety of options, and make choices that taste delicious and are good for their health.

SEAFOOD COUNTER

- When you are in the mood for something fresh, ask our seafood counter about seasonal seafood options, along with any recipes they may have on hand.
- Be flexible and let freshness be your guide. Seafood is seasonal just like produce. It’s easy to substitute one fish for another, so if the mahi mahi looks and smells fresher than the pompano, buy it instead.
- Saltwater fish should smell briny, freshwater fish should smell like a clean pond, and shellfish mild and sweet.
- When buying fresh fish, ask the seafood counter when they got it in, and check to see if the flesh is firm and elastic, meaning it will spring back when touched.
- When buying shellfish, make sure that if they have shells, they are tightly closed, not cracked or broken. If you are purchasing them alive, make sure they are actually alive by tapping on the shell to make sure they close.
- If you aren’t going home within an hour or it’s warm outside, ask for your fish to be packed with a separate bag of crushed ice to keep it cold while shopping.

FREEZER SECTION

- Frozen seafood is just as good for you as fresh, especially with today’s flash-frozen-at-sea technologies.
- It is a cost-effective alternative that allows you to make something special and healthy any day of the week.
- From baked fish sticks to grilled salmon to shrimp scampi, frozen seafood offers healthy varieties that everyone in your family will love for quick weeknight meals.
- If thawed properly — either in the refrigerator overnight or in a sealed plastic bag placed in cold water for 15-30 minutes — fish should retain its fresh texture and taste.

CENTER OF THE STORE

- There are many canned seafood options when you are looking for a quick and easy meal or snack — and they serve as a great source of lean protein. Canned tuna, crab and salmon are precooked options that taste great in salads, on pasta or all by themselves.
- Canned salmon, sardines, anchovies, mackerel, herring, crab and clams are among the highest sources of omega-3s in the grocery store.

PREPARED FOOD

- When you’re in a hurry, the prepared food section offers quick and convenient seafood choices — and is the perfect opportunity to try something new.
- Check out the store’s seafood offerings and pick up an entrée to pair with cooked vegetables or a salad for a balanced meal.
- Stop by the sushi counter for a seafood lunch or dinner on the run.

OMEGA-3S BEYOND THE FISH DEPARTMENT

- If your customers are truly fish-averse, or are vegetarian or vegan, there are still ways to get your EPA and DHA.
- Milk and buttery spreads can be found fortified with omega-3s, as well as a variety of shelf-stable products such as tortillas, pasta sauces and peanut butter. There’s an omega-3-enhanced olive oil. Most omega-3-containing foods are fortified with DHA, sourced either from fish or from algae, so vegans should be sure to read the label.
- Another option for boosting marine-based omega-3s is to choose eggs from chicken raised with DHA-heavy diets.
- Most fortified food products provide less than 100 mg per serving, which falls short of the 250 mg recommended per day.

PHARMACY/VITAMIN AISLE

If you can’t get enough omega-3s in your diet from food, supplements are a great option. But, with dozens of options available on the shelves, consumers often are overwhelmed with choice and may need help understanding how to narrow their choices.

When it comes to choosing an omega-3 supplement, be sure to read the Supplement Facts panel. There are two important things to look for on the label:

1. The amount of EPA and DHA: The number shown on the front of the package doesn’t tell the whole story. For example, some packaging will feature “Fish Oil 1000mg,” but this describes the amount of total fish oil in the product and not the specific levels of omega-3s. The Supplement Facts panel on the back of the packaging should clearly identify the amount of EPA and DHA.

2. What is considered a serving: While on the Supplement Facts, check the serving size, as well. For some supplements, you might need to take two or more pills, especially when it comes to gummies. Remember — you are looking to consume at least 250 mg to 500 mg of EPA and DHA per day.

