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Website: carefood.org.hk
Email: goodlife@hkcss.org.hk

Care Food Website

下載照護食
標準指引電子版本
（繁體中文）

下載照护食
标准指引电子版本
（简体中文）

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Guideline of Care Food Standard

The Hong Kong Council of Social Service

c2023/04

HKCSS 社聯

照護食 CareFood

The Hong Kong Council of Social Service (HKCSS)

The HKCSS is a statutory body established in 1947. Together with our Agency Members, we uphold social justice and equality in our mission to advance the well-being of the Hong Kong community. The HKCSS is committed to building an impact-oriented, collaborative, and innovative social service sector and co-creating a better society with stakeholders across different sectors. The HKCSS has over 510 Agency Members, with service units throughout Hong Kong, providing high-quality social services to those in need.

The HKCSS Care Food Working Group is dedicated to improving the quality of life for individuals with dysphagia (swallowing difficulties). Through organising diverse activities and enhancing public awareness of Care Food, the Working Group has launched the Care Food website (www.carefood.org.hk). This one-stop platform provides a professional and comprehensive interactive space with abundant information for individuals with dysphagia, caregivers, industry professionals, and those concerned about this issue. It aims to foster the development of a comprehensive Care Food ecosystem.

The Hong Kong Council of Social Service (HKCSS)

In order to further promote the adoption of Care Food, a comprehensive, unified, and localised Guideline of Care Food Standard has been officially established. Our strategic partners and sponsors, Kerry Group and ZeShan Foundation, have given us generous support and sponsorship for the introduction of this guideline. We also extend our heartfelt appreciation for the wholehearted support provided by the Chinese University of Hong Kong's Food Research Centre and the University of Hong Kong's Swallowing Research Laboratory, as they collaborated closely with us in the development of this guideline. Apart from the mentioned partners, we would like to express our sincere gratitude to industry associates and professionals from various sectors, as well as the selfless contributions and valuable sharings provided by patients and caregivers. All of these contributions have greatly supported the Care Food Initiative in this endeavour.

Foreword

Hong Kong has entered an ageing population phase. According to data from the Census and Statistics Department in 2022, it is estimated that by 2037, one out of every three individuals will be aged 65 or older. With this projection, the number of individuals with dysphagia (swallowing difficulties) due to ageing is expected to rise gradually. "Care Food" can meet the basic dietary needs of individuals with dysphagia, providing a comprehensive solution.

The development of local Care Food is still in its infancy, and relying solely on suppliers is insufficient to address the issue. The participation of various stakeholders in society is essential. Since 2017, the Hong Kong Council of Social Service (HKCSS) has been promoting Care Food, constructing the "Care Food Ecosystem" (see the following page). This initiative involves collaboration among the government, healthcare professionals, academic institutions, residential care homes, community caregiving service units, business sector, chefs, individuals with dysphagia, and caregivers to coordinate and facilitate the continuous development of Care Food.

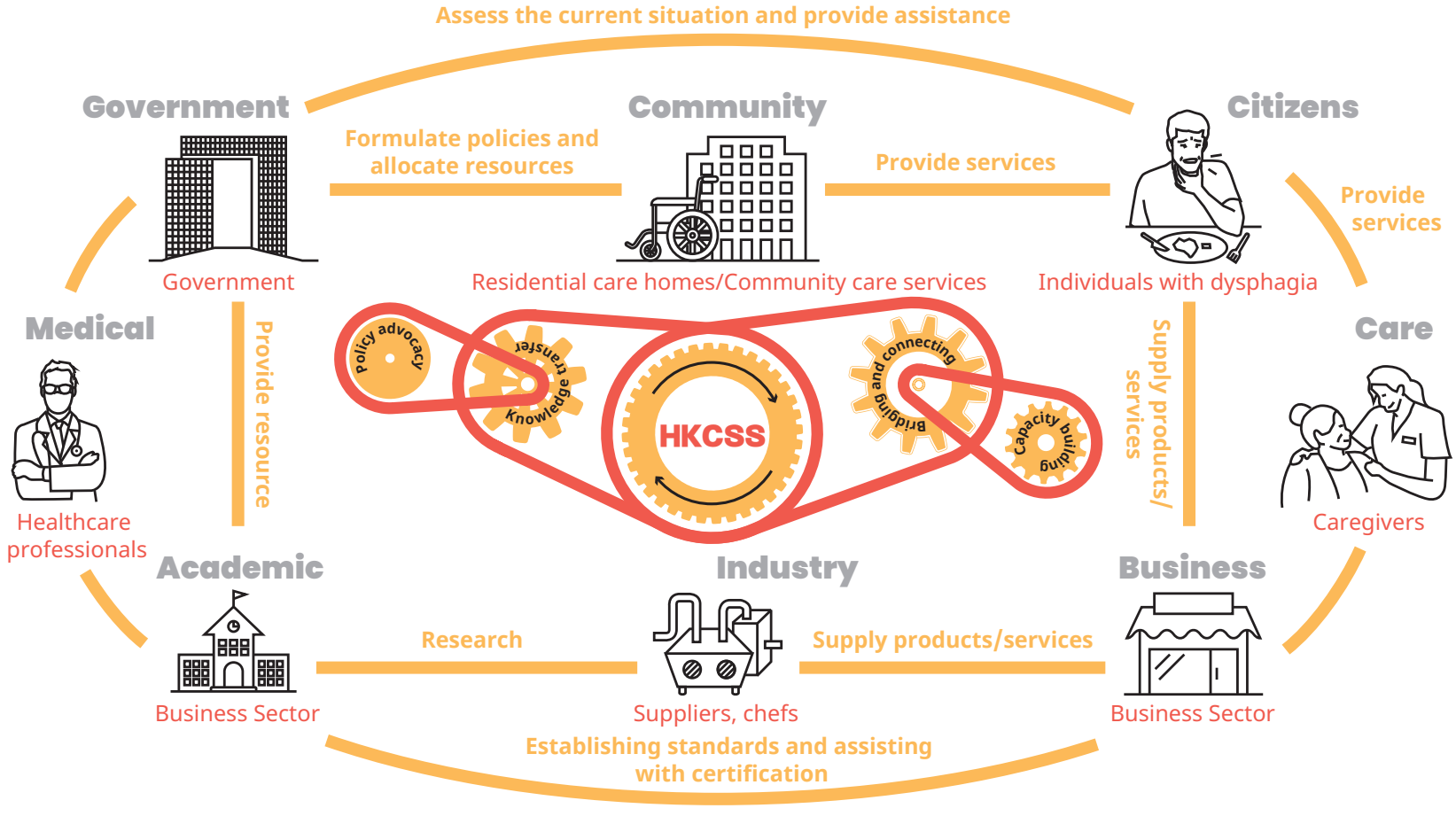
In 2019, HKCSS conducted a survey on the current usage and demands of Care Food. The findings revealed that both residential care homes and home caregivers desired clearer standards and guidelines, such as the hardness and nutrients of food, to assist in selecting appropriate Care Food. Additionally, over 60% of caregivers wished to improve the quality of food but lacked the necessary skills.

In response, HKCSS collaborated with the Chinese University of Hong Kong's Food Research Centre and the University of Hong Kong's Swallowing Research Laboratory. Adopting the International Dysphagia Diet Standardization Initiative (IDDSI) as a foundation and complemented by scientific data and locally applicable terminology, a unified, clear, and localized Guideline of Care Food Standard has been developed.

This guideline provides a reference for various sectors, including Care Food users, caregivers, therapists, residential care homes, and food manufacturers, in producing and purchasing Care Food products. On the caregiving front, this guideline equips users and caregivers with specific and practical information, aiding in the selection of appropriate Care Food products to improve and adapt to recovery situations. On the service front, food manufacturers can use this guideline as a reference to develop standardised Care Food products, thereby expanding the market and increasing the supply of Care Food products.

Through cross-industry collaboration, we aim to collectively build a Care Food ecosystem tailored to local needs.

Care Food Ecosystem



Acknowledgments: This Care Food Ecosystem was conceptualized by Mr. Alvin Yip and Mr. Malou Ko from the Care Food Initiative.

Preface

Eating is not merely a basic human need; the sensory experience of food, the joy of dining with loved ones, and the flavours that stimulate our senses all contribute to a deeper sense of pleasure and enjoyment. However, for individuals with dysphagia, achieving a satisfying meal can be a challenging endeavour.

Creating safe and delicious food that allows patients to regain the joy of eating with dignity and improves their quality of life lies at the heart of the Care Food initiative. The HKCSS aims to advance the development of Care Food. Since 2017, with collaborative efforts from stakeholders, the concept of Care Food has taken root in Hong Kong. The supply of products and services has become increasingly diverse, and public awareness of dysphagia has grown.

In this endeavour, international standards are adopted, combining with local industry expertise and experience to develop a unique and localised Guideline of Care Food Standard. We anticipate that this guideline will drive industry growth, expand supply, and empower the public with a better understanding of Care Food. Looking ahead, we will continue our efforts to connect various sectors and work together to bring Care Food into the community.

Mr. Chua Hoi Wai
Chief Executive of the Hong Kong Council of Social Service

The establishment of a Care Food ecosystem involves numerous stakeholders, including the government, healthcare professionals, academic institutions, residential care homes, community service units, suppliers and chefs, the business sector, individuals with dysphagia, and caregivers. Each stakeholder's role is interconnected. Promoting a new dietary culture and its associated standards within the community and addressing tangible social issues require a neutral facilitator such as the Care Food Team. This team bridges stakeholders, playing a coordinating and catalysing role to ensure that everyone comprehends the situation, understands the pros and cons, and ultimately embraces the concept. Only then will stakeholders be willing to invest time in acquiring problem-solving skills. With tangible results, the majority of their members might adopt a contributing approach as third parties, facilitating the growth of the ecosystem.

I believe that this guideline, orchestrated by the team combining academic insights and professional knowledge, will be a cornerstone that all stakeholders can support, propelling the continuous development of Care Food.

Professor Kevin Au
Care Food Task Force, Director of Centre for Family Business and Centre for Entrepreneurship of the Chinese University of Hong Kong

Definitions

The following definitions are commonly used in this guideline to help users better comprehend its content.

Terms	Description
Guideline	The Hong Kong Council of Social Service, in collaboration with the Chinese University of Hong Kong's Food Research Centre and the University of Hong Kong's Swallowing Research Laboratory, has developed a localised Guideline of Care Food Standard. This offers users and food manufacturers a unified framework for purchasing or producing appropriate Care Food.
Care Food	Refers to the adjustment of food shape, hardness, and drink thickness through various cooking and processing methods, tailored to meet the needs of individuals with varying degrees of swallowing and chewing difficulties.
Care Food Task Force	Comprising professionals from diverse fields, including academia, social services, business, and healthcare sectors, this task force is responsible for the development and implementation of the guideline.
Size	Refers to the food size during consumption.
Hardness	Describes the force needed to compress food during chewing.
Cohesiveness	Describes how well food retains its shape between the initial and subsequent chews.
Adhesiveness	Describes the extent to which food can stick together.
Viscosity	Describes the thickness of a liquid.

Care Food refers to the adjustment of food shape, hardness, and drink thickness through various cooking and processing methods, tailored to meet the needs of individuals with varying degrees of swallowing and chewing difficulties. The primary goal of Care Food is to provide individuals in need with a reassuring dining experience while retaining the food's colour, aroma, and taste, ensuring that they can consume meals with dignity.

The term Care Food embodies a range of meanings, aiming to enable individuals with dysphagia (swallowing difficulties) to enjoy satisfying meals within a framework of compassion and concern. Our organisation believes that Care Food encompasses more than just culinary skills and an understanding of different levels. It also involves cultivating a heart of compassion and truly comprehending the genuine needs of users. Through the act of preparing and savouring delightful food, connections between people are nurtured, allowing each user to rediscover the joy of eating.

照護食 CareFood

Background

According to a 2015 study conducted by the University of Hong Kong, approximately sixty percent of elderly residents in residential care homes suffer from varying degrees of dysphagia[1]. However, Hong Kong currently lacks a unified set of Care Food standards. Different institutions and suppliers in the market have varying criteria for the hardness of meals and the thickness of drinks, leaving patients and caregivers in confusion. While there are relevant overseas standards for reference, their application to commonly found local foods and dishes has yet to be systematically researched. This concern was highlighted in a 2019 survey by the HKCSS, where both residential care homes and individual caregivers expressed the importance of developing a localised, unified, and clearer set of Guideline of Care Food Standard[2].

Approximately sixty percent of elderly residents in residential care homes suffer from varying degrees of dysphagia. However, Hong Kong currently lacks a unified set of Care Food standards.

1 Foundation of the Guideline

The foundation of the guideline is based on referencing existing dysphagia diet standards in the market, including but not limited to the widely adopted standards of the International Dysphagia Diet Standardisation Initiative (IDDSI) and the Universal Design Food (UDF) from Japan. Building upon these foundations and incorporating a series of practical elements, specific guidelines are formulated to be applicable to various stakeholders.

2 Task Force

Promoting the development of Care Food requires collaborative efforts from individuals across various sectors of society. For instance, we need the expertise of speech therapists to assist in formulating the content of the guideline. We require food manufacturers to produce Care Food, and we rely on the elderly care and food service sectors to provide Care Food to users in the community. To facilitate this comprehensive effort, the HKCSS has assembled a “Task Force” comprising professionals from different sectors, including academia, social services, business, and healthcare. During the formulation of this guideline, the Task Force offered professional insights and guidance, contributing to a broader and more comprehensive perspective for the guideline.

Task Force member list:

Simply scan to view

Source:
1. The University of Hong Kong: Ageing in place: Safe swallowing in the frail elderly living in the community, August 25, 2015, https://bit.ly/3zdKVSA.
2. The Hong Kong Council of Social Service: "Survey on the Current Usage and Demand of Soft Meals (Care Meals) for the Elderly and Disabled Persons", December 12, 2019, https://bit.ly/40n9Oao.

3 Professional Research Teams

In order to develop this guideline, the organisation has established collaborative partnerships with the Chinese University of Hong Kong's Food Research Centre and the University of Hong Kong's Swallowing Research Laboratory to ensure that the Guideline of Care Food Standard is based on scientific data and validation. The Chinese University of Hong Kong's Food Research Centre primarily focuses on establishing laboratory testing models, conducting food testing, and providing insights and guidance from a food science perspective. The University of Hong Kong's Swallowing Research Laboratory primarily contributes insights and guidance related to Care Food standards, patient swallowing issues, and speech therapy perspectives.

The Chinese University of Hong Kong's Food Research Centre

"People attach paramount importance to food." Diet is an indispensable part of daily living, and food science is concerned with the study of food composition and nutrition, chemical and physical processes during cooking, handling and preservation methods, as well as food development. As such, food science is closely intertwined with our everyday lives. For the general public, mastering the art of cooking delicious and healthy food is of utmost importance. However, individuals with dysphagia are primarily concerned about food safety and product development. Food science and technology can be utilised to measure food texture and enhance various sensory attributes of food products. We employ instruments such as texture analysers and viscometers to objectively quantify the texture of food, building on the foundation of the International Dysphagia Diet Standardisation Initiative (IDDSI). By quantifying the standards that were previously described in words, both the industry and consumers can clearly distinguish between different levels of food. Additionally, through an understanding of ingredient properties, food science promotes the development of refined soft meals, allowing individuals with dysphagia to consume with dignity. Lastly, the field of food science is rapidly advancing, and it is our hope that soft meal guidelines will continue to improve worldwide. The diversification of soft meal development will offer more choices for individuals with dysphagia in the future.

Professor Kwan Hoi Shan, BBS, JP
Professor Emeritus
School of Life Sciences
The Chinese University of Hong Kong
Senior Research Fellow
Food Research Centre
The Chinese University of Hong Kong

Wong Man Chun
Project Coordination
Food Research Centre
The Chinese University of Hong Kong

The University of Hong Kong's Swallowing Research Laboratory

According to an online survey conducted by the University of Hong Kong's Swallowing Research Laboratory in 2021, the general public has a basic understanding of the issue of dysphagia. They generally comprehend that individuals with dysphagia face higher risks of choking, pneumonia, and malnutrition compared to the general population. The survey also revealed that there is insufficient awareness among the public about how to select food categories to achieve safe swallowing.

Speech therapists typically adjust the viscosity of drinks and the hardness, size, and texture of food to ensure the swallowing safety of individuals with dysphagia. Swallowing safety refers to the ability of food to safely pass through the oesophagus during eating without entering the airway. This specially prepared diet for individuals with dysphagia is referred to as Care Food. Previously, the general public had limited knowledge about Care Food, and different professionals used various terms and specifications to describe different categories of Care Food. Individuals with dysphagia and their caregivers often feel perplexed when preparing meals, especially caregivers who are concerned about whether the food they prepare meets the standards and is safe. In response to this, the University of Hong Kong's Swallowing Research Laboratory introduced the International Dysphagia Diet Standardisation Initiative (IDDSI) framework in Hong Kong and released the official Chinese version of IDDSI in September 2020. This Chinese version serves as a reference for the Guideline of Care Food Standard.

Through this promotional campaign, our goal is to enhance public awareness of swallowing safety and encourage the active engagement of all stakeholders involved in dysphagia. By working together, we aspire to create a wide range of diverse, safe, and professionally developed Care Food options that individuals with dysphagia can truly savour.

Dr. Karen Chan
Associate Professor and Director of Swallowing Research Laboratory - Faculty of Education,
The University of Hong Kong


Guideline

Guideline

Within the market, different institutions, residential care homes, and product suppliers adhere to distinct criteria and approaches concerning the dietary needs of individuals with dysphagia. The objective behind developing the Guideline of Care Food Standard is to integrate a cohesive set of standards that can be universally referred to within the industry.

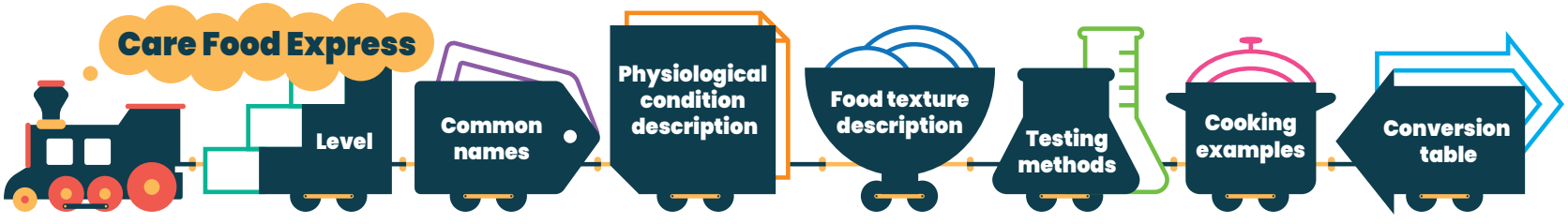
Drawing upon the International Dysphagia Diet Standardisation Initiative (IDDSI) as a foundation and incorporating diverse established Care Food methodologies to suit market demands, this guideline subjects food hardness and viscosity to testing. They encompass users' physiological condition descriptions and food consistency explanations. Additionally, the guidelines offer cooking illustrations and a standard level reference. All these elements converge to create a comprehensive, user-friendly, practical, and culturally tailored set of guidelines. This empowers users, caregivers, professionals, chefs, and producers to thoroughly evaluate options before putting them into practice.

This guideline is divided into the following sections: 1. Seven Key Elements, 2. Standard Level Reference, 3. Application Examples, 4. Care Food Labels, 5. Care Food Myths and Tips, and 6. Individual Assessment Tools. Each section has its own specific significance and reference points, making it easier for both the industry and individual users to understand.

Simply scan to view
The electronic version of Guideline of Care Food Standard Seven Key Elements

1 Seven Key Elements

The seven key elements are:



Level — Categorised into different levels based on the condition of food and drink

Common names — Named according to different levels

Physiological condition description — Describing the physiological conditions of individuals with varying degrees of dysphagia during eating

Food texture description — Describing the appearance, texture, and condition of food at different levels

Testing methods — **Individual user testing methods:** utilise simple and easy testing methods (such as forks, spoons, chopsticks, and syringes) to differentiate different levels based on the flow or textural characteristics of food and drink.

Testing Method for Manufacturers/Importers: distinguish various levels through predefined validation criteria and differentiate them based on data from food and drink of different flow or textural characteristics.

Cooking examples — Providing feasible cooking methods for different levels of food and drink

Conversion table — A standard level reference according to various Care Food standards for the convenience of the users

2 Standard Level Reference (for reference only)

There is a lack of standardised guidelines for the dietary needs of individuals with dysphagia in the market. Various institutions, residential care homes, and product suppliers have their own interpretations of texture standards for Care Food. Due to the differing standards across different sectors for hardness, viscosity, and thickness, there is a lack of effective communication among stakeholders. This guideline aims to provide users with references based on commonly used standards from different regions, including the International Dysphagia Diet Standardisation Initiative (IDDSI), the Universal Design Food (UDF) in Japan, the Taiwan Food and Drink Texture Preparation Guidelines Proposal, and the common names adopted by local medical standards. It should be noted that the levels of different standards may not align perfectly. The Japan UDF, for instance, only specifies food hardness and lacks clear indications for aspects such as size and viscosity. Given this context, when comparing against the UDF levels, this reference can only be used for comparing food hardness.

Guideline of Care Food Standard * The levels below are based on the International Dysphagia Diet Standardisation Initiative (IDDSI)	Common Standards / Applicable Regions			
	International Dysphagia Diet Standardisation Initiative (IDDSI)	Taiwan Food and Drink Texture Preparation Guidelines Proposal	Common Names in Medical Standard	Universal Design Food (UDF) *using hardness as reference standard
	International	Taiwan	Hong Kong	Japan
Level 7  Regular Food		-	Regular Meal	-
Level 7EC  Easy to Chew Food		• **Level 7:** Easy to chew regular food • Food hardness: <5×10^5	Soft Meal Shredded Meal Minced Meal Minced Congee Meal Smooth & Soft Meal Puree Rice Meal Puree Congee Meal	• **Level 1:** Easy to chew • Food hardness: <5×10^5
Level 6  Soft & bite-sized Food		• **Level 6:** Soft food squashable with gum • Food hardness: <5×10^4		• **Level 2:** Can be squashed with gum • Food hardness: <5×10^4
Level 5  Minced & moist Food		• **Level 5:** Soft food squashable with tongue • Food hardness: <2×10^4		• **Level 3:** Can be squashed with tongue • Food hardness: <2×10^4

Guideline of Care Food Standard * The levels below are based on the International Dysphagia Diet Standardisation Initiative (IDDSI)	Common Standards / Applicable Regions			
	International Dysphagia Diet Standardisation Initiative (IDDSI)	Taiwan Food and Drink Texture Preparation Guidelines Proposal	Common Names in Medical Standard	Universal Design Food (UDF)
	International	Taiwan	Hong Kong	Japan
Level 4 —  Pureed Food		• **Level 4:** Chewing not required for puree • Food hardness: <5×10³	Full Puree Meal (for reference only, full pureed meal approximates the texture level of pureed)	• **Level 4:** Chewing not required • Food hardness: <5×10³
 Extremely thick Drink		• **Level 4:** Homogeneous puree	Extremely thick	
Level 3 —  Liquidised Food		-	-	-
 Moderately thick Drink		• **Level 3:** Highly thick liquids	Moderately thick	
Level 2 —  Mildly thick Drink		• **Level 2:** Slightly thick liquids	Mildly thick	
Level 1 —  Slightly thick Drink		• **Level 1:** Thin liquids	Slightly thick	-
Level 0 —  Thin Drink		-	Thin	-

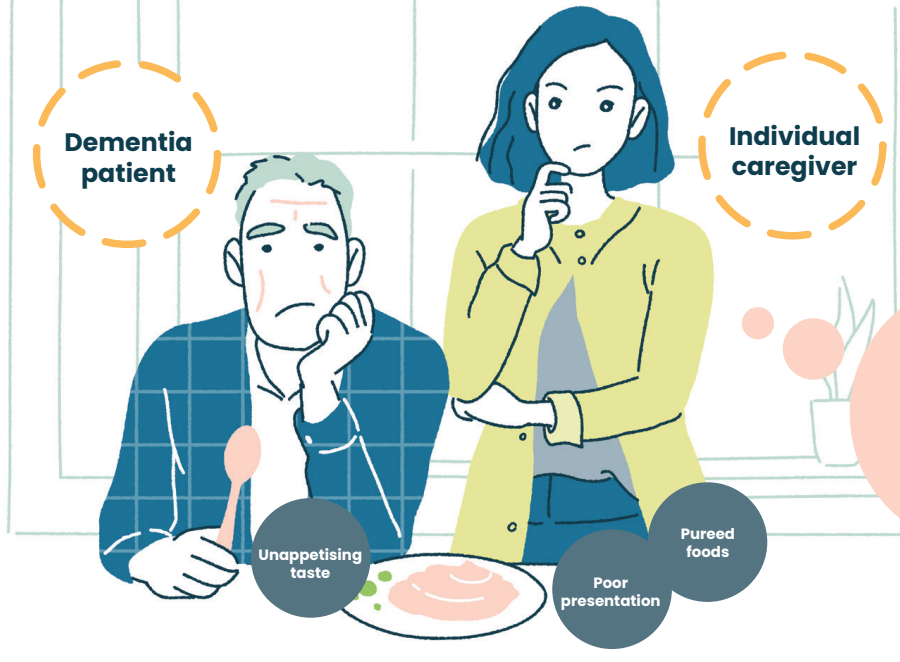
Reference: CUHK. "Evaluation of Textural Properties of Solid and Semi-Solid Food of Different IDDSI Levels in Terms of Hardness, Cohesiveness and Adhesiveness Using Texture Profile Analysis." 2021, p. 51.

3 Application Examples

Case 1: Individual Caregiver

Ms. Ho, 28 years old

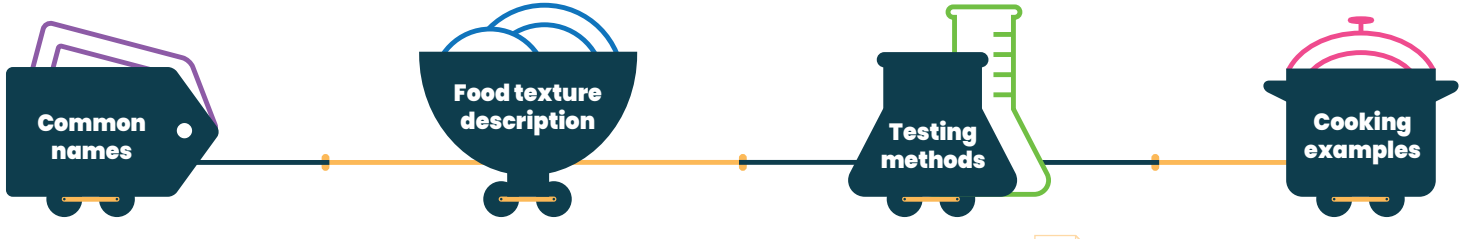
- Lives with her grandfather who recently diagnosed with dementia
- Grandfather diagnosed by a speech therapist as needing pureed foods



Ever since her grandfather was diagnosed with dementia, he can't even swallow his favourite dish sweet and sour pork. I've been blending the purees for him, but he doesn't want to eat them, leading to malnutrition and causing great concern for the whole family...

Ms. Ho's needs

- Is there a clear level classification to refer to before purchasing pre-packaged foods?
- At what point is the food cooked to be safely swallowed?
- Can the hardness and viscosity of the food be tested at home?
- Are there cooking examples to refer to when lacking cooking experience?



Application of Guideline of Care Food Standard

Case 2:
Care Food Products Manufacturer

Mr. Cheung, 35 years old

- Need to test if their own products are suitable for individuals with varying degrees of dysphagia

The company has recently developed two pre-packed Care Food products. Before introducing them to the market, how can we test whether they are suitable for individuals with varying degrees of dysphagia?

And how do we label the levels?

Mr. Cheung's needs

Which levels do my products belong to?

Are there easily recognisable names on the products?

What testing methods hould I use to test my products?

Application of Guideline of Care Food Standard

Case 3:
Therapist at Elderly Care Facility

Ms. Lam, 48 years old

- At her work in the elderly care facility, some of the residents suffer from dysphagia

Therapist at elderly care facility

There are elderly residents in the facility who have dysphagia, but our understanding of preparing Care Food is limited. Are there any pre-packed Care Food available for purchase?

In the long run, we are considering enhancing the knowledge of our colleagues in caregiving.

Ms. Lam's needs

- Which levels are suitable for different residents?
- Do the pre-packaged Care Food products have easy-to-remember labels?
- How can my colleagues determine the suitability of our residents' physiological conditions when preparing Care Food or providing care?
- Do our chefs need example references when preparing care food?
- How can we cross-reference different standards for comparison?

