

LIFANA

Lifelong Food and Nutrition Assistance

AAL-Call-2017-013

Start date: 1 May 2018

Duration: 30 months



TIPS FOR HEALTHY NUTRITION UNDER EMERGENCY CONDITIONS

Document type¹: R
Dissemination level²: PU
Due date: N/A
Delivery date: Month 23
Partners involved: CER
Authors: Krizia FERRINI

Revision history

Rev.	Date	Partner	Description
0.1	25.03.2020	CER	Written by Krizia Ferrini

¹ L = Legal agreement, O = Other, P = Plan, PR = Prototype, R = Report, U = User scenario

² PU = Public, PP = Restricted to other programme participants (including the Commission Services), RE = Restricted to a group specified by the consortium (including the Commission Services), CO = Confidential, only for members of the consortium (including the Commission Services)



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Participant n°	Participant organisation name	Participant short name	Organisation type	Country
1 (Coordinator)	Luxembourg Institute of Science and Technology	LIST	Research	Luxembourg
2	Luxembourg Institute of Health	LIH	Research	Luxembourg
3	Associação Fraunhofer Portugal Research	FhP	Research	Portugal
4	Sonae Center Serviços II, S.A.	SONAE	Company	Portugal
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8	cereneo Schweiz AG	CER	Company	Switzerland
(8*) (subcontract from CER)	cereneo - Zentrum für Interdisziplinäre Forschung	CEFIR	Research	Switzerland

Acknowledgements

LIFANA (Lifelong Food and Nutrition Assistance) is funded by the AAL (Active and Assisted Living) Programme's 2017 Call Challenge, project nr. AAL-CALL-2017-013, with financial support from the European Commission and the national funding agencies of Luxembourg (FNR), Portugal (FCT), The Netherlands (ZonMW) and Switzerland (SERI).

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INTRODUCTION

The indication given by the authorities¹ invites the **elderly population** to stay at home as much as possible to reduce the chances of Coronavirus infection. Experts recommended that you keep enough around worth of meals, so two weeks' worth of supplies is a better idea in case of long response times.

That's why we prepared the **LIFANA tips** on how to continue to follow the recommendations to stay healthy at home².

Older adults are especially vulnerable to deficiencies³. Many adults are not getting enough:

- Protein
- Dietary fibre
- Minerals (such as calcium, magnesium)
- Vitamins (A, D, E, and C)
- Water

People with special diets also need to be aware of potential deficiencies. Vegans, for example, can benefit from foods fortified with vitamin B-12.

In some cases, fortified-enriched foods and supplements are helpful. They can fill in the gaps and increase a particular vitamins and minerals consumption that would otherwise be less than the recommended value.

Shopping list: keep on healthy shopping!

Take advantage of the increased time available at home to prepare dry legumes and whole grain cereals that require longer cooking. If you prepare more than you need for the meal, store it properly and have fun the next day making a recipe with that ingredient.

Rotate your stock of canned and dried foods. The only downside is the sodium content in most canned foods in general. But if you're not at risk of high blood pressure, eat up.

Collect easy recipes that use canned and dried food and store them right along with basic utensils like a can opener, bowls, spoons, and plates.

¹ Coronavirus disease (COVID-19) Pandemic: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

² Food and nutrition tips during self-quarantine http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/food-and-nutrition-tips-during-self-quarantine/_recache

³ EUR - Scientific and Technical Research Reports-The Role of Nutrition in Active and Healthy Ageing: For prevention and treatment of age-related diseases: evidence so far DOI:10.2788/83557



Protein source

Pulses and pulses' products: peas, lentils, soya, beans, red kidney beans, great northern beans, lima beans, split pea, black beans, pinto beans, chickpeas. Rinsing canned pulses can reduce the amount of sodium by half and also reduces the amount of complex sugars, which humans can't digest.

Pulses' Pasta are made using flour from pulses including: peas, lentils, chickpeas and borlotti beans instead of wheat to boost the protein content and other nutritional benefits.