For those following a vegetarian or vegan diet, you can still add EPA and DHA to your nutrition regimen by choosing algae-based omega-3 supplements. ALA supplements (think flaxseed and chia) will not provide the EPA and DHA your body needs.
FOR MANY SHOPPERS, SEAFOOD REMAINS A MYSTERY. You can help shoppers overcome their deep-sea fears by showing them just how simple (and tasty) buying and preparing seafood can be. One delicious bite can reel in customers and get them hooked on seafood! (Feel free to use all our puns!)

TALK ABOUT SEAFOOD
Let shoppers know that preparing seafood is easy, tastes great, and is good for their health.
• Seafood sits among the highest quality proteins and offers many additional health benefits throughout the lifespan. It improves how women feel during pregnancy, aids in brain and eye development for children, benefits cardiovascular health, and helps with healthy aging from memory loss to arthritis pain.
• Take the Pledge to eat #Seafood2xWk at seafoodnutrition.org and you can get more tips, coupons and recipes to help you eat seafood twice a week.

SHOW THEM HOW TO PREPARE
Here are some quick, simple, no cook recipes great for demos:
• Simply Satisfying Kale & Tuna Salad
  seafoodnutrition.org/kale-and-tuna-salad
• Crab Salad
  seafoodnutrition.org/crab-salad
• Smoked Salmon Pinwheel
  seafoodnutrition.org/smoked-salmon-pinwheel
(Recipe cards available at seafoodnutrition.org/rd.)

THREE STEPS TO THE BEST SEAFOOD DEMO

Step 1

Step 2

Step 3

GIVE THEM SHOPPING AND MEAL PLANNING TIPS
Tips for making seafood part of your weekly menu:
• Hit the seafood counter with an open mind
  Fresh seafood is seasonal, so you may not be able to find exactly what your recipe calls for. Talk to the fishmonger — aka the person behind the seafood counter — about what’s in stock that would be tasty substitutions.
• Buying seafood can be affordable for everyone
  Ask the seafood counter what seafood is in season for cost savings. And, remember, frozen and canned seafood is just as healthy as fresh, and is a tasty, cost-effective alternative.
  New, flash-frozen technologies preserve the fresh flavor of seafood, at the time it is caught.
• Cooking seafood is quicker and easier than you think
  Keep frozen and canned seafood on hand for a quick meal. On average, frozen seafood thaws in about 15 minutes. Start to finish, many fish and shellfish dishes can be prepared in 15 minutes or less.
• Eat a variety of seafood
  Add variety to your favorite family meals with different species or cooking methods. Be adventurous and try something new.
HOW OFTEN SHOULD I EAT SEAFOOD AND WHY?
- The American Heart, Diabetes, Pediatric, Alzheimer’s and Psychiatric associations — and many others — promote seafood as part of the solution to be healthier, recommending fish and shellfish at least twice a week. This recommendation, which translates to about 250 mg of omega-3s EPA and DHA per day, is based on decades of research that shows seafood at least twice a week can lead to fewer instances of chronic and preventable diseases, and even reduce the risk of death from any health-related cause by 17 percent.

HOW DO I KNOW IF A FISH IS FRESH?
When it comes to fresh fish, here are some tips:
- If it’s the whole fish, gills should be reddish-pink and scales should be bright with a sheen.
- For fillets, the flesh of the fish should be firm and elastic, meaning it will spring back when touched.
- There should be no unpleasant odor.

WHICH FISH HAVE THE MOST HEALTH BENEFITS?
- While all fish are excellent high-quality protein options, those with higher amounts of omega-3 fatty acids are packed with the most heart, brain, eye and overall health benefits. Try mackerel, trout, tuna, salmon, sardines, anchovies or pollock. Some shellfish also are rich in omega-3s such as oysters, crab and mussels.

WHAT’S A FATTY FISH?
- Fatter fish have more than 5 percent fat. They have a firmer texture, a richer flavor and deeper color, and include black cod, mackerel, salmon and trout. They are perfect for broiling, grilling, poaching, baking, or even microwaving.
- Fatty fish are one of the best sources for omega-3 fatty acids. In fact, salmon has one of the highest amounts of omega-3s per serving.