Application of Guideline of Care Food Standard

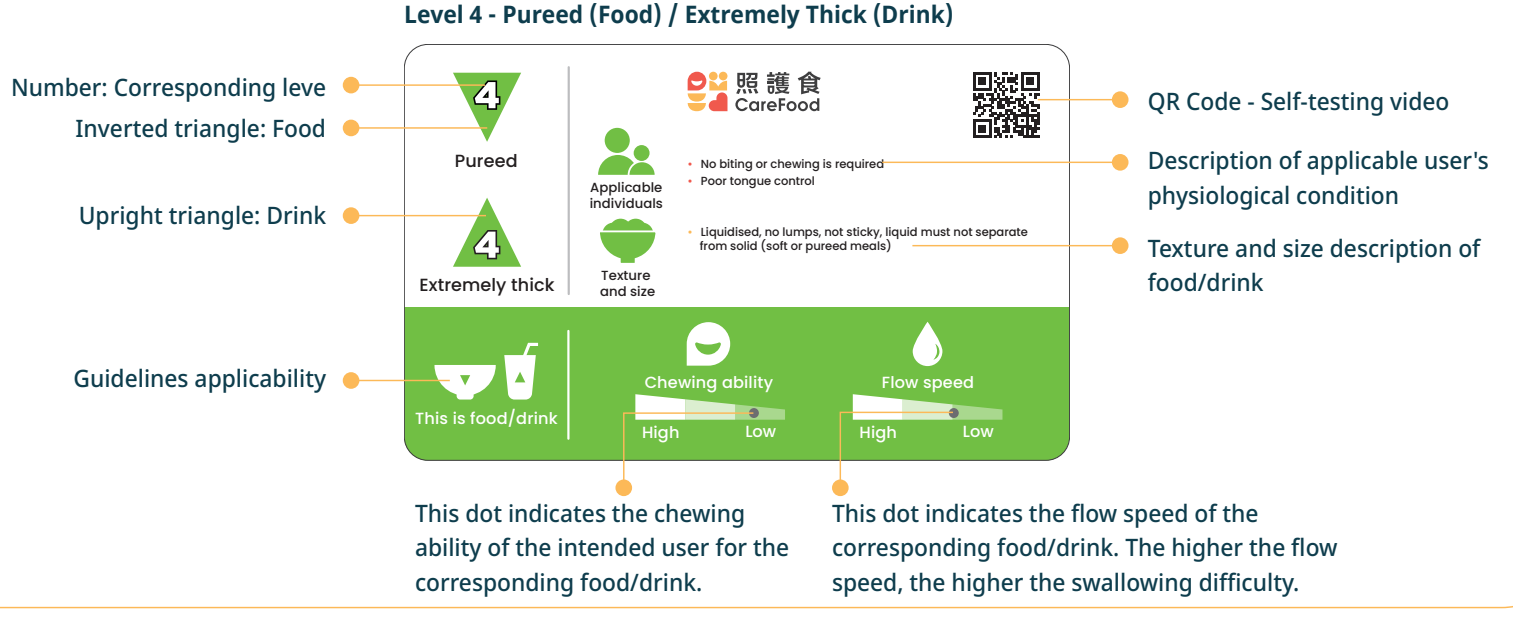
4 Care Food Labels

Simple and clear illustrations enhance users' understanding of Care Food levels. The Care Food labels have been further developed in accordance with the International Dysphagia Diet Standardisation Initiative (IDDSI). By referring to the Care Food illustrations, users can quickly understand the level of a food or drink, immediately grasping the specific physiological needs of the intended individuals, including details such as texture, flow rate, and portion size of the food or drink. Users have the flexibility to select suitable products based on their individual chewing abilities and preferences.

There are a total of nine Care Food labels, corresponding to International Dysphagia Diet Standardisation Initiative (IDDSI) levels 0 to 7. Labels of different levels are shown in different colours, making them easily recognisable for users. Among these, Level 3 and Level 4 labels are both applicable to both foods and drinks. Illustrations for both foods and drinks will be displayed on the labels.

Illustrations of Care Food Labels

The following example illustrate the different components of a Care Food label, helping users in understanding how to interpret the labels.

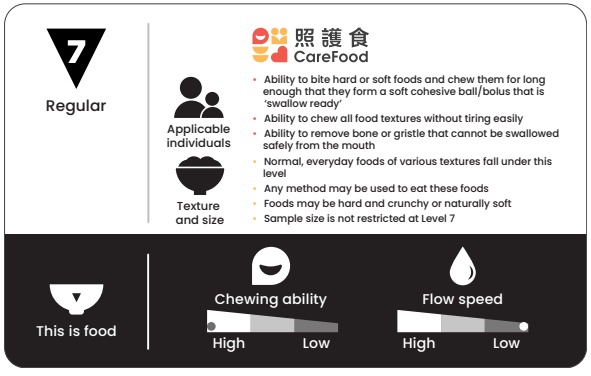


Note:
Certain ingredients, such as pumpkin and carrot, can serve as both foods and drinks. As a result, both inverted and upright triangles may appear on the same ingredient.

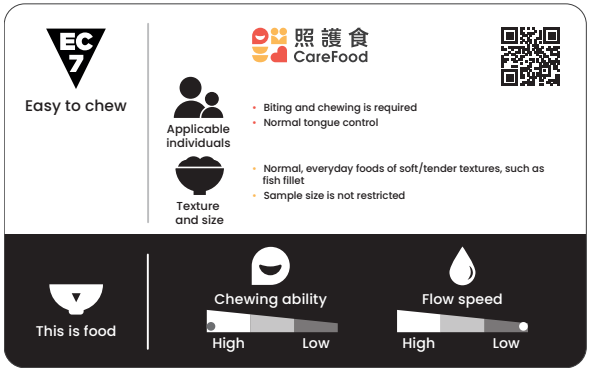
Simply scan to view
International Dysphagia Diet Standardisation Initiative - Complete IDDSI Framework detailed definitions 2.0 | 2019

Care Food Labels

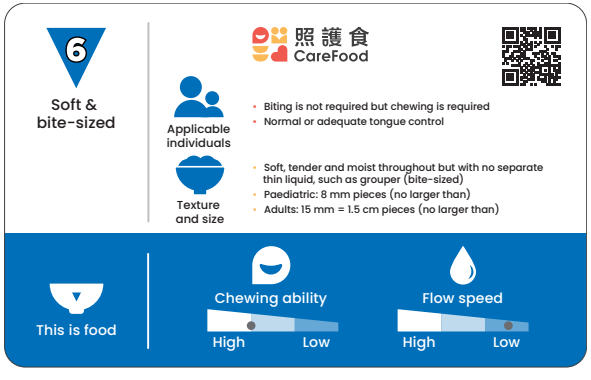
Level 7



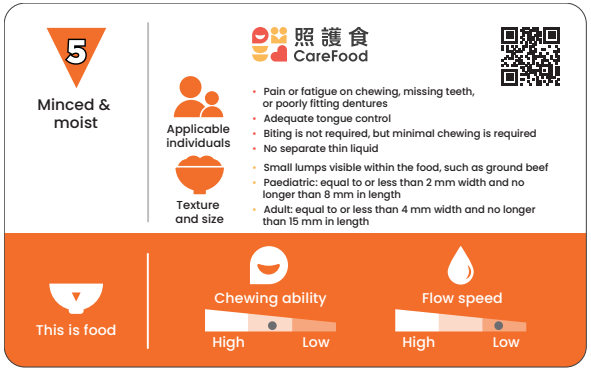
Level 7EC



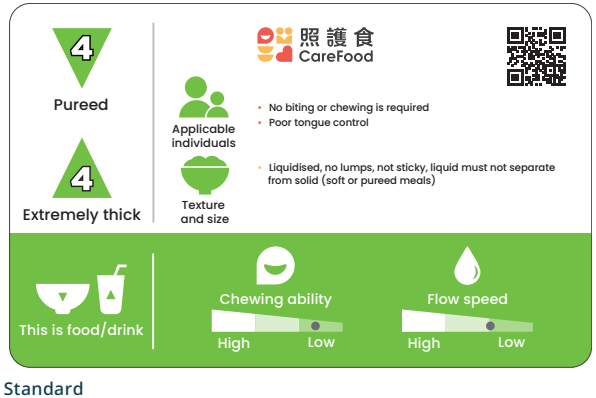
Level 6



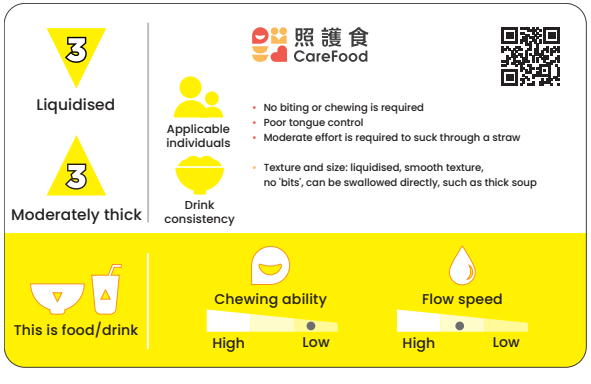
Level 5



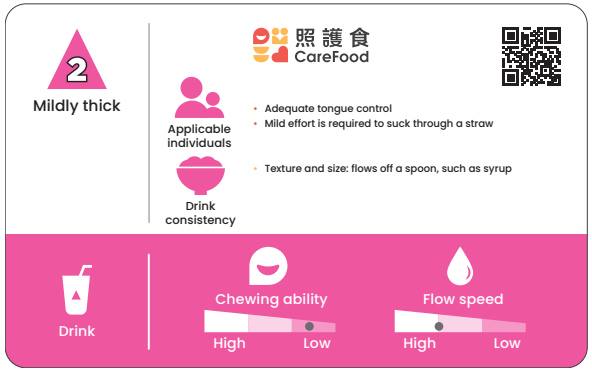
Level 4



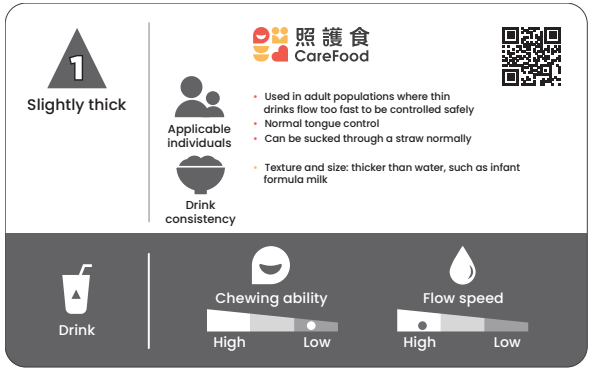
Level 3



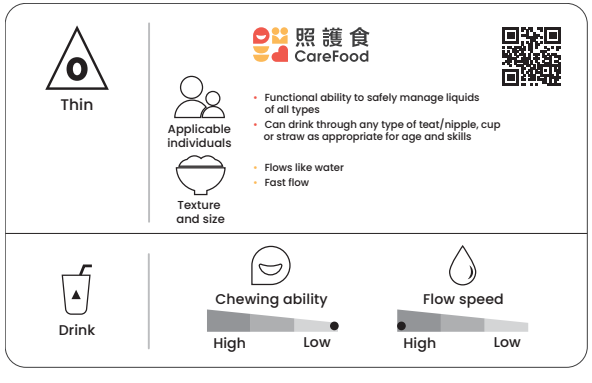
Level 2



Level 1



Level 0



Care Food labels utilise simple and clear illustrations to enhance users' understanding of Care Food levels.

Simply scan to view
Care Food Labels

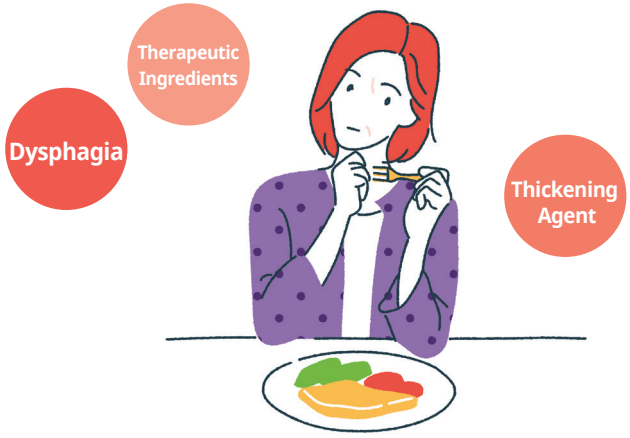
5 Care Food Myths and Tips

Myths1 ▸ **Does swallowing difficulty occur when one becomes older?**

Answer ▸ No. The swallowing ability of the elderly gradually weakens with age and declining physical functions, but reduced ability doesn't necessarily mean a barrier. Some older individuals can continue eating regular foods as usual by simply eating slowly and being cautious. Additionally, lifestyle habits play a role in swallowing ability, and factors such as cognitive impairment, head and neck cancer, stroke, and other chronic conditions can lead to swallowing difficulties. As conditions such as stroke become more common among younger individuals, even younger patients might experience swallowing issues.

Myths2 ▸ **Does Care Food contain therapeutic ingredients?**

Answer ▸ Consuming appropriate levels of Care Food can help patients maintain basic chewing and swallowing functions, but eating a lot of soft food doesn't necessarily cure dysphagia. In fact, even when patients consume Care Food, there's still a risk of choking. Therefore, speech and swallowing training are equally important.



Myths3 ▸ **Is it necessary to add thickening powder to all foods, and the more you add, the better?**

Answer ▸ Absolutely avoid adding thickening powder haphazardly to food or water. Many people believe that making liquids and foods thicker makes them safer, but making them excessively thick can actually increase the risk of choking for patients. It can also cause patients to refuse food, especially liquids, which can lead to dehydration. We shouldn't universally require patients to consume only foods with added thickening powder. Sometimes, changing the patient's eating posture or adjusting portion sizes can also help ensure safe swallowing.

Tip for caregivers:
Learn first aid!

Caregivers need to pay extra attention to the dietary needs of individuals with dysphagia (swallowing difficulties), engage them in rehabilitation training, and consider learning first aid, especially mastering cardiopulmonary resuscitation (CPR) and choking rescue methods. This is because these individuals have a higher risk of choking, and being equipped with first aid knowledge can be a lifesaver.

Source: The Hong Kong Council of Social Service: "言語治療勿忽略." Scenario Issue, 24 February 2022, page 9, https://bit.ly/42MzVcj

6 Individual Assessment Tool

The guideline incorporates a dietary assessment tool, the Eating Assessment Tool (EAT-10), to enhance users' understanding of their own swallowing abilities. This tool evaluates swallowing abilities through 10 eating-related questions, and the content serves as preliminary assessment recommendations and is for reference only. If users have difficulties eating, particularly in cases involving conditions such as pneumonia or coughing, or if they are unsure about choosing the appropriate drink level, they should seek advice from professionals. It is advisable to consume appropriate meals according to the recommendations provided by professionals.

Eating Assessment Tool (EAT-10)

To what extent do you experience the following problems?	No problem				Severe problem
1. My swallowing problem has caused me to lose weight.	0	1	2	3	4
2. My swallowing problem interferes with my ability to go out for meals.	0	1	2	3	4
3. Swallowing liquids takes extra effort.	0	1	2	3	4
4. Swallowing solids takes extra effort.	0	1	2	3	4
5. Swallowing pills takes extra effort.	0	1	2	3	4
6. Swallowing is painful.	0	1	2	3	4
7. The pleasure of eating is affected by my swallowing.	0	1	2	3	4
8. When I swallow food sticks in my throat.	0	1	2	3	4
9. I cough when I eat.	0	1	2	3	4
10. Swallowing is stressful.	0	1	2	3	4

Total score

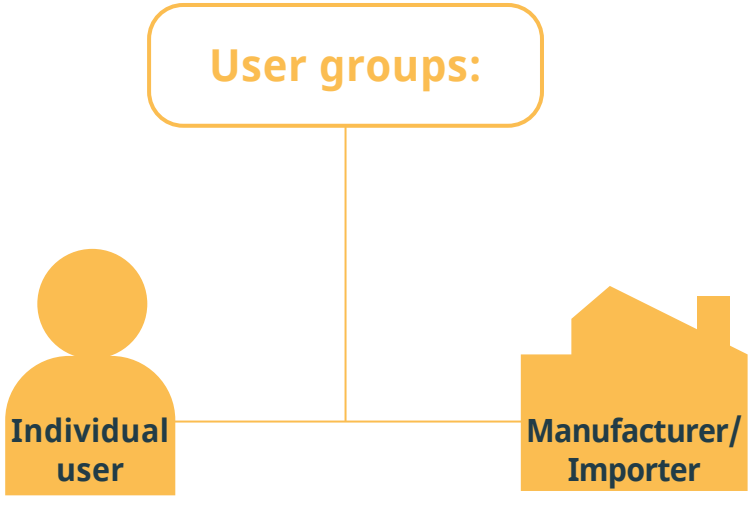
Result Analysis If the total score is 3 or higher, swallowing difficulties may be present. It is recommended to contact a speech therapist or relevant healthcare professionals for further assessment.

Source: Belafsky, Peter C., et al. "Validity and Reliability of the Eating Assessment Tool (EAT-10)." Annals of Otology, Rhinology & Laryngology, vol. 117, no. 12, Dec. 2008, pp. 919–24, https://doi.org/10.1177/000348940811701210.


Testing
Methods

Testing Methods

The Guideline of Care Food Standard combine the characteristics of different mainstream standards and adapt them to the local context. They also take into consideration the diverse needs of various users, such as individual users and institutional users. For example, individual users and residential care homes may prioritize simple, convenient, and direct testing methods for Care Food to address their daily meal arrangements. On the other hand, food manufacturer and suppliers, who primarily focus on bulk production, must ensure rigorous and standardised testing of their products while balancing cost and efficiency. With these user categories in mind, the Guideline of Care Food Standard propose two sets of testing approaches for reference

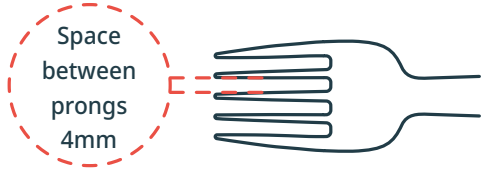


1 Individual Users Testing Methods

This method emphasizes simple and convenient ways for users to test the levels of Care Food. The commonly used tools include forks and spoons. Other testing methods such as chopsticks and finger tests are detailed in the IDDSI guidelines (website: https://iddsi.org/Testing-Methods).

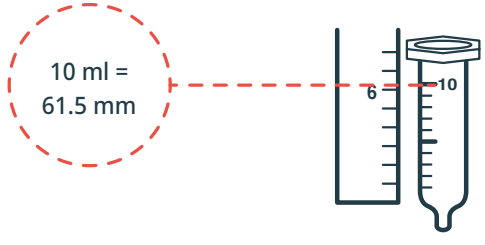
Tools needed for food testing:

- one fork (with prongs spaced 4 mm apart)
- one spoon (western-style metal spoon)

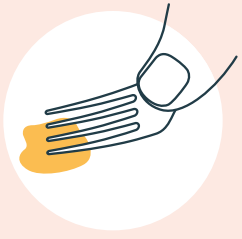
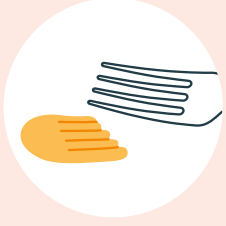
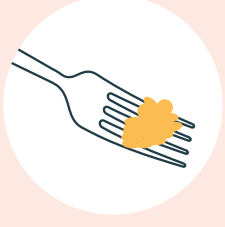
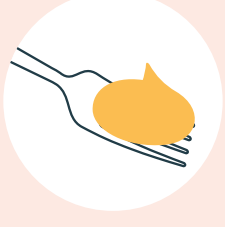


Tools needed for drink testing:

- a syringe (the length of 10 ml scale must be 61.5 mm)



1.1 Food Test

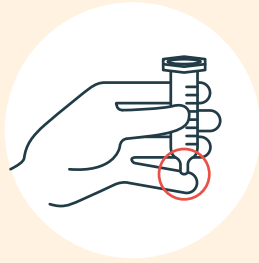
Level	Texture				
EC 7			Pressure from a fork held on its side can be used to 'cut' or break apart or flake this texture into smaller pieces		When a sample the size of a thumb nail is pressed with the tines of a fork to a pressure where the thumb nail blanches to white, the sample squashes, breaks apart, changes shape.  Does not return to its original shape when the fork is removed.
6			Pressure from a fork held on its side can be used to 'cut' or break apart or flake this texture into smaller pieces. When a sample the size of a thumb nail is pressed with the tines of a fork to a pressure where the thumb nail blanches to white, the sample squashes and changes shape.		Does not return to its original shape when the fork is removed.
5			When pressed with a fork the particles should easily be separated between and come through the tines/prongs of a fork, and can be easily mashed with little pressure from a fork. Adult: 4 mm Paediatric: 2 mm		A full spoonful must slide/pour off/ fall off the spoon if the spoon is tilted, with very little food left on the spoon.
4			Sample sits in a mound/pile above the fork; a small amount may flow through and form a short tail below the fork tines/prongs, but it does not flow or drip continuously through the prongs of a fork.		A full spoonful of pureed must slide/pour off/fall off the spoon if the spoon is tilted, with very little food left on the spoon.

Source: The above examples are based on IDDSI Fork Pressure test / IDDSI Fork Drip test / IDDSI Spoon Pressure test. For other testing methods, please refer to the IDDSI website: http://iddsi.org/testing-methods

1.2 Drink Test

- Remove plunger
- Cover nozzle with finger and fill 10 ml
- Release nozzle & start timer
- Stop at 10 seconds, cover nozzle with finger to stop the liquid flow, and measure remaining amount inside syringe to analyse its level

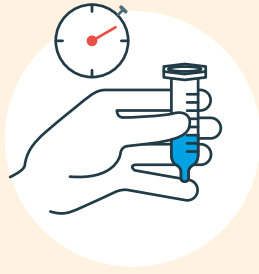
Level	The remaining amount inside syringe at 10 seconds
0	Less than 1 ml
1	1 - 4 ml
2	4 - 8 ml
3	> 8 ml
4	Not applicable



Remove plunger

Cover nozzle with finger and fill 10 ml

Release nozzle & start timer



Stop at 10 seconds, cover nozzle with finger to stop the liquid flow, and measure remaining amount inside syringe to analyse its level

Source: The above examples are based on IDDSI Flow Test. For other testing methods, please refer to the IDDSI website: http://iddsi.org/testing-methods

1.3 Individual Users Testing Points to Note

Testing and preparation methods

- The testing standards for all food levels are based on the consistency of the food during consumption The level of a ready-made dish is determined by the ingredient with the highest level (i.e., the firmest). For example, in the dish Beef and Tomato, the beef is level 6, while the tomato is level 4. The overall dish is assessed based on the highest level, which is level 6.

Food categorisation method:

- Certain foods with high starch content, such as potatoes and sweet potatoes, have higher viscosity compared to other ingredients, making them less suitable for individuals with dysphagia. The presence of lumps is the primary distinction between levels 4 and 5. Food preparation methods, such as blending, can make food soft and smooth, while enzymes can break down food proteins into smaller or lump-free forms, typically suitable for level 4 soft meal.
- Oranges and other juicy fruits pose challenges in reaching level 5 due to their thin consistency of juice.

Users

- Users can easily prepare food to level 5 using traditional blending, creating minced and moist foods (pay attention to whether there is an excess of water or excessive viscosity).
- In various Care Food cooking methods, using traditional cooking, and blending techniques or soft meals prepared with thickeners can also meet the level 5 standard.
- All dishes should be checked before consumption to determine their suitability for users. For instance, ready-made Sweet and Sour Pork may not easily reach level 6 (due to the difficulty of softening the fried outer layer), but it can be prepared into level 5 minced and moist food through methods such as chopping or blending.
- Soft meals prepared with thickeners may have a lower nutritional density due to dilution compared to pureed meals.

2 Manufacturer / Importer Testing Methods

This method emphasises rigorous and standardised laboratory testing procedures, using specific instruments to test food and drinks, acquiring scientific data for reference. The collected data from food and drink testing will be compared against the IDDSI standards to determine their levels. Drawing from the Japan experience, large-scale production often relies on data obtained from laboratory tests as a basis for product categorisation.

This guideline experimentally tested 62 examples, including 45 common local ingredients and 17 dishes. Due to the limited number of samples, the presented testing methods and values are for reference only. Actual conditions may be influenced by factors such as the type of ingredients, food temperature, cooking methods, tools, and environment.

2.1 Solid Food Parameters:

2.1.1 Size (Maximum)

Food size primarily measures the state of food during consumption, which relates to the remaining swallowing and oral processing abilities of patients. For example, level 6 specifies that food size should not exceed 1.5 cm, based on the approximate diameter of an adult's oesophagus. Food with a size of 1.5 cm or less can pass through the oesophagus relatively easily.

2.1.2 Hardness (N/m2)

Describing the force required to compress food during chewing, a higher hardness value indicates greater food hardness and more difficult chewing. Shredded, minced, or soft foods tend to have relatively lower hardness, while pureed foods have even lower hardness. This guideline defines hardness within different level ranges.

2.1.3 Cohesiveness

Describing the extent to which food maintains its shape between the first and second chew, this reflects the food's ability to adhere and stick together. Foods with higher cohesiveness tend to stick together more easily even after chewing. Selecting suitable foods for individuals with dysphagia is crucial, as extreme levels of cohesiveness that are either too high or too low are not ideal for them. The cohesiveness value ranges from 0 to 1, and a cohesiveness value closer to 1 indicates that the food retains its original structure better after compression, while a lower value suggests a more loose food structure.

2.1.4 Adhesiveness (g•sec)

Describing the degree of food's adhesive properties, foods with high adhesiveness tend to stick more easily to the mouth, throat, and oesophagus. A higher adhesiveness value (closer to 0) indicates lower adhesive capability, while a lower value indicates higher adhesive capability.

This guideline categorises the numerical values of solid food's cohesiveness and adhesiveness into high, medium, and low. Different combinations of cohesiveness and adhesiveness levels will affect whether the viscosity of the food is suitable for users.

High, Medium, and Low Level of Cohesiveness and Adhesiveness Combination

	High	Medium	Low
Cohesiveness	0.8 - 1	0.1 - 0.8	0 - 0.1
Adhesiveness (g•sec)	< (-55)	(-55) - (-25)	(-25) - 0

Cohesiveness and Adhesiveness Combination with Food Viscosity Assessment Table

Cohesiveness	Adhesiveness (g•sec)	Assessment	Result
High	High	Sticky	Not applicable
High	Medium	Sticky	Not applicable
High	Low	Not sticky	Preliminarily suitable, should be re-verified using IDDSI testing methods
Medium	High	Not sure	Not sure, should be re-verified using IDDSI testing methods
Medium	Medium	Not sticky	Preliminarily suitable, should be re-verified using IDDSI testing methods
Medium	Low	Not sticky	
Low	High	Not sticky	
Low	Medium	Not sticky	
Low	Low	Not sticky	

Source: CUHK. "Comparison of cohesiveness and adhesiveness of sticky and non-sticky food ingredients." 2021, p. 8.

2.2 Liquid Drink Parameters:

2.2.1 Viscosity (cP)

Describing the thickness of liquids, this concerns the ability of the liquid to create friction and resistance during the swallowing process. This guideline calculates the viscosity of liquid drink to determine their levels. Currently, there are generally two types of thickening agents on the market: starch-based and xanthan gum-based. For individuals with dysphagia and caregivers, different types of thickened liquids created with various thickening agents require different indicators to measure their viscosity. In general, higher viscosity values indicate greater friction and resistance to flow during swallowing.

Viscosity Value and Level Table

Level	Viscosity (cP)		Level	Viscosity (cP)	
	Starch	Xanthan Gum		Starch	Xanthan Gum
4 (Pureed/extremely thick)	>1355	>500	3 (Liquidised/moderately thick)	255 - 1355	230 - 500
2 (Mildly thick)	105 - 255	100 - 230	1 (Slightly thick)	40 - 105	30 - 100
0 (Thin)	<40	<30			

2.3 Tables

Each food and drink must meet the specified data indicators in the table below to be considered compliant with the testing requirements of that level. Taking level 5 as an example, its hardness must reach <2×104 N/m², and the size during consumption should be "Children: 2 mm wide, not exceeding 8 mm; Adults: 4 mm wide, not exceeding 15 mm" and the texture of the food should not be sticky, etc. It is recommended to perform a dual verification by applying the testing methods recommended by IDDSI even if the specified testing requirements of that level are met.

Food level	Hardness (N/m^2)	Size	Cohesiveness	Adhesiveness (g•sec)	Viscosity (Starch) (cP)	Viscosity (Xanthan Gum) (cP)
7EC	$<5 \times 10^5$	No limit	Refer to cohesiveness and adhesiveness combination with food viscosity assessment table		Not applicable	
6	$<5 \times 10^4$	Paediatric: 8mm pieces (no larger than) Adult: 15 mm = 1.5 cm pieces (no larger than)				
5	$<2 \times 10^4$	Paediatric: equal to or less than 2 mm width and no longer than 8 mm in length Adult: equal to or less than 4 mm width and no longer than 15 mm in length				
4	$<5 \times 10^3$	No lumps			>1355	>500
3	Not applicable	No lumps	Not applicable		255 - 1355	230 - 500
2		No lumps			105 - 255	100 - 230
1		No lumps			40 - 105	30 - 100

Source: CUHK. “Determine viscosity range of thickened drinks: starch-based thickener versus polysaccharide gum-based thickener.” 2021, p. 2.