Beans are cheaper if you buy them dried but the preparation time will be different. Feel free to go for the cans of black and kidney beans but if I were making a salad, a soup or a main course with canned beans, I would thoroughly rinse them first.

Lentils are high in protein and fiber. They also aid in digestion, can help lower your cholesterol levels.

Soya products can be also supportive. Not only soya beans but for a long-term option, you can freeze your tofu while preserving its taste if you use a freezer safe container. It is best is to drain the water from the product and wrap it tightly with plastic wrap before placing it in the freezer container. Defrosted tofu will have an altered texture, varying with the firmness of the tofu, which some people actually prefer. If tofu is purchased in an aseptic container on the grocery shelf, it can remain on your shelf until opened. Once opened, it must be refrigerated and its shelf life remains at 3-5 days. If it was purchased in the refrigerator section at the grocery, it should remain refrigerated. You can also freeze edamame. When you are ready to cook the frozen edamame beans you can boil them, toss the bag in the refrigerator and defrost them or even microwave them.

Beverages: long term milk alternatives beverages as soya drinks.

Fish: Sardines and canned salmon are exceptionally healthy choices. Sardines in water, salmon in water are the best ones. Seafood (fish fillet, squid tubes, squid rings, mussels, scallops, shrimps and prawns) is a good source of protein, iodine and selenium.

Protein powder: There are hundreds of varieties of protein powder available, each with its own benefits and drawbacks. Two of the most common forms of protein are soy protein and whey protein. Whey protein comes from an animal source and soy protein is vegan-friendly and can be a good way for vegans to ensure they get enough protein. Depends on the type of whey protein you're consuming, for a serving size of 30g and one scoop of whey protein powder has 20 to 25 grams of protein.

Cheese: Some people are concerned that cheese is high in fat, sodium, and calories. However, cheese is also an excellent source of protein, calcium, and several other nutrients. Mozzarella, Feta, Cottage Cheese, Ricotta, Goat cheese, semi-hard Swiss cheese and Hard cheese such as parmesan.

Nuts: In general, nuts are good sources of fat, fiber, minerals and protein. Almonds, walnuts, pistachios, cashews, pecans, Macadamia nuts, Brazil Nuts, Hazelnuts

Beverages: hazelnuts milk drinks.

Dietary fiber

Whole-grain benefits

The shopping list should include products made from the following list of whole grains:

- oatmeal
- popcorn
- millet



- quinoa
- brown rice
- whole rye
- wild rice
- wheat berry
- bulgur
- buckwheat
- freekeh
- barley
- sorghum

Whole grain bread, pasta and breakfast cereals. With whole meal flour we can bake homemade bread.

Popcorn can be healthful when individuals prepare it the best way: air-popped popcorn with no oil provides the best health benefits. People can air-pop popcorn by heating popcorn kernels in a popcorn maker or on a stovetop.

Beverages: rice and oat milk beverages are not rich in fiber but helpful during an emergency.

Vitamins and minerals

If you're out of fresh fruits and veggies, not to worry —healthy frozen and canned foods can save the day.

Frozen spinach, artichokes, broccoli and minestrone vegetables mix: naturally rich in fiber, frozen vegetables are ready in less than 20 minutes, to bring to the table all the flavor and taste of a warm veggie soup.

Seeds: Many seeds are good sources protein and minerals. Use them in the preparation of soups or as snacks (30 g)

Dried fruits and nuts: Dates, raisins, dried figs, dried prunes, dried apricot and peaches. Store dried fruits in an airtight container to keep them fresh. Dried fruit can be stored tightly wrapped at room temperature for several months. Store in a cool, dry place like a cupboard. For prolonged storage (up to a year), they should be refrigerated in a tightly sealed plastic bag.

Juice boxes: select "100 Percent Juice" products. Whether it is freshly squeezed or made from concentrate, 100% juice is a better dietary choice compared to fruit-flavored beverages.