WHAT ARE THE MOST BUDGET-FRIENDLY CATEGORIES?
- Frozen and canned seafood can be the most budget-friendly. However, there are many seasonal and local options at the fresh counter. Ask your fishmonger and check store circulars for the best deals.

WHAT ARE THE BEST TYPES OF SEAFOOD FOR GRILLING?
- Try salmon, snapper, tuna, mahi mahi, swordfish, catfish, scallops or shrimp — they stand up to the heat and taste delicious when grilled.
- Use foil or a plank to cook delicate fish such as cod, tilapia and flounder.

HOW DO I PREPARE FISH WITHOUT ANY ADDITIONAL FAT OR FRYING?
- For lean, mild-flavored fish with tender flesh, such as sea bass, cod, flounder, grouper, halibut, halibut, pollock or monkfish, you can steam, poach or even microwave without adding fat.
- For medium-fat fish, such as catfish, mullet or swordfish, any cooking method will do.
- For fattier fish with a firmer texture, richer flavor and deeper color — such as salmon, mackerel or trout — try grilling, broiling, poaching, baking or microwaving.

IF A RECIPE CALLS FOR A WHITE FISH, WHAT DOES THAT MEAN?
- White fish is generally a mild-flavored fish, so if your recipe calls for it, look for cod, bass, flounder, grouper, haddock, snapper or tilapia. These are great for pan-frying, pan-searing, using in soups and chowders, and baking.

SHOULD YOU EAT SEAFOOD WHILE PREGNANT?
- The FDA and EPA agree seafood consumption is especially important for pregnant or nursing women because eating fish regularly helps with the growth and development of children’s brains and even helps boost IQ. Babies from mothers who ate seafood twice a week have a higher IQ by an average of 5.8 points. Studies have shown women who do not eat seafood during pregnancy are twice as likely to experience depression.

SHOULD I BE CONCERNED ABOUT MERCURY IN FISH?
- For men and women not trying to get pregnant, the recommendation is to eat a variety of seafood each week to reap the range of nutrients in different types of fish, and there are no specific species you need to avoid.
- The FDA and EPA released advice urging pregnant women, breastfeeding moms, and young children to consume more fish and seafood, including all of the most popular seafood in the U.S. from salmon to canned tuna. The advice listed seven fish to avoid during pregnancy due to higher mercury: shark, swordfish, king mackerel, tilapia, bigeye tuna (does not include canned tuna), marlin and orange roughy.

WHAT DOES IT MEAN TO BE “SUSTAINABLE”?
- Sustainable means that the seafood has been caught or farmed with minimal impact to the environment.

FRESH FISH
- If your commute home is over an hour, take your fish home in a cooler or use portable insulated bags available at the store.
- All fresh seafood should be kept in your refrigerator at 32°F. It should feel cool to the touch, so store it in the coldest part of your refrigerator.
- Wrap fish or fillets in moisture-proof paper or plastic wrap.
- If it’s not prepacked, you should wash it under cold running water and pat dry with a paper towel.
- Use fresh or defrosted fish within one to two days.
- Do not refreeze previously frozen fish.

FROZEN FISH
- Store frozen fish in your freezerer (0°F).
- You can store commercially frozen fish for up to six months.
- Thaw it in the refrigerator (a 1 lb. package takes about 24 hours).
- You can also thaw it under cold running water or place it in a container with cold water, refreshing water frequently (fillets take 15-30 minutes depending on thickness).

IS FARMED FISH SAFE TO EAT?
- Both farmed and wild seafood is safe to eat. According to the Food and Agriculture Organization of the United Nations; Geneva, World Health Organization, 50 pp.
- Farming fish and shellfish and even seaweed helps produce food while restoring habitats, replenishing wild stocks, and rebuilding populations of threatened and endangered species. When it comes to the environment, both farmed and wild fish and shellfish can be harvested responsibly, or if not, it is best to find out the sustainability policy of your grocer or look for a trusted certification on the package.