High, Medium, and Low Level of Cohesiveness and Adhesiveness Combination

	High	Medium	Low
Cohesiveness	0.8 - 1	0.1 - 0.8	0 - 0.1
Adhesiveness (g•sec)	< (-55)	(-55) - (-25)	(-25) - 0

Cohesiveness and Adhesiveness Combination with Food Viscosity Assessment Table

Cohesiveness	Adhesiveness (g•sec)	Assessment	Result
High	High	Sticky	Not applicable
High	Medium	Sticky	Not applicable
High	Low	Not sticky	Preliminarily suitable, should be re-verified using IDDSI testing methods
Medium	High	Not sure	Not sure, should be re-verified using IDDSI testing methods
Medium	Medium	Sticky	Preliminarily suitable, should be re-verified
Medium	Low	Sticky	
Low	High	Sticky	
Low	Medium	Sticky	
Low	Low	Sticky	

2.4 Equipment Used for Testing in this Guideline

Testing Solid Food

Using the TA.XTplus Texture Analyzer (Stable Micro Systems), samples' hardness, cohesiveness, and adhesiveness are determined through Texture Profile Analysis (TPA). Each sample is placed into a container with a diameter of 40 mm, filled to a height of 15 mm. A cylindrical probe with a diameter of 20 mm (P/20) is employed, exerting two compressions on the sample at a speed of 10 mm/sec with a 5 mm gap between compressions. This simulates the chewing process in the oral cavity. The texture analyser records the force response of the sample during compression, generating texture analysis curves.

Testing Drink

Using the Brookfield DV2TRV Viscometer (Brookfield Engineering Laboratories, Inc.), viscosity of drinks is measured using the rotational viscosity measurement method. Based on the viscosity range of the test sample, an appropriate spindle is chosen to rotate the drink in the sample container at a shear rate of 50 s-1 (simulating the shear rate during swallowing). The viscometer calculates the sample's viscosity by measuring the resistance generated between the spindle and the sample. Viscosity measurements are conducted at room temperature and reported in centipoise (cP).

Conditions for Testing in this Guideline

- Food science and technology testing equipment:
  Food testing: texture analyser
  Drink testing: visometer
- The test values for each food ingredient and dish are obtained at room temperature (22˚C - 26˚C).
- Shear Rate for drink testing: 50s-1
- The average test values for each type of food are obtained from testing 4 samples.
- The average testing values for each type of drink are obtained from testing three samples (each sample tested twice).
- For conducting testing, in addition to the parameters shown in the examples, factors such as food size and texture need to be considered for possible over-adhesiveness.
- The testing values for each ingredient and dish are averaged. After conducting testing, refer to sections 2.1-2.3 of the section Testing Methods for the mentioned range for reference.

Points to Note for Testing in this Guideline

- If the Care Food product requires heating before consumption, the laboratory will heat it according to the heating instructions on the packaging before conducting the testing. If there are multiple heating methods mentioned on the packaging, the laboratory will randomly select one of the methods for heating.
- If the product packaging specifies a recommended temperature range for consumption, the laboratory will test at the lowest temperature within the recommended range. If no temperature is indicated, the testing is generally conducted at room temperature, i.e., 22°C - 26°C.
- In general, testing is performed on a minimum of three samples to obtain average values.

2.5 Collaborating Laboratory for this Guideline

Food Research Centre, The Chinese University of Hong Kong
The Chinese University of Hong Kong, Shatin, New Territories
Room 06, G/F, Science Centre East Block
Tel: 3943 1123
Fax: 2634 8981

If you wish to become a collaborating laboratory, please feel free to contact us at goodlife@hkcss.org.hk

Cooking Tips

Cooking Tips

In addition to the testing methods, this guideline also includes fundamental cooking techniques for preparing Care Food, helping users to easily grasp the relevant skills. The following section includes commonly used cooking methods, tools, and points to note during the process of preparing Care Food.

1 Care Food Cooking Methods

In the process of preparing Care Food, the Care Food Initiative categorises the preparation methods into three major approaches, the "Three Approaches of Care Food", namely: the Original Form Preserving Approach, the Creative Plating Approach, and the Reshaping Approach.

Generally, these approaches are not limited to one single cooking method, and different levels of Care Food can be prepared at the same time. For example, chefs can use slow cooking to soften food, or they can utilise thickening agents to achieve the same softness.

Chefs can use slow cooking to soften food, or they can utilise thickening agents to achieve the same softness.

1.1 Original Form Preserving Approach

Utilising various cooking methods such as slow cooking, pressure cooking, and food softening agents to preserve the original appearance of the food.

Example:

Poached salmon with red beetroot, raspberry yogurt, smoked bacon, edamame, and mashed potatoes

Simply scan to view Recipe

Braised pork with fermented bean curd and lotus root

Simply scan to view Recipe

1.2 Creative Plating Approach

Creative plating through mixing or chopping, for example: serving utensils and plating.

Example:

Grouper rice in sweet corn sauce with egg

Simply scan to view
Recipe

Sautéed beef with green vegetable

Simply scan to view
Recipe

1.3 Reshaping Approach

Add thickening agents or enzyme powder, or utilise ingredients that aid in shaping, e.g., Chinese yam. Through mixing, heating, and shaping, create the desired texture.

Example:

Moulded fish delight

Simply scan to view
Recipe

Chicken wings with shiitake mushroom and chestnut

Simply scan to view
Recipe

2 Basic Cooking Methods and Tools (Partial List)

Users can use various cooking methods and tools to create different shapes and levels of Care Food.

2.1 Basic Cooking Methods

- Boiling: Cooking food in a large amount of boiling water until fully cooked.
- Steaming: Using steam generated from boiling water to cook the food.
- Braising: Pre-frying or sautéing the food and then simmering it in water or broth over low heat until tender.
- Pan-frying: Cooking food with a small amount of hot oil.
- Stir-frying: Quickly tossing and stirring food over medium to high heat until cooked.

2.2 Basic Cooking Tools

- General cooking utensils: frying pans, steamers, etc.
- Specialized cooking utensils: blenders, pressure cookers, slow cookers, etc.
- Measuring tools: electronic scales, measuring cups, etc.
- haping tools: silicone moulds, aluminium foil, etc.

3 Common Thickening Methods

There are several common methods to achieve thickening effects for food and drinks. Here are some methods listed for reference. Firstly, natural reduction by cooking to concentrate ingredients; secondly, using ingredients with pure natural thickeners; thirdly, incorporating thickening agents during cooking.

3.1 Natural Reduction Cooking Methods

- Evaporation reduction: continued heating causes water in the broth to evaporate due to high temperatures, resulting in natural broth thickening
- Sugar reduction: adding sugar to increase broth density, causing the broth to become thicker as it cooks
- Cornstarch reduction: dissolving starch in water and adding it to the broth, heating until it thickens
- Natural reduction: ingredients containing collagen proteins release viscous proteins during heating, naturally thickening the broth

3.2 Using Ingredients with Pure Natural Thickeners (Partial List)

- Containing polysaccharides
  - Starches: cornstarch, potato starch, tapioca starch, glutinous rice flour, sticky rice flour, kudzu root starch, root vegetables (yam, Chinese yam), arrowroot flour
  - Natural plant gums: agar powder, guar gum, xanthan gum
  - Fruit pectin
- Containing protein
  - Egg whites
  - Collagen
  - Fish gelatine powder / gelatine powder
  - Tofu
- Containing fat
  - Oil
  - Butter
  - Lar

3.3 Adding Thickening Agents

- Starch-based thickening agents
- Xanthan gum-based thickening agents

Source: Health Promotion Administration, Ministry of Health and Welfare: Cooking Methods and Calories, 15 June 2021, https://bit.ly/40kAw3b.

4 Choices of Thickening Agents and Thickeners

During the cooking process, you can choose the appropriate thickening agents and thickeners based on the assessment of the user's swallowing abilities by speech therapists. Currently, there are various types of thickening agents available for individuals with dysphagia and caregivers. Here is a summary of the characteristics, benefits, and drawbacks of two commonly used types of thickening agents.

Starch-based: modified starch is a traditional thickening agent extracted and processed from high-starch crops such as corn.

Pros	Cons
• Relatively inexpensive	• May result in residue in the mouth or throat • Requires larger quantity

Xanthan gum: xanthan gum is a relatively newer type of thickener produced through bacterial fermentation

Pros	Cons
• Requires smaller quantity • Maintains clarity in drinks • Resistant to digestive enzymes in saliva, preserving the thickened state of the drink • High stability, viscosity remains unchanged over time	• Relatively expensive • Excessive use may lead to mild diarrhoea

The above are suggested methods for thickening food or drinks. If adjustments in texture are needed to avoid over-thickening, you can try adding the following ingredients as replacements for water (add gradually to prevent excessive dilution):

· Clear broth · Beef gravy · Fruit juice
· Melted butter · Dairy · Cheese

5 Cooking Elements

When cooking Care Food, besides using suitable cooking tools and methods, other factors during the cooking process also influence the consistency of the food.

5.1 Starch Content

Foods with high starch content, such as rice or potatoes, tend to become more viscous when blended into a puree. This may not be suitable for individuals with dysphagia. Adding a small amount of cooking oil during blending can prevent rapid viscosity increase.

5.2 Fat Content

Foods with higher fat content are generally more viscous than those with lower fat content. For example, blended meats tend to be thicker than blended vegetables.

5.3 Water Content

Foods with higher water content have higher viscosity. For instance, pureed foods are more viscous than sliced or diced foods.

5.4 Protein Content

Proteins can increase the cohesiveness of food, strengthen its structure, and lead to increased chewing. Foods rich in protein, such as meats and eggs, have higher cohesiveness, making the variations in texture levels less pronounced.

5.5 Total Surface Area of Food

The finer the food is chopped, the larger the total surface area of food particles, increasing surface tension and promoting better adhesion between particles.

Source:
1. Nestlé Health Science: Thickenup® Clear, https://bit.ly/3KbJ4Ea.
2. Vilardell, N., et al. "A Comparative Study between Modified Starch and Xanthan Gum Thickeners in Post-Stroke Oropharyngeal Dysphagia." Dysphagia , vol. 31, no. 2, 2015, pp. 169–179., https://doi.org/10.1007/s00455-015-9672-8.

6 Nutritional Elements

The quantity, variety, and nutritional components of food all contribute to overall health and quality of life. When preparing Care Food, it is essential to consider whether the provided nutrition is sufficient.

6.1 Causes of Malnutrition in Individuals with Dysphagia

- Changes in food texture may reduce the appeal of the food, leading to decreased appetite
- Limited cooking tools and techniques
- Adding excess water during blending can dilute the nutrients
- Fear of choking may lead to reduced food intake

When preparing Care Food, it's important to consider whether they can provide sufficient nutrition for individuals with dysphagia.

6.2 Key Nutritional Needs for Individuals with Dysphagia

Issue 1: Inadequate hydration

Individuals with dysphagia might avoid drinking water due to fears of choking, or they may refuse thickened drink due to unappealing textures. This can result in insufficient hydration, which may lead to constipation over time.

Suggestions for Improvement

- Serve drinks with meals
- Place the drinks within the patient's reach and provide visual cues
- Use colourful and easily graspable cups, placing them within the patient's line of sight
- Offer high-water-content foods (e.g., congee, fruits)
- Provide drinks of different types and temperatures

Issue 2: Inadequate Dietary Fiber

Fibrous vegetables are difficult to chew and blending them into a smooth consistency leads to a lack of dietary fibre and potential constipation.

Suggestions for Improvement

- Select tender leaves (e.g., spinach, amaranth, gourds)
- Remove coarse fibres (e.g., peel fibrous parts of celery)
- Incorporate water-soluble fibre-rich ingredients (e.g., mushrooms, wood ear fungus, Chinese yam)
- Substitute starchy root vegetables for staple foods (e.g., potatoes, sweet potatoes, taro, pumpkin)

Issue 3: Inadequate Protein Intake

Tough meat textures are challenging to chew and swallow for individuals with dysphagia, potentially leading to muscle loss.

Suggestions for Improvement

- Use minced meat
- Remove tendons and fascia
- Include steamed egg, tofu, fish fillets, and similar dishes
- Use cornstarch and egg white to marinate meat
- Under the guidance of a nutritionist, use high-protein nutritional supplements

Issue 2: Inadequate Vitamin B12 Intake

Vitamin B12 is primarily found in animal proteins, but tough meat textures can make it difficult for patients with dysphagia to chew and swallow. Prolonged vitamin B12 deficiency can lead to: pernicious anaemia with symptoms such as fatigue, constipation, reduced appetite, and weight loss; neurological disorders such as numbness in extremities, falls, cognitive impairment, and optic nerve damage.

Suggestions for Improvement

- Use minced meat
- Include steamed egg, tofu, fish fillets, and similar dishes
- Use cornstarch and egg white to marinate meat

6.3 Common Nutrient Rich Foods

- Avocado:
  Each medium-sized avocado contains 320 calories, equivalent to the energy of 1.5 bowls of rice, 5 teaspoons of oil, and the fibre content of 8 bowls of choy sum
- Dairy products:
  2 slices of cheddar cheese are equivalent to the energy of 1 bowl of rice, 3 teaspoons of oil, and the protein content of 1.5 eggs
- Nut butters:
  2 tablespoons of peanut butter are equivalent to the energy of 2 bowls of rice, 3 teaspoons of oil, and the protein content of 1 egg.
- Fruit juice, honey:
  2 tablespoons of honey are equivalent to the energy of half a bowl of rice.

Source:
1. June Lee, dietitian registered in Australia
2. Finestone, Hillel M., et al. "Quantifying Fluid Intake in Dysphagic Stroke Patients: A Preliminary Comparison of Oral and Nonoral Strategies." Archives of Physical Medicine and Rehabilitation, vol. 82, no. 12, 2001, pp. 1744–1746., https://doi.org/10.1053/apmr.2001.27379.
3. Nowson, Caryl A et al. "Energy, protein, calcium, vitamin D and fibre intakes from meals in residential care establishments in Australia." Asia Pacific journal of clinical nutrition vol. 12,2 (2003): 172-7.
4. Wright, L., et al. "Comparison of Energy and Protein Intakes of Older People Consuming a Texture Modified Diet with a Normal Hospital Diet." Journal of Human Nutrition and Dietetics, vol. 18, no. 3, 2005, pp. 213–219., https://doi.org/10.1111/j.1365-277x.2005.00605.x.

7 High-Risk Foods

Individuals with dysphagia should avoid consuming certain high-risk foods to prevent situations such as aspiration or choking.

Examples for reference

Hard or Dry Foods
Nuts, hard-crusted bread, etc.

Viscous and Tough Foods
Cheese cubes, rice cakes, glutinous rice balls, etc.

Fragile and Loose Foods
Cookies, egg rolls, etc.

Mixed-Texture Foods
Congee with rice, noodle soup, Teochew porridge, etc.

Juicy or Seedy Foods
Watermelon, orange, white radish, etc.

Foods that Melt in the Mouth
Ice cream, chocolate, etc.

Foods with Tiny Particles
Sesame seeds, chopped green onions, etc.

Foods that Absorb Saliva and Swell
Bread, etc.

Slippery Textured Foods
Steamed rice rolls, jelly, etc.

8 Reheating Methods

Reheating any personally prepared, pre-packaged, or frozen Care Food products requires special care, especially when using thickening agents or thickeners in the food's preparation. Improper reheating can lead to changes in food texture, posing a risk to individuals with dysphagia.

8.1 Common Tools and Methods

- Steamer/pan: depending on whether the food needs to be thawed to room temperature or covered with heat-resistant wrap, place it in the steamer/pan and heat over simmering water
- Microwave: depending on whether the food needs to be thawed to room temperature or covered with heat-resistant wrap, place it in the microwave for heating

8.2 Points to Note

- It is recommended to consume reheated food as soon as possible and avoid refreezing to preserve its texture
- When reheating foods made with thickening agents or thickeners, excessive heating can cause the food to revert to a paste-like consistency. If the reheated texture doesn't meet the needs of individuals with dysphagia, do not consume
- Reheating methods and times may vary depending on factors such as the type and amount of ingredients, characteristics of thickeners, etc. The above methods are for reference only
- Different brands of Care Food products may have variations in reheating instructions. Please follow the instructions on individual packaging for reheating

Improper reheating of foods made with thickening agents or thickeners can lead to changes in food texture, posing a risk to individuals with dysphagia.

Reference: 張海靜：《給有吞嚥及咀嚼問題者的日常食譜》，如果出版社，2019.

Cooking Demonstrations and Testing Application (Examples)

Cooking Demonstrations and Testing Application (Examples)

In 2020, the HKCSS held a public voting event titled "Standardised Care Food Reference Dishes for Dysphagia". During this event, Care Food users and caregivers were invited to cast their votes for their favourite dishes. Based on the insightful responses, this guideline has handpicked popular ingredients and dishes to showcase in cooking demonstrations. Throughout the event, a total of 62 examples were meticulously prepared using everyday cooking techniques such as steaming, boiling, stir-frying, pan-frying, and boiling. These examples encompass 45 common local ingredients and 17 distinct dishes. Each level has different requirements and cooking times, adjusted according to the specific texture of the ingredients.

1 Understanding the Application

Each individual with dysphagia needs to determine the appropriate diet level based on their swallowing and chewing abilities, as well as the assessment results from a speech therapist. They should ensure that the prepared dysphagia meals meet the level standards. This guideline presents the different levels of 62 selected ingredients and dishes through the following elements: 1. Recommended cooking methods, times, and specified ingredient preparation. 2. Reference images of cooked foods, thickened drinks, and testings. 3. Average values from testing.

Individual users can use the cooking and thickening methods recommended in this guideline to prepare dysphagia-friendly foods and drinks of different levels. They can also use the testing methods to evaluate whether they meet the dysphagia diet standards. Manufacturers can refer to the testing average values for various ingredients and dishes for future testing of related products. The levels and Chinese names used in the illustrations are consistent with IDDSI, and the testing average values are obtained through research conducted by the Chinese University of Hong Kong's Food Research Centre, which has examined different parameters of each level. For detailed examples, please refer to the following illustrations. All images and numbers are for reference only.

This guideline will present the 62 selected ingredients and dishes in the following sequence:

- Meat and Seafood
- Vegetable
- Main Dishes and Legume Products
- Fruit and Dessert
- Sauce
- Dish Selection

Taking pumpkin as an example, different methods can be used to create various food levels. The following sections will provide recommended cooking methods and testing results for different levels, displaying four food levels and five drink levels. For some ingredients or dishes, only certain food or drink levels can be displayed due to daily dietary needs or limitations of the food itself. The suggested cooking methods are focused on individual ingredients, emphasising simplicity and ease of preparation. Adjustments can be made during cooking according to personal taste and cooking habits.

Example 1: Pumpkin (Food)

When designing diets for individuals with dysphagia, the primary concern is eating safety. Adjusting the texture of the food through appropriate methods can make it easier to swallow, providing sufficient nutrition to the patients. In the case of pumpkin at the food level, assuming the user requires level 7EC (easy to chew), the following steps can be taken: First, boil the pumpkin for 3 minutes to soften the skin, then remove the skin and seeds. Afterward, cut the pumpkin into 4 cm diameter x 1.5 cm height. Steam for 10 minutes with medium heat., achieving a texture that is easy to chew.

Once the pumpkin at the desired food level is prepared, individuals with dysphagia need to assess whether the food meets the safe swallowing standards. Individuals can use one of the self-testing methods, the IDDSI Fork Pressure Test, to determine its hardness and viscosity. Manufacturers, on the other hand, can refer to the testing average values in the diagrams for conducting tests. It's important to note that foods prepared for individuals with dysphagia should maintain stability to avoid changes in texture due to prolonged storage or temperature fluctuations. Therefore, individuals should test the texture of the food as soon as it is cooked and consume it.

Revisit the fork pressure test

Individuals can determine whether the food meets the level standards based on the IDDSI Fork Pressure Test steps for each level. Detailed illustrated testing steps can be found in Chapter 2 - Testing Methods.

Easy to chew

Level 7EC (Easy to Chew) Fork Pressure Test

- Pressure from a fork held on its side can be used to 'cut' or break apart or flake this texture into smaller pieces.
- When a sample the size of a thumb nail (1.5 x 1.5 cm) is pressed with the tines of a fork to a pressure where the thumb nail blanches to white, the sample squashes, breaks apart, changes shape, and does not return to its original shape when the fork is removed.
- Does not return to its original shape when the fork is removed.

Soft & bite-sized

Level 6 (Soft & Bite-Sized) Fork Pressure Test

- Pressure from a fork held on its side can be used to 'cut' or break apart or flake this texture into smaller pieces.
- When a sample the size of a thumb nail (1.5 x 1.5 cm) is pressed with the tines of a fork to a pressure where the thumb nail blanches to white, the sample squashes, breaks apart, changes shape, and does not return to its original shape when the fork is removed.
- Does not return to its original shape when the fork is removed.

Minced & moist

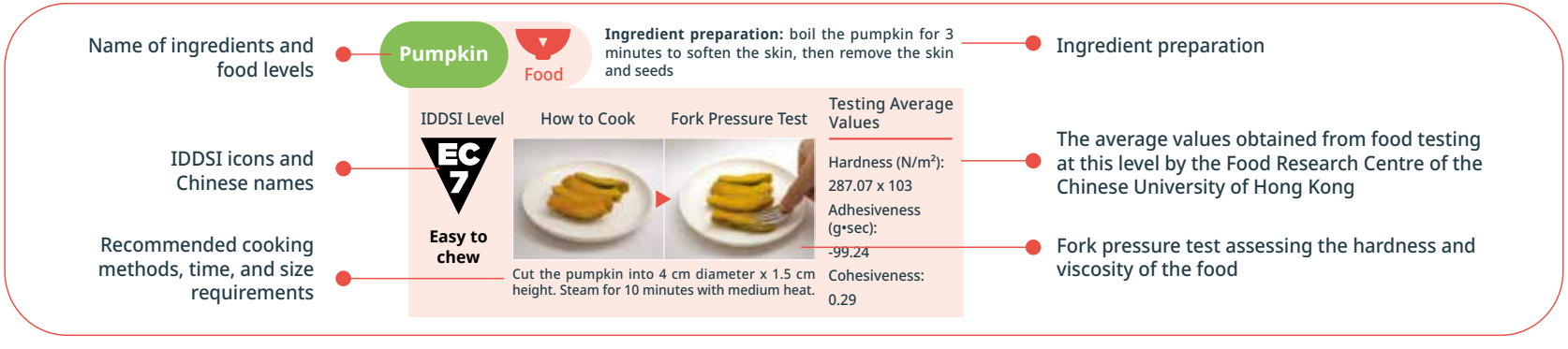
Level 5 (Minced & Moist) Fork Pressure Test

- When pressed with a fork the particles should easily be separated between and come through the tines/prongs of a fork.
- Can be easily mashed with little pressure from a fork (pressure should not make the thumb nail blanch to white).

Pureed

Level 4 (Pureed) Fork Pressure Test

- When a fork is pressed on the surface of the food, the tines/prongs of a fork can make a clear pattern on the surface, and/or the food retains the indentation from the fork.
- No lumps.



Example 2: Pumpkin (Drink)

Regular drinks tend to have higher fluidity, which can easily lead to coughing. By adjusting the thickness of the drink with thickening agents, such as starch, the flow speed from the mouth to the throat can be reduced. This improvement helps individuals with dysphagia avoid coughing caused by the rapid flow of liquids during consumption. The following sections will demonstrate how to adjust the thickness of different drink levels using xanthan gum-based thickening agents, which provide better stability. Users can adjust liquids to different thickness levels from Level 1 to Level 4 according to the recommendations of professionals. In addition to the suggested amount of thickening agent provided below, commercially available thickening products also include usage instructions on their packaging, making it convenient for users to adjust the thickness of drinks as needed.

Taking pumpkin-based drinks as an example, if a user needs a Level 1 (Slightly Thick) consistency, they can start by finely chopping 1 kg of pumpkin and adding 2.5 L of water. Simmer this mixture with medium heat for 30 minutes, then strain the broth. Next, add 0.4 g thickener into 100 ml pumpkin soup to achieve an slightly thick consistency.

Once the desired consistency for the pumpkin-based drink is achieved, how can you determine whether the drink meets safe swallowing standards? Individuals can use the IDDSI drink testing method for self-assessment. For Level 4 drinks, users can identify whether they meet the requirements by using the IDDSI Spoon Tilt test. For Level 1, Level 2, and Level 3 drinks, users can use the IDDSI Flow test to assess thickness and viscosity. On the other hand, manufacturers can use the testing average values shown in the illustrations as a reference for conducting their own tests.

Revisit the fork pressure test

Users can refer to the IDDSI Spoon Tilt test and Flow test for each level to assess whether the drink meets the designated standards. Detailed illustrations can be found in Chapter 2 - Testing Methods.

Extremely thick

Level 4 (Extremely Thick) Spoon Tilt Test

- Cohesive enough to hold its shape on the spoon A full spoonful must plop off the spoon if the spoon is tilted or turned sideways or shaken lightly; a very gentle flick may be necessary to dislodge the sample from the spoon, but the sample should slide off easily with very little food left on the spoon. A thin film remaining on the spoon after the Spoon Tilt Test is acceptable, however, you should still be able to see the spoon through the thin film; i.e. the sample should not be firm and sticky
- May spread out slightly or slump very slowly on a flat plate

Moderately thick

Level 3 (Moderately Thick) IDDSI Flow Test

- liquid flows through a 10 mL slip tip syringe leaving more than 8 mL in the syringe after 10 seconds

Mildly thick

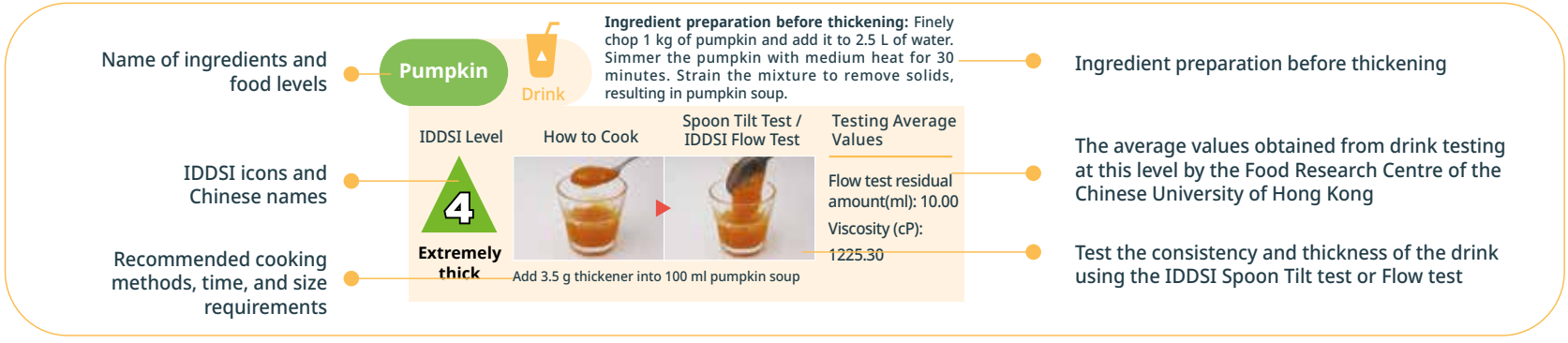
Level 2 (Mildly Thick) IDDSI Flow Test

- liquid flows through a 10 mL slip tip syringe leaving 4 - 8 mL in the syringe after 10 seconds

Slightly thick

Level 1 (Slightly Thick) IDDSI Flow Test

- liquid flows through a 10 mL slip tip syringe leaving 1 - 4 mL in the syringe after 10 seconds



Conditions for Testing in this Guideline

It must be noted that the test results of the 62 showcased food ingredients and dishes are based on the following conditions and factors, and the sample size for testing is limited. The testing methods and obtained values are for reference only, and the actual situation may be influenced by factors such as the type of ingredients, food temperature, cooking methods, tools, and environment.

Testing conditions:

- Food science and technology testing equipment:
  - Food testing: texture analyzer
  - Drink testing: visometer
- The test values for each food ingredient and dish are obtained at room temperature (22˚C - 26˚C).
- Shear Rate for drink testing: 50 s-1
- The average test values for each type of food are obtained from testing 4 samples.
- The average testing values for each type of drink are obtained from testing three samples (each sample tested twice)
- For conducting testing, in addition to the parameters shown in the examples, factors such as food size and texture need to be considered for possible over-adhesiveness
- The testing values for each ingredient and dish are averaged. After conducting testing, refer to sections 2.1-2.3 of the section Testing Methods for the mentioned range for reference.

Points to Note for Testing in this Guideline

- If the Care Food product requires heating before consumption, the laboratory will heat it according to the heating instructions on the packaging before conducting the testing. If there are multiple heating methods mentioned on the packaging, the laboratory will randomly select one of the methods for heating.
- If the product packaging specifies a recommended temperature range for consumption, the laboratory will test at the lowest temperature within the recommended range. If no temperature is indicated, the testing is generally conducted at room temperature, i.e., 22°C - 26°C.
- In general, testing is performed on a minimum of three samples to obtain average values.