Enriched Foods and supplements

Fortified Foods and drinks are products which extra nutrients have been added. A wide range of nutrients and other ingredients are used in food manufacturing, including (but not limited to):

- Vitamins
- Minerals including trace elements
- Amino acids
- Essential fatty acids
- Fiber
- Various plants and herbal extracts

Such nutrients or ingredients are added to food in order to "enrich" or "fortify" the food in question, so as to add or emphasize particular nutritional characteristics.



Fortified Food: cereal products (for example, flour and breakfast cereals) or milk products (for example low fat milk powders are sometimes fortified with vitamins A and D). Foods that are produced for vegans and vegetarians, such as soya products, are often fortified voluntarily with vitamin B12.

Fortified Drinks: sports drinks, milk with vit. D

Dietary supplements come in many forms, including tablets, capsules, powders, energy bars, and liquids. Ask to the Medical Doctor or Nutrition Expert what to buy in special health condition.

They include:

- vitamin and mineral products
- "botanical" or herbal products—These come in many forms and may include plant materials, algae, macroscopic fungi, or a combination of these materials.
- amino acid products—Amino acids are known as the building blocks of proteins and play a role in metabolism.
- enzyme supplements—Enzymes are complex proteins that speed up biochemical reactions.

Special food for dressing

Extra virgin olive oil: It contains modest amounts of vitamins E and K and plenty of beneficial fatty acids.

Lemon juice: Lemon juice is valuable as a stock for cooking or even drinking

Dark chocolate: (minimum amount of cocoa beans to be found is 70%)

Garlic and onions

Spices

Dried herbs

Tomatoes sauce

Honey raw

At home: pantry basics

At home you should have a **can opener**, or tin opener, a mechanical device used to open tin cans.

Baking powder	Milk or milk alternatives: boxed, powdered, evaporated milk
Beans, canned	Nuts
Beans, dried	Oil
Breadcrumbs	Pasta, dried
Broth, dried and canned	Peanut butter
Cereals	Potatoes
Chocolate	Soup: canned and dry bouillon
Coffee	Sugar



Cornmeal	Tea and infusion
Cornstarch	Tomatoes: canned whole, crushed, chopped, puree, sauce, fresh
Dried fruits	Fish canned
Extracts: vanilla, lemon, almond, orange	Tahini
Flour: All-purpose, whole wheat, cake, bread	Tofu
Fruit jam, jelly	Vinegar
Garlic, Onions	Yeast, dry active
Lemons juice	

Cooking tips: using the microwave oven safely

Use **microwave**-safe containers. Use cookware specially manufactured for use in the microwave oven. You should not use metal pans or aluminum foil and you should not use some plastic containers because heated food can cause them to melt.

Although some people have been concerned that microwave ovens could cause interference with certain electronic cardiac pacemakers, today's pacemakers are designed to shield against this interference. You can consult with your health care provider if you still have concerns.

Avoid super-heated water (water is heated beyond its boiling temperature, without signs of boiling) because there have been reports of serious skin burns or scalding injuries around people's hands and faces as a result of this phenomenon. Adding ingredients such as instant coffee or sugar to water before heating greatly reduces the risk of hot-water eruption. Also remember to follow the manufacturer's heating instructions (FDA <https://www.fda.gov/consumers/consumer-updates/5-tips-using-your-microwave-oven-safely>)

With regard to the recommendations to be implemented for the prevention of the new coronavirus infection, please refer to the dedicated section of the Ministry of Health website (Portugal, Luxemburg, Switzerland, Netherland).

REFERENCES

Food and nutrition tips during self-quarantine: http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/food-and-nutrition-tips-during-self-quarantine/_recache

Microwave Ovens: <https://www.fda.gov/radiation-emitting-products/home-business-and-entertainment-products/microwave-ovens>

EFAD COVID-19 Information on Nutritional Support: <http://www.efad.org/en-us/covid-19/>