



Innovative tools for **D**iets oriented to
Education and **hE**alth improvement
in **D**ysphagia condition

**Intellectual Output 2: Methodology and Tools Development for
Persons with Dysphagia and Immediate Surroundings**

First draft of the Unit 3 methodology for IO2

**In the Partner Countries:
Italy - Greece - Lithuania - Spain – Turkey**

August 2022

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UNIT-3 NUTRITION

3.1 Basics of nutrition on dysphagia condition

3.1.1 Explanation about the importance of dysphagia nutrition

Effective nutritional management is essential to the health of patients with dysphagia.

Early intervention by a clinical nutritionist is very important to indicate the dietary guidelines to follow.

Appropriate and timely nutritional intervention can play a vital role in the prevention of dysphagia health complications, dehydration, malnutrition and promotion of recovery.

Goals of nutrition management are:

- To maintain and ensure adequate nutrition and hydration status – because dysphagia can result in reduced or altered oral intake of food/liquid.
- Apply the modified diet with a correct and safe texture following the recommendations of the speech therapist. Foods with inappropriate textures can cause choking and other health complications.
- Ensure adequate and ample intake of nutritious and safe foods.



Figure 1. Nutrients (Source: designed by Canva Pro)

3.1.2 Food and nutrients

Cambridge Dictionary defines nutrient as any substance that plants or animals need in order to live and grow. Nutrients are ingested through the diet and can be classified into: macronutrients and micronutrients.

Macronutrient	Carbohydrates	Simple Complex Fiber
	Protein	Essential amino acids Nonessential amino acids Conditional amino acids
	Fats	Saturated Trans Monounsaturated Polyunsaturated
Micronutrient	Vitamins	Fat-soluble Water-soluble
	Minerals	Macrominerals Trace minerals

Figure 2. Diet Nutrients
(Source: designed by CADIS HUESCA)

Macronutrient

Nutrients that predominate in the composition of food and, therefore, those ingested in greater quantities (grams). Their main functions within the organism are energetic and structural.

Carbohydrates and fibers

Carbohydrates provide most of the body's energy. They are present in healthful, processed and low nutritional values foods. They are classified into three types:

- **Simple carbohydrates.**

Or sugars are made up of shorter chains of molecules and are faster to digest the body with a quick and short-lived source of energy.

Examples of foods containing them: fruits, jams, honey, white bread, sweets, date, syrup, milk, sugar, others.

- **Complex carbohydrates.**

They are made up of long chains of molecules that are absorbed by the body more slowly and for a longer period of time.

Examples of foods containing them: vegetables, whole grains, fruits, natural nuts, legumes and others.

- **Fiber.**

It is a complex carbohydrates.

Examples of foods containing them: vegetables, whole grains, fruits with skin, natural nuts, legumes and others.



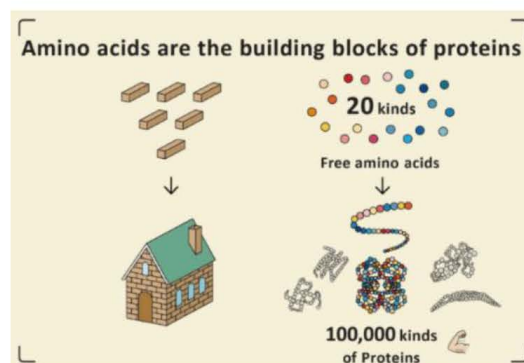
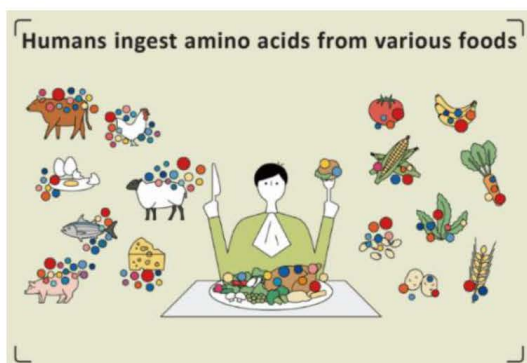
Figure 3. Carbohydrates and fiber (Source: designed by Canva Pro)

Protein

Proteins are molecules made up of amino acids and they are essential of life. The protein sources could be vegetables and/or animal based. When proteins are digested, they broken down into amino acids. Examples of foods containing them: meats (beef, sheep, pork, rabbit, chicken...), white and blue fish (sardines, tuna, sea bream, sole...), seafood, eggs, legumes and others.



Figure 4. Protein (Source: obtained from Canva Pro)



Figures 5 y 6. Amino acids are part of food. Amino acids form the proteins that compose us. (Source: <https://www.ajinomoto.com/es/aboutus/amino-acids/what-are-amino-acids>)

- **Essential amino acids.**

It cannot be made by the body. As a result, they must come from food.

- **Nonessential amino acids**

Nonessential means that our bodies can produce the amino acid, even if we do not get it from the food we eat.

- **Conditional amino acids.**

Conditional amino acids are usually not essential, except in times of illness and stress.

Fats

Fat is the nutrient that provides the most energy compared to the others and helps the body absorb some vitamins. The fat sources could be vegetables and/or animal based.

- **Saturated.**

Most animal fats are saturated. Experts recommend a diet low in them. They are very popular with manufacturers of processed foods. Examples: butter, ghee, tallow, lard, coconut oil and palm oil.