Tables

Food level	Hardness (N/m^2)	Size	Cohesiveness	Adhesiven (g•sec)	Viscosity (cP)	Viscosity (Xanthan Gum) (cP)
7EC	$<5 \times 10^5$	No limit	Refer to cohesiveness and adhesiveness combination with food viscosity assessment table		Not applicable	
6	$<5 \times 10^4$	Paediatric: 8 mm pieces (no larger than) Adult: 15 mm = 1.5 cm pieces (no larger than)				
5	$<2 \times 10^4$	Paediatric: equal to or less than 2 mm width and no longer than 8 mm in length Adult: equal to or less than 4 mm width and no longer than 15 mm in length				
4	$<5 \times 10^3$	No lumps			>1355	>500
3	Not applicable	No lumps	Not applicable		255 - 1355	230 - 500
2		No lumps			105 - 255	100 - 230
1		No lumps			40 - 105	30 - 100

High, Medium, and Low Level of Cohesiveness and Adhesiveness Combination

	High	Medium	Low
Cohesiveness	0.8 - 1	0.1 - 0.8	0 - 0.1
Adhesiveness (g•sec)	< (-55)	(-55) - (-25)	(-25) - 0

Cohesiveness and Adhesiveness Combination with Food Viscosity Assessment Table

Cohesiveness	Adhesiveness (g•sec)	Assessment	Result
High	High	Sticky	Not applicable
High	Medium	Sticky	Not applicable
High	Low	Not sticky	Preliminarily suitable, should be re-verified using IDDSI testing methods
Medium	High	Not sure	Not sure, should be re-verified using IDDSI testing methods
Medium	Medium	Not sticky	Preliminarily suitable, should be re-verified using IDDSI testing methods
Medium	Low	Not sticky	
Low	High	Not sticky	
Low	Medium	Not sticky	
Low	Low	Not sticky	

2 Ingredient Pairing

Users can freely combine the 62 examples provided in this guideline (45 types of food ingredients and 17 dishes) to create well-balanced and flavourful Care Food dishes. When creating dishes, users can approach it from the perspective of cooking home-style meals and think about how to adapt these dishes to suit individuals with dysphagia. This not only allows individuals with dysphagia to dine with dignity but also reduces unnecessary cooking steps and alleviates caregiver stress. Conversely, focusing solely on adjusting the texture of food ingredients when creating dishes could limit the diversity of ingredients and dishes, resulting in repetitive meals that might become monotonous.

To make it easier for users to grasp the concept of cooking Care Food, seven recipes and related videos are provided below for reference. These recipes cover breakfast, lunch, dinner, as well as side dishes and soups. Additionally, the recipes are categorised into different levels, offering users a comprehensive understanding of Care Food cooking techniques.

Breakfast

Moderately thick

Pumpkin Quinoa Congee

Ingredients:

150 g pumpkin, 10 g quinoa, 300 g rice, 2100 mL water*, 5 g salt, oil as needed

Recipe:

1. Remove the seeds and peel the pumpkin, wash, and cut into cubes.
2. Rinse the quinoa and soak in water for 10 minutes.
3. Cook the quinoa in 600 mL of room-temperature water until white rings appear on the surface (approximately 8-10 minutes). Drain excess water and let it cool, then blend the quinoa into a paste.
4. Boil the pumpkin pieces in boiling water for about 5-10 minutes. Drain excess water and let them cool, then blend the pumpkin into a paste. You can keep the leftover water from boiling the pumpkin to use for making congee, no need to discard it.
5. Wash the rice and soak for about 30 minutes to 1 hour. Cook the rice in 1500 mL of boiling water (including the pumpkin water) over high heat for about 30 minutes, then reduce to medium heat for another 30 minutes. Stir occasionally to prevent sticking to the bottom, and add salt for seasoning.
6. After turning off the heat, blend the congee into a paste.
7. Place the congee base in a bowl, add the pumpkin paste and quinoa paste, mix well, and it's ready. If you need to adjust the thickness for other levels of meals, you can add an appropriate amount of water to adjust the consistency.

Gentle reminder:

1. It is important to avoid making the food overly thick.
2. The appearance of the dish prepared using this method will be more appealing. If you want to save time, you can cook the pumpkin and rice together directly when making the congee base, and then blend it into a paste.
3. If you are not comfortable using an open flame to cook congee, you can also use an electric rice cooker.
4. You can add water and oil to the rice to prevent it from becoming too sticky. This not only prevents excessive stickiness but also makes it convenient for caregivers to provide the congee to individuals with dysphagia without needing to prepare separate congee.
5. The amount of water can be adjusted based on the actual situation.
6. Please consume the dish promptly after preparation to prevent changes in consistency if the food is left for too long.

* The amount of water can be adjusted based on the actual situation.

This dish follows Guideline of Care Food Standard Level 3, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 3

6

Soft & bite-sized

Satay Beef Stir-Fried with Vermicelli Noodles

Ingredients:

Beef (sliced beef) 200 g, rice vermicelli 1 block, onion 30 g, satay sauce 10 g, garlic paste 10 g, curry paste 5 g, smooth peanut butter 10 g, yellow curry powder 5 g, soy sauce 5 g, brown sugar 5 g, salt 2 g, pepper to taste, cornstarch as necessary, baking soda as necessary

Recipe:

1. Cut the sliced beef into shred and marinate with salt, brown sugar, pepper, cornstarch, and baking soda (50:1 ratio) for about 30 minutes. Shred the onion and set aside.
2. Mix together satay sauce, curry paste, yellow curry powder, soy sauce, brown sugar, and smooth peanut butter to create the satay sauce.
3. Sauté the garlic paste and shredded onion until fragrant, then add the beef slices and stir-fry for about 2 minutes. Add the satay sauce and a suitable amount of water and stir-fry until well combined. Once the sauce is boiling, add a cornstarch-water mixture to thicken.
4. As the beef might have tendons, after turning off the heat, use a blender to blend the beef and sauce into smaller pieces or ground meat texture, ensuring there are no large or tough pieces.
5. Cook the rice vermicelli in boiling water for about 5-6 minutes or longer to allow the rice vermicelli to absorb more water and become softer and more pliable. After cooking, drain and cut the rice vermicelli into pieces approximately the length of a finger section (equal to or less than 1.5 cm). You can add a small amount of cooking oil to prevent the rice vermicelli from sticking together.
6. Place the rice vermicelli on a plate or bowl, then add the beef and sauce, and mix well.

Gentle reminder:

1. Pay special attention to mixing the rice vermicelli and sauce thoroughly when eating to prevent the rice vermicelli from being too dry and causing coughing.
2. Slices of beef can be replaced with ground beef. Add some water while stir-frying to keep the beef moist, stir-fry for 2-3 minutes.
3. Use smooth peanut butter without any granules, suitable for individuals with dysphagia.
4. For individuals requiring Level 4 meals, you can use a blender with a little hot water to blend the rice vermicelli into a paste. Spread it onto a plate and use a fork to create a texture on the surface. The beef should also be blended into a paste.
5. Cilantro is for garnishing purposes only and does not meet the requirements of Level 6 in the Guideline of Care Food Standard.

This dish follows Guideline of Care Food Standard Level 6, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 6

Simply scan to view
Breakfast Cooking Demonstrations

Lunch

Easy to chew

Stewed Meatball

Ingredients:

- Meatballs: ground pork 250 g, ginger paste 1 teaspoon, mashed potatoes 80 g, shiitake mushrooms (soaked and diced) 3 pieces, Chinese sausage (diced) 1/2 piece, egg white 1 piece, baby bok Choy 150 g, chicken broth 200 g, cornstarch 1 teaspoon, brown sugar 1 teaspoon
- Marinade: light soy sauce 3 teaspoons, brown sugar 1 teaspoon, cornstarch 2 teaspoons, a pinch of pepper, a dash of sesame oil
- Sauce: light soy sauce 2 teaspoons, dark soy sauce 1/2 teaspoon, oyster sauce 1 teaspoon, brown sugar 1 teaspoon, a dash of sesame oil
- Thickening mixture: cornstarch 1 teaspoon, water 1 tablespoon

Recipe:

1. After soaking the shiitake mushrooms in hot water for 15 minutes, remove the thick stems and use only the black top parts. Finely chop them or grind them into a paste, then steam over water for 15 minutes. Alternatively, you can use the soaking water of the mushrooms to capture their flavor.
2. Peel and dice the potatoes, then steam them over water for 15 minutes. Once done, remove and set aside.
3. Cut the Chinese sausage into cubes and steam over water for 15 minutes. Then, use a blender to process the Chinese sausage, shiitake mushrooms, and potatoes until smooth, adding a small amount of water if necessary.
4. Cut the baby bok choy into cubes and set aside.
5. Mix the ground pork, ginger paste, mashed potatoes, shiitake mushroom paste, Chinese sausage paste, egg white, cornstarch, and marinade together until well combined and sticky. Chill in the refrigerator for 30 minutes.
6. Divide the ground pork mixture into 8 portions. Wet your hands slightly with water or oil and shape each portion into a meatball. Sear the meatballs until the surface is lightly golden, without fully cooking them.
7. Pour the chicken broth and sauce mixture into a pan, bring to a boil with medium heat, then cover and simmer for about 15 minutes. Add the baby bok choy and continue to simmer with medium heat for another 15 minutes until the meatballs and baby bok choy are tender. Finally, add the cornstarch water and adjust the sauce's thickness to your liking.

This dish follows Guideline of Care Food Standard Level 7EC, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 7EC

Pureed

Chicken tenderloin with Four Vegetables in Coconut Curry Sauce (Soft Meal)

Ingredients:

- 1 small head of broccoli, 1 carrot
- 1 eggplant, 2 potatoes, 200 g chicken tenderloin, thickening agent as needed
- Coconut curry sauce: 2.5 teaspoons turmeric powder, 2 tablespoons butter, 3/4 cup chicken broth, 50 g light cream or milk, 100 g coconut milk, 1/4 teaspoon white sugar, 1/4 teaspoon salt
- Thickening mixture: 1 tablespoon cornstarch, 3 tablespoons water

Recipe:

1. Peel and cut the carrot into cubes. Steam with medium heat for 25 minutes. Put 140 g of carrot, 160 mL water, and 3.5 g of thickening agent into a blender. Blend until smooth and lump-free.
2. Peel and cut the potatoes into cubes. Steam with medium heat for 25 minutes. Put 150 g of potatoes, 150 mL water, and 3.7 g of thickening agent into a blender. Blend until smooth and lump-free.
3. Soak the broccoli in salted water and then cut it into pieces. Steam with medium heat for 10 minutes. Put 200 g of broccoli, 220 mL water, and 4.1 g of thickening agent into a blender. Blend until smooth and lump-free.
4. Cut the eggplant into cubes after removing the stem and skin, and blanch it with medium heat for 10 minutes. Blend 190 g of eggplant, 220 mL of water, and 4.7 g of thickening agent in a blender until smooth and lump-free.
5. Wash the chicken tenderloin, then blanch it with medium heat for 10 minutes. Blend 180 g of chicken tenderloin, 280 mL of water, and 4.8 g of thickening agent in a blender until smooth and lump-free.
6. Reheat the blended ingredients separately in a pot and pour them into silicone moulds for shaping. Once the ingredients are cooled and set, remove them from the moulds and place them on a serving plate.
7. Coconut curry sauce: melt the butter over low heat, then add chicken broth, light cream (or milk), and coconut milk. Bring to a boil. Add turmeric powder, salt, and white sugar. Finally, add cornstarch water mixture to thicken the sauce to the consistency of level four. Once ready, drizzle the sauce over the dish and serve.

Gentle reminder:

Heating Care Food enhances the flavour for better taste during consumption. However, it's important to avoid excessive heating, as it can alter the texture of the Care Food and increase the risk for individuals with dysphagia during eating.

This dish follows Guideline of Care Food Standard Level 4, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 4

3

Moderately thick

Agrocybe Aegerita Chestnut Vegan Soup

Ingredients:
Agrocybe aegerita 80 g, cordyceps flower 35 g, red dates 20 g, goji berries 15 g, Chinese yam 30 g, dried longan 25 g, chestnuts (peeled) 100 g, salt as necessary, water 4000 mL

Recipe:
1. Chinese Yam and chestnuts can be soaked in room temperature water for 30 minutes beforehand or soaked overnight in the refrigerator.
2. Wash all ingredients. Cut agrocybe aegerita into cubes and then wash them.
3. Put Chinese Yam and chestnuts into a bag.
4. Place all ingredients and water into a pot. Bring to a boil over high heat for 30 minutes, then reduce to medium-low heat and simmer for 2.5 hours. After turning off the heat, add salt to taste.
5. Take out Chinese yam and chestnuts. Use a blender to blend them into a paste.
6. Mix the soup and the Chinese yam-chestnut paste together. Adjust the soup to achieve the consistency of Level 3.

Gentle reminder:
It is important to note that the soup should not be too thick.

This dish follows Guideline of Care Food Standard Level 3, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 3

Simply scan to view
Lunch Cooking Demonstrations

Guideline of Care Food Standard

Dinner

5

Minced & moist

Steamed Fish Fillet with Black Bean Sauce

Ingredients:
Pangasius, 10 g black beans, 5 g ginger paste, 5 g garlic paste, 5 g chopped scallions, white sugar, soy sauce, salt

Recipe:
1. Finely chop the black beans into a paste, and mix with ginger paste, garlic paste, a small amount of white sugar, soy sauce, salt, and a little water until well combined.
2. Thaw the pangasius and cut it into cubes. Steam until cooked, then mash the pangasius into a paste.
3. Cut the scallions into pieces smaller than 0.4 cm x 1.5 cm.
4. Place the fish fillet on a plate, spread the black beans sauce and scallions on top of the fish, cover with plastic wrap, and steam for a few minutes until done.

Gentle reminder:
After steaming the fish fillet, there might be excess water, which should be drained or blotted away.

This dish follows Guideline of Care Food Standard Level 5, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 5

6

Soft & bite-sized

Meatballs in Tomato Sauce

Ingredients:

- Minced beef 200 g, minced pork 100 g, onion 50 g, egg 1, parmesan cheese powder 20 g, cornstarch 1 teaspoon, brown sugar 1 teaspoon, paprika 2 teaspoons, black pepper, salt, milk 10 ml, olive oil, butter, garlic paste 10 g, tomatoes 3, salt, black pepper.
- Thickening mixture: cornstarch 1 teaspoon, water 1 tablespoon

Recipe:

1. Chop the onion into cubes. Sauté the onion with a little olive oil with medium heat until softened (about 3 minutes), then set aside.
2. Peel and chop the tomatoes.
3. Mix minced beef, minced pork, olive oil, sautéed onion, paprika, egg, milk, Parmesan cheese powder, salt, and black pepper together. Cover with plastic wrap and refrigerate for about 30 minutes.
4. Take out the meat mixture and divide into 4-5 portions. Moisten your hands with a little water/oil and shape each portion into a meatball. Pan-fry the meatballs until the surface is golden brown, about 70% cooked, then set aside.
5. In the remaining oil, sauté the minced garlic and chopped onions. Add peeled tomatoes, tomato sauce, a small amount of water, salt, black sugar, and black pepper. Bring to a boil, then reduce to medium-low heat. Crush the tomato pieces while simmering, then add cornstarch water to adjust the thickness. Use a blender to process the sauce until smooth and without lumps. Return the cooked meatballs to the pan, pour the sauce over them, and cook over medium-low heat for about 3 minutes. Plate the dish and sprinkle parmesan cheese powder on top.

Gentle reminder:

1. Pay special attention to the sauce not becoming too sticky.
2. After cutting the tomato into quarters, you can use a knife to slowly peel off the skin. Or you can cut a shallow X on the bottom, place them in boiling water for about 2-3 minutes, then transfer to ice water to cool before peeling.

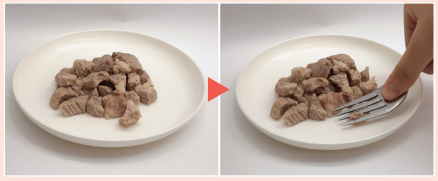
This dish follows Guideline of Care Food Standard Level 6, which corresponds to International Dysphagia Diet Standardization Initiative (IDDSI) Level 6

Simply scan to view
Dinner Cooking Demonstrations

Caution: The recipe and video tutorial content are for reference purposes only. It is recommended to consult a speech therapist and relevant professionals before individuals with dysphagia consume this meal. Assess the appropriate dietary level for the individual and follow instructions for consumption.

Meat and Seafood

Pork — Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 90.84 x 10^3 Adhesiveness (g•sec): -6.37 Cohesiveness: 0.65
	Cut pork rump meat into cubes. Boil for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 22.58 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.67
	Cut pork rump meat into shreds no longer than 1.5 cm. Boil for 10 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 1.96 x 10^3 Adhesiveness (g•sec): -58.19 Cohesiveness: 0.61
	Steam minced pork with water in 2:1 ratio for 10 minutes with medium heat. Use a fork to crush the pork into 4 mm of lump size.		
4 Pureed			Hardness (N/m²): 1.96 x 10^3 Adhesiveness (g•sec): -58.19 Cohesiveness: 0.61
	Blend cooked level 5 samples with water in 2:1 ratio. Filter out excess liquid and lumps.		

Pork — Drink

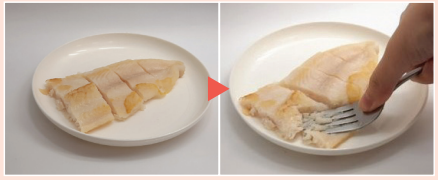
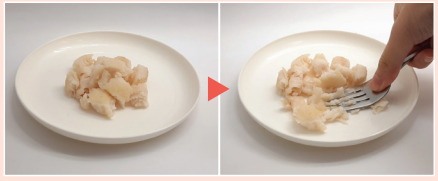
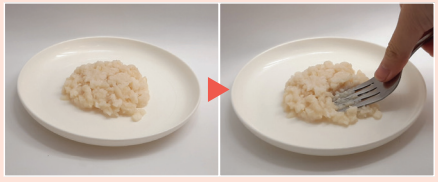
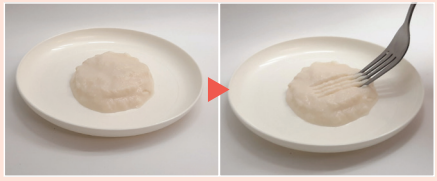
Ingredient preparation before thickening: Cut 400 g lean pork into slices or cubes, boil pork with 2.5 L water with medium heat for 15 minutes. Blend boiled pork, add it back to the broth and boil for 5 more minutes. Filter out the residue to obtain pork soup.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 1032.50
	Add 4.2 g thickener into 100 ml pork soup		
3 Moderately thick			Flow test residual amount (ml): 9.70 Viscosity (cP): 395.00
	Add 2.1 g thickener into 100 ml pork soup		
2 Mildly thick			Flow test residual amount (ml): 7.70 Viscosity (cP): 198.10
	Add 1.4 g thickener into 100 ml pork soup		
1 Slightly thick			Flow test residual amount (ml): 2.60 Viscosity (cP): 69.40
	Add 0.7 g thickener into 100 ml pork soup		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 1.20
	Use 100 ml pork soup		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

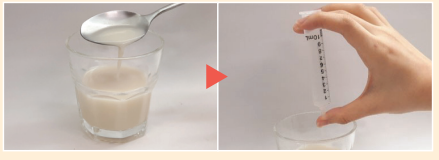
Fish Fillet — Food

Ingredient preparation: Defrost pangasius, then pan-fry for 6 minutes or until fully cooked

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 53.97 x 10^3 Adhesiveness (g•sec): -25.06 Cohesiveness: 0.36
	Cut pangasius into pieces.		
6 Soft & bite-sized			Hardness (N/m²): 14.49 x 10^3 Adhesiveness (g•sec): -5.92 Cohesiveness: 0.55
	Cut pangasius into pieces small than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 12.53 x 10^3 Adhesiveness (g•sec): -2.90 Cohesiveness: 0.60
	Add some water to make it moist, mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.85 x 10^3 Adhesiveness (g•sec): -26.04 Cohesiveness: 0.69
	Blend cooked level 7 sample with water in 2:1 ratio. Filter away excess liquid and lumps.		

Fish Fillet — Drink

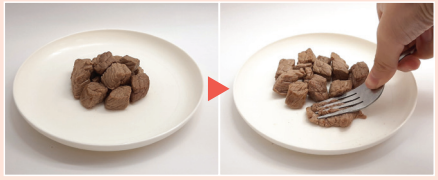
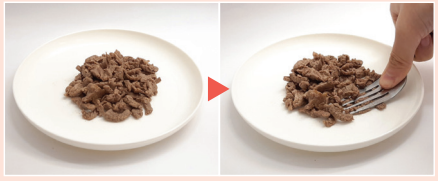
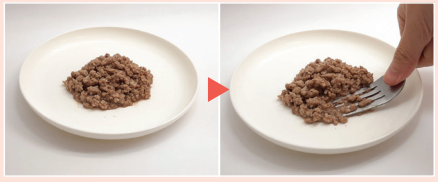
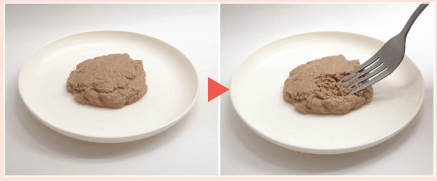
Ingredient preparation before thickening: Fry 650 g grass carp fish with medium heat until the two sides become lightly golden yellow in colour. Add 2.5 L boiling water and boil for 30 minutes. Remove the bone of the fish and blend the fish. Add the fish back to the soup and boil for 5 minutes. Filter away the residue to get the fish soup.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 1101.30
	Add 4.2 g thickener into 100 ml fish soup		
3 Moderately thick			Flow test residual amount (ml): 8.70 Viscosity (cP): 275.60
	Add 1.4 g thickener into 100 ml fish soup		
2 Mildly thick			Flow test residual amount (ml): 4.60 Viscosity (cP): 95.80
	Add 0.7 g thickener into 100 ml fish soup		
1 Slightly thick			Flow test residual amount (ml): 2.10 Viscosity (cP): 47.80
	Add 0.7 g thickener into 100 ml fish soup		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 1.70
	Add 0.4 g thickener into 100 ml fish soup		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

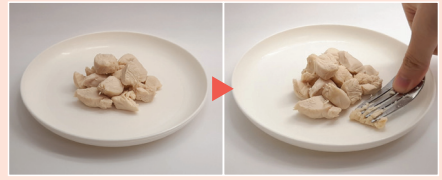
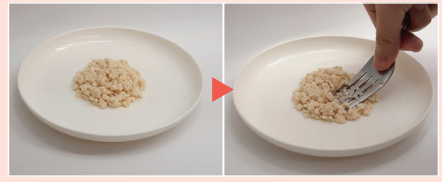
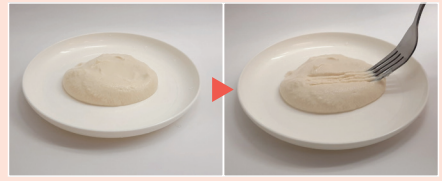
Beef

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 78.55 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.65
	Cut beef into cubes. Stir-fry for 2 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 17.65 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.62
	Cut beef flank steak into shred shorter than 1.5 cm. Stir-fry for 2 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 10.65 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.70
	Stir-fry minced beef for 5 minutes with medium heat and add some water to make it moist.		
4 Pureed			Hardness (N/m²): 3.52 x 10^3 Adhesiveness (g•sec): -22.64 Cohesiveness: 0.59
	Blend cooked Level 5 sample with water in 2:1 ratio. Filter away excess liquid and lumps.		

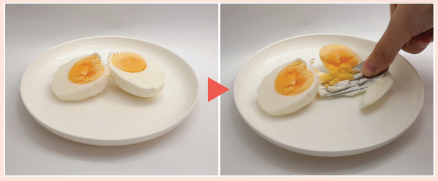
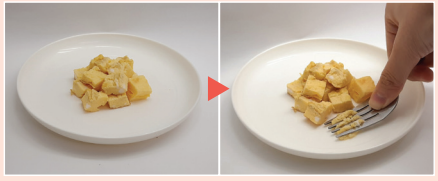
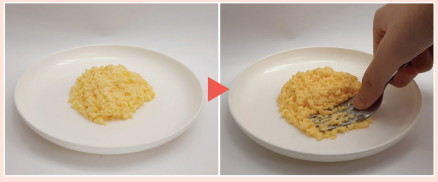
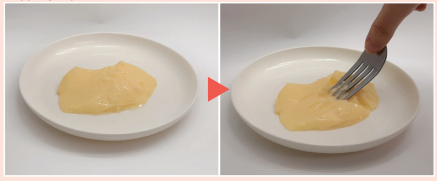
Chicken

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 99.87 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.51
	Cut chicken tenderloin into cubes. Boil for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 26.93 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.61
	Cut chicken tenderloin into shred shorter than 1.5 cm. Boil for 10 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 12.15 x 10^3 Adhesiveness (g•sec): -1.66 Cohesiveness: 0.51
	Mince the chicken tenderloin into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 5 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 1.67 x 10^3 Adhesiveness (g•sec): -54.48 Cohesiveness: 0.53
	Blend cooked Level 6 sample with water in 3:2 ratio. Filter away excess liquid and lumps.		

Egg

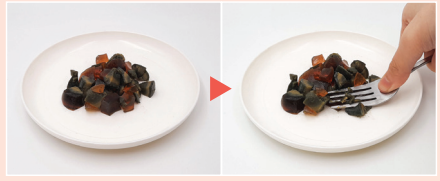
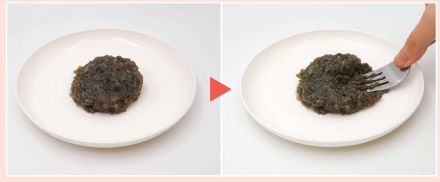
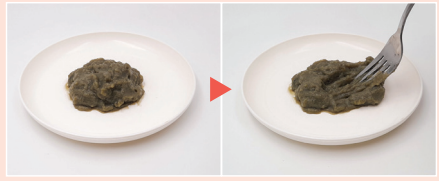
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 23.38 x 10^3 Adhesiveness (g•sec): -1.33 Cohesiveness: 0.58
	Boil egg with cold water and medium heat for 12 minutes. Remove shell and cut into half. (measurement is based on egg yolk).		
6 Soft & bite-sized			Hardness (N/m²): 8.80 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.74
	Beat 1 egg. Fry the mixture with medium heat until it is cooked. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 7.13 x 10^3 Adhesiveness (g•sec): -3.06 Cohesiveness: 0.55
	Mix 1 egg with 1 tablespoon of water or milk. Fry the mixture while stirring on medium heat until it is cooked. Cut into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.74 x 10^3 Adhesiveness (g•sec): -5.51 Cohesiveness: 0.64
	Mix egg with water in 1:2 ratio. Steam for 15 minutes with medium heat.		

Century Egg

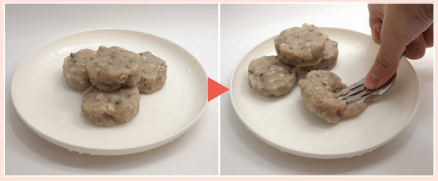
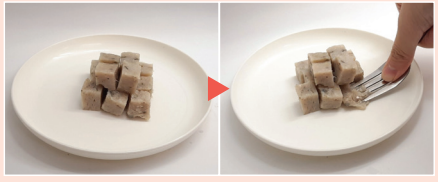
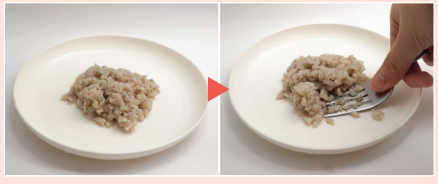
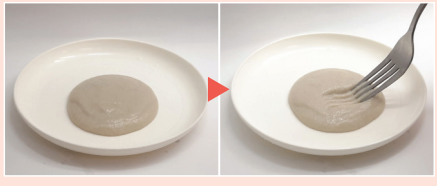
Food

Ingredient preparation: Boil centry egg for 5 minutes with medium heat.

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 26.89 x 10^3 Adhesiveness (g•sec): -1.27 Cohesiveness: 0.79
	Remove the shell and cut into half.		
6 Soft & bite-sized			Hardness (N/m²): 6.81 x 10^3 Adhesiveness (g•sec): -14.39 Cohesiveness: 0.70
	Remove the shell and cut it into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 2.98 x 10^3 Adhesiveness (g•sec): -24.42 Cohesiveness: 0.57
	Remove the shell and cut it into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Add some water to make it moist.		
4 Pureed			Hardness (N/m²): 2.06 x 10^3 Adhesiveness (g•sec): -53.03 Cohesiveness: 0.71
	Blend cooked level 7 samples with water in 4:3 ratio. Filter away excess liquid and lumps.		

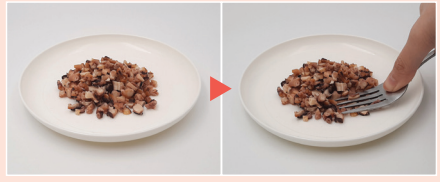
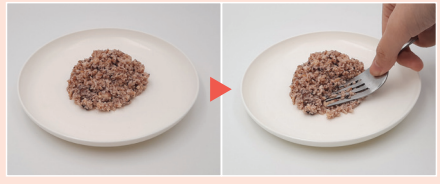
Dace Paste

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 131.76 x 10^3 Adhesiveness (g•sec): -3.62 Cohesiveness: 0.73
	Cut dace paste into 4 cm diameter x 1.5 cm height. Steam for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 48.53 x 10^3 Adhesiveness (g•sec): -8.03 Cohesiveness: 0.76
	Steam dace paste for 15 minutes with medium heat. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 8.22 x 10^3 Adhesiveness (g•sec): -4.61 Cohesiveness: 0.51
	Mix dace paste with water in 4:1 ratio. Steam for 15 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.95 x 10^3 Adhesiveness (g•sec): -23.73 Cohesiveness: 0.74
	Blend level 6 samples with water in 3:1 ratio. Filter away excess liquid and lumps.		