Seafood Nutrition Partnership

seafoodnutrition.org
EMBRACE FAT

Fats play an essential role in human health from head (brain) to toe (joints). Replacing just 5 percent of your caloric intake from so-called bad fats (like trans and saturated fat found in red meat) with unsaturated fat from seafood and plant-based foods can reduce your risk of death by 27 percent.1

Embrace the unsaturated fats found in foods such as walnuts, seeds, plant oils, avocados, and fatty fish such as salmon, tuna, trout, sardines, mackerel and herring.

Learn more by following #TeamGoodFat.


Content Calendar and Story Ideas

Health, food and nutrition observances present an opportunity to educate and energize the public, co-workers, community members and others. Check out these news hooks to help you talk about seafood all year long.

**January - NEW YEAR, NEW YOU**
Seafood is the perfect lean protein to add into your healthy lifestyle as you start your year on the right foot.
*We’re (Also) Celebrating:* National Slow Cooking Month and National Soup Month

**February - AMERICAN HEART MONTH**
Heart disease can often be prevented when people make healthy choices and manage their health conditions. This month is the perfect time to try some heart-healthy seafood recipes with your family and friends.
The American Heart Association recommends 1,000mg EPA+DHA per day for patients with coronary heart disease.
*We’re (Also) Celebrating:* Canned Food Month, SNP’s birthday (13), Lent, National Clam Chowder Day (25)

**March - NATIONAL NUTRITION MONTH**
Focus on making informed food choices and developing smart eating habits, like eating seafood twice per week.
*We’re (Also) Celebrating:* National Frozen Food Month, Brain Awareness Week (second week)

**April - SEAFOOD SUSTAINABILITY**
Seafood is a vital part of the diet that supports both human health and environmental health.
*We’re (Also) Celebrating:* National Garlic Month, National Public Health Week (first week), Every Kid Healthy Week (fourth week)

**May - MEDITERRANEAN DIET MONTH**
The Mediterranean diet, which includes eating seafood at least twice per week, reduces the incidence of major cardiovascular events.
*We’re (Also) Celebrating:* National Stroke Awareness Month, National Mental Health Awareness Month, National Salad Month, National Shrimp Day (10), Senior Health & Fitness Day (30)

**June - MEN’S HEALTH MONTH**
Men’s Health Month is a time to raise awareness of preventable health problems, such as heart disease. Encourage the men and boys in your life to stock up on seafood and omega-3s.
*We’re (Also) Celebrating:* Aquarius Month, National Fresh Fruits and Vegetables Month, Alzheimer’s & Brain Awareness Month, World Oceans Day (8), International Sushi Day (18), National Catfish Day (25), National Ceviche Day (28)

**Spring Tip**
**FIGHTING COLD SEASON**
Omega-3s EPA and DHA play an important role in the immune system and help fight infections. You can load up on these essential nutrients through fatty fish such as salmon, tuna, sardines and anchovies. In addition to omega-3s, seafood contains protein, vitamin B-6 and iron — all important nutrients to keep you healthy.

**Summer Tip**
**THE MEDITERRANEAN DIET MAY SAVE YOUR LIFE**
Research from the landmark PREDIMED study found consuming omega-3s from both plant-based sources, such as walnuts, and fish and shellfish have the greatest protective effects from all causes of mortality. It seems the plant-based and marine-derived omega-3s appear to act synergistically.1

**July - BACKYARD BBQS & PICNICS GALORE**
Summer is in full heat, so head to the grill with your favorite medium-fatty fish, such as catfish, salmon, swordfish or tuna. These types of fish can withstand the heat of the grill.
*We’re (Also) Celebrating:* National Grilling Month and National Picnic Month

**August - BACK-TO-SCHOOL**
When kids eat at least two servings of seafood each week, the benefits are big. Fish and shellfish supply nutrients essential for strong bones, brain development, attention span and more.
*We’re (Also) Celebrating:* National Breastfeeding Month, National Catfish Month, National Sandwich Month, National Oyster Day (5), National Fajita Day (18)

