

Food and nutrition tips during self-quarantine

Note: This guidance is aimed at individuals and families in contexts where self-quarantine and isolation have been recommended or required.

As countries are taking stronger measures to contain the spread of COVID-19, self-quarantine and the temporary closing of businesses may affect normal food-related practices. Healthy individuals, as well as those showing acute respiratory disease symptoms, are being requested to stay at home. In some countries, restaurants and take-away offers are being limited and some fresh items are becoming less available.

Good nutrition is crucial for health, particularly in times when the immune system might need to fight back. Limited access to fresh foods may compromise opportunities to continue eating a healthy and varied diet. It can also potentially lead to an increased consumption of highly processed foods, which tend to be high in fats, sugars and salt. Nonetheless, even with few and limited ingredients, one can continue eating a diet that supports good health.

For optimal health, it is also important to remain physically active. To support healthy individuals in staying physically active while at home, WHO/Europe has developed specific guidance for periods of quarantine, including tips and examples of home-based exercises.

Stay physically active during self-quarantine (<http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/stay-physically-active-during-self-quarantine>)

In order to support individuals in eating healthy during self-quarantine and isolation, WHO/Europe has prepared a set of [general tips \(#general-tips\)](#), a list of ["best food buys" \(#food-buys\)](#) and a few examples of [recipes \(#recipes\)](#) for inspiration.

GENERAL TIPS



Make a plan - take only what you need

Multiple cases of over-purchasing have been observed throughout the WHO European Region. Panic buying behaviour may have negative consequences, such as an increase in food prices, overconsumption of food and an unequal distribution of products. It is therefore important to consider your own needs, as well as those of others. Assess what you already have at home and plan your intake. You might feel the need to purchase large amounts of foods, but make sure to consider and utilize what is already in your pantry, as well as foods with shorter shelf life. This way you can avoid food waste and allow others to access the food they need.



Be strategic about the use of ingredients - prioritize fresh products

Use fresh ingredients and those that have a shorter shelf life first. If fresh products, especially fruits, vegetables and reduced-fat dairy products continue to be available, prioritize these over non-perishables. Frozen fruits and vegetables can also conveniently be used over longer periods of time and often have a similar nutrient profile to fresh foods. To avoid food waste, you may consider freezing any leftovers for another meal.



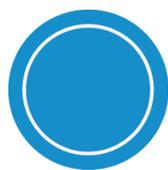
Prepare home-cooked meals

During regular daily life, many individuals often do not have the time to prepare home-cooked meals. Spending longer periods of time at home may now offer the possibility to make those recipes you previously did not have time to make. Many healthy and delicious recipes can be found online. Take advantage of the wealth of freely available information, and experiment with the ingredients you can access, but remember to keep in mind the principles for healthy eating offered in this guidance. Some examples of healthy recipes with accessible ingredients may also be found below.



Take advantage of food delivery options

Although home-cooked meals should be prioritized, some cities and countries have rather advanced delivery systems for ingredients and ready meals, and many businesses are now starting to offer this service. Some solutions include “contact-less” options, where no human interaction is required, thus supporting self-quarantine and isolation measures. These should be prioritized, particularly from reliable businesses following strict food hygiene requirements. For food delivery and transportation, it is important to keep food at safe temperatures (below 5 °C or above 60 °C). Keeping in mind that these services might be overwhelmed, you might want to consider exploring what is available in your area.



Be aware of portion sizes

It can be difficult to get portion sizes right, especially when cooking from scratch. Being at home for extended periods, especially without company or with limited activities can also lead to overeating. Seek guidance through your national food-based dietary guidelines on what constitutes healthy portions for adults and be mindful that young children will need smaller portions.



Follow safe food handling practices

Food safety is a prerequisite for food security and a healthy diet. Only safe food is healthy food. When preparing food for yourself and others, it is important to follow good food hygiene practices to avoid food contamination and foodborne diseases. The key principles

of good food hygiene include:

1. keep your hands, kitchen and utensils clean
2. separate raw and cooked food, especially raw meat and fresh produce
3. cook your food thoroughly
4. keep your food at safe temperatures, either below 5 °C or above 60 °C; and
5. use safe water and raw material.

By following these five key recommendations for safer food, you can prevent many common foodborne diseases.