Dried Octopus

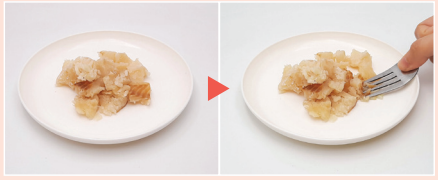
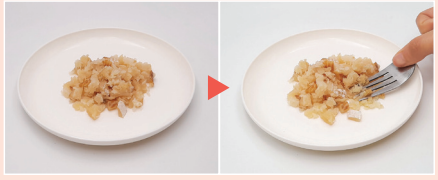
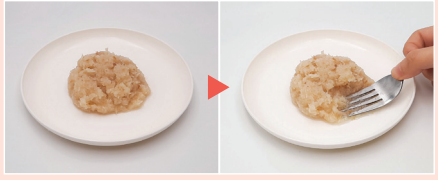
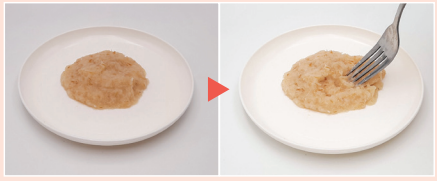
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 20.46 x 10^3 Adhesiveness (g•sec): -32.75 Cohesiveness: 0.61
	Cut dried octopus into pieces smaller than 0.75 cm x 0.75 cm x 0.75 cm. Boil for 20 minutes with medium heat. * Level 7 is too tough to be broken apart by the side of fork, nor pass the fork pressure test.		
6 Soft & bite-sized			Hardness (N/m²): 15.28 x 10^3 Adhesiveness (g•sec): -23.16 Cohesiveness: 0.60
	Blend cooked level 7 sample. * Level 6 is too tough to be broken apart by the side of fork, nor pass the fork pressure test.		
5 Minced & moist			Hardness (N/m²): 0.89 x 10^3 Adhesiveness (g•sec): -16.77 Cohesiveness: 0.63
	Blend cooked level 7 samples with water in 4:5 ratio. Filter away excess liquid and lumps.		

Dried Bonito

Food

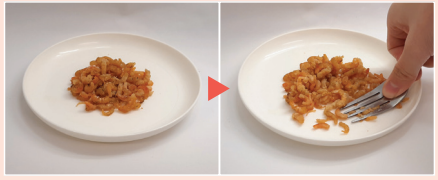
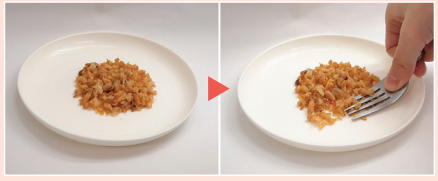
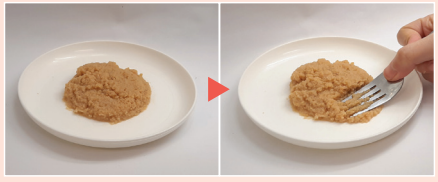
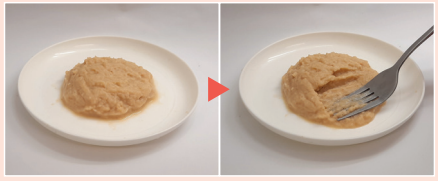
Ingredient preparation: Soak dried bonito for 15 minutes, then remove bones

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 27.22 x 10^3 Adhesiveness (g•sec): -61.95 Cohesiveness: 0.57
	Cut dried bonito into cubes. Boil for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 19.30 x 10^3 Adhesiveness (g•sec): -58.11 Cohesiveness: 0.60
	Cut dried bonito into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 10 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 10.75 x 10^3 Adhesiveness (g•sec): -2.25 Cohesiveness: 0.62
	Mince dried bonito into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 10 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 8.84 x 10^3 Adhesiveness (g•sec): -7.83 Cohesiveness: 0.47
	Blend cooked level 7 samples with water in 1:1 ratio. Filter away excess liquid and lumps. * Level 4 dried bonito is not smooth enough and lump together, so it is not suggested to be eaten individually.		

Dried Shrimp

Food

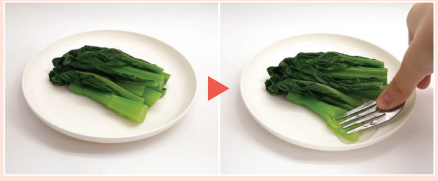
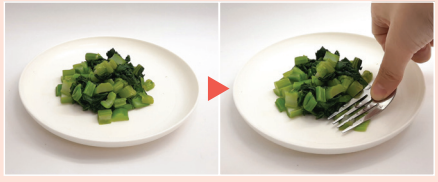
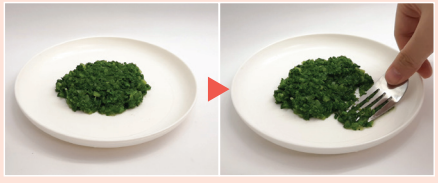
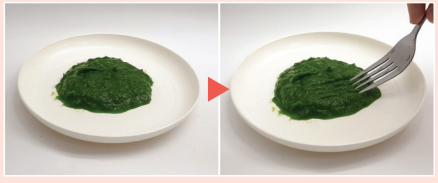
Ingredient preparation: Soak dried shrimp for 10 minutes

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 126.23 x 10^3 Adhesiveness (g•sec): -17.61 Cohesiveness: 0.59
	Stir-fry the dried shrimp with medium heat. Add some water and boil for 10 minutes.		
6 Soft & bite-sized			Hardness (N/m²): 46.98 x 10^3 Adhesiveness (g•sec): -8.70 Cohesiveness: 0.54
	Cut dried shrimp into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Stir-fry with medium heat. Add some water and boil for 10 minutes.		
5 Minced & moist			Hardness (N/m²): 9.05 x 10^3 Adhesiveness (g•sec): -18.81 Cohesiveness: 0.38
	Blend dried shrimp into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Stir-fry with medium heat. Add some water and boil for 10 minutes.		
4 Pureed			Hardness (N/m²): 3.94 x 10^3 Adhesiveness (g•sec): -15.72 Cohesiveness: 0.53
	Blend level 7 samples with water in 4:3 ratio. Filter away excess liquid and lumps. * Level 4 dried shrimp tend to clump together, so it's not recommended for individual consumption.		

Vegetable

Choy Sum

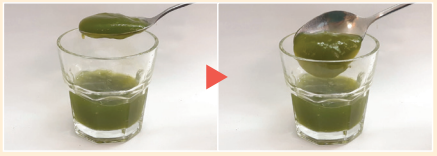
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Boil choy sum with medium heat for 3 minutes. Cut into half.		Hardness (N/m²): 346.53 x 10^3 Adhesiveness (g•sec): -5.63 Cohesiveness: 0.16
6 Soft & bite-sized	 Boil for 5 minutes with medium heat. Cut into pieces smaller than 0.75 cm x 1.5 cm x 1.5 cm. Filter away excess liquid.		Hardness (N/m²): 38.18 x 10^3 Adhesiveness (g•sec): -4.78 Cohesiveness: 0.23
5 Minced & moist	 Mince choy sum into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 3 minutes with medium heat. Filter away excess liquid.		Hardness (N/m²): 17.08 x 10^3 Adhesiveness (g•sec): -3.69 Cohesiveness: 0.51
4 Pureed	 Blend level 6 samples with water in 6:1. Filter away excess liquid and lumps.		Hardness (N/m²): 0.52 x 10^3 Adhesiveness (g•sec): -17.10 Cohesiveness: 0.69

Choy Sum

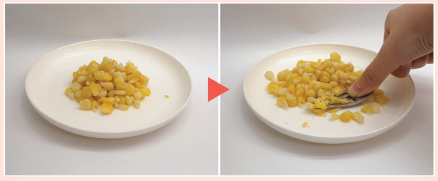
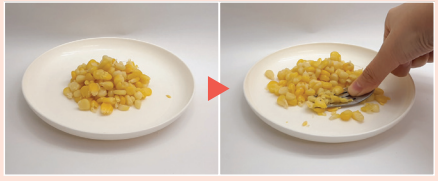
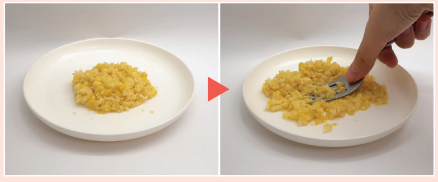
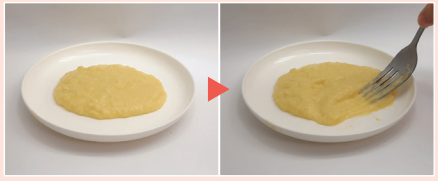
Drink

Ingredient preparation before thickening: Boil 750 g choy sum with 2.5 L water for 15 minutes with medium heat. Blend boiled the choy sum. Add back to the soup and boil for 5 minutes with medium heat. Filter away the residue to obtain **choy sum soup.**

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	Add 4.2 g thickener into 100 ml choy sum soup		Flow test residual amount (ml): 10.00 Viscosity (cP): 1085.70
3 Moderately thick	Add 1.4 g thickener into 100 ml choy sum soup		Flow test residual amount (ml): 8.50 Viscosity (cP): 251.10
2 Mildly thick	Add 1.0 g thickener into 100 ml choy sum soup		Flow test residual amount (ml): 5.20 Viscosity (cP): 137.60
1 Slightly thick	Add 0.7 g thickener into 100 ml choy sum soup		Flow test residual amount (ml): 3.20 Viscosity (cP): 70.70
0 Thin	Use 100 ml choy sum soup		Flow test residual amount (ml): 0.00 Viscosity (cP): 1.30

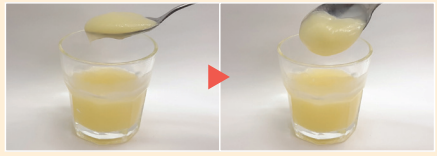
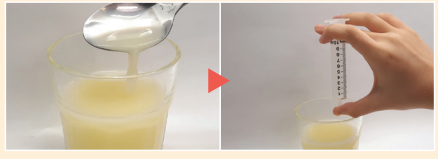
* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Corn — Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 33.80 x 10^3 Adhesiveness (g•sec): -0.94 Cohesiveness: 0.32
	Steam ear of corn for 10 minutes with medium heat. Cut off corn kernels but avoid tip cap.		
6 Soft & bite-sized			Hardness (N/m²): 33.80 x 10^3 Adhesiveness (g•sec): -0.94 Cohesiveness: 0.32
	Steam ear of corn for 10 minutes with medium heat. Cut off corn kernels but avoid tip cap.		
5 Minced & moist			Hardness (N/m²): 12.07 x 10^3 Adhesiveness (g•sec): -3.23 Cohesiveness: 0.30
	Mince cooked level 7, 6 samples into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm		
4 Pureed			Hardness (N/m²): 00.61 x 10^3 Adhesiveness (g•sec): -18.59 Cohesiveness: 0.75
	Blend cooked level 6 samples with water in 2:1 ratio. Filter away excess liquid and lumps.		

Corn — Drink

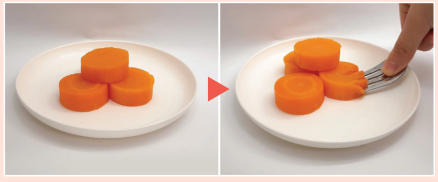
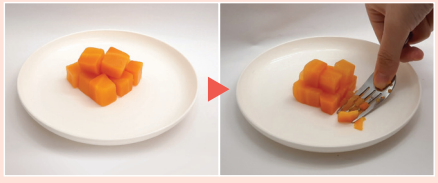
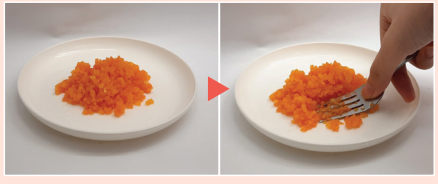
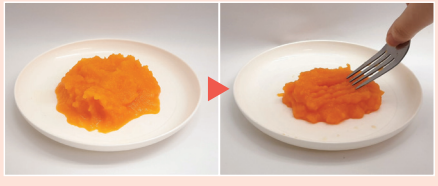
Ingredient preparation before thickening: Boil 600 g corn with 2.5 L water for 15 minutes with medium heat. Blend boiled corn. Add back to the soup and boil for 5 minutes with medium heat. Filter away the residue to obtain corn soup.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 813.90
	Add 2.8 g thickener into 100 ml corn soup		
3 Moderately thick			Flow test residual amount (ml): 9.30 Viscosity (cP): 327.40
	Add 1.4 g thickener into 100 ml corn soup		
2 Mildly thick			Flow test residual amount (ml): 5.70 Viscosity (cP): 132.40
	Add 0.7 g thickener into 100 ml corn soup		
1 Slightly thick			Flow test residual amount (ml): 2.90 Viscosity (cP): 66.10
	Add 0.4 g thickener into 100 ml corn soup		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 6.30
	Use 100 ml corn soup		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Carrot — Food

Ingredient preparation: Peel away skin

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 328.47 x 10^3 Adhesiveness (g•sec): -120.48 Cohesiveness: 0.11
	Cut carrot into 4 cm diameter x 1.5 cm height. Boil for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 49.49 x 10^3 Adhesiveness (g•sec): -12.13 Cohesiveness: 0.14
	Cut carrot into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 25 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 10.27 x 10^3 Adhesiveness (g•sec): -1.16 Cohesiveness: 0.21
	Cut carrot into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 20 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 2.19 x 10^3 Adhesiveness (g•sec): -21.53 Cohesiveness: 0.64
	Blend cooked level 6 samples with water in 2:1 ratio. Filter away excess liquid and lumps.		

Carrot — Drink

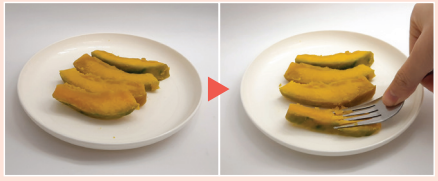
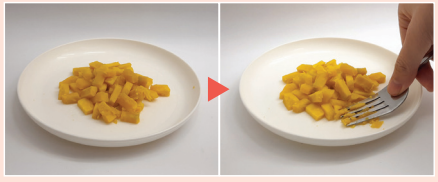
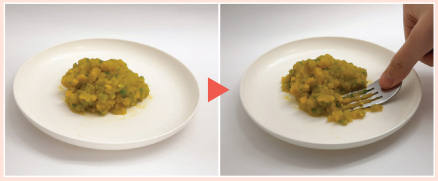
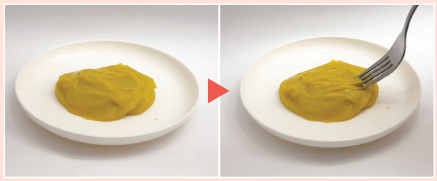
Ingredient preparation before thickening: Blend carrot with water in 1:1 ratio. Filter away the residue to obtain 50% carrot juice.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 645.50
	Add 2.8 g thickener into 100 ml 50% carrot juice		
3 Moderately thick			Flow test residual amount (ml): 8.60 Viscosity (cP): 244.00
	Add 1.4 g thickener into 100 ml 50% carrot juice		
2 Mildly thick			Flow test residual amount (ml): 4.60 Viscosity (cP): 120.20
	Add 1.0 g thickener into 100 ml 50% carrot juice		
1 Slightly thick			Flow test residual amount (ml): 2.80 Viscosity (cP): 79.90
	Add 0.7 g thickener into 100 ml 50% carrot juice		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 1.40
	Use 100 ml 50% carrot juice		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Pumpkin Food

Ingredient preparation: Boil pumpkin for 3 minutes to make the skin soft. Remove the skin and the seeds.

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 287.07 x 10^3 Adhesiveness (g•sec): -99.24 Cohesiveness: 0.29
	Cut pumpkin into 4 cm diameter x 1.5 cm height. Steam for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 36.02 x 10^3 Adhesiveness (g•sec): -39.72 Cohesiveness: 0.25
	Cut pumpkin into pieces smaller than 0.75 cm x 0.75 cm x 1.5 cm. Steam for 10 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 9.96 x 10^3 Adhesiveness (g•sec): -21.74 Cohesiveness: 0.27
	Mince pumpkin into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Add some water and steam for 5 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 1.49 x 10^3 Adhesiveness (g•sec): -59.60 Cohesiveness: 0.75
	Blend level 7 samples with water in 3.5:2 ratio. Filter away excess liquid and lumps. * Level 4 pumpkin is too sticky, so it's not recommended for individual consumption.		

Pumpkin Drink

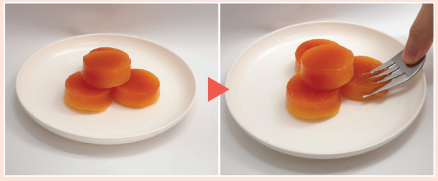
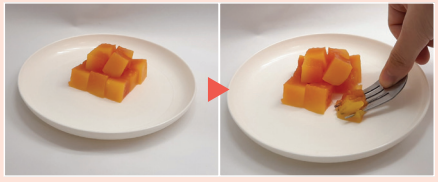
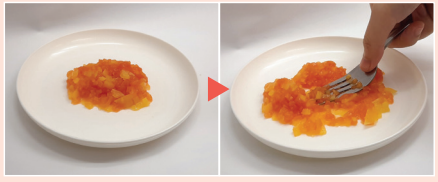
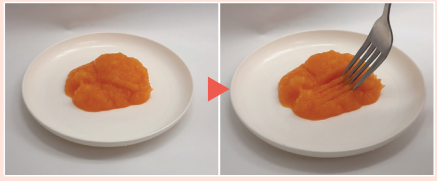
Ingredient preparation before thickening: Cut 1 kg pumpkin into slices or cubes and add into 2.5 L water. Boil pumpkin for 30 minutes with medium heat. Filter away the residue to obtain pumpkin soup.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 1225.30
	Add 3.5 g thickener into 100 ml pumpkin soup		
3 Moderately thick			Flow test residual amount (ml): 9.70 Viscosity (cP): 334.50
	Add 1.4 g thickener into 100 ml pumpkin soup		
2 Mildly thick			Flow test residual amount (ml): 5.90 Viscosity (cP): 143.20
	Add 0.7 g thickener into 100 ml pumpkin soup		
1 Slightly thick			Flow test residual amount (ml): 2.80 Viscosity (cP): 51.40
	Add 0.4 g thickener into 100 ml pumpkin soup		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 3.10
	Consume 100 ml pumpkin soup		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

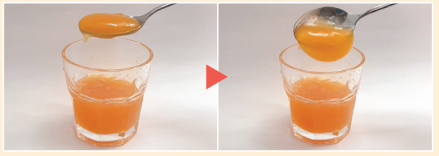
Papaya Food

Ingredient preparation: Remove the fruit peel, fibrous parts and seeds

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 102.33 x 10^3 Adhesiveness (g•sec): -11.33 Cohesiveness: 0.18
	Cut papaya into pieces. Boil for 15 minutes with medium heat. Cut into 4 cm diameter x 1.5 cm height.		
6 Soft & bite-sized			Hardness (N/m²): 25.19 x 10^3 Adhesiveness (g•sec): -6.34 Cohesiveness: 0.17
	Cut papaya into pieces. Boil for 25 minutes with medium heat. Cut into pieces smaller than 1.5 cm x 1.5cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 4.47 x 10^3 Adhesiveness (g•sec): -4.86 Cohesiveness: 0.24
	Cut papaya into pieces. Boil for 25 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.97 x 10^3 Adhesiveness (g•sec): -42.20 Cohesiveness: 0.24
	Blend cooked level 6 samples. Filter away excess liquid and lumps		

Papaya Drink

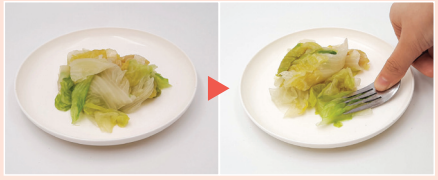
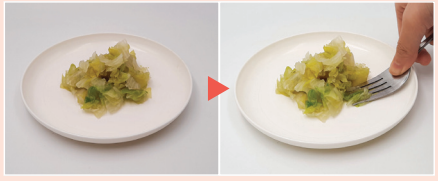
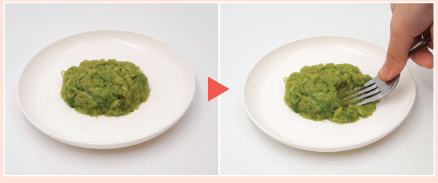
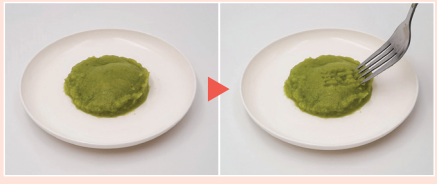
Ingredient preparation before thickening: Blend papaya with water in 1:2 ratio and filter away the residue to obtain 50% papaya juice.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 945.50
	Add 2.8 g thickener into 100 ml 50% papaya juice		
3 Moderately thick			Flow test residual amount (ml): 9.40 Viscosity (cP): 446.70
	Add 1.4 g thickener into 100 ml 50% papaya juice		
2 Mildly thick			Flow test residual amount (ml): 5.50 Viscosity (cP): 169.30
	Add 0.7 g thickener into 100 ml 50% papaya juice		
1 Slightly thick			Flow test residual amount (ml): 3.60 Viscosity (cP): 70.60
	Add 0.4 g thickener into 100 ml 50% papaya juice		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 10.90
	Use 100 ml 50% papaya juice		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

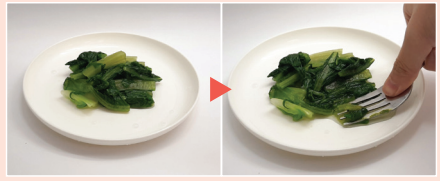
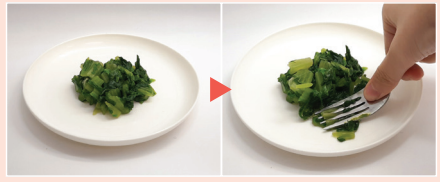
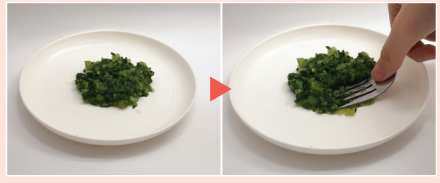
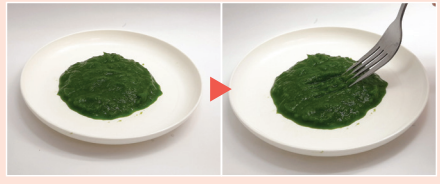
Iceberg Lettuce

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 78.35 x 10^3 Adhesiveness (g•sec): -5.50 Cohesiveness: 0.37
	Remove the core of lettuce. Boil for 5 minutes with medium heat. Cut into smaller pieces.		
6 Soft & bite-sized			Hardness (N/m²): 36.35 x 10^3 Adhesiveness (g•sec): -2.56 Cohesiveness: 0.36
	Remove the core of lettuce. Boil for 5 minutes with medium heat. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 9.15 x 10^3 Adhesiveness (g•sec): -16.70 Cohesiveness: 0.35
	Remove the core of lettuce. Boil for 5 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 1.48 x 10^3 Adhesiveness (g•sec): -16.13 Cohesiveness: 0.70
	Blend cooked level 7 samples with water in 10:1 ratio. Filter away excess liquid and lumps.		

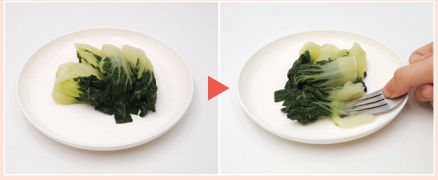
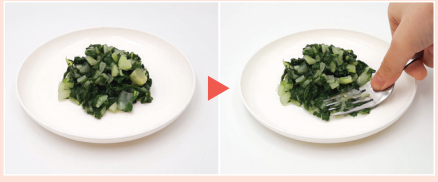
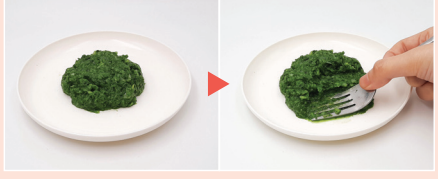
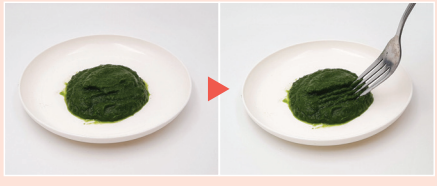
Indian Lettuce

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 76.84 x 10^3 Adhesiveness (g•sec): -0.94 Cohesiveness: 0.33
	Cut Indian lettuce into pieces. Boil for 3 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 32.39 x 10^3 Adhesiveness (g•sec): -1.14 Cohesiveness: 0.40
	Cut Indian lettuce into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 5 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 15.43 x 10^3 Adhesiveness (g•sec): -6.92 Cohesiveness: 0.45
	Cut Indian lettuce into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 5 minutes with medium heat. Filter away excess liquid.		
4 Pureed			Hardness (N/m²): 0.51 x 10^3 Adhesiveness (g•sec): -20.10 Cohesiveness: 0.75
	Blend cooked level 5 samples with water in 2:1 ratio. Filter away excess liquid and lumps.		

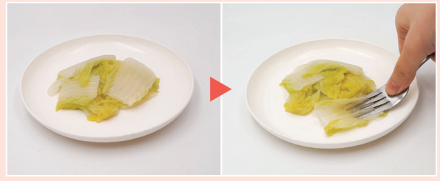
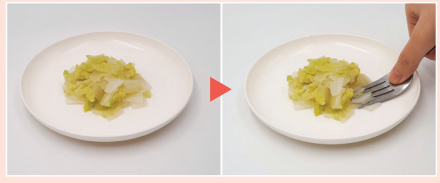
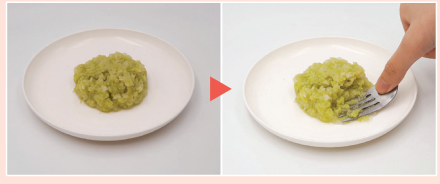
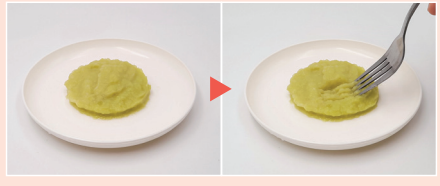
Chinese White Cabbage

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew		Cut Chinese white cabbage into half. Boil for 10 minutes with medium heat.	Hardness (N/m^2): 53.75 x 10^3 Adhesiveness (g•sec): -4.85 Cohesiveness: 0.26
6 Soft & bite-sized		Cut Chinese white cabbage into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 10 minutes with medium heat.	Hardness (N/m^2): 20.22 x 10^3 Adhesiveness (g•sec): -1.22 Cohesiveness: 0.32
5 Minced & moist		Mince Chinese white cabbage into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 5 minutes with medium heat. Filter away excess liquid.	Hardness (N/m^2): 12.44 x 10^3 Adhesiveness (g•sec): -22.66 Cohesiveness: 0.43
4 Pureed		Blend cooked level 7 samples with water in 10:1 ratio. Filter away excess liquid and lumps.	Hardness (N/m^2): 0.77 x 10^3 Adhesiveness (g•sec): -36.05 Cohesiveness: 0.75

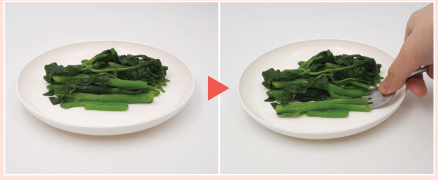
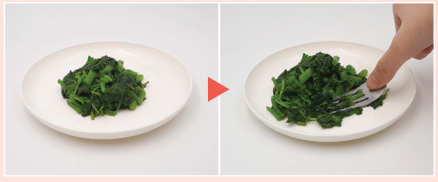
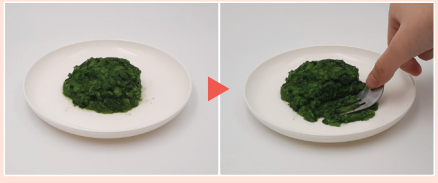
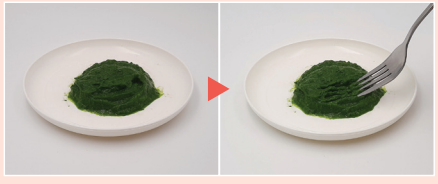
Mini Tientsin Cabbage

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew		Cut mini Tientsin cabbage into smaller pieces. Boil for 15 minutes with medium heat.	Hardness (N/m^2): 111.81 x 10^3 Adhesiveness (g•sec): -13.97 Cohesiveness: 0.13
6 Soft & bite-sized		Cut mini Tientsin cabbage into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 15 minutes with medium heat.	Hardness (N/m^2): 25.25 x 10^3 Adhesiveness (g•sec): -2.05 Cohesiveness: 0.36
5 Minced & moist		Mince mini Tientsin cabbage into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 10 minutes with medium heat. Filter away excess liquid.	Hardness (N/m^2): 16.66 x 10^3 Adhesiveness (g•sec): -4.70 Cohesiveness: 0.37
4 Pureed		Blend cooked level 7 samples. Filter away excess liquid and lumps.	Hardness (N/m^2): 1.00 x 10^3 Adhesiveness (g•sec): -49.82 Cohesiveness: 0.79

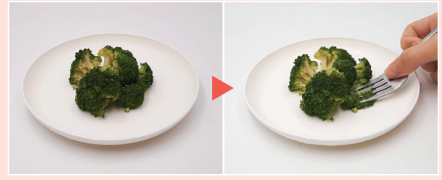
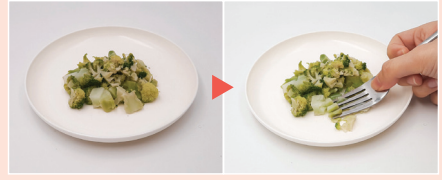
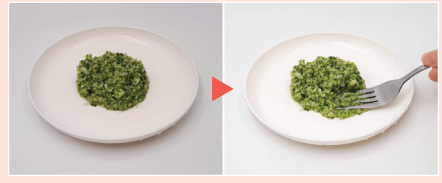
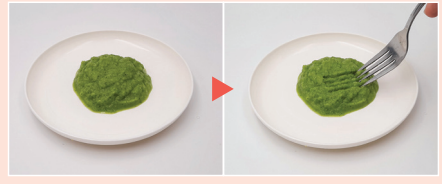
Chinese Amaranth

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 24.40 x 10^3 Adhesiveness (g•sec): -28.94 Cohesiveness: 0.26
	Boil Chinese amaranth for 5 minutes with medium heat. Cut into smaller pieces.		
6 Soft & bite-sized			Hardness (N/m²): 15.96 x 10^3 Adhesiveness (g•sec): -2.73 Cohesiveness: 0.28
	Boil Chinese amaranth for 5 minutes with medium heat. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 7.59 x 10^3 Adhesiveness (g•sec): -10.20 Cohesiveness: 0.33
	Boil Chinese amaranth for 5 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 1.04 x 10^3 Adhesiveness (g•sec): -40.06 Cohesiveness: 0.74
	Blend level 7 samples. Filter away excess liquid and lumps.		