**September - TAILGATING**
Easy seafood appetizers and dips make for delicious snacks during the game — whether at the stadium or in your living room.
*We’re (Also) Celebrating:* National Childhood Obesity Awareness Month, National Food Education Month, National Breakfast Month, Aquaculture Week (fourth week), National Lobster Day (25)

**Fall Tip**
**CALMING HOLIDAY STRESS**
Fish is rich in omega-3 fatty acids, which have been shown to help prevent surges in stress hormones and protect against heart disease and depression. In fact, the American Psychiatric Association has endorsed seafood’s EPA and DHA as an effective part of depression treatment.

**Winter Tip**
**FIGHTING COLD SEASON**
Omega-3s EPA and DHA play an important role in the immune system and help fight infections. You can load up on these essential nutrients through fatty fish such as salmon, tuna, sardines and anchovies. In addition to omega-3s, seafood contains protein, vitamin B-6 and iron — all important nutrients to keep you healthy.

**Hungry for more?** Download our communications toolkit for more talking points, social media posts, recipe ideas and more at seafoodnutrition.org/rd.

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Seafood Nutrition Partnership
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21
An Ocean of Choice

Seafood is not just filled with omega-3s. Seafood includes other vital nutrients optimal for overall health and wellness, such as selenium, iron, vitamin B-6 and B-12, and protein. So many great seafood options to choose from, they each offer a unique nutrient profile. Here are just a few highlights:

**CLAMS** have more vitamin B-12 per serving than any other food — 1.868% of the daily value, to be exact. B-12 keeps nerves and blood cells healthy, balancing mood and fighting fatigue.

**COD** is the leanest protein available, meaning the protein to calorie ratio beats out any other food. That could be why Dwayne “The Rock” Johnson eats it as his main protein — averaging 253 oz. of cod a week!

**LOBSTER** is a tasty way to get a boost of thyroid-boosting iodine. A 100-gram serving of the crustacean provides 100 micrograms of the essential mineral, or 67% of the recommended daily intake.

**OYSTERS** are pumping iron, well, at least they are providing it in abundance. A serving has 60% of your daily needs — or if you’re just enjoying an appetizer, it’s about 4% DV for each oyster.

**SALMON** is helping fight American’s Vitamin D deficiency with 100% of your daily “sunny D.” Swordfish is also really high in this bone-strengthening vitamin, which is naturally present in very few foods.

**SARDINES** boast 43% of your daily value of calcium, because of the tiny, edible bones, plus another whopping 169% of your daily vitamin B-12, 85% of selenium and 56% of phosphorus.

**SHRIMP** is a lean protein and a great source of selenium (80% DV) and iodine (30%), which are both helpful in thyroid support, and a healthy thyroid supports a healthy metabolism.

Statistics based on 4 oz. servings. Data from USDA Nutrient Database.

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### SMOKED SALMON AVOCADO FLATBREAD

Recipe by Julie Harrington, RDN, of RDelicious Kitchen

**PREP TIME:** 15 Minutes  |  **COOK TIME:** 10 Minutes

**SERVES:** 8

**INGREDIENTS**

- 2 Tbsp goat cheese
- 2 Tbsp cream cheese
- 1 Tbsp fresh dill, finely chopped
- 1 clove garlic, minced
- 1½ tsp olive oil, divided
- 2 whole grain naan
- ½ small red onion, thinly sliced
- 1 cup arugula
- 6 oz. smoked salmon
- ⅓ of an avocado, sliced thinly
- salt and pepper, to taste

**DIRECTIONS**

1. Preheat oven to 350 degrees F. Line a baking cheese with parchment paper or cooking spray.
2. In a small bowl, combine the goat cheese, cream cheese, dill, garlic and 1 teaspoon olive oil. Mix well.
3. Spread evenly over both pieces of naan bread. Top with onion slices.
4. Bake naan in the oven for 8-10 minutes until the edges and bottom of the naan are crisp.
5. Remove naan from the oven. Let slightly cool.
6. In a small bowl, toss arugula with remaining ½ teaspoon of olive oil. Season with salt and pepper.