Limit your salt intake

The availability of fresh foods may decrease and it may therefore become necessary to rely more on canned, frozen or processed foods. Many of these foods contain high levels of salt. WHO recommends consuming less than 5 g of salt per day. In order to achieve this, prioritize foods with reduced or no added salt. You may also consider rinsing canned foods such as vegetables and beans, to remove some of the excess sodium. Be aware that pickled foods often contain high levels of sodium too. In many countries, 50–75% of the salt intake comes from the foods we eat, rather than what we add ourselves. Given that you might be consuming enough salt already, avoid adding extra salt when cooking and to your meals at the table. Experiment with fresh or dried herbs and spices for added flavour instead.



Limit your sugar intake

WHO recommends that ideally less than 5% of total energy intake for adults should come from free sugars (about 6 teaspoons). If you crave something sweet, fresh fruit should always be the priority. Frozen fruits, canned fruits in juice rather than syrup, and dried fruits with no added sugar are also good options. When other dessert options are chosen, ensure that they are low in sugar and consume small portions. Watch out for low fat options, as these are often high in added sugars. Limit the amount of sugar or honey added to foods and avoid sweetening your beverages.



Limit your fat intake

WHO recommends limiting total fat intake to less than 30% of total energy intake, of which no more than 10% should come from saturated fat. To achieve this, opt for cooking methods that require less or no fat, such as steaming, grilling or sautéing instead of frying foods. If needed, use small amounts of unsaturated oils like rapeseed, olive or sunflower oil to cook foods. Prefer foods that contain healthy sources of unsaturated fats, such as fish and nuts. To limit saturated fats, trim excess fat from meat and poultry and choose skinless options. Reduce foods such as red and fatty meats, butter and full-fat dairy products, palm oil, coconut oil, solid shortening and lard.

Avoid trans fats as much as possible. Read nutrition labels to ensure that hydrogenated oils are not listed in the ingredients. If food labels are not available, avoid foods which commonly contain trans fats such as processed and fried foods, like doughnuts and baked goods – including biscuits, pie crusts, frozen pizzas, cookies, crackers and margarine. If in doubt, minimally processed foods and ingredients are better choices.



Consume enough fibre

Fibre contributes to a healthy digestive system and offers a prolonged feeling of fullness, which helps prevent overeating. To ensure an adequate fibre intake, aim to include vegetables, fruit, pulses and wholegrain foods in all meals. Wholegrains foods include oats, brown pasta and rice, quinoa and whole-wheat bread and wraps, rather than refined grain foods such as white pasta and rice, and white bread.



Stay hydrated

Good hydration is crucial for optimal health. Whenever available and safe for consumption, tap water is the healthiest and cheapest drink. It is also the most sustainable, as it produces no waste, compared to bottled water. Drinking water instead of sugar-sweetened beverages is a simple way to limit your intake of sugar and excess calories. To enhance its taste, fresh or frozen fruits like berries or slices of citrus fruits may be added, as well as cucumber or herbs such as mint, lavender or rosemary.

Avoid drinking large amounts of strong coffee, strong tea, and especially caffeinated soft drinks and energy drinks. These may lead to dehydration and can negatively impact your sleeping patterns.



Avoid alcohol or at least reduce your alcohol consumption

Alcohol is not only a mind-altering and dependence-producing substance, harmful at any level consumed, but it also weakens the immune system. Thus, alcohol use and especially heavy use undermines your body's ability to cope with infectious disease, including COVID-19.

It is recommended that alcohol in general be avoided, but especially when in self-quarantine. As a psychoactive substance, alcohol also affects your mental state and decision-making and makes you more vulnerable to risks, such as falls, injuries, or violence when under quarantine with someone else. Alcohol consumption is also known to increase symptoms of depression, anxiety, fear and panic – symptoms that can intensify during isolation and self-quarantine. Consuming alcohol is not a good coping mechanism, neither in the short nor long term, although you might think that it will help you deal with stress.

Alcohol also makes certain medications less effective, while increasing the potency and toxicity of others. Do not consume alcohol in combination with pain medication, as alcohol will interfere with your liver functions and might cause serious problems, including liver failure.

Under no circumstances should you consume any type of alcoholic products as a preventive or treatment measure against COVID-19.

Alcohol is not a necessary part of your diet and not part of a healthy lifestyle and should therefore not be on your shopping list.

Enjoy family meals

The social distancing associated with the COVID-19 outbreak has meant that many families are spending more time at home, which provides new opportunities to share meals together. Family meals are an important opportunity for parents to be role models for healthy eating, and for strengthening family relationships.