Broccoli

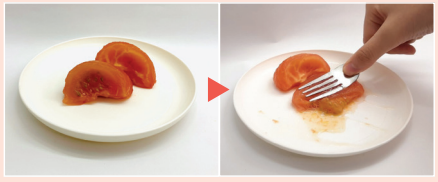
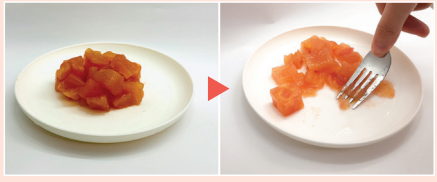
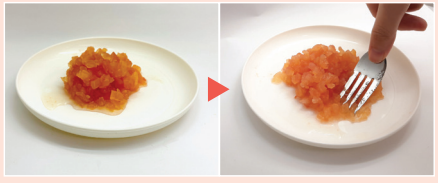
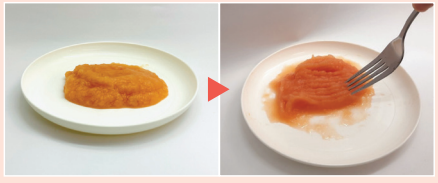
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 112.12 x 10^3 Adhesiveness (g•sec): -15.34 Cohesiveness: 0.09
	Cut broccoli into smaller pieces. Boil for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 20.48 x 10^3 Adhesiveness (g•sec): -3.95 Cohesiveness: 0.21
	Cut broccoli into smaller pieces. Boil for 10 minutes with medium heat. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 12.17 x 10^3 Adhesiveness (g•sec): -5.02 Cohesiveness: 0.20
	Cut broccoli into smaller pieces. Boil for 10 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 1.16 x 10^3 Adhesiveness (g•sec): -48.63 Cohesiveness: 0.75
	Blend cooked level 7 samples with water in 4:1 ratio. Filter away excess liquid and lumps.		

Tomato

Food

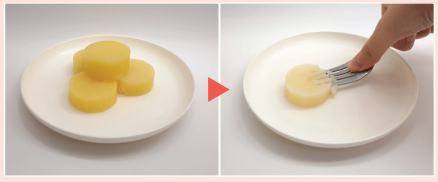
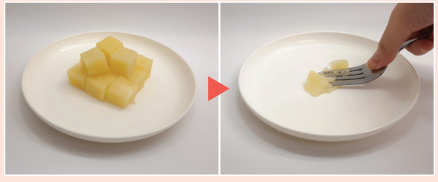
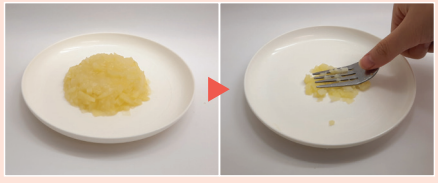
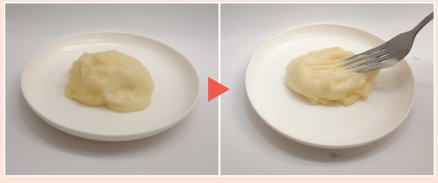
Ingredient preparation: Remove the skin and the seeds

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 64.59 x 10^3 Adhesiveness (g•sec): -24.32 Cohesiveness: 0.26
Cut tomato into 6 pieces. Boil for 2.5 minutes with medium heat. Filter away excess liquid.			
6 Soft & bite-sized			Hardness (N/m²): 28.44 x 10^3 Adhesiveness (g•sec): -8.07 Cohesiveness: 0.26
Cut tomato into pieces smaller 1.5 cm x 1.5 cm x 1.5 cm. Boil for 2.5 minutes with medium heat. Filter away excess liquid.			
5 Minced & moist			Hardness (N/m²): 7.29 x 10^3 Adhesiveness (g•sec): -4.45 Cohesiveness: 0.35
Cut tomato into pieces smaller than of 0.4 cm x 0.4 cm x 0.4 cm. Boil for 2 minutes with medium heat. Filter away excess liquid.			
4 Pureed			Hardness (N/m²): 0.82 x 10^3 Adhesiveness (g•sec): -24.09 Cohesiveness: 0.73
Blend cooked level 6 samples. Filter away excess liquid and lumps.			

Potato

Food

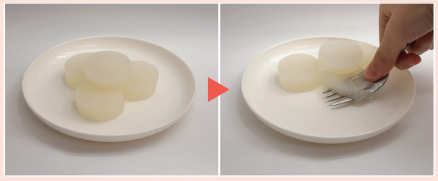
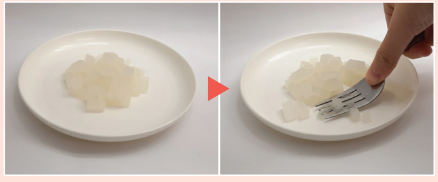
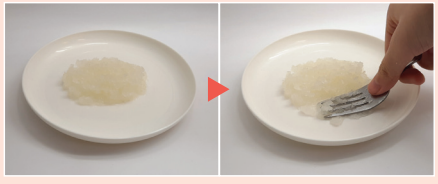
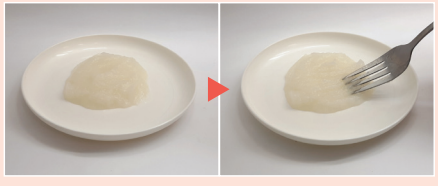
Ingredient preparation: Peel away skin

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 165.21 x 10^3 Adhesiveness (g•sec): -66.83 Cohesiveness: 0.09
Cut potato into 4 cm diameter x 1.5 cm height. Boil for 15 minutes with medium heat.			
6 Soft & bite-sized			Hardness (N/m²): 45.05 x 10^3 Adhesiveness (g•sec): -24.48 Cohesiveness: 0.11
Cut potato into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 15 minutes with medium heat.			
5 Minced & moist			Hardness (N/m²): 12.01 x 10^3 Adhesiveness (g•sec): -8.85 Cohesiveness: 0.19
Cut potato into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 15 minutes with medium heat.			
4 Pureed			Hardness (N/m²): 2.36 x 10^3 Adhesiveness (g•sec): -73.74 Cohesiveness: 0.84
Blend cooked level 6 samples with water in 2:1 ratio. Filter away excess liquid and lumps. * Level 4 potato is too sticky, so it's not recommended for individual consumption.			

White Radish

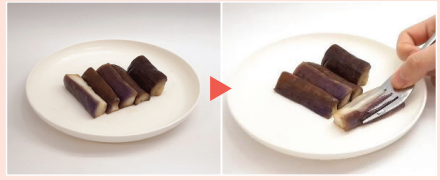
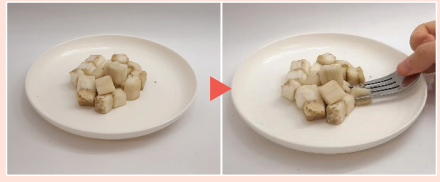
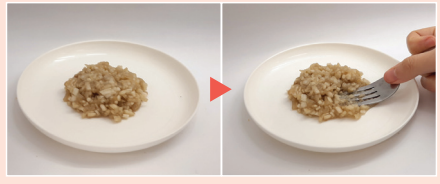
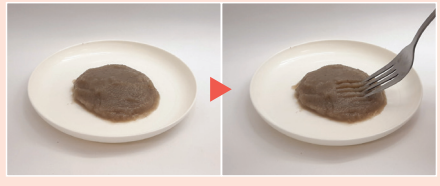
Food

Ingredient preparation: Remove the skin

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 392.50 x 10^3 Adhesiveness (g•sec): -6.94 Cohesiveness: 0.08
	Cut white radish into 4 cm diameter x 1.5 cm height. Boil for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 37.06 x 10^3 Adhesiveness (g•sec): -2.45 Cohesiveness: 0.14
	Cut white radish into pieces smaller than 0.75 cm x 0.75 cm x 1.5 cm. Boil for 10 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 12.31 x 10^3 Adhesiveness (g•sec): -1.74 Cohesiveness: 0.20
	Mince white radish into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 15 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 0.86 x 10^3 Adhesiveness (g•sec): -50.69 Cohesiveness: 0.77
	Blend level 7 samples with water in 20:1 ratio. Filter away excess liquid and lumps.		

Eggplant

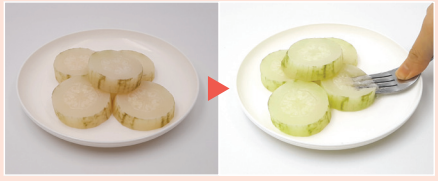
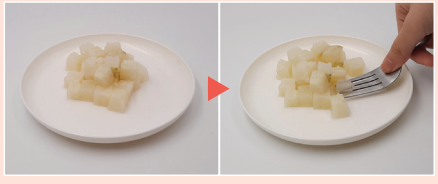
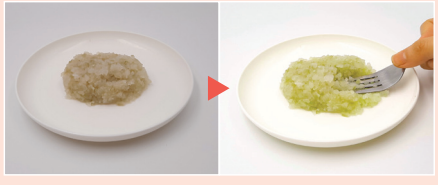
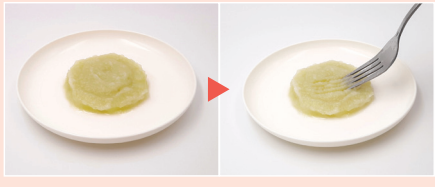
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 55.37 x 10^3 Adhesiveness (g•sec): -70.76 Cohesiveness: 0.17
	Cut eggplant into 4 cm diameter x 1.5 cm height. Steam for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 28.53 x 10^3 Adhesiveness (g•sec): -13.48 Cohesiveness: 0.17
	Remove the skin. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Steam for 15 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 11.84 x 10^3 Adhesiveness (g•sec): -14.58 Cohesiveness: 0.38
	Remove the skin. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4cm. Add some water and steam for 15 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 0.87 x 10^3 Adhesiveness (g•sec): -48.71 Cohesiveness: 0.77
	Blend level 7 samples with water in 10:3 ratio. Filter away excess liquid and lumps.		

Hairy Gourd

Food

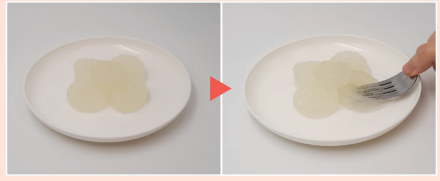
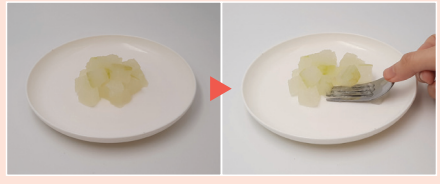
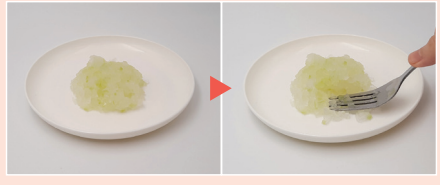
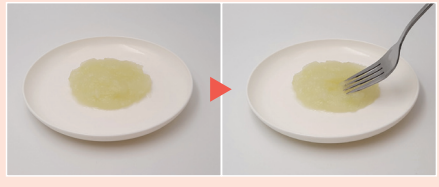
Ingredient preparation: Remove the skin

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 164.51 x 10^3 Adhesiveness (g•sec): -40.54 Cohesiveness: 0.11
	Cut hairy gourd into 4 cm diameter x 1.5 cm height. Steam for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 45.01 x 10^3 Adhesiveness (g•sec): -4.40 Cohesiveness: 0.09
	Cut hairy gourd into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Steam for 10 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 8.88 x 10^3 Adhesiveness (g•sec): -5.85 Cohesiveness: 0.18
	Mince hairy gourd into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Add some water and steam for 15 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 0.67 x 10^3 Adhesiveness (g•sec): -29.66 Cohesiveness: 0.77
	Blend level 7 samples with water in 10:3 ratio. Filter away excess liquid and lumps.		

White Gourd

Food

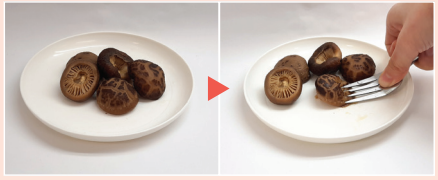
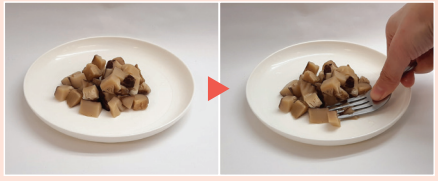
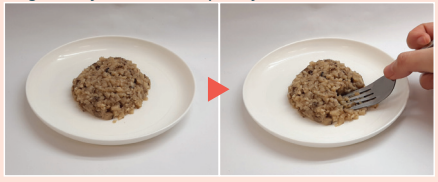
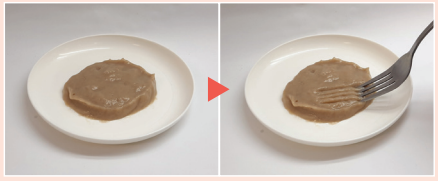
Ingredient preparation: Peel away skin and the seeds

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 12.90 x 10^3 Adhesiveness (g•sec): -17.31 Cohesiveness: 0.16
	Cut wax melon into 4 cm diameter x 1.5 cm height. Steam for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 9.86 x 10^3 Adhesiveness (g•sec): -6.70 Cohesiveness: 0.20
	Cut wax melon into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Steam for 15 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 7.76 x 10^3 Adhesiveness (g•sec): -10.30 Cohesiveness: 0.19
	Mince wax melon into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Add some water and steam for 10 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 0.55 x 10^3 Adhesiveness (g•sec): -22.27 Cohesiveness: 0.68
	Blend cooked level 7 samples. Filter away excess liquid and lumps.		

Shiitake Mushroom

Food

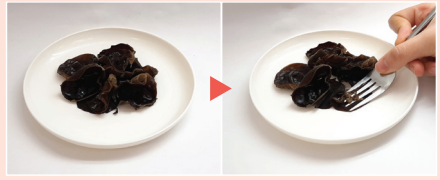
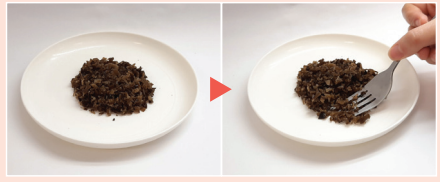
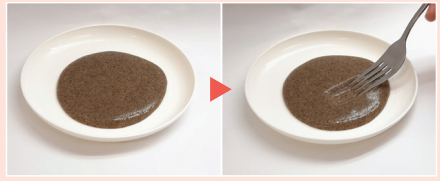
Ingredient preparation: Soak the shiitake mushrooms in warm water with a pinch of sugar for 1 hour. Remove the stalk.

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 135.53 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.64
	Steam shiitake mushroom for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 34.43 x 10^3 Adhesiveness (g•sec): -3.45 Cohesiveness: 0.64
	Steam shiitake mushroom for 15 minutes with medium heat. Cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. * Level 6 shiitake mushroom is too tough/chewy to be broken apart by the side of fork.		
5 Minced & moist			Hardness (N/m²): 5.03 x 10^3 Adhesiveness (g•sec): -10.14 Cohesiveness: 0.37
	Steam shiitake mushroom for 15 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.70 x 10^3 Adhesiveness (g•sec): -32.92 Cohesiveness: 0.64
	Blend level 7 samples with water in 1:1. Filter away excess liquid and lumps.		

Taro

Food

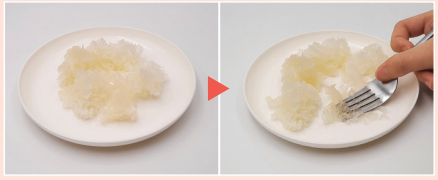
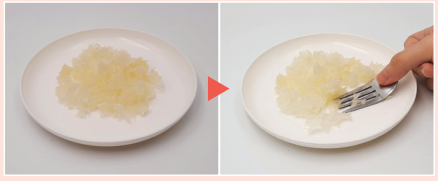
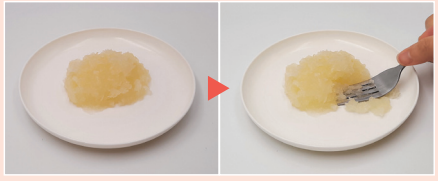
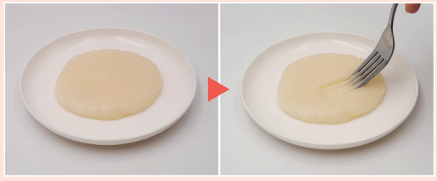
Ingredient preparation: Soak black fungus for 1 hour

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 69.57 x 10^3 Adhesiveness (g•sec): -5.64 Cohesiveness: 0.83
	Cut black fungus into smaller pieces. Steam for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 8.79 x 10^3 Adhesiveness (g•sec): -18.93 Cohesiveness: 0.72
	Cut black fungus into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Steam for 15 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 5.75 x 10^3 Adhesiveness (g•sec): -6.79 Cohesiveness: 0.46
	Mince black fungus into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Steam for 15 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 0.79 x 10^3 Adhesiveness (g•sec): -25.81 Cohesiveness: 0.89
	Blend level 7 samples with water in 1:1. Filter away excess liquid and lumps. * Level 4 black fungus is too thick and sticky, so it's not recommended for individual consumption.		

Snow Fungus

Food

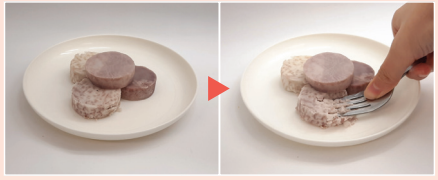
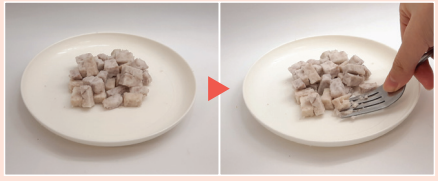
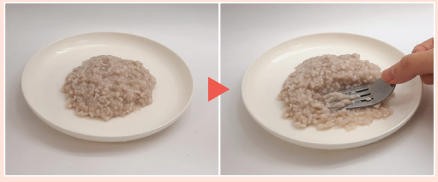
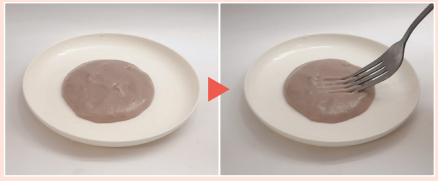
Ingredient preparation: Soak snow fungus for 2 hours

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 11.00 x 10^3 Adhesiveness (g•sec): -46.03 Cohesiveness: 0.74
	Cut snow fungus into smaller pieces. Boil for 15 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 1.97 x 10^3 Adhesiveness (g•sec): -26.18 Cohesiveness: 0.39
	Cut snow fungus into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 15 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 1.86 x 10^3 Adhesiveness (g•sec): -12.62 Cohesiveness: 0.55
	Mince snow fungus into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 15 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 0.89 x 10^3 Adhesiveness (g•sec): -35.08 Cohesiveness: 0.85
	Blend cooked level 7 samples with water in 4:3 ratio. Filter away excess liquid and lumps. * Level 4 snow fungus is too thick and sticky, so it's not recommended for individual consumption.		

Potato

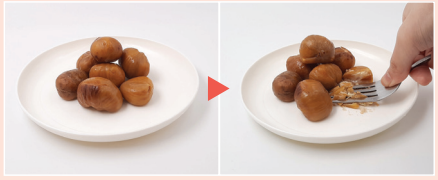
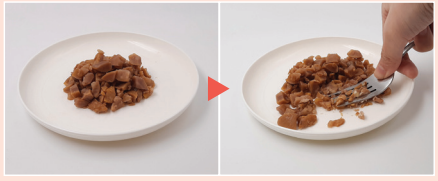
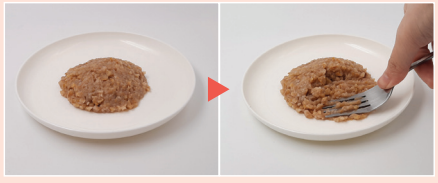
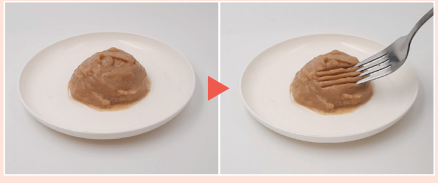
Food

Ingredient preparation: Remove the skin

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 216.21 x 10^3 Adhesiveness (g•sec): -165.12 Cohesiveness: 0.14
	Cut taro into 4 cm diameter x 1.5 cm height. Steam for 10 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 43.51 x 10^3 Adhesiveness (g•sec): -20.90 Cohesiveness: 0.23
	Cut taro into pieces smaller than 0.75 cm x 0.75 cm x 1.5 cm. Steam for 15 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 9.04 x 10^3 Adhesiveness (g•sec): -25.18 Cohesiveness: 0.24
	Mince taro into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Steam for 10 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 1.58 x 10^3 Adhesiveness (g•sec): -48.24 Cohesiveness: 0.88
	Blend level 7 samples with water in 3:1 ratio. Filter away excess liquid and lumps. * Level 4 taro is too thick and sticky, so it's not recommended for individual consumption.		

Chestnut

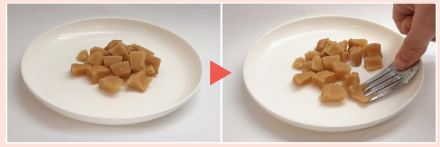
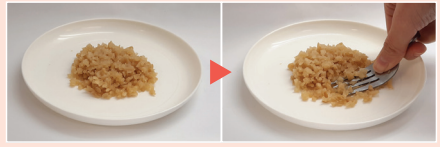
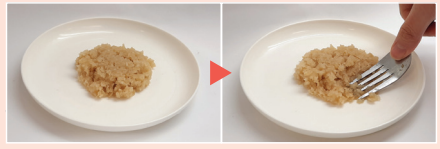
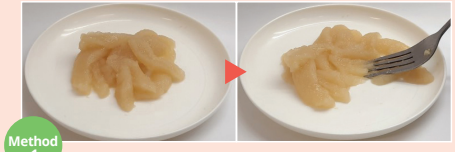
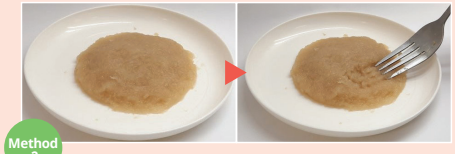
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew		Boil chestnut for 20 minutes with medium heat.	Hardness (N/m²): 158.98 x 10^3 Adhesiveness (g•sec): -6.05 Cohesiveness: 0.12
6 Soft & bite-sized		Boil chestnut for 40 minutes with medium heat. Cut it into pieces smaller than 1.5 cm x 1.5 cm.	Hardness (N/m²): 43.33 x 10^3 Adhesiveness (g•sec): -15.70 Cohesiveness: 0.20
5 Minced & moist		Boil chestnut for 20 minutes with medium heat. Mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.	Hardness (N/m²): 18.85 x 10^3 Adhesiveness (g•sec): -28.98 Cohesiveness: 0.15
4 Pureed		Blend level 7 samples with water in 3:2 water. Filter away excess liquid and lumps. * Level 4 chestnut is too thick and sticky, so it's not recommended for individual consumption.	Hardness (N/m²): 3.03 x 10^3 Adhesiveness (g•sec): -89.16 Cohesiveness: 0.68

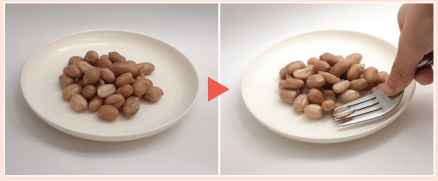
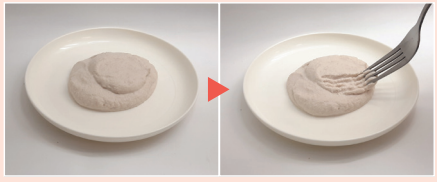
Preserved Radish

Food

Ingredient preparation: Soak preserved radish for 10 minutes and steam for 10 minutes with medium heat

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew		Cut preserved radish into small pieces.	Hardness (N/m²): 114.07 x 10^3 Adhesiveness (g•sec): -20.66 Cohesiveness: 0.63
6 Soft & bite-sized		Cut preserved radish into pieces smaller than 0.5 cm x 0.5 cm x 0.5 cm.	Hardness (N/m²): 114.07 x 10^3 Adhesiveness (g•sec): -2.70 Cohesiveness: 0.52
		Blend the preserved radish with some water into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.	Hardness (N/m²): 114.07 x 10^3 Adhesiveness (g•sec): -2.70 Cohesiveness: 0.52
5 Minced & moist		Method 1 **Soft meal:** Blend the preserved radish with water in 1:5 ratio and 1% softmeal enzyme gellant and heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Cut into slices.	Hardness (N/m²): 4.79 x 10^3 Adhesiveness (g•sec): -12.35 Cohesiveness: 0.36
4 Pureed		Method 2 **Pureed meal:** Add 1 portion of water to 2 portions of Level 7EC preserved radish and mix until a paste-like consistency is achieved. Filter away excess liquid and lumps.	Hardness (N/m²): 3.88 x 10^3 Adhesiveness (g•sec): -31.33 Cohesiveness: 0.50

Peanut — Food

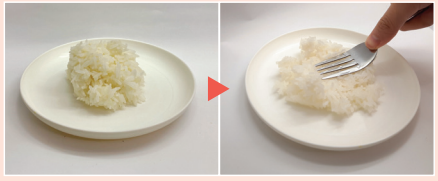
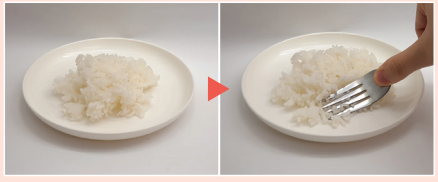
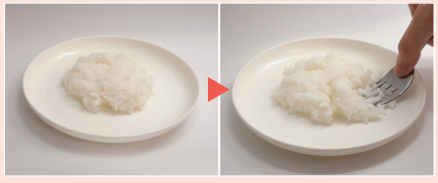
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m^2): 108.19×10^3 Adhesiveness (g•sec): -3.24 Cohesiveness: 108.19
	Soak peanuts with water for 1 hour. Boil for 1 hour with medium heat.		
4 Pureed			Hardness (N/m^2): 0.93×10^3 Adhesiveness (g•sec): -49.71 Cohesiveness: 0.70
	Blend level 7 with water in 8:5 ratio. Filter away excess liquid and lumps.		

Peanut — Drink

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
3 Moderately thick			Flow test residual amount (ml): 9.60 Viscosity (cP): 882.00
	Use commercial peanut butter. * Level 3 peanut butter is too sticky, so it's not recommended for individual consumption.		