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### SIMPLY SATISFYING KALE AND TUNA SALAD

Recipe by Michael-Ann Rowe, The Fischionista

**SERVES:** 4  |  **OMEGA-3 PER SERVING:** 187mg

**INGREDIENTS**

- 2 - 5oz. cans tuna
- 1 - Bunch kale or 1 bag of kale
- ¼ cup - Cherry tomatoes
- 1 - Lemon, raw
- ½ cup - Extra virgin olive oil
- Kosher salt (To taste)
- Freshly ground pepper (To taste)

**DIRECTIONS**

1. Wash kale. Set aside to drain water off.
2. Cut tomatoes in half and lightly toss in bowl with balsamic vinegar, oil and pinch of salt and pepper. Set aside.
3. In a salad bowl, mix tuna and juice from the can gently with squeeze of 1/2 lemon and a pinch of pepper.
4. Massage kale for about 3 minutes to soften it.
5. Add the kale and 1/2 the tomatoes to the tuna, and gently toss until all is coated with dressing.
6. Add remaining tomatoes.
7. Squeeze remaining lemon all over and serve.
### (MINI) AHI TUNA POKE BOWLS

**Recipe by Julie Andrews, RDN, of The Gourmet RD**

**PREP TIME:** 15 Minutes  |  **COOK TIME:** 15 Minutes  
**SERVES:** 10-12

**INGREDIENTS**

- 1 lb. fresh ahi tuna (high quality), cubed
- 1 lime, juiced
- 2 cups chopped veggies (shredded carrots, shelled black beans)
- 1-14.5 oz. canned tomato, chopped
- 2 Tbsp. olive oil
- Juice of 1/2 lemon
- 2 Tbsp. garlic, chopped
- 1-15.5 oz. black beans, low sodium
- 2 green onions, chopped
- 1 large Russet potato
- To taste salt & pepper (S&P)
- 1 poblano pepper, chopped
- 1/2 cup mayonnaise
- 1 Tbsp. cumin, ground
- 1/4 cup onions, white or yellow, chopped
- Spicy mayo (1/4 cup mayo + 1-2 Tbsp. Sriracha), for serving
- 1 Tbsp. cilantro, fresh, chopped
- 1-inch piece fresh ginger, grated
- 1 1/2 cups water
- 1-14.5 oz. canned tomato, chopped
- Splash fish sauce
- 2 Tbsp. brown sugar
- 2-3 Tbsp. toasted sesame seeds
- 1/2 Tbsp. sesame oil
- To taste chili flakes
- 1 1/2 tsp Old Bay seasoning
- 1 Tbsp. rice wine vinegar
- ½-1 cup diced mango
- 1/2 pound 31-40 ct shrimp, peeled and deveined
- 2 Tbsp. low sodium soy sauce
- 2 cups cooked sushi or Jasmine rice
- 1 lb. salmon filet
- 1/2 tsp. basil, dried
- 1 lemon, juiced
- 1-2 Tbsp. rice wine vinegar
- ½ Tbsp. cumin, ground
- 1-10 oz. canned clams, chopped
- To taste – salt & pepper (S&P)