- **Monounsaturated.**

Monounsaturated fats are good for your health. They can be found in plant foods and are liquid at room temperature but start to harden when chilled. For example: Nuts, Avocado, Olive oil, Safflower oil (high oleic), Sunflower oil, etc.

- **Trans.**

They are unhealthy. Examples: fried doughnuts, and baked goods including cakes, pie crusts, biscuits, frozen pizza, cookies, crackers, and stick margarines.

- **Polyunsaturated.**

They are good for health. For example: olive oil, soybean oil, corn oil, sunflower oil, etc.



Figure 7. Fats (Source: obtained from Canva Pro)

Micronutrient

Micronutrients, often referred to as vitamins and minerals, are essential for healthy development, disease prevention, and wellbeing. People only need small amounts of micronutrients.

Figure 8. Micronutrient. (Source: Health vector created by freepik – www.freepik.com)



Vitamines

Vitamins are organic compounds that people need in small quantities. Vitamins need to come from food because the body either does not produce them or produces very little.

A balanced diet usually provides enough of these vitamins. They can be classified into:

- **Water-soluble vitamins.**
- **Fat-soluble vitamins**

Minerals

Minerals are divided into major minerals (macrominerals), which are needed in larger amounts, and trace minerals (microminerals), which are needed in smaller amounts.

A balanced diet usually provides all of the essential minerals.



Figure 9. Food and nutrition Infographic (Source: designed by Canva Pro)

Infographics available for download on the training platform (<https://indeed-project.org/>)

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3.2 Balanced diet

A balanced diet is one that fulfills all of a person's nutritional needs because provides all the nutrients a person requires. Humans need a certain amount of calories and nutrients to stay healthy.

3.2.1 Distribution of foodstuffs on a balanced diet

Vegetables and fruits.

Vegetables and fruits



Figure 10. Vegetables and fruits (Source: designed by Canva Pro)

Plant foods should make up the largest portion of our diet. Plant foods contain a wide variety of nutrients like vitamins, minerals, phytochemicals and antioxidants. They are also the main source of carbohydrates and fibre in our diet. A diet rich in vegetables decreases health problems.

Grains



Figure 11. Grains (Source: designed by Canva Pro)

Grains food group it is recommend to choose mostly whole grains (such as brown rice, oats and barley), and wholemeal/wholegrain/high cereal/fibre varieties of bread, pasta, crisp breads and cereal foods (over highly processed, refined varieties).

The quality of the carbohydrates you eat is at least as important as the quantity to better health.

Protein

Protein is an essential nutrient. In addition to providing protein, it also contains other nutrients such as fats, vitamins and minerals. It is important to combine animal and vegetable proteins.

The consumption of quality protein is more important to our health than the quantity consumed.

Protein



Figure 12. Protein (Source: designed by Canva Pro)

Healthy fats

Healthy fats



Figure 13. Healthy fats (Source: designed by Canva Pro)

Fat is an important part of a healthy diet. Choosing healthy, quality fats in the diet is preferable to eating a low-fat diet. It is preferable to consume "good" unsaturated fats - monounsaturated and polyunsaturated fats, limit foods high in saturated fats and avoid "bad" fats - trans fats.

Choose Water

Water is the best drink to stay hydrated and it supports many other essential functions in the body. Choose water as your main drink, and avoid sugary options such as soft drinks, sports drinks and energy drinks.

We drink fluids when we feel thirsty, the major signal alerting us when our body runs low on water but sometimes we drink not based on this factor.



Figure 14. Choose water (Source: designed by Canva Pro)

Enjoy herbs and spices

Herbs and spices provide a wonderful range of flavours and aromas to our food. They have health-promoting properties, but since we tend to eat them in smaller amounts their primary purpose is to flavour and colour our meals.

It is an easy way to create recipes that suit our tastes and to increase the enjoyment of home-cooked meals without the need to use salt when cooking or eating.



Figure 15. Herbs and spices (Source: designed by Canva Pro)

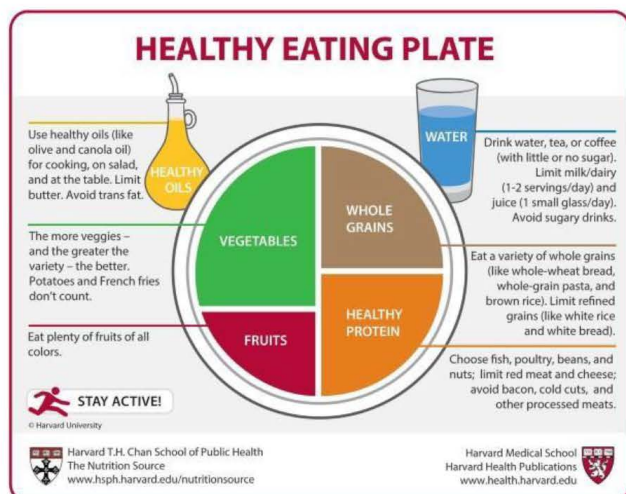
Limit added salt and sugar

It is important to limit our intake of added salt and sugar.



