

SECTION 4
CHAPTER 21

Swallowing and Food Textures



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A texture modified diet (food and fluid) is prescribed for residents with swallowing difficulties (dysphagia). When muscles of the mouth and throat do not work efficiently there is a risk of food and fluid entering the air-ways. Dysphagia has many causes including dementia, Parkinson's disease, cancer, stroke, motor neurone disease, reduced or excess saliva production, chewing difficulties and the side effect of some medications.

When swallowing problems are suspected or occur, a Speech Pathologist (SP) should assess swallowing function. They will recommend the appropriate level of food texture and fluid consistency to make chewing and swallowing easier and safer. The SP will advise on feeding and swallowing strategies including the correct positioning of resident before, during and after eating or drinking. To help ensure safety supervision and assistance will be needed.

Swallowing ability should be reassessed as recommended by the SP. If changes are noticed by a member of staff, the registered nurse or the care manager should be notified. They will then contact the SP for reassessment.

A Dietitian should be consulted to help ensure residents on a texture modified diet are being offered a nutritionally adequate diet.

The information in this chapter is an overview only. It does not negate the need to consult a speech pathologist.

SIGNS OF DYSPHAGIA INCLUDE

- Drooling – loss of food and fluid from the mouth
- Choking and coughing before, during or after swallowing
- Wet gurgly voice after swallowing
- Taking a long time to chew and swallow
- 'Pooling' of food in sides of mouth (cheeks)
- Regurgitation of food or fluid
- Fear of eating or swallowing
- Gradual weight loss (this could also be caused by other issues)
- Frequent chest infections

All staff should be aware of the signs of dysphagia.

POSSIBLE CONSEQUENCES OF DYSPHAGIA

1. Aspiration: the result of food, fluid, medicine, stomach content or saliva entering airways. Aspiration may be silent or cause audible coughing. If oral hygiene is poor aspiration of saliva containing bacteria, can cause potentially fatal pneumonia
2. Frightening, painful and tiring coughing
3. Choking that blocks the airways. This is potentially fatal as it makes breathing, coughing and speaking impossible
4. Gradual