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**DIRECTIONS**

1. Wash arborio rice and heat 2 tablespoons of olive oil on a medium heat.
2. Add 1/2 the garlic and 1/2 the onions. Sauté until aroma is released.
3. Add arborio rice to a medium size bowl. Add 1/2 the garlic and 1/2 the onions. Sauté until aroma is released.
4. Repeat Step 4 two more times.
5. When finished, add 1/2 the butter. Stir rice to incorporate and season.
6. In another pan, heat remaining olive oil, add garlic and dry thoroughly. Remove the tails from the shrimp and add to a mixing bowl with the corn, olive oil, and Old Bay seasoning. Stir to combine so the corn and shrimp are evenly coated.
7. Add remaining 1/2 the butter. Stir rice to incorporate and season.
8. Make Black Bean Stew: Meanwhile, heat remaining oil (1 tablespoon) in another pan and add onions and garlic. Cook for 3 minutes.
9. Add peppers and chili flakess.
10. Add saved spiced mix from Step 2. Cook until aroma starts to smell.
11. Add tomatoes and allow tomatoes to start to sear.
12. Add black beans and water. Simmer for 10 minutes.
13. Add cilantro, scallions and lime juice. Add S&P and Cook for 2 minutes.
14. Place black beans in individual bowls and add salmon portion on top.

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### OLD BAY SHRIMP STACKS

**Recipe by Cara Harbstreet, RDN, of Street Smart Nutrition**

**PREP TIME:** 10 Minutes  |  **COOK TIME:** 30 Minutes  
**SERVES:** 8

**INGREDIENTS**

- 1 large Russet potato
- 1/2 cup sweet corn kernels
- 1/2 pound 31-40 ct shrimp, peeled and deveined
- 2 Tbsp olive oil
- 1/2 tsp Old Bay seasoning
- Fresh parsley for garnish
- Chopped chives for garnish

**For the Sauce:**

- 1/2 cup mayonnaise
- 1 tsp garlic powder
- 1/2 Tbsp chopped chives
- 1 tsp dijon mustard
- Juice of 1/2 lemon

**DIRECTIONS**

1. Preheat the oven to 375 degrees F. Line a large sheet pan or two smaller sheet pans with aluminum foil or spray with nonstick spray.
2. Wash and dry the potato. Using a mandolin, slice crosswise into thin slices (1/4” thick). Discard the smallest ends and arrange the 16 largest slices on the sheet pan(s). Bake in the oven for 20 minutes, flipping halfway through, until the potato slices begin to brown and crisp slightly.
3. While the potato slices are baking, prepare the other ingredients. If using frozen shrimp and corn, thaw and dry thoroughly. Remove the tails from the shrimp and add to a mixing bowl with the corn, olive oil, and Old Bay seasoning. Stir to combine so the corn and shrimp are evenly coated.
4. Remove the sheet pans from the oven. Arrange the shrimp and corn on top of the potato rounds. Try to evenly fill each round to be mostly covered, using 1 or 2 shrimp per piece. Return sheet pans to the oven, switch to the BROIL setting, and broil for 5 minutes or until the tops of the stacks begin to brown. Remove from the oven and allow to cool slightly, then garnish with fresh parsley and chopped chives.
5. Combine all ingredients for the sauce in a small bowl. Mix well, then serve with the shrimp stacks for dipping.

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### RISOTTO WITH CLAM SAUCE

**From SNP Eating Heart Healthy Nutrition Program Created by Chef Kelly Armetta, Hyatt Regency Boston**

**SERVES:** 4  
**COST PER RECIPE:** $4.87  
**OMEGA-3 PER SERVING:** 300 mg

**INGREDIENTS**

- 1 cup arborio rice
- 1/2 cup olive oil, divided
- 1 Tbsp. cumin, ground
- 1 Tbsp. coriander seed, crushed
- 1 lb. salmon filet
- To taste salt & pepper (S&P)
- 1/2 cup onions, raw, white or yellow, chopped
- 2 Tbsp. garlic, chopped
- 1 poblano pepper, chopped
- To taste chili flakes
- 1-14.5 oz. canned tomato, chopped
- 1-15.5 oz. black beans, low sodium
- 1/2 cup water
- 1 Tbsp. cilantro, fresh, chopped
- 2 green onions, chopped
- 1 lime, juiced