Main Dishes and Legume Products

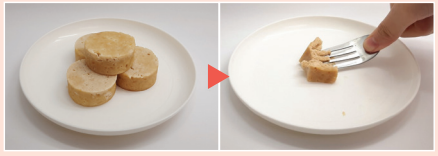
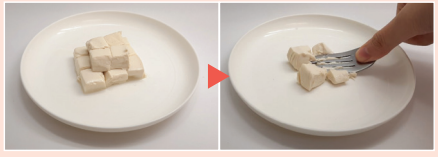
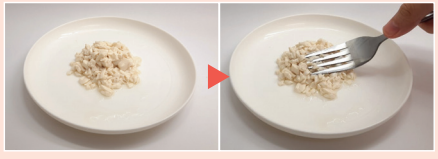
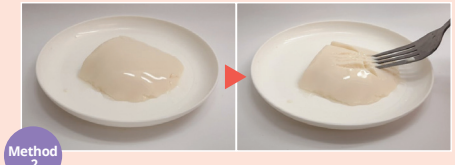
Rice — Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew		Cook rice with water in 1:1.2 ratio.	Hardness (N/m²): 49.49 x 10^3 Adhesiveness (g•sec): -35.53 Cohesiveness: 0.67
6 Soft & bite-sized		Cook rice with water in 1:1.5 ratio.	Hardness (N/m²): 37.17 x 10^3 Adhesiveness (g•sec): -75.95 Cohesiveness: 0.63
5 Minced & moist		Cook rice with water in 1:3 ratio.	Hardness (N/m²): 16.22 x 10^3 Adhesiveness (g•sec): -91.72 Cohesiveness: 0.53
4 Pureed		Soak rice with water for 30 minutes and cook with water in 1:2.5 ratio. Blend the rice. Filter away excess liquid and lumps * Level 4 rice is too thick and sticky, so it's not recommended for individual consumption.	Hardness (N/m²): 1.84 x 10^3 Adhesiveness (g•sec): -39.92 Cohesiveness: 0.82

Rice — Drink

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	 Soak rice with water in 1:2 ratio for 1 hour. Cook the rice. Blend 200 g rice with 75 g water. * Level 4 congee is too sticky, exceeding the measurement range, so it's not recommended for individual consumption.		Flow test residual amount (ml):- Viscosity (cP): -
3 Moderately thick	 Soak rice with water in 1:13.3 ratio for 1 hour. Steam rice with water in cooker for 30 minutes and blend the rice.		Flow test residual amount (ml): 8.30 Viscosity (cP): 287.70
2 Mildly thick	 Soak rice with water in 1:20 ratio for 1 hour. Steam rice with water in cooker for 30 minutes and blend the rice.		Flow test residual amount (ml): 4.60 Viscosity (cP): 120.20
1 Slightly thick	 Soak rice with water in 1:25 ratio for 1 hour. Steam rice with water in cooker for 30 minutes and blend the rice. * The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2		Flow test residual amount (ml): 2.30 Viscosity (cP): 21.20

Tofu — Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 370.10 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.62
	Cut dried bean curd into 4 cm diameter x 1.5 cm height. Boil for 5 minutes with medium heat		
6 Soft & bite-sized			Hardness (N/m²): 20.38 x 10^3 Adhesiveness (g•sec):-2.77 Cohesiveness: 0.54
	Cut dried bean curd into 4 cm diameter x 1.5 cm height. Boil for 5 minutes with medium heat		
5 Minced & moist			Hardness (N/m²): 9.01 x 10^3 Adhesiveness (g•sec): -4.35 Cohesiveness: 0.62
	Mince bean curd into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 1.5 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 1.01 x 10^3 Adhesiveness (g•sec): -42.30 Cohesiveness: 0.74
	Method 1 **Tofu purée:** Blend cooked level 6 samples. Filter away excess liquid and lumps.		
			Hardness (N/m²): 3.88 x 10^3 Adhesiveness (g•sec): -11.82 Cohesiveness: 0.52
	Method 2 **Tofu pudding:** Use pre-packaged tofu fa.		

Tofu — Drink

Ingredient preparation before thickening: Prepacked no added sugar soybean milk

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 713.10
	Add 2.1 g thickener into 100 ml prepacked no added sugar soybean milk.		
3 Moderately thick			Flow test residual amount (ml): 9.90 Viscosity (cP): 423.20
	Add 1.4 g thickener into 100 ml prepacked no added sugar soybean milk.		
2 Mildly thick			Flow test residual amount (ml): 7.70 Viscosity (cP): 152.50
	Add 0.7 g thickener into 100 ml prepacked no added sugar soybean milk.		
1 Slightly thick			Flow test residual amount (ml): 3.20 Viscosity (cP): 48.20
	Add 0.35 g thickener into 100 ml prepacked no added sugar soybean milk.		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 1.90
	Use 100 ml prepacked no added sugar soybean milk.		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Cellophane noodles

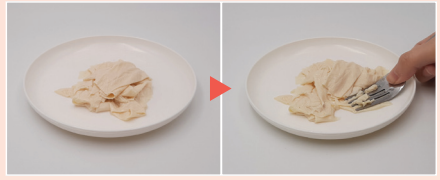
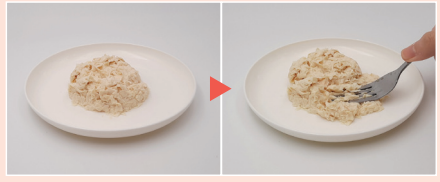
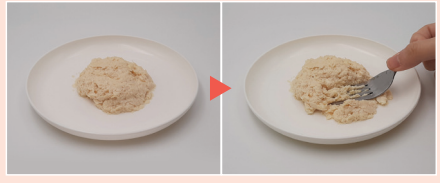
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Cut green bean vermicelli noodle into smaller pieces.		Hardness (N/m²): 5.09 x 10^3 Adhesiveness (g•sec): -9.63 Cohesiveness: 0.53
6 Soft & bite-sized	 Cut green bean vermicelli noodle into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		Hardness (N/m²): 3.15 x 10^3 Adhesiveness (g•sec): -2.33 Cohesiveness: 0.37
5 Minced & moist	 Mince green bean vermicelli noodle into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 3.75 x 10^3 Adhesiveness (g•sec): -4.33 Cohesiveness: 0.30
4 Pureed	 Blend level 7 samples with water in 1:1 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 1.11 x 10^3 Adhesiveness (g•sec): -59.23 Cohesiveness: 0.73

Dried Bean Curd

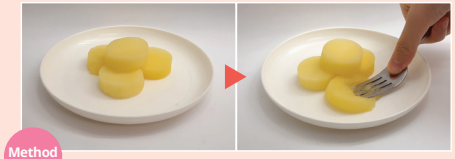
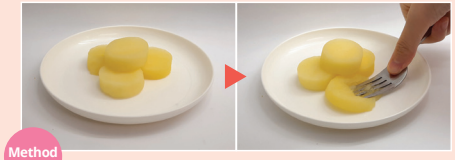
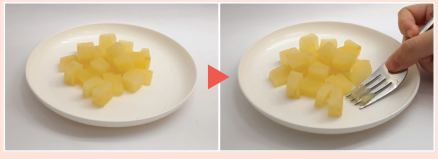
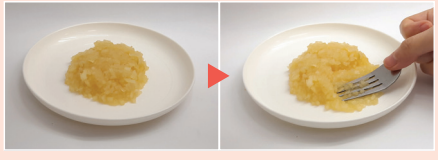
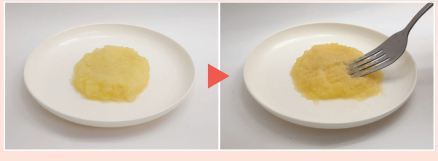
Food

Ingredient preparation: Soak dried bean curd for 15 minutes

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Cut dried bean curd into smaller pieces. Boil for 5 minutes with medium heat.		Hardness (N/m²): 5.18 x 10^3 Adhesiveness (g•sec): -7.03 Cohesiveness: 0.55
6 Soft & bite-sized	 Cut dried bean curd into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Boil for 5 minutes with medium heat. Filter away excess liquid.		Hardness (N/m²): 3.70 x 10^3 Adhesiveness (g•sec): -3.74 Cohesiveness: 0.59
5 Minced & moist	 Mince dried bean curd into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Boil for 5 minutes with medium heat. Filter away excess liquid.		Hardness (N/m²): 3.07 x 10^3 Adhesiveness (g•sec): -6.10 Cohesiveness: 0.40
4 Pureed	 Blend cooked level 7 samples with water in 5:1 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 0.67 x 10^3 Adhesiveness (g•sec): -34.45 Cohesiveness: 0.74

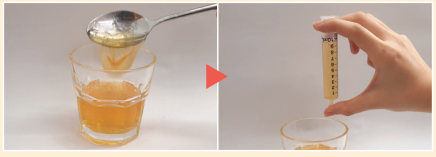
Fruit and Dessert

Apple Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Method 1 **Raw:** Cut apple into pieces smaller than 0.75 cm x 1.5 cm x 1.5 cm.		Hardness (N/m²): 347.15 x 10^3 Adhesiveness (g•sec):-9.46 Cohesiveness: 0.16
	 Method 2 **Cooked:** Cut apple into 4 cm diameter x 1.5 cm height. Boil for 5 minutes with medium heat.		Hardness (N/m²): 272.91 x 10^3 Adhesiveness (g•sec):-84.40 Cohesiveness: 0.08
6 Soft & bite-sized	 Cut apple into pieces smaller than 0.75 cm x 1.5 cm x 1.5 cm. Boil for 10 minutes with medium heat.		Hardness (N/m²): 47.12 x 10^3 Adhesiveness (g•sec):-16.37 Cohesiveness: 0.15
5 Minced & moist	 Mince apple into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Stir-fry with some water for 5 minutes with medium heat.		Hardness (N/m²): 9.52 x 10^3 Adhesiveness (g•sec):-17.24 Cohesiveness: 0.29
4 Pureed	 Blend cooked level 7 samples. Filter away excess liquid and lumps.		Hardness (N/m²): 4.84 x 10^3 Adhesiveness (g•sec):-18.52 Cohesiveness: 0.59

Apple Drink

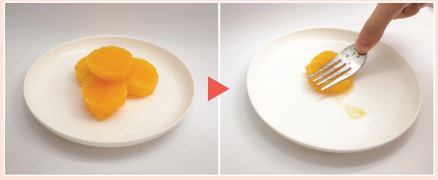
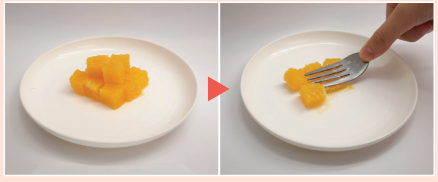
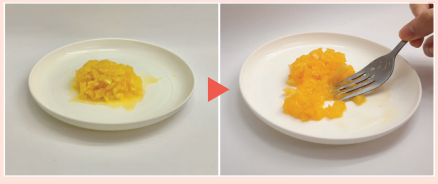
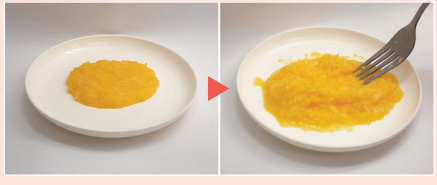
Ingredient preparation before thickening: Prepare 100% apple juice without pulp

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	Add 4.2 g thickener into 100 ml 100% apple juice without pulp.		Flow test residual amount (ml): 10.00 Viscosity (cP): 1132.00
3 Moderately thick	Add 2.1 g thickener into 100 ml 100% apple juice without pulp.		Flow test residual amount (ml): 9.60 Viscosity (cP): 442.10
2 Mildly thick	Add 1.4 g thickener into 120 ml 100% apple juice without pulp.		Flow test residual amount (ml): 7.60 Viscosity (cP): 197.80
1 Slightly thick	Add 0.7 g thickener into 100 ml 100% apple juice without pulp.		Flow test residual amount (ml): 2.20 Viscosity (cP): 58.80
0 Thin	Use 100 ml 100% apple juice without pulp.		Flow test residual amount (ml): 0.00 Viscosity (cP): 1.50

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

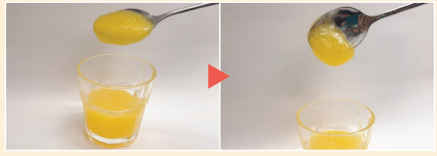
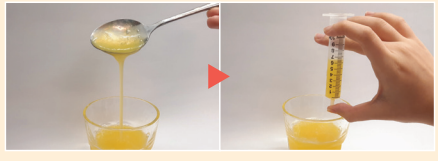
Orange Food

Ingredient preparation: Remove the fibrous parts and the seeds

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 43.31 x 10^3 Adhesiveness (g•sec): -7.89 Cohesiveness: 0.26
	Cut orange into 4 cm diameter x 1.5 cm height.		
6 Soft & bite-sized			Hardness (N/m²): 34.56 x 10^3 Adhesiveness (g•sec): -7.78 Cohesiveness: 0.30
	Cut orange into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 5.17 x 10^3 Adhesiveness (g•sec): -2.93 Cohesiveness: 0.40
	Mince orange into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. * Level 5 orange is too thick and sticky, so it's not recommended for individual consumption.		
4 Pureed			Hardness (N/m²): 1.39 x 10^3 Adhesiveness (g•sec): -17.70 Cohesiveness: 0.61
	Blend level 6 samples. Filter away excess liquid and lumps.		

Orange Drink

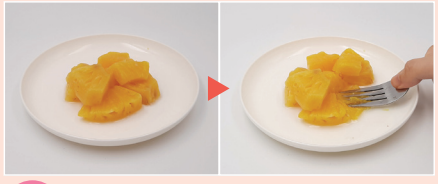
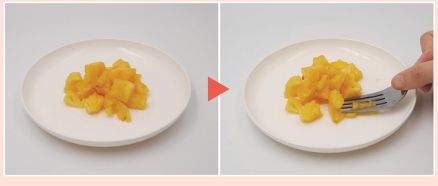
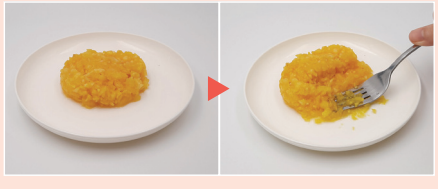
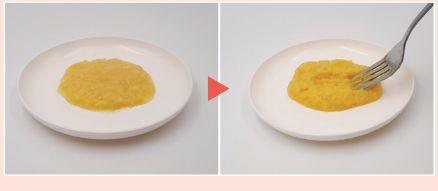
Ingredient preparation before thickening: Prepare 100% orange juice without pulp

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 918.40
	Add 3.0 g thickener into 100 ml 100% orange juice without pulp.		
3 Moderately thick			Flow test residual amount (ml): 8.50 Viscosity (cP): 298.80
	Add 1.4 g thickener into 100 ml 100% orange juice without pulp.		
2 Mildly thick			Flow test residual amount (ml): 4.30 Viscosity (cP): 104.30
	Add 0.7 g thickener into 100 ml 100% orange juice without pulp.		
1 Slightly thick			Flow test residual amount (ml): 1.30 Viscosity (cP): 37.30
	Add 0.4 g thickener into 100 ml 100% orange juice without pulp.		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 4.40
	Use 100 ml 100% orange juice without pulp.		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Pineapple Food

Ingredient preparation : Remove the skin

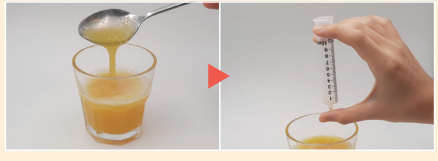
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 128.50 x 10^3 (raw) 92.58 x 10^3 (cooked) Adhesiveness (g•sec): -7.31 (raw) -12.71 (cooked) Cohesiveness: 0.16 (raw) 0.13 (cooked)
6 Soft & bite-sized	 Cut pineapple into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		Hardness (N/m²): 28.96 x 10^3 Adhesiveness (g•sec):-4.29 Cohesiveness: 0.21
5 Minced & moist	 Mince pineapple into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 13.92 x 10^3 Adhesiveness (g•sec):-13.30 Cohesiveness: 0.23
4 Pureed	 Blend cooked level 7 samples. Filter away excess liquid and lumps.		Hardness (N/m²): 1.10x 10^3 Adhesiveness (g•sec):-39.81 Cohesiveness: 0.78

Method 1 **Raw:** Cut pineapple into smaller pieces.

Method 2 **Cooked:** Cut pineapple into smaller pieces. Boil for 5 minutes with medium heat.

Pineapple Drink

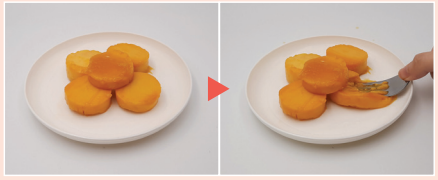
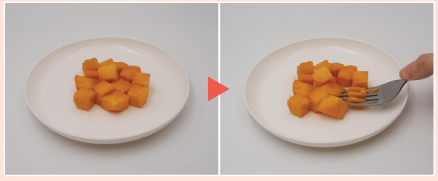
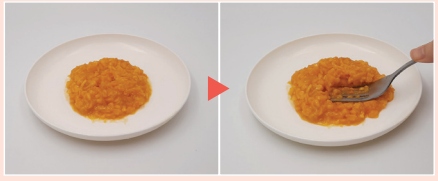
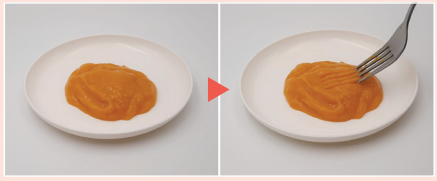
Ingredient preparation before thickening: Prepare 100% pineapple juice without pulp

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	 Add 4.2 g thickener into 100 ml 100% pineapple juice without pulp.		Flow test residual amount (ml): 10.00 Viscosity (cP): 1440.00
3 Moderately thick	 Add 1.4 g thickener into 100 ml 100% pineapple juice without pulp.		Flow test residual amount (ml): 8.70 Viscosity (cP): 306.60
2 Mildly thick	 Add 0.7 g thickener into 120 ml 100% pineapple juice without pulp.		Flow test residual amount (ml): 4.60 Viscosity (cP): 110.30
1 Slightly thick	 Add 0.4 g thickener into 100 ml 100% pineapple juice without pulp.		Flow test residual amount (ml): 1.50 Viscosity (cP): 35.40
0 Thin	 Use 100 ml 100% pineapple juice without pulp.		Flow test residual amount (ml): 0.00 Viscosity (cP): 3.80

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

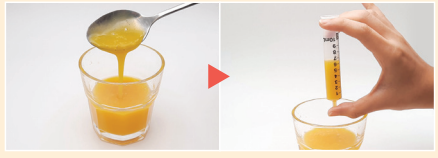
Mango — Food

Ingredient preparation: Remove the skin

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 40.28 x 10^3 Adhesiveness (g•sec): -20.05 Cohesiveness: 0.11
	Cut mango into 4 cm diameter x 1.5 cm height.		
6 Soft & bite-sized			Hardness (N/m²): 17.84 x 10^3 Adhesiveness (g•sec): -5.82 Cohesiveness: 0.12
	Cut mango into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 2.25 x 10^3 Adhesiveness (g•sec): -19.58 Cohesiveness: 0.49
	Mince mango into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.82 x 10^3 Adhesiveness (g•sec): -35.84 Cohesiveness: 0.76
	Blend level 7 samples. Filter away excess liquid and lumps.		

Mango — Drink

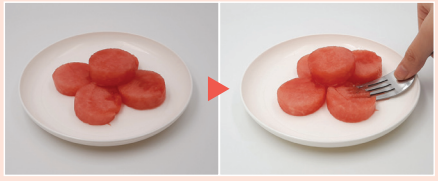
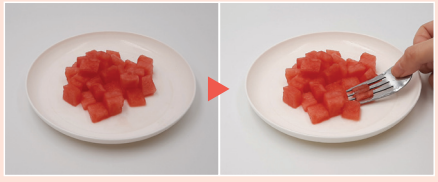
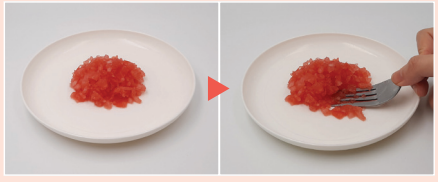
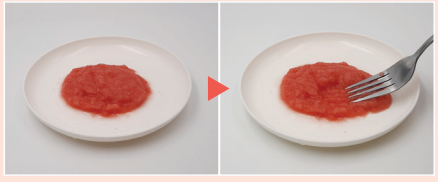
Ingredient preparation before thickening: Blend 500 g mango with 1 L water and filter away the residue to obtain 33.3% mango juice.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 1271.30
	Add 4.2 g thickener into 100 ml 33.3% mango juice without pulp		
3 Moderately thick			Flow test residual amount (ml): 9.70 Viscosity (cP): 349.40
	Add 1.4 g thickener into 100 ml 33.3% mango juice without pulp		
2 Mildly thick			Flow test residual amount (ml): 7.50 Viscosity (cP): 164.30
	Add 0.7 g thickener into 100 ml 33.3% mango juice without pulp		
1 Slightly thick			Flow test residual amount (ml): 3.50 Viscosity (cP): 72.60
	Add 0.3 g thickener into 100 ml 33.3% mango juice without pulp		
0 Thin			Flow test residual amount (ml): 0.40 Viscosity (cP): 21.20
	Use 100 ml 33.3% mango juice without pulp		

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Watermelon Food

Ingredient preparation : Remove the skin and seeds

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Cut watermelon into 4 cm diameter x 1.5 cm height.		Hardness (N/m²): 138.91 x 10^3 Adhesiveness (g•sec): -7.94 Cohesiveness: 0.14
6 Soft & bite-sized	 Cut watermelon into pieces smaller than 0.75 cm x 1.5 cm x 1.5 cm.		Hardness (N/m²): 24.96 x 10^3 Adhesiveness (g•sec): -2.35 Cohesiveness: 0.24
5 Minced & moist	 Mince watermelon into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 6.93 x 10^3 Adhesiveness (g•sec): -1.61 Cohesiveness: 0.23
4 Pureed	 Blend cooked level 7 samples. Filter away excess liquid and lumps.		Hardness (N/m²): 0.63 x 10^3 Adhesiveness (g•sec): -19.41 Cohesiveness: 0.75

Watermelon Drink

Ingredient preparation before thickening: Prepare 100% watermelon juice without pulp

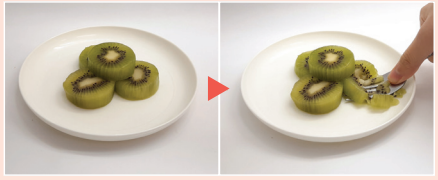
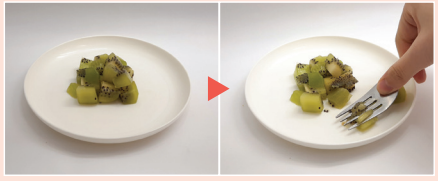
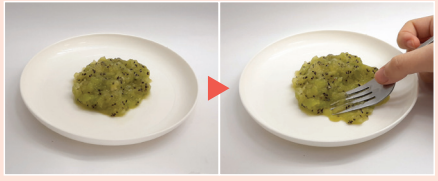
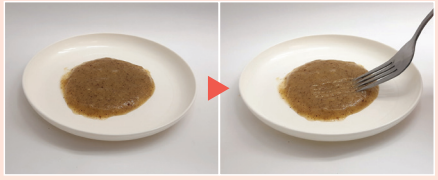
IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	 Add 4.2 g thickener into 100 ml 100% watermelon juice without pulp.		Flow test residual amount (ml): 10.00 Viscosity (cP): 1071.70
3 Moderately thick	 Add 2.1 g thickener into 100 ml 100% watermelon juice without pulp.		Flow test residual amount (ml): 9.50 Viscosity (cP): 413.30
2 Mildly thick	 Add 1.4 g thickener into 120 ml 100% watermelon juice without pulp.		Flow test residual amount (ml): 6.80 Viscosity (cP): 154.70
1 Slightly thick	 Add 0.7 g thickener into 100 ml 100% watermelon juice without pulp.		Flow test residual amount (ml): 2.30 Viscosity (cP): 59.90
0 Thin	 Use 100 ml 100% watermelon juice without pulp.		Flow test residual amount (ml): 0.00 Viscosity (cP): 1.60

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Kiwi

Food

Ingredient preparation: Cut both ends off the kiwi and peel away the skin.

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 69.60 x 10^3 Adhesiveness (g•sec): -50.56 Cohesiveness: 0.11
	Cut kiwi into pieces with a diameter of 4 cm x height of 1.5.		
6 Soft & bite-sized			Hardness (N/m²): 37.14 x 10^3 Adhesiveness (g•sec): -20.66 Cohesiveness: 0.12
	Cut kiwi into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 1.57 x 10^3 Adhesiveness (g•sec): -11.11 Cohesiveness: 0.48
	Mince kiwi into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		
4 Pureed			Hardness (N/m²): 0.45 x 10^3 Adhesiveness (g•sec): -19.50 Cohesiveness: 0.72
	Blend level 7 samples. Filter away excess liquid and lumps.		

Sago

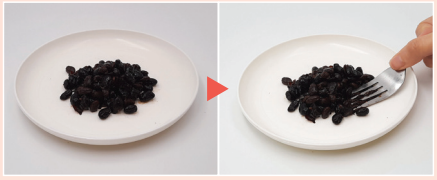
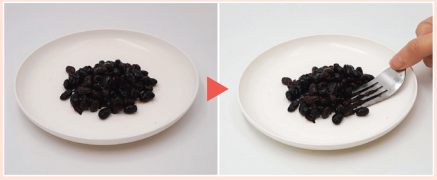
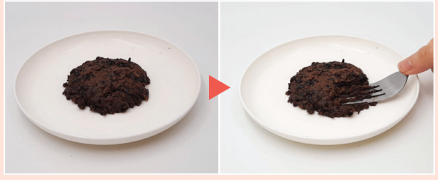
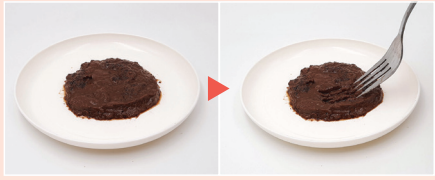
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
5 Minced & moist			Hardness (N/m²): 0.89 x 10^3 Adhesiveness (g•sec): -11.68 Cohesiveness: 0.65
	Bring a pot of water to boil, add sago and boil for 10 minutes with medium heat. Turn off heat and wait for 15 minutes. Drain water from the cooked sago. * This method can also be used for levels 6 and 7		

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
3 Liquidised			Hardness (N/m²): 0.65 x 103 Adhesiveness (g•sec): -0.09 Cohesiveness: 0.81
	Blend level 5 cooked sago into smooth puree. * The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2		

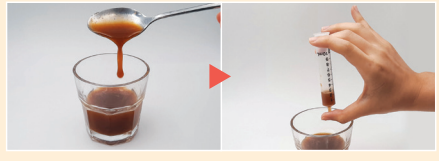
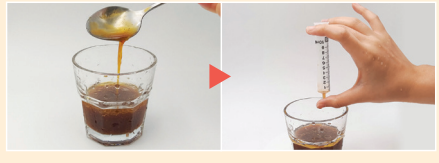
Sauce

Black Bean Sauce — Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Boil preserved bean for 5 minutes with medium heat.		Hardness (N/m²): 13.56 x 10^3 Adhesiveness (g•sec): -2.29 Cohesiveness: 0.49
6 Soft & bite-sized	 Boil preserved bean for 5 minutes with medium heat.		Hardness (N/m²): 13.56 x 10^3 Adhesiveness (g•sec): -2.29 Cohesiveness: 0.49
5 Minced & moist	 Boil preserved beans for 5 minutes with medium heat. Cut into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 9.22 x 10^3 Adhesiveness (g•sec): -17.66 Cohesiveness: 0.32
4 Pureed	 Pureed meal: Blend cooked level 7 samples with water in 1:2 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 1.57 x 10^3 Adhesiveness (g•sec): -48.84 Cohesiveness: 0.78

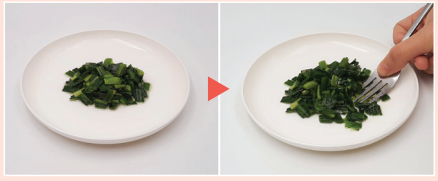
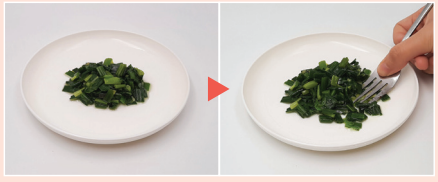
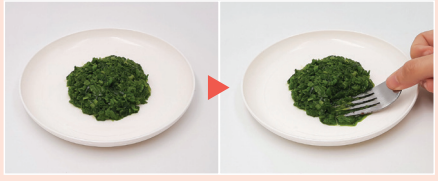
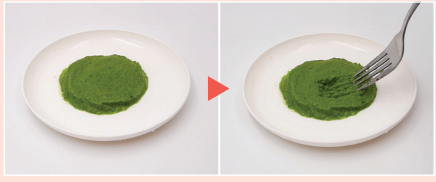
Black Bean Sauce — Drink

Ingredient preparation before thickening: Add 10 g preserved beans, 10 ml soy sauce, and 10 ml oil into 100 ml water. Boil for 1 minute with medium heat.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	Dissolve 10 g corn starch in 100 ml water. Add corn starch solution slowly. Boil for 4 minutes with medium heat. Filter away the preserved beans and excess lumps.		Flow test residual amount (ml): 10.00 Viscosity (cP): 2625.30
3 Moderately thick	Dissolve 5 g corn starch in 100 ml water. Add corn starch solution slowly. Boil for 4 minutes with medium heat. Filter away the preserved beans and excess lumps.		Flow test residual amount (ml): 9.70 Viscosity (cP): 377.60
2 Mildly thick	Dissolve 5 g corn starch in 100 ml water. Add corn starch solution slowly. Boil for 4 minutes with medium heat. Filter away the preserved beans and excess lumps.		Flow test residual amount (ml): 4.70 Viscosity (cP): 91.70
1 Slightly thick	Dissolve 2.5 g corn starch in 100 ml water. Add corn starch solution slowly. Boil for 4 minutes with medium heat. Filter away the preserved beans and excess lumps.		Flow test residual amount (ml): 2.90 Viscosity (cP): 41.60
0 Thin	Filter away the preserved beans and excess lumps.		Flow test residual amount (ml): 0.00 Viscosity (cP): 13.60

*Measured under 24.6°C at shear rate $50s^{-1}$ The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Scallions Oil — Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m^2): 17.12×10^3 Adhesiveness (g•sec): -29.94 Cohesiveness: 0.30
	Cut scallions into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Stir-fry with plenty of oil for 1.5 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m^2): 17.12×10^3 Adhesiveness (g•sec): -29.94 Cohesiveness: 0.30
	Cut scallions into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Stir-fry with plenty of oil for 1.5 minutes with medium heat.		
5 Minced & moist			Hardness (N/m^2): 6.75×10^3 Adhesiveness (g•sec): -15.26 Cohesiveness: 0.26
	Mince scallions into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Stir-fry with plenty of oil for 1.5 minutes with medium heat.		
4 Pureed			Hardness (N/m^2): 1.05×10^3 Adhesiveness (g•sec): -33.97 Cohesiveness: 0.80
	Pureed meal: Blend cooked level 7 samples with water in 10:7 ratio. Filter away excess liquid and lumps.		