Figure 16. Salt and sugar (Source: designed by Canva Pro)

Healthy eating guidelines



Healthy Eating Plate

The Healthy Eating Plate is another simple guide for a healthier, well-balanced meal that includes all the food groups in the right proportions. It's the easy way to get all the nutrients that your body needs regardless of the meal type, cuisine or occasion. It was owned by Harvard University.

Figure 17. Healthy Eating Plate. Source: Copyright © 2011, Harvard University. For more information about The Healthy Eating Plate, please see The Nutrition Source, Department of Nutrition, Harvard T.H. Chan School of Public Health, www.thenutritionsource.org, and Harvard Health Publications, www.health.harvard.edu.

Healthy Eating Pyramid

The Healthy Eating Pyramid is a simple visual guide to explain a balanced diet based on the recommended food intake for 19–50 year-olds, according to the Australian Dietary Guidelines (2013). It shows the groups and proportion of foods that we should eat every day for good health.

Figure 18. Healthy Eating Pyramid.

The Australian Nutrition Foundation Inc. 3rd edition, 2015



Practical exercises to apply the theory.

In this exercise we will become aware of the importance of a balanced diet.

Materials: not necessary

Exercise: Reflect on the importance of a balanced diet. Recall the foods you have eaten in the last 7 days and answer the following questions:

Do you consume foods from all food groups each day?

Do your meals resemble the composition of the Harvard plate?

What aspects of your diet do you think are healthy?

What aspects of your diet do you think could be improved?





Figure 19. Distribution of foodstuffs on a balanced diet Infographic (Source: designed by Canva Pro)
 Infographics available for download on the training platform (<https://indeed-project.org/>)

3.3 Nutrition for special requirements

3.3.1 Allergies and intolerances

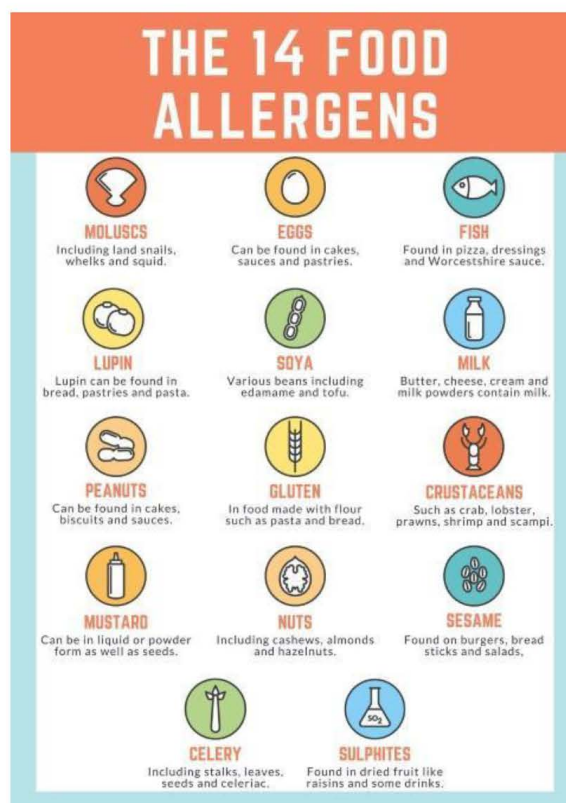
Food allergies

A food allergy happens when the body's immune system, which normally fights infections, sees the food as an invader. This leads to an allergic reaction — immune systems response in which chemicals like histamine are released in the body. The reaction can cause symptoms like hives, vomiting, belly pain, throat tightness, hoarseness, coughing, breathing problems, or a drop in blood pressure. Sometimes it can lead to death.

European union food law has identified 14 allergens as ingredients in the food and drink as the most potent and prevalent allergens.

Figure 20. Food Allergens

(Source: CPD Online College Knowledge base)