**DIRECTIONS**

1. Wash arborio rice and heat 2 tablespoons of olive oil on a medium heat.
2. Add 1/2 the garlic and 1/2 the onions. Sauté until aroma is released.
3. Add arborio rice to a medium size bowl. Add 1/2 the garlic and 1/2 the onions. Sauté until aroma is released.
4. Add 3/4 cup of the remaining water. Stir again to incorporate and season.
5. Repeat Step 4 two more times.
6. When finished, add 1/2 the butter. Stir rice to incorporate and season.
7. In another pan, heat remaining olive oil, add garlic and dry thoroughly. Remove the tails from the shrimp and add to a mixing bowl with the corn, olive oil, and Old Bay seasoning. Stir to combine so the corn and shrimp are evenly coated.
8. Add remaining 1/2 cup water and lemon juice. Cook for 2 minutes.
9. Add the tomatoes and clams with juice. Cook 4 to 5 minutes.
10. Remove from the heat and let cool for 2 minutes. Add remaining 1/2 tablespoon butter and swirl to incorporate.
11. Serve over risotto. Note: pepper flakes can be added during the cooking of the clam sauce if desired.
MUSSELS IN GARLIC BROTH
From SNP Eating Heart Healthy Nutrition Program
Created by Chef Kelly Armetta,
Hyatt Regency Boston

SERVES: 4
COST PER RECIPE: $6.69
OMEGA-3 PER SERVING: 665 mg (approximately 3 oz. of mussel meat)

INGREDIENTS
• 1 tsp. olive oil
• 4 garlic, cloves sliced
• 2 Tbsp. onions, white or yellow, chopped
• 2 lbs. mussels, cleaned
• 1/2 lemon, juiced
• 1/2 tsp. basil, dried
• 1/2 tsp. thyme, dried
• 1/4 cup clam juice (optional)
• 2-14.5 oz. canned tomatoes, chopped
• 2 Tbsp. butter, unsalted
• To taste - salt & pepper (S&P)

DIRECTIONS
1. Heat large pot with olive oil and sliced garlic and onions.
2. When aroma is released, add mussels.
3. Add lemon juice, herbs and clam juice (optional), and gently toss.
4. Add tomatoes. Cover and simmer over medium heat until mussels are steamed open, generally 3 to 6 minutes.
5. Remove pot from heat. Discard unopened mussels.
6. Optional: Serve with crusty bread for dipping in broth.

MUSTARD BAKED MACKEREL
From SNP Eating Heart Healthy Nutrition Program
Created by Chef Kelly Armetta,
Hyatt Regency Boston

SERVES: 4
COST PER RECIPE: $9.87
OMEGA-3 PER SERVING: 1,350-2,100 mg

INGREDIENTS
• 2 Tbsp. mustard, dijon
• 1 Tbsp. mayonnaise
• To taste - salt & pepper (S&P)
• 2 Tbsp. olive oil, divided
• 1 lb. mackerel fillets
• 3 zucchinis, small, cut into rounds
• 1 tsp. rosemary, dried

DIRECTIONS
1. Heat oven to 375°F.
3. Lightly coat sheet pan with a little olive oil. Place fish onto pan and lightly spread mustard mixture on fish.
5. Bake zucchini in oven for 15 minutes.
6. Serving Suggestion: Can be served with brown rice or wild rice.

Additional Resources
SNP offers free materials that emphasize fish and shellfish at all price points, ease of cooking, and culturally relevant recipes — many of which feed a family of four for less than $10 and can be made in less than 15 minutes.

Seafood in America
Top 10 Most Popular
Seafood in America
WHICH FISH IS THE RICHEST IN OMEGA-3s?

(PER 4 OUNCE COOKED PORTION)

Studies show omega-3s can reduce risk of heart disease, depression, dementia and arthritis, and improve overall happiness. Prominent health organizations suggest eating a variety of seafood at least twice a week, aiming to consume an average of 250 to 500 milligrams of omega-3s EPA and DHA per day.

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If you are not able to meet the omega-3 recommendation from seafood then consider supplementing with omega-3 EPA + DHA capsules.

Source: USDA National Nutrient Database for Standard Reference