

SEAFOOD TOMORROW

NUTRITIOUS, SAFE AND SUSTAINABLE SEAFOOD
FOR CONSUMERS OF TOMORROW

Seafood for you!

Health benefits and
new seafood products
for all European
consumers



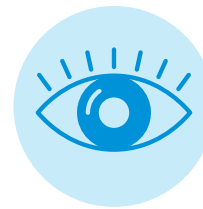
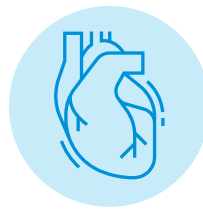
March 2021

INTRODUCTION

Seafood is an important source of nutritious food in Europe. Seafood plays a vital role in a balanced diet as it is a good source of high-quality protein, vitamins (especially vitamin B12 and vitamin D), minerals (particularly iodine, iron and selenium) and contains a unique type of fat, omega-3 fatty acids, which have many health benefits. Most governments and health organisations recommend eating two portions of seafood per week. However, like any other food type, seafood can also be a source of harmful contaminants with the potential to impact human health negatively. Nevertheless, for most people, the overall benefits of seafood consumption (following the official recommendations) outweigh potential food safety risks.

As the global demand for food increases, now more than ever, there is a need for high-quality food that is socially, economically and environmentally sustainable. SEAFOOD^{TOMORROW}, an EU-funded project, has generated new knowledge and innovative solutions to help meet this demand and to improve the dietary value and safety of seafood. The project's results benefit both the seafood industry and consumers.

This factsheet outlines seafood health benefits for all consumers and what you can do to minimise any potential risks related to seafood consumption. We also highlight relevant research findings from the SEAFOOD^{TOMORROW} project.



SEAFOOD HEALTH BENEFITS

Nutrients	Function and health benefits
Essential amino acids (histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, valine)	Energy, growth and repair of cells. Essential amino acids are the building blocks of protein and cannot be synthesised by the human body
Iodine	Metabolism and hormone regulation (especially thyroid)
Selenium	Reproduction and hormone regulation. It is also an antioxidant that can reduce the risks of heart disease and certain types of cancers
Calcium	Strong bones, teeth and supports healthy muscle function
Iron	Transporting oxygen around the body, supporting all bodily functions
Vitamin A	Vision, skin, healthy immune system and organ function
Vitamin D	Strong bones, teeth and muscles, and can improve immunity
Vitamin B12	Healthy nervous system and can improve cardiovascular health
Omega-3 fatty acids e.g. Eicosapentaenoic acid (EPA), Docosahexaenoic acid (DHA)	Growth, immunity, improve brain and cardiovascular functions

SEAFOOD HEALTH RISKS

Although the consumption of seafood has many health benefits, like other food types, it can also pose a potential health risk. In Europe, all seafood intended for human consumption must comply with general health requirements ensuring that all seafood on the market is of good standard and the risk is low. Each country in the European Union carries out a range of seafood monitoring programmes to ensure that all seafood products available in the market are of the highest quality regarding food safety standards. However, it is important for consumers to be aware of the potential risks so that they can take measures to avoid them.



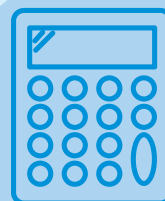
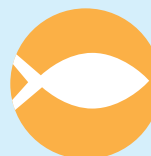
WHAT CAN YOU DO?

- Stay informed about the seafood you eat and follow government and health organisations' guidelines.
- Shop wisely by choosing quality seafood products from local or sustainable seafood suppliers.
- Always follow proper handling of seafood products! Prepare seafood safely and appropriately, cook as required, and avoid cross-contamination.
- Eat a variety of seafood (two to three servings per week, at least one serving of oily fish), follow the recommended guidelines and check your seafood consumption using FishChoice at www.fishchoice.eu!
- Help prevent chemical contamination of the environment and seafood by using eco-friendly personal care and cleaning products and dispose of waste properly.