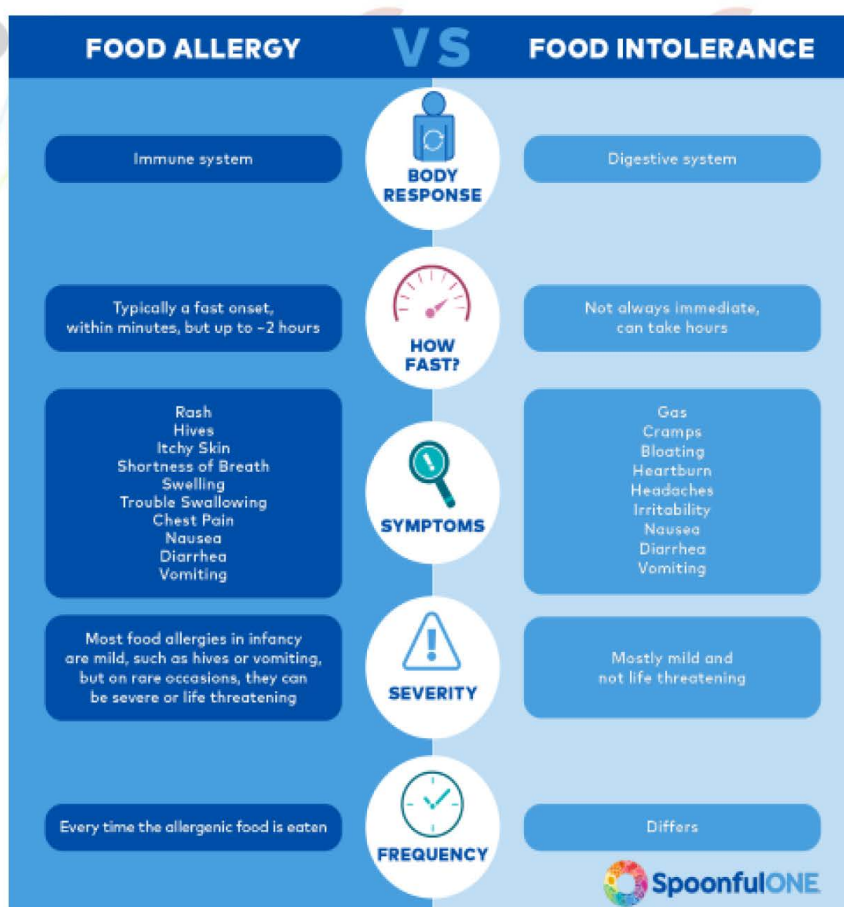


Food intolerance

A food intolerance means either the body can't properly digest the food that is eaten, or that a particular food might irritate the digestive system. It doesn't involve your immune system and it is never life-threatening

Symptoms of food intolerance happen gradually, often a few hours after eating the problem food, and it can include nausea, gas, cramps, belly pain, diarrhea, irritability, or headaches.

Figure 21. Food Allergy and Intolerances
(Source: Spoonfulone)



3.3.2 Vegetarian

The vegetarian diet involves abstaining from eating meat, fish and poultry. People often adopt a vegetarian diet for religious, personal reasons or environmental reasons.

Vegetarians may also have dysphagia. These people, as well as those who eat a diet with all food groups, should modify their diet in texture according to guidelines set by a medical professional.

A vegetarian diet should include a diverse mix of fruits, vegetables, grains, healthy fats and proteins.

To replace the protein provided by meat in diet, include a variety of protein-rich plant foods like nuts, seeds, legumes, tempeh, tofu and seitan as well as eggs and dairy products can also boost protein intake.



Figure 22. Vegetarian (Source: obtained from Canva Pro)

Vegetarians have **to avoid** the following foods in their diet:

- **Meat:** Beef, veal and pork
- **Poultry:** Chicken and turkey
- **Fish and shellfish:** This restriction does not apply to pescetarians.
- **Meat-based ingredients:** Gelatin, lard, carmine, isinglass, oleic acid and suet
- **Other animal products:** Vegans may choose to avoid honey, beeswax and pollen.

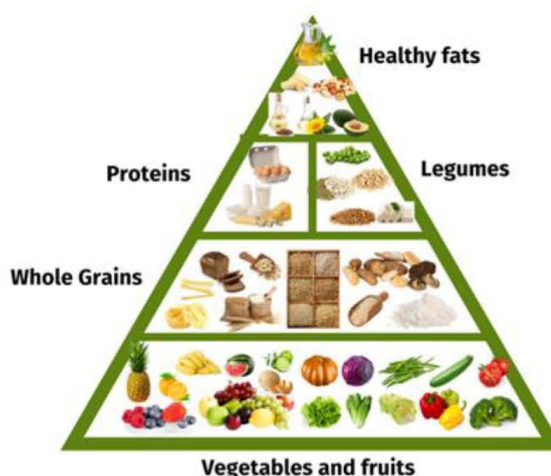


Figure 23. Vegetarian Pyramid (Source: designed by Canva Pro)

3.4 Samples of texture-modified menu.

3.4.1 Balanced menu templates

Proper planning of the daily diet ensures a balanced supply of all the nutrients necessary to maintain adequate health through diet. Eating several meals a day facilitates the consumption of the daily nutritional requirements and allows establishing a routine.

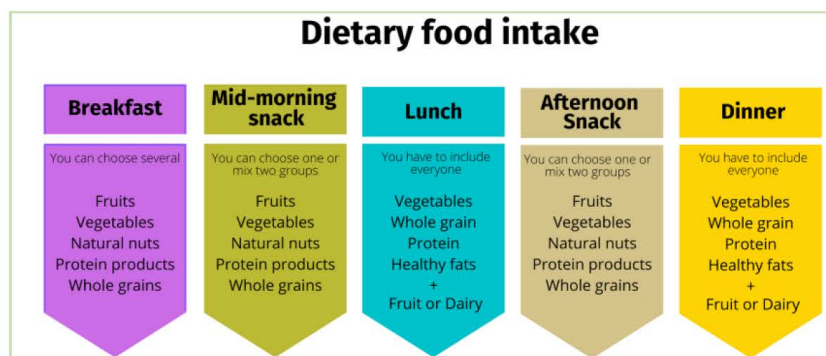


Figure 24. Dietary food intake (Source: designed by Canva Pro)

Next menus are examples of balanced diet based on before healthy eating guidelines. The texture of the food and beverages on these menus should be adapted to the needs of the person with dysphagia destined. Allergies and intolerances should also be taken into account in the menus.