Increased time at home during this period may also present new opportunities to involve children in cooking healthy foods, which can help them acquire important life skills that they can carry into adulthood. Letting children choose what vegetables to include in your meal may encourage them to eat them at the table. When involving children in cooking, it is important to keep meals simple and to teach children about proper food safety (including hand washing, cleaning surfaces and avoiding consumption of certain raw ingredients).

"Best food buys"

The following is an overview of foods with high nutritional value which are generally affordable, accessible and have a longer shelf life. You may use this list as inspiration for what to keep at home during self-quarantine or longer home stays.

Long-lasting fresh fruits and vegetables

WHO recommends consuming a minimum of 400 g (i.e. 5 portions) of fruits and vegetables per day. Citrus fruits like oranges, clementines and grapefruit are good options, as well as bananas and apples, which can also be cut into smaller pieces and frozen for later consumption or to add to smoothies. Root vegetables such as carrots, turnips and beets, as well as vegetables like cabbage, broccoli and cauliflower are relatively nonperishable. Garlic, ginger and onions are also great options to keep at home, as they can be used to add flavour to a variety of meals.

Frozen fruits and vegetables

All frozen fruits such as berries, pineapple and mango are great options, as they still contain high levels of fibre and vitamins and are often less expensive than the fresh versions. These frozen fruits can be added to juices, smoothies or porridge or eaten with low-fat plain yogurt after defrosting.

Frozen vegetables are nutritious, quick to prepare, and consuming them can help reach the recommendations, even when fresh foods are scarce.

Dried and canned pulses

Beans, chickpeas, lentils and other pulses are great sources of vegetable protein, fibre, vitamins and minerals. These are also rather versatile and can be used for stews, soups, spreads and salads.

Whole grains and starchy roots

Wholegrain rice and pasta, oats, buckwheat, quinoa and other unrefined whole grains are excellent foods as their shelf life is long, they can easily be prepared, and they contribute to fibre intake. Unsalted crackers and wholegrain bread are also good options. Bread can conveniently be frozen for later use, ideally in slices for easier defrosting, to extend its freshness.

Starchy roots such as potatoes, sweet potatoes and cassava are also long-lasting and good sources of carbohydrates. These should ideally be baked, boiled or steamed. Leave the skins on for extra fibre and flavour.

Dried fruits, nuts and seeds

Particularly unsalted and unsweetened, these may serve as healthy snacks or added to porridge, salads and other meals. Nut butters or spreads are also good options, as long as you choose 100% nut butters which do not have added sugar, salt, or partially hydrogenated or palm oils.

Eggs

Eggs are a great source of protein and nutrients and are incredibly versatile. Opt for boiling or poaching rather than frying.

Canned vegetables

Although fresh or frozen vegetables are normally the preferred option, canned vegetables such as mushrooms, spinach, peas, tomatoes and green beans are good alternatives with a longer shelf life, to ensure a sufficient intake of vegetables. Remember to choose, when possible, options with low or no added salt.

Canned fish

Canned tuna, sardines and other fish are good sources of protein and healthy fats. These can make a healthy addition to salads, pastas or whole grain breads. If possible, choose fish canned in water rather than oil or brine.

Reduced-fat, shelf-stable milk

Dairy products provide an inexpensive source of protein and other nutrients. Choosing reduced-fat dairy is one way to reduce saturated fat consumption, while also getting all the benefits of dairy. UHT milk in a can or carton will be relatively shelf stable. Powdered milk is another shelf-stable option.

For more information on the WHO recommendations for healthy eating, please consult the WHO fact sheet on healthy diet:

WHO Fact sheet on Healthy diet (<https://www.who.int/news-room/fact-sheets/detail/healthy-diet>)

Examples of recipes

In order to inspire healthy eating during periods of quarantine, WHO/Europe, in collaboration with Portuguese chef Nuno Queiroz Ribeiro, have prepared a few examples of nutritious recipes which can be prepared with ingredients likely to be available.