SEAFOOD ^{TOMORROW} RESULTS FOR YOU

SEAFOOD ^{TOMORROW} has developed an improved version of the FishChoice tool to help inform consumers about their seafood consumption. The tool guides consumers to gain the most nutritional benefit from their seafood consumption, while reducing exposure to chemical contaminants. FishChoice compares the user's intake of nutrients and contaminants with the corresponding recommendations set by the European Food Safety Authority (EFSA). The tool then warns the user if their intake of nutrients is below the minimum recommended or above the maximum tolerable intake of contaminants. **FishChoice is free to use and available at fishchoice.eu.** An App version is also available for iOS Apple and Android from your app store.



FISHCHOICE
Your personal fish calculator

Seafood for you!

Health benefits and
new seafood products
for all European
consumers

REDUCED SODIUM SEAFOOD PRODUCTS

High sodium in human diets is known to increase blood pressure, which in turn puts greater strain on the heart, arteries, kidneys and brain. This can lead to heart attacks, strokes, dementia and kidney disease. **SEAFOOD TOMORROW** has developed new ways of producing two different seafood products: smoked salmon and salmon pâté that have reduced sodium content (by at least 25%), but don't compromise on taste, quality or food safety. It is hoped that the **SEAFOOD TOMORROW** formulas will be taken-up by seafood producers and processing companies and reduced sodium content seafood products will soon be available on your local supermarket shelves!



SUSTAINABLE SEAFOOD RECIPES

In collaboration with research and industrial partners and culinary schools from Belgium, France, Poland, Portugal, Spain and Sweden, **SEAFOOD TOMORROW** has created new, innovative seafood dishes using sustainable and lesser-known seafood species. Each dish was specifically developed to meet the nutritional needs of pregnant women, children and older adults: vulnerable groups known to benefit from seafood consumption. The dishes were judged on their nutritional quality, feasibility of scaling for use in restaurant and catering environments, and of course taste! The winning recipes have been published in the **SEAFOOD TOMORROW** E-Recipe Book which is available to download at: seafoodtomorrow.eu



MORE RESULTS FOR YOU COMING SOON!

• Tailor-made farmed fish

The **SEAFOOD TOMORROW** team have shown at pilot and farm scale trials that fish fortified in nutrients (iodine, iron, omega-3's and selenium), proven to be beneficial in the diets of pregnant women, children and older adults, can be produced using alternative sustainable fish feeds. It is hoped that these new feed formulas will be made available commercially and used at fish farms in the future!

• Strategies to reduce seafood contamination

Addressing the risks of seafood consumption, particularly for pregnant women, children and older adults, the **SEAFOOD TOMORROW** team has developed new methods to remove pathogenic bacteria and natural but harmful biotoxins from produce through thermal processing and the use of bacteriophages. The team is now working to bring these new methods to the commercial market.

• **SEAFOOD TOMORROW** quality label

To help seafood producers, processors and consumers to become more aware of seafood nutritional importance, safety and security, the **SEAFOOD TOMORROW** team has developed a concept for a new accredited certification scheme. Companies meeting **SEAFOOD TOMORROW** standards will be granted permission to use the project quality label, which clearly identifies seafood products with important nutrients especially for pregnant women, children and older adults. The project is now seeking companies to test the scheme, which is linked via a QR code to an online traceability tool called TraSEAbility, and move onto the next stage of development.

COORDINATION

Dr António Marques, amarques@ipma.pt

MANAGEMENT

Marta Santos, marta.santos@ipma.pt

COMMUNICATION & PRESS

AquaTT, aquatt@seafoodtomorrow.eu

www.seafoodtomorrow.eu

 @SEAFOOD_TMRW  [Linkedin/In/seafood-tomorrow/](https://www.linkedin.com/company/seafood-tomorrow/)

This factsheet has been developed based on scientific evidence from the project, as well as the best available evidence at the time of development of this publication. It is not intended as a comprehensive guide on seafood health benefits and risks.



This project has received funding from the European Union's Horizon 2020 funding programme, Grant Agreement no. 773400 (SEAFOOD TOMORROW). This output reflects the view of the author(s) and the Research Executive Agency (REA) cannot be held responsible for any use that may be made of the information contained therein.