Menu 1							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	Coffee with milk Apple cinnamon oatmeal Porridge Orange	Tea with milk Muhlama with whole wheat toast Apple	Oat milk Rye bread with tomato and cheese Pear	Coffee with soymilk Banana oatmeal pancakes with dark chocolate	Oatmeal pourridge with cinnamon and berries	Coffee with milk Whole wheat toast with avocado Apple	Fruit and milk smoothie Whole wheat toast with Hummus and tomato
Mid-Moorning snack	Handful of nuts	Tahini cream toast with bananas	Yogurt	Strawberries	Smoothie	Yogurt	Handful of pistachio
Lunch	Lentil meatballs with lettuce Sausages with tomatoe Plum	Broccoli with ratatouille Squid with aioli and whole wheat bread Yogurt	Pureed pumpkin soup Eggplant stuffed with fish Banana	Green beans with potatoes Hünkar beğendi Pumpkin desert	Pastitsio Cod with bell pepper sauce Peach	Silkè pataluose Turkey with apple sauce Yogurt	Lettuce salad with corn and carrots Balandeliai Bougatsa
Afternoon Snack	Yogurt with fruit salad	Greek yogurt	Smoothie	Almond butter, Greek yogurt and sberry jam toast	Guacamole cream toast	Smoothie with nut flour	Berries oatmeal Porridge
Dinner	Cauliflower with garlic Cod with ratatouille Brownie with orange	Lettuce and tomato salad Meatballs with almond sauce Pear	House hors d'oeuvres Potato omelette with aioli and whole wheat bread Yogurt	Baked vegetables Chicken with vegetables and tomato Roast apple with cinnamon	Goat cheese salad on toast Keshkek Strawberries	White asparagus Tenderloin with pepper sauce Duonos	Sausage with rye bread Salmon with vegetables Yoghurt

Menu 2							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	Oat milk Rye bread with avocado and olive oil Banana	Coffe with milk Banana bread with berries	Coffee with milk Toast of whole wheat bread with olive oil and tomato	Coffee with milk Mocha oatmeal Porridge Apple	Coffee latte with soymilk Banana oatmeal pancakes with honey	Fruit and milk smoothie Menemen with whole wheat toast	Unsweetened cocoa milk and oat flakes Portokalopita Mandarin
Mid-Moorning snack	Yogurt	Smoothie with nut flour	Guacamole cream toast	Yogurt with fruit pieces	Handful of almond	Yogurt	Smoothie
Lunch	Cuban Rice Tenderloin with pepper sauce Apple	Chesmi nigar soup Chicken with vegetables Cheesecake	Cheshmi nigar soup Squid with aioli and whole wheat bread Strawberries	Green beans and potatoes Sausage with rye bread Bougatsa	Chickpeas with cod Egg with béchamel sauce Pear	Beet soup Pastitsio (GR) Yogurt	Goat cheese salad on toast Tunna small turnover Muhallebi
Afternoon Snack	Peanut butter and banana toast	Yogurt with fruit pieces	Orange	Handful of almond	Olive oil and tomato toast	Coffee Latte Silk curd cake	Hummus cream toast
Dinner	Tomato salad with hard-boiled egg and tuna fish Sausages with potato Mandarin	Pumpkin Puree Spanakopita Rizogalo	Mixed salad Falafel Greek Yogurt	Herring in bedding Tunna omelet orange	Pumpkin puree Tomatokeftedes Rizogalo	Creamed spinach Moussaka Roast pear	Spaghetti Bolognese Hake in sauce Fruit salad

3.4.2 More information about menu dishes

BREAKFAST AND SNACKS

Recipe: Muhlama

Suggested by: Turkey

Youtube elaboration video:

https://www.youtube.com/watch?v=IEG9gW_QYKA

Sources:

<https://www.nefisyemektarifleri.com/muhlamakuymak-tam-anlatimiyla-cok-uzayan/>



Image 25. Muhlama. Web nefis.

Recipe: Menemen

Suggested by: Turkey

Youtube elaboration video:

<https://www.youtube.com/watch?v=-EYjLmOoJcg>

Sources: <https://www.youtube.com/watch?v=-EYjLmOoJcg>



Image 26. Menemen. Yeme & İçme YouTube.

Recipe: Banana bread

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=IBd1hboRdx0>

Sources: <https://www.recetasderechupete.com/receta-de-pan-de-platano-o-banana-bread-estilo-starbucks/323/>
<https://www.youtube.com/watch?v=IBd1hboRdx0>



Image 27. Banana bread. De Rechupete web.

Recipe: Banana oatmeal pancakes

Suggested by: Spain

Youtube elaboration video: https://www.youtube.com/watch?v=5lQH_k3fL1Y

Sources: <https://simply-delicious-food.com/easy-healthy-banana-oat-pancakes/> https://www.youtube.com/watch?v=5lQH_k3fL1Y



Image 28. Banana oatmeal pancake. Simply Delicious Web.

Recipe: Avocado Toast

Suggested by: Spain

Youtube elaboration video:

<https://cookieandkate.com/avocado-toast-recipe/comment-page-2/>

Sources: <https://cookieandkate.com/avocado-toast-recipe/comment-page-2/>



Image 29. Avocado Toast. Cookie and kate Web

Recipe: Oatmeal Porridge

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=HK-sARCbKOW>

Sources: <https://www.youtube.com/watch?v=HK-sARCbKOW>

<https://www.thecookingfoodie.com/recipe/Healthy-Oatmeal-Porridge-%E2%80%93-4-Easy-Recipes>

<https://www.thecookingfoodie.com/recipe/Healthy-Oatmeal-Porridge-%E2%80%93-4-Easy-Recipes>



Image 30. Oatmeal Porridge. The cooking Foodie.