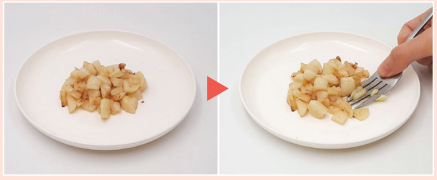
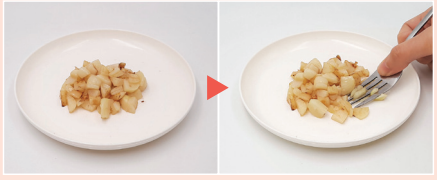
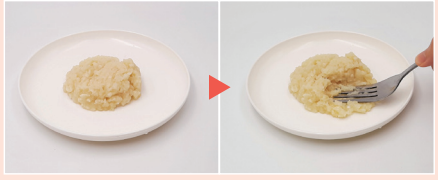
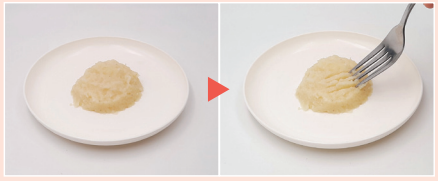
Scallions Oil — Drink

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
2 Mildly thick			Flow test residual amount (ml): 4.90 Viscosity (cP): 57.60
	Add 4.2 g thickener into 100 ml 100% apple juice without pulp.		

* Measured under 23.5˚C at shear rate $50s^{-1}$
The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Garlic

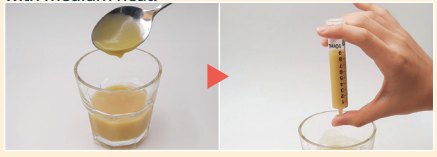
Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 17.12 x 10^3 Adhesiveness (g•sec): -29.94 Cohesiveness: 0.30
	Cut garlic into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Stir-fry for 1.5 minutes with medium heat.		
6 Soft & bite-sized			Hardness (N/m²): 17.12 x 10^3 Adhesiveness (g•sec): -29.94 Cohesiveness: 0.30
	Cut garlic into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Stir-fry for 1.5 minutes with medium heat.		
5 Minced & moist			Hardness (N/m²): 6.75 x 10^3 Adhesiveness (g•sec): -15.26 Cohesiveness: 0.26
	Mince garlic into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Stir-fry for 1.5 minutes with medium heat.		
4 Pureed			Hardness (N/m²): 3.18 x 10^3 Adhesiveness (g•sec): -45.17 Cohesiveness: 0.73
	Blend garlic with water in 2:1 ratio. Filter away excess liquid and lumps. Stir-fry for 1.5 minutes with medium heat.		

Coconut Curry Sauce

Drink

Ingredient preparation before thickening: Add 5 g coconut curry sauce into 100 ml water and stir to make it dissolve completely. Boil for 1.25 minutes with medium heat.ml water. Boil for 1 minute with medium heat.

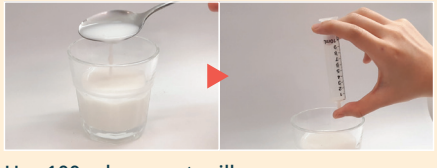
IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 1810.00
	Dissolve 12.5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat.		
3 Moderately thick			Flow test residual amount (ml): 9.10 Viscosity (cP): 274.30
	Dissolve 7.5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat.		
2 Mildly thick			Flow test residual amount (ml): 6.00 Viscosity (cP): 133.90
	Dissolve 5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat.		
1 Slightly thick			Flow test residual amount (ml): 1.50 Viscosity (cP): 57.80
	Dissolve 3.5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat.		
0 Thin			Flow test residual amount (ml): 0.00 Viscosity (cP): 14.60
	Dissolve 2 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat.		

*Measured under 25.5°C at shear rate $50s^{-1}$ The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Coconut Milk

Drink

Ingredient preparation before thickening: Boil 400 ml coconut milk, 15 g sugar, and 1.4 L water for 5 minutes with medium heat.

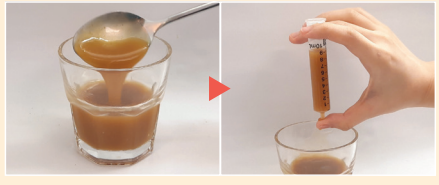
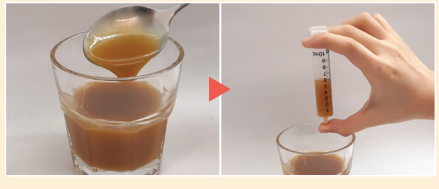
IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	 Add 4.2 g thickener into 100 ml coconut milk		Flow test residual amount (ml): 10.00 Viscosity (cP): 1192.00
3 Moderately thick	 Add 1.4 g thickener into 100 ml coconut milk		Flow test residual amount (ml): 9.30 Viscosity (cP): 307.50
2 Mildly thick	 Add 0.7 g thickener into 100 ml coconut milk		Flow test residual amount (ml): 6.50 Viscosity (cP): 138.20
1 Slightly thick	 Add 0.3 g thickener into 100 ml coconut milk		Flow test residual amount (ml): 1.80 Viscosity (cP): 43.00
0 Thin	 Use 100 ml coconut milk		Flow test residual amount (ml): 0.00 Viscosity (cP): 4.20

*The demonstration above uses gum-based thickene Measured under 25.5˚C at shear rate $50s^{-1}$
The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Chu Hou Paste

Drink

Ingredient preparation before thickening: Add 5 g chu hou paste into 100 ml water and stir to make it dissolve completely. Boil for 1.25 minutes with medium heat.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick	 Dissolve 12 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat. * Level 4 chu hou paste is too thick and sticky, so it's not recommended for individual consumption.		Flow test residual amount (ml): 10.00 Viscosity (cP): 938.90
3 Moderately thick	 Dissolve 10 g corn starch into 100 ml water. Add 80 ml corn starch solution slowly and boil for 1.25 minutes with medium heat.		Flow test residual amount (ml): 9.50 Viscosity (cP): 483.30
2 Mildly thick	 Dissolve 10 g corn starch into 100 ml water. Add 50 ml corn starch solution slowly and boil for 1.25 minutes with medium heat.		Flow test residual amount (ml): 9.50 Viscosity (cP): 483.30
1 Slightly thick	 Dissolve 5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat.		Flow test residual amount (ml): 2.10 Viscosity (cP): 86.90

* The demonstration above uses gum-based thickener The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

Red Fermented Bean Curd Sause

Drink

Ingredient preparation before thickening: Add 5 g red fermented bean curd sauce into 100 ml water and stir to make it dissolve completely. Boil for 1.25 minutes with medium heat.

IDDSI Level	How to Cook	Spoon Tilt Test / IDDSI Flow Test	Testing Average Values
4 Extremely thick			Flow test residual amount (ml): 10.00 Viscosity (cP): 929.60
	Dissolve 10 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat. * The amount of fermented bean curd sauce can be adjusted according to personal preference.		
3 Moderately thick			Flow test residual amount (ml): 8.70 Viscosity (cP): 340.40
	Dissolve 7.5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat. * The amount of fermented bean curd sauce can be adjusted according to personal preference.		
2 Mildly thick			Flow test residual amount (ml): 4.40 Viscosity (cP): 94.20
	Dissolve 5 g corn starch into 100 ml water. Add corn starch solution slowly and boil for 1.25 minutes with medium heat. * The amount of fermented bean curd sauce can be adjusted according to personal preference.		

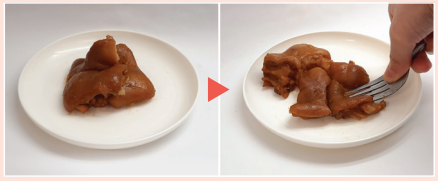
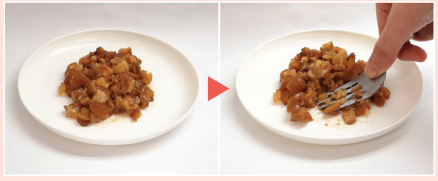
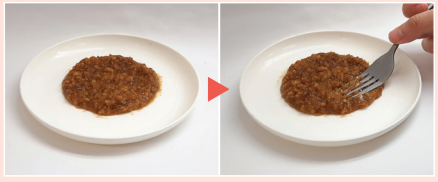
* Measured under 24.9˚C at shear rate $50s^{-1}$
The spoon tilt test is not applicable for IDDSI Levels 0, 1, and 2

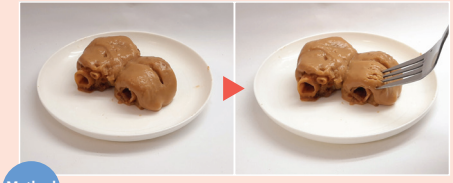
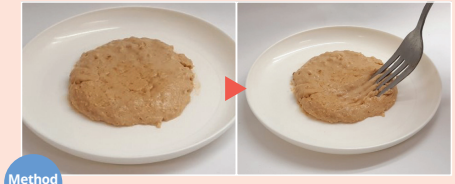
Dish Selection

Trotter (Without Bone)

Food

Ingredient preparation: Remove the bones from commercial trotter

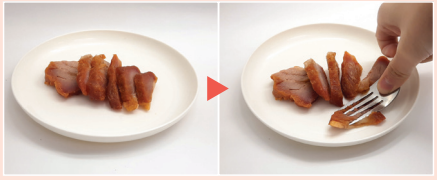
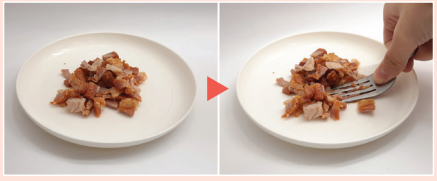
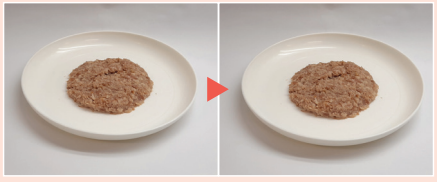
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Cut trotter into smaller pieces.		Hardness (N/m²): 91.79 x 10^3 Adhesiveness (g•sec): -223.65 Cohesiveness: 0.62
6 Soft & bite-sized	 Cut trotter into pieces smaller than 1 cm x 1 cm x 1 cm.		Hardness (N/m²): 9.42 x 10^3 Adhesiveness (g•sec): -23.60 Cohesiveness: 0.59
5 Minced & moist	 Mince trotter into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 1.32 x 10^3 Adhesiveness (g•sec): -26.01 Cohesiveness: 0.58

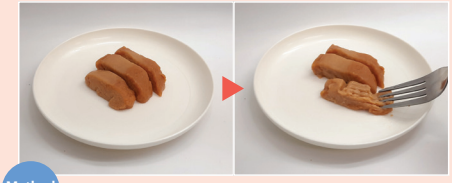
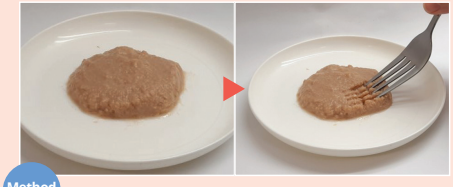
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed	 Method 1 **Soft meal:** Blend the trotter with water in 1:2 ratio and 1% softmeal enzyme gellant and heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Cut into slices and place on bones (the bones are just for display)		Hardness (N/m²): 3.31 x 10^3 Adhesiveness (g•sec): -14.60 Cohesiveness: 0.67
	 Method 2 **Pureed meal:** Blend the trotter with water in 2:1 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 4.55 x 10^3 Adhesiveness (g•sec): -11.14 Cohesiveness: 0.92

Barbecue Pork

Food

Ingredient preparation: Use commercial barbecue pork or make it yourself

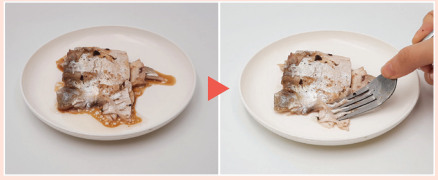
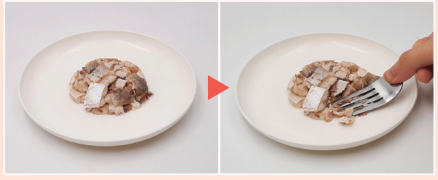
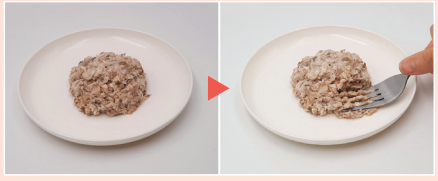
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 151.07 x 10^3 Adhesiveness (g•sec): -5.69 Cohesiveness: 0.45
	Cut commercial barbecue pork into slices.		
6 Soft & bite-sized			Hardness (N/m²): 25.98 x 10^3 Adhesiveness (g•sec): -5.92 Cohesiveness: 0.48
	Cut commercial barbecue pork into pieces smaller than 0.75 cm x 1.5 cm x 1.5 cm.		
5 Minced & moist			Hardness (N/m²): 17.39 x 10^3 Adhesiveness (g•sec): -12.57 Cohesiveness: 0.36
	Remove commercial barbecue pork outer skin. Steam for 15 minutes with medium heat. Blend the commercial barbecue pork and add some water to make it moist.		

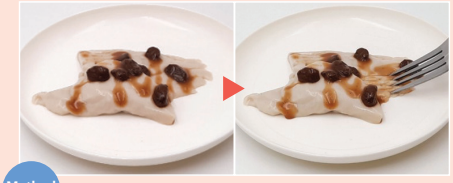
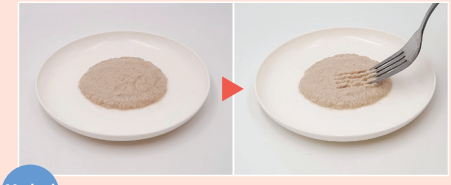
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed			Hardness (N/m²): 3.71 x 10^3 Adhesiveness (g•sec): -9.25 Cohesiveness: 0.41
	Method 1 **Soft meal:** Blend the barbecue pork with water in 1:2 ratio, char siu sauce, and 1% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes to make the outer part of barbecue pork. Blend the barbecue pork with water in 1:2 ratio and 0.8% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour on the moulded outer part of the barbecue pork and set for 5 minutes.		
			Hardness (N/m²): 1.89 x 10^3 Adhesiveness (g•sec): -39.16 Cohesiveness: 0.49
	Method 2 **Pureed meal:** Blend the commercial barbecue pork with water in 1:1 ratio. Filter away excess liquid and lumps.		

Steamed Snubnose Pompano

Food

Ingredient preparation: Steam with 10 ml oil and 10 g black beans for 10 minutes and add soy sauce.

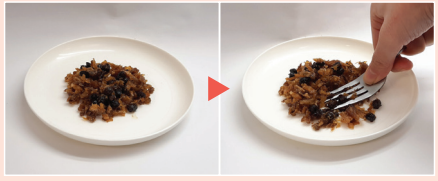
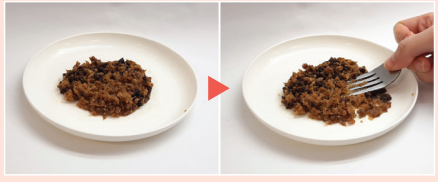
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Remove bones and cut into smaller pieces.		Hardness (N/m²): 34.84 x 10³ Adhesiveness (g•sec): -12.40 Cohesiveness: 0.41
6 Soft & bite-sized	 Remove bones and cut into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm.		Hardness (N/m²): 8.66 x 10³ Adhesiveness (g•sec): -3.14 Cohesiveness: 0.41
5 Minced & moist	 Remove bones and mince into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 7.31 x 10³ Adhesiveness (g•sec): -14.58 Cohesiveness: 0.40

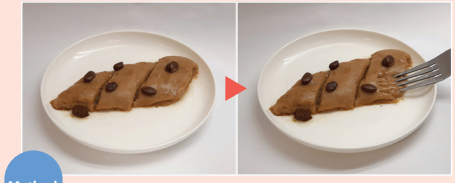
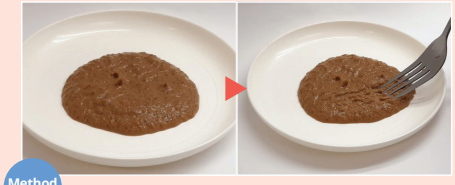
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed	Method 1 **Soft meal:** Blend cooked level 7 sample with water in 1:2 ratio and 0.8% softmeal enzyme gellant. Blend salted black bean with water in 1:2 ratio and 1% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Serve with level 3 black bean sauce.		Hardness (N/m²): 3.05 x 10³ Adhesiveness (g•sec): -20.16 Cohesiveness: 0.52
	Method 2 **Pureed meal:** Blend cooked level 7 samples with water in 7:1 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 2.44 x 10³ Adhesiveness (g•sec): -66.40 Cohesiveness: 0.74

Fried Dace with Salted Black Bean

Food

Ingredient preparation: Use commercial fried dace with salted black bean or make it yourself. Steam for 10 minutes with medium heat. Remove the bone.

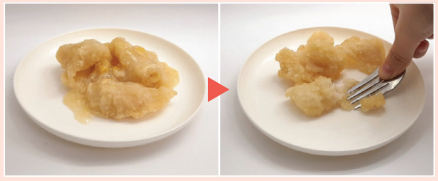
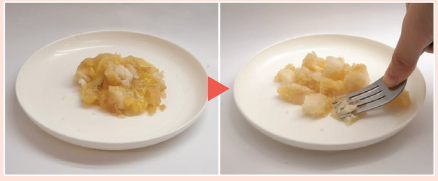
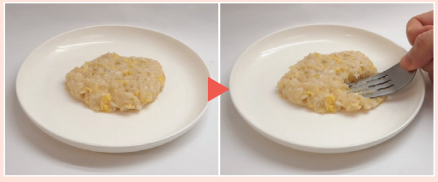
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Cut fried dace with salted black beans into smaller pieces.		Hardness (N/m²): 303.80 x 10^3 Adhesiveness (g•sec): -62.14 Cohesiveness: 0.61
6 Soft & bite-sized	 Cut fried dace with salted black beans into pieces smaller than 0.75 cm x 0.75 cm x 0.75 cm.		Hardness (N/m²): 26.31 x 10^3 Adhesiveness (g•sec): -4.18 Cohesiveness: 0.47
5 Minced & moist	 Mince fried dace with salted black beans into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm.		Hardness (N/m²): 16.01 x 10^3 Adhesiveness (g•sec): -18.73 Cohesiveness: 0.30

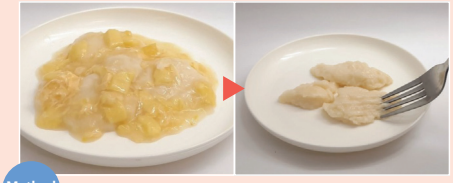
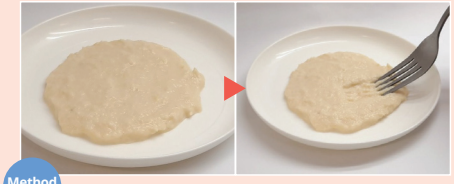
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed	Method 1  **Soft meal:** Blend fried dace with water in 1:2 ratio and 1% softmeal enzyme gellant. Blend salted black bean with water in 1:2 ratio and 1% softmeal enzyme gellant. Heat separately with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes.		Hardness (N/m²): 4.92 x 10^3 Adhesiveness (g•sec): -11.38 Cohesiveness: 0.57
	Method 2  **Pureed meal:** Blend with water in 1:1 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 0.72 x 10^3 Adhesiveness (g•sec): -20.12 Cohesiveness: 0.62

Grouper

Food

Ingredient preparation: Use commercial fish fillet in sweet corn sauce or make it yourself

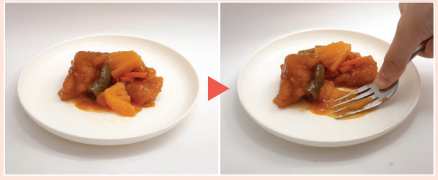
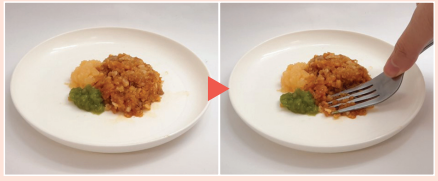
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew	 Use commercial fish fillet in sweet corn sauce.		Hardness (N/m²): 122.16 x 10^3 Adhesiveness (g•sec): 0.00 Cohesiveness: 0.75
6 Soft & bite-sized	 Cut commercial fish fillet into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Serve in sweet corn sauce.		Hardness (N/m²): 47.76 x 10^3 Adhesiveness (g•sec): -24.91 Cohesiveness: 0.66
5 Minced & moist	 Mince commercial fish fillet and corn into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. Serve in sweet corn sauce.		Hardness (N/m²): 9.70 x 10^3 Adhesiveness (g•sec): -33.29 Cohesiveness: 0.46

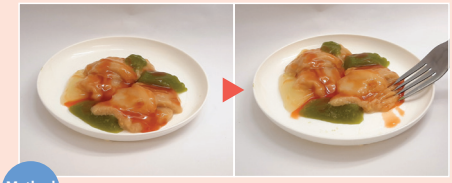
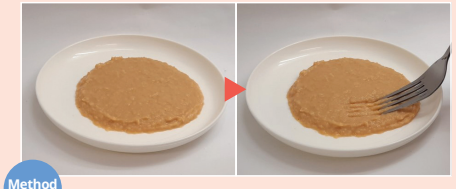
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed	Method 1  **Soft meal:** Blend the fish fillet with water in 1:2 ratio and 1% softmeal enzyme gellant. Heat with stirring until the paste become liquid. Pour into shaped mold and set for 5 minutes. Blend the corn with water in 1:1 ratio and 1% softmeal enzyme gellant. Heat with stirring until the paste become liquid. Pour into shaped mold and set for 5 minutes. Serve in sweet corn sauce.		Hardness (N/m²): 4.06 x 10^3 Adhesiveness (g•sec): -11.70 Cohesiveness: 0.43
	Method 2  **Pureed meal:** Blend the commercial fish fillet with water in 2:1 ratio. Filter away excess liquid and lumps.		Hardness (N/m²): 1.21 x 10^3 Adhesiveness (g•sec): -30.72 Cohesiveness: 0.65

Sweet and Sour Pork

Food

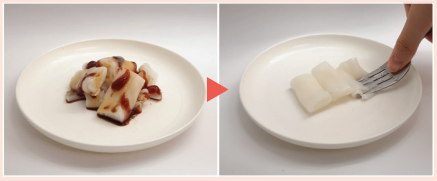
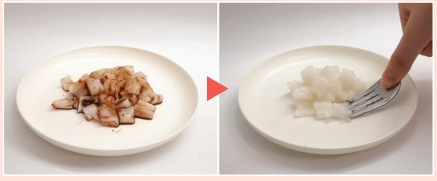
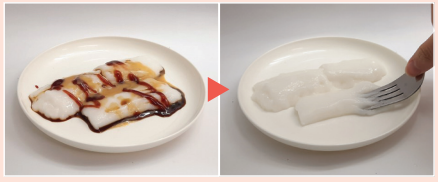
Ingredient preparation: Use commercial sweet and sour pork or make it yourself

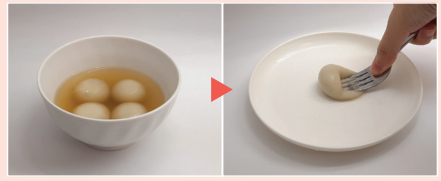
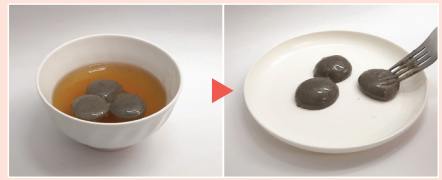
IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 85.68 x 10^3 Adhesiveness (g•sec): -4.31 Cohesiveness: 0.08
	Use commercial sweet and sour pork. * It is recommended to consume sweet and sour pork without bone.		
5 Minced & moist			Hardness (N/m²): 18.94 x 10^3 Adhesiveness (g•sec): -13.45 Cohesiveness: 0.38
	Mince commercial sweet and sour pork into pieces smaller than 0.4 cm x 0.4 cm x 0.4 cm. * It is recommended to consume sweet and sour pork without bone.		

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed			Hardness (N/m²): 2.16 x 10^3 Adhesiveness (g•sec): -9.11 Cohesiveness: 0.89
	Method 1 **Soft meal:** Blend the pork with water in 1:2 ratio and 0.8% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Blend the pineapple with water in 1:1 ratio and 0.8% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Blend the green pepper with water in 1:1 ratio and 0.8% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Serve in sweet and sour sauce.		
			Hardness (N/m²): 0.93 x 10^3 Adhesiveness (g•sec): -24.49 Cohesiveness: 0.99
	Method 2 **Pureed meal:** Blend the commercial fish fillet with water in 4:3 ratio. Filter away excess liquid and lumps.		

Steamed Rice Roll

Food

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
EC 7 Easy to chew			Hardness (N/m²): 51.67 x 10^3 Adhesiveness (g•sec): -28.94 Cohesiveness: 0.64
	Cut steamed rice rolls into smaller pieces. Serve with sweet sauce, peanut butter, and sweet soy sauce.		
6 Soft & bite-sized			Hardness (N/m²): 9.05 x 10^3 Adhesiveness (g•sec): -3.29 Cohesiveness: 0.84
	Cut the steamed rice rolls into pieces smaller than 1.5 cm x 1.5 cm x 1.5 cm. Serve with sweet sauce, peanut butter, and sweet soy sauce.		
4 Pureed			Hardness (N/m²): 9.70 x 10^3 Adhesiveness (g•sec): -33.29 Cohesiveness: 0.46
	Soft meal: Blend the steamed rice roll with water in 1:2 ratio and 1% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold and set for 5 minutes. Serve with sweet sauce, peanut sauce, and sweet soy sauce.		

IDDSI Level	How to Cook	Fork Pressure Test	Testing Average Values
4 Pureed			Hardness (N/m²): 17.01 x 10^3 Adhesiveness (g•sec): -47.17 Cohesiveness: 0.80
	Boil pre-packaged black sesame dumplings for 5 minutes with medium heat and serve in ginger sweet soup.		
4 Pureed			Hardness (N/m²): 1.44 x 10^3 Adhesiveness (g•sec): -14.62 Cohesiveness: 0.50
	Soft meal: Blend Level 7 samples with water in 1:2 ratio and 1% softmeal enzyme gellant. Heat with stirring until the paste become liquid. Pour into shaped mold and set for 5 minutes. Serve in thickened ginger sweet soup.		

Mooncake

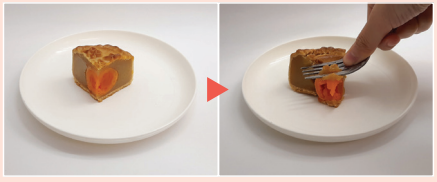
Food

IDDSI Level

EC 7

Easy to chew

How to Cook



Fork Pressure Test

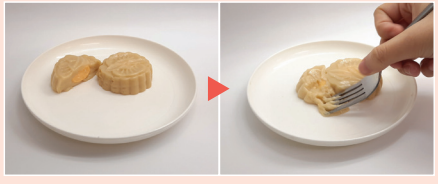
Cut pre-packaged mooncakes into 6 pieces

Testing Average Values

Hardness (N/m^2):
115.15×10^3
Adhesiveness (g•sec):
-15.81
Cohesiveness:
0.14

4

Pureed



Soft meal: Blend egg yolk with water in 1:2 ratio and 0.5% softmeal enzyme gellant. Heat with stirring until the paste become liquid and pour into shaped mold. Blend lotus seed paste with water in 1:2 ratio and 0.8% softmeal enzyme gellant. Heat with stirring until the paste become liquid. Pour into shaped mold, add shaped egg yolk, and set for 10 minutes.

Hardness (N/m^2):
4.61×10^3
Adhesiveness (g•sec):
-9.93
Cohesiveness:
0.62

Sago with Coconut Milk

Food

IDDSI Level

EC 7

Easy to chew

How to Cook

Bring a pot of water to boil, add sago and boil for 10 minutes. Turn off heat and wait for 15 minutes, drain water from the cooked sago. Boil 400 ml coconut milk, 1.4 L water, and 15 g sugar for 5 minutes with medium heat. Add 100 ml boiled coconut milk to cooked sago.

* Texture of sago and viscosity of coconut milk were measured separately.

Sago with Coconut Milk

Drink

IDDSI Level

3

Moderately thick

How to Cook

Bring a pot of water to boil, add sago and boil for 10 minutes. Turn off heat and wait for 15 mins, drain water from the cooked sago. Blend cooked sago into smooth puree. Boil 400 ml coconut milk, 1.4 L water, and 15 g sugar for 5 minutes with medium heat. Add 1.4 g thickener into 100 ml coconut milk. Add thickened coconut milk to pureed sago.

* Texture of sago and viscosity of coconut milk were measured separately.
The demonstration above uses xanthan gum thickening agent.

Special thanks to our strategic partner and sponsor,
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