Photo credits: Nuno Queiroz Ribeiro

Chickpea and mushroom patties | serves 8 portions

Ingredients

- 80 g fresh or canned mushrooms, sliced or coarsely chopped
- 80 g onion, coarsely chopped
- 20 g garlic, chopped
- Oil, preferably rapeseed, olive or sunflower
- 250 g canned chickpeas
- 10 g fresh parsley or 3 g dried
- 10 g mustard
- 40 g ground flaxseeds, 60 g of wholegrain flour, or 2 whole eggs
- Pepper
- 30 g breadcrumbs

Method

1. In a frying pan, sauté the mushrooms, onion and garlic in a small amount of oil. Season with a small amount of salt and heat or cook until the mushrooms are tender and lose water.
2. In a food processor or blender, blend the chickpeas into a paste.
3. Add the prepared mushrooms, parsley, mustard and blend again.
4. A little at a time, add the flaxseeds, flour or eggs, and blend again, adding until the ingredients bind together well and can be easily shaped.
5. Add pepper to taste.
6. Shape the mixture into balls, coat them in breadcrumbs and flatten them to form patties.
7. Preheat the oven to 200 °C and place the patties in a tray lined with parchment paper.
8. Bake until lightly browned on the outside.
9. If you prefer, or do not have access to an oven, you can cook them in a non-stick frying pan with a little oil.
10. You may assemble the patties in a burger with wholegrain bread, lettuce and tomato, or accompany them with wholegrain rice or baked potatoes and salad or vegetables.

Green pea stew | serves 4 portions

Ingredients

- 2 ripe tomatoes or 250 g canned tomatoes
- 1 garlic clove
- 1 carrot
- Oil, preferably rapeseed, olive or sunflower
- 2 small bunches of coriander (chopped) or 5 g dried coriander leaves
- 200 g canned green peas
- 400 g canned black beans (or other beans)
- Sweet paprika and dried basil

- 4 eggs (optional)

Method

1. Skin and chop the tomato, crush the garlic and cut the carrot into thin slices.
2. Add a drizzle of oil in a saucepan and sauté the tomatoes and garlic; add 1 bunch of chopped coriander and the carrot and cook until soft.
3. Add the peas and black beans to the saucepan, along with 1 cup of water and season with paprika and dried basil. Cover with a lid and cook for 8 minutes.
4. Add the eggs, if you choose to use them, then cook for about 10–15 minutes more.
5. Add the remaining chopped coriander, if you are using it. You may serve this with rice and salad.

Sauteed pasta with vegetables and canned tuna | serves 6 portions

Ingredients

- 400 g wholegrain pasta
- 50 ml oil, preferably rapeseed, olive or sunflower
- 200 g broccoli, fresh or frozen
- 150 g onion, thinly sliced
- 30 g chopped garlic
- 80 g celery, thinly sliced (optional)
- 10 g dried thyme (optional)
- 200 g carrots, grated or cut in thin slices
- 150 g diced fresh tomatoes or 100 g canned tomatoes
- 300 g canned tuna
- Spices and pepper
- Soy sauce, preferably low sodium (optional)
- 30 g fresh basil or 5 g dried (optional)

Method

1. In a pot with plenty of water, cook the pasta according to the instructions on the package. Try to avoid overcooking, to keep the nutritional properties and texture of the pasta. Cool the pasta under running water, drizzle with some oil and set aside.
2. Cook the broccoli in boiling water for 8 minutes (or 10 minutes for frozen broccoli), drain and set aside.
3. Meanwhile, sauté the onion, garlic and celery with a drizzle of oil for 5–8 minutes over a medium heat. Add the dried thyme and carrot and cook for another 5 minutes over a medium heat. Then add the tomato and tuna. Stir the sauce and let it cook for another 10 minutes, tasting and refining the flavours with herbs and spices, if needed.
4. Add the pasta and broccoli to the sauce and stir until hot. Flavour with a small amount of low-sodium soy sauce if desired and serve with finely chopped basil.

Related publications

[Stay physically active during self-quarantine \(http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/stay-physically-active-during-self-quarantine\)](http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/stay-physically-active-during-self-quarantine)

[WHO fact sheet on healthy diet \(https://www.who.int/news-room/fact-sheets/detail/healthy-diet\)](https://www.who.int/news-room/fact-sheets/detail/healthy-diet)

[Q&A on COVID-19, pregnancy, childbirth and breastfeeding \(https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-pregnancy-childbirth-and-breastfeeding\)](https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-pregnancy-childbirth-and-breastfeeding)

[Information note: COVID-19 and NCDs \(https://www.who.int/internal-publications-detail/covid-19-and-ncds\)](https://www.who.int/internal-publications-detail/covid-19-and-ncds)