Recipe: Healthy toast ideas

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=hiaWgeWwfHo>

Sources:

<https://www.crispyfoodidea.com/2020/08/healthy-toast-ideas-for-morning-breakfast.html>



Image 31. Healthy toast ideas. Crispyfoodidea Web.

Recipe: Purus varškės apkepas/ Silk curd cake

Suggested by: Lithuanian

Youtube elaboration video:

https://www.youtube.com/watch?v=NskYSYfCvtM&ab_channel=VMG

Sources: <https://www.lamaistas.lt/receptas/purus-varskes-apkepas-su-manu-kruopomis-19764>

https://www.youtube.com/watch?v=NskYSYfCvtM&ab_channel=VMG



Image 32. Silk curd cake. La Maistas Web.

LUNCH AND DINNERS

Recipe: Pastitsio / Greek baked pasta

Suggested by: Greece

Youtube elaboration video:

https://www.youtube.com/watch?v=P_0cA8aoOno

Sources: <https://akispetretzikis.com/en/recipe/118/to-pastitsio-toy-akh>

https://www.youtube.com/watch?v=P_0cA8aoOno



Image 33. Pastitsio. Web Dimitra's dishes

Recipe: Moussaka

Suggested by: Greece

Youtube elaboration video:

<https://www.mygreekdish.com/recipe/mousakas/>

Sources: <https://www.mygreekdish.com/recipe/mousakas/>

Image 34. Moussaka. My Greek Dish Web.



Recipe: Spanakopita

Suggested by: Greece

Youtube elaboration video:

<https://www.youtube.com/watch?v=eUTVesSFows>

Sources: <https://www.youtube.com/watch?v=eUTVesSFows>

<https://www.mygreekdish.com/recipe/traditional-greek-spinach-pie-spanakopita-recipe-with-homemade-phyllor/>

Image 35. Spanakopita. My Greek Dish Web.



Recipe: Tomatokeftedes / Santorini Style Tomato Fritters

Suggested by: Greece

Youtube elaboration video:

<https://www.youtube.com/watch?v=UMsDV5ls9hE>

Sources: <https://www.dimitrasdishes.com/santorini-style-tomato-fritters-domatokeftedes/>

<https://www.youtube.com/watch?v=UMsDV5ls9hE>



Image 36. Tomatokeftedes. Web Dimitra's dishes

Recipe: Lentil meatballs

Suggested by: Turkey

Youtube elaboration video:

<https://www.youtube.com/watch?v=UsPpCWNE54c>

Sources:

<https://www.youtube.com/watch?v=UsPpCWNE54c>

Image 37. Lentil meatballs. Nefis Yemek TarifleriYouTube.



Recipe: Cheshmi nigar soup

Suggested by: Turkey

Youtube elaboration video:

<https://www.youtube.com/watch?v=W1Q--PKb0o0>

Sources: <https://www.youtube.com/watch?v=W1Q--PKb0o0>

Image 38. Cheshmi nigar soup. Nefis Yemek Tarifleri YouTube.



Recipe: Hünkar beğendi

Suggested by: Turkey

Youtube elaboration video:

<https://www.youtube.com/watch?v=su1SxAXylh8>

Sources:

<https://www.youtube.com/watch?v=su1SxAXylh8>

Image 39. Hünkar beğendi. Feriğin elinden YouTube.



Recipe: Keshkek

Suggested by: Turkey

Youtube elaboration video:

<https://www.youtube.com/watch?v=C4yoFfbBK0Q>

Sources: <https://www.youtube.com/watch?v=C4yoFfbBK0Q>

Image 40. Keshkek. Meltem'in Mutfağı YouTube.



Recipe: Ratatouille

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=T3yV3yKgd30>

Sources: <https://www.recetasderechupete.com/ratatouille-pisto-de-verduras-a-la-francesa/12629/>

<https://www.youtube.com/watch?v=T3yV3yKgd30>

Image 41. Ratatouille. DeRechupete web.



Recipe: Creamed spinach

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=0CMw9zMdE54>

Sources: <https://thestayathomechef.com/creamed-spinach/>

<https://www.youtube.com/watch?v=0CMw9zMdE54>

Image 42. Creamed spinach. The Stay at home chef web.



Recipe: Spaghetti Bolognese

Suggested by: Spain

Youtube elaboration video: <https://www.youtube.com/watch?v=yShBC-G-jrQ>

Sources: <https://www.recipetineats.com/spaghetti-bolognese/>
<https://www.youtube.com/watch?v=yShBC-G-jrQ>



Image 43. Spaghetti Bolognese. Recipetineats Web.

Recipe: Green Beans and Potatoes

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=jmFx7GvLPGU>

Sources: <https://www.tasteofsouthern.com/southern-green-beans-and-potatoes/>

<https://www.youtube.com/watch?v=jmFx7GvLPGU>



Image 44. Green Beans and Potatoes. Taste of southern Web

Recipe: Pumpkin Puree

Suggested by: Spain

Youtube elaboration video: <https://youtu.be/LaPhvCJ4kt8>

Sources: <https://www.inspiredtaste.net/35527/easy-pumpkin-puree-recipe/> <https://youtu.be/LaPhvCJ4kt8>



Image 45. Pumpkin Puree. Taste of southern Web

Recipe: Cuban Rice

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=0cA5WFIVDtA>

Sources: <https://www.youtube.com/watch?v=0cA5WFIVDtA>



Image 46. Spanish Rice Recipe - Cuban Rice. La Cocina de Loli Dominguez

Recipe: Eggplant stuffed with fish

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=Vv33xrbsajw>

Sources:

<http://www.berenjenasrellenas.com/BerenjenasRellenas/BerenjenasRellenasDePescado/BerenjenasRellenasDePescado.html> <https://www.youtube.com/watch?v=Vv33xrbsajw>



Image 47. Eggplant stuffed with fish. Berenjenas Rellenas Web.

Recipe: Tenderloin with pepper sauce

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=rhoxubqYb1E>

Sources: <https://www.recetasderechupete.com/solomillo-a-la-pimienta/20815/>

<https://www.youtube.com/watch?v=rhoxubqYb1E>



Image 48. Tenderloin with pepper sauce. DeRechupete Web.

Recipe: Goat cheese toast on salad

Suggested by: Spain

Youtube elaboration video:

https://www.youtube.com/watch?v=sz5Rh-17f_s

Sources: <https://garlicdelight.com/chevre-chaud/#recipe>

https://www.youtube.com/watch?v=sz5Rh-17f_s



Image 49. Goat cheese toast on salad. Garlic delight web.

Recipe: Salmon with vegetables

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=wn8jr-FRUak>

Sources: <https://www.youtube.com/watch?v=wn8jr-FRUak>



Image 50. Salmon with vegetables. Daniella's Home Cooking web.

Recipe: Spanish omelete

Suggested by: Spain

Youtube elaboration video:

<https://www.youtube.com/watch?v=ah4YoilbRpc>

Sources: <https://tasty.co/recipe/spanish-omelet-tortilla-de-patata>

<https://www.youtube.com/watch?v=ah4YoilbRpc>



Image 51. Spanish omelet. Tasty web.

Recipe: Falafel

Suggested by: Turkey

Youtube elaboration video: <https://youtu.be/pQTMwDTtVDY>

Sources: <https://youtu.be/pQTMwDTtVDY>

<https://turkishstylecooking.com/falafel-recipe.html>



Image 52. Falafel. The Best Turkish Recipes Web.

Recipe: Silkė pataluose/ Herring in bedding

Suggested by: Lithuanian

Youtube elaboration video:

<https://www.youtube.com/watch?v=ket9tLszNCQ>

Sources: <https://www.youtube.com/watch?v=ket9tLszNCQ>

[https://www.delfi.lt/gyvenimas/archive/silke-](https://www.delfi.lt/gyvenimas/archive/silke-pataluose.d?id=69926120)

[pataluose.d?id=69926120](https://www.delfi.lt/gyvenimas/archive/silke-pataluose.d?id=69926120)



Image 53. Silkė pataluose. Skonių parkas Youtube.

Recipe: Trinta moliūgų sriuba/ Pureed pumpkin soup

Suggested by: Lithuanian

Youtube elaboration video:

https://www.youtube.com/watch?v=tjlurfpvl9k&ab_channel=BeDiet%C5%B3

Sources: https://www.youtube.com/watch?v=tjlurfpvl9k&ab_channel=BeDiet%C5%B3



Image 54. Pureed pumpkin soup. Be Dietų Youtube.

Recipe: Stuffed cabbage rolls (Balandeliai)

Suggested by: Lithuanian

Youtube elaboration video:

<https://www.youtube.com/watch?v=cV9JalH4aC4>

<https://www.youtube.com/watch?v=xPck6BXJPCl>

Sources: <https://www.thespruceeats.com/lithuanian-stuffed-cabbage-recipe-balandeliai-1136761>



Image 55. Balandeliai. The spruce Eats Web.

Recipe: Duonos, Serbentų ir grietinėlės desertas

Suggested by: Lithuanian

Youtube elaboration video:

https://www.youtube.com/watch?v=goPkvkzgLEY&ab_channel=Lietuvosvartotoj%C5%B3institutas

Sources: <https://kumutesvirtuve.lt/2015/10/24/duonos-serbentu-ir-grietineles-desertas/>

https://www.youtube.com/watch?v=goPkvkzgLEY&ab_channel=Lietuvosvartotoj%C5%B3institutas



Image 56. Duonos. Kumutes virtuve Web.

Recipe: Muhallebi

Suggested by: Turkey

Youtube elaboration video:

<https://www.youtube.com/watch?v=PcrycQyGstg>

Sources: <https://www.nefisyemektarifleri.com/en-kolay-muhallebi/>

Image 57. Muhallebi. Web nefis.



Recipe: Bougatsa / Phyllo Custard Pie

Suggested by: Greece

Youtube elaboration video:

<https://www.youtube.com/watch?v=6j5FOdWWzx8>

Sources:

<https://akispetretzikis.com/en/recipe/1237/grhgorh-mpoygatsa-glykia>

<https://www.youtube.com/watch?v=6j5FOdWWzx8>



Image 58. Bougatsa. Web akispetretzikis.com

Recipe: Rizogalo

Suggested by: Greece

Youtube elaboration video:

<https://www.youtube.com/watch?v=GmPrhNzfeOI>

Sources: <https://www.dimitrasdishes.com/rizogalo-greek-rice-pudding/>

<https://www.youtube.com/watch?v=GmPrhNzfeOI>

Image 59. Rizogalo. Web Dimitra's dishes



Recipe: Portokalopita / Orange cake

Suggested by: Greece

Youtube elaboration video:

<https://www.youtube.com/watch?v=B4b15yBDiFU&list=PLDNJ8jEkINrbzAemKvtiODFqKm2eanghW&index=26>

Sources:

<https://www.youtube.com/watch?v=B4b15yBDiFU&list=PLDNJ8jEkINrbzAemKvtiODFqKm2eanghW&index=26>

<https://www.nikkiglekas.com/post/orange-cake-portokalopita>

Image 60. Portokalopita. Web Nikki Glekas



3.5 Nutritional supplements

Nutritional supplements are products manufactured by the pharmaceutical industry. They are developed with the purpose of being administered to people with deficient nutritional needs.

Supplements for dysphagia's people are prescribed by a health professional only in those cases where there are chronic nutrient deficiencies, either due to insufficient intake through diet, interaction with drugs or other causes.



Figure 61. Examples of Oral nutritional supplementation (Source: designed by CADIS Huesca)



Figure 62. Examples of enteral nutritional supplementation (Source: designed by CADIS Huesca)

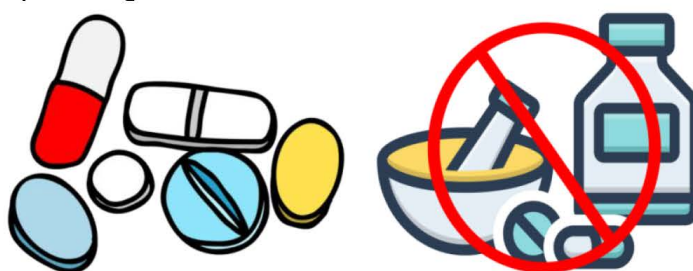
3.5.1 Pharmacological treatment in dysphagia


Pharmacological treatment, as with the ingestion of food and beverages, requires proper handling in the mouth and coordination during swallowing.

Texture adaptation drugs is not recommended because it could be interfering with their activity, producing an overdose or limiting their effect. It is always recommended to look for other presentations of the drug before handling it.


On many occasions, it is not possible to prepare magistral formulas with other forms due to the instability of the preparation, difficulty in finding the active ingredient, etc, so in these situations the package insert should be read or the pharmacist should be asked for the best way to adapt it.

Figures 63 and 64. Pill drawing
(Source: designed by Canva Pro)





Innovative tools for Diets oriented to Education and hEalth improvement in Dysphagia condition



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PHARMACOLOGICAL TREATMENT IN DYSPHAGIA

Drug treatment, like the ingestion of food and drink, requires correct handling in the mouth and coordination during swallowing.
The adaptation of the texture of drugs is not recommended because it could interfere with their activity, producing an overdose or limiting their effect.

The selection of the most appropriate dosage form should be made according to the type of dysphagia:


DYSPHAGIA TO SOLID MEAL

LIQUID FORMS
Oral solutions, syrups, drops, sachets for reconstitution and in some situations injectables that can be administered orally.

EFFERVESCENT TABLETS
They should be dissolved in little water (20 ml approx.). It is necessary to wait for the effervescence to disappear as it can be irritating and cause coughing, which is a risk during swallowing.



ORODISPERSIBLE TABLETS
They dissolve on contact with saliva and do not require the use of external liquids for dissolution.

SUBLINGUAL TABLETS
They should not be swallowed but allowed to dissolve under the tongue.



DYSPHAGIA TO LIQUIDS

Choice of medication in tablet or capsule form. They can be administered together with thickened liquids with the appropriate texture.

DYSPHAGIA TO LIQUID AND SOLID MEAL

The most important thing is to be informed about the pharmaceutical drug forms of administration and to choose the most appropriate one. Modification of its texture should be avoided. In case it is not possible, find out if it is possible to crush it without alteration.


Other tips to take into account...

- Semi-solid textures are recommended, depending on the person's abilities.
- The medicine should be included in the first spoonfuls of the meal.
- It is not recommended to be given with citrus juices or yoghurts.
- Gelatin and thickeners can be used.
- For very fluid medicines, it is recommended to dilute them first and then add a thickener.
- Laxatives should be thickened with a new generation thickener.
- Rectal route is a valid procedure to administer medication in suppositories or enemas.
- Transdermal dosage patches are also rapidly absorbed and are not recommended in case of skin problems.

NON-CRUSHABLE MEDICINES FORMS

- Delayed-release dosage forms
- Enteric-coated pharmaceutical forms
- Sublingual tablets

- Effervescent tablets
- Capsules with microspheres or microgranules
- Dragees



For more information: <https://indeed-project.org/>

Partners:












Figure 65. Infographic about pharmacological treatment in dysphagia (Source: designed by Canva Pro)

Infographics available for download on the training platform (<https://indeed-project.org/>)

Source:

<https://nutritionaustralia.org/fact-sheets/healthy-eating-pyramid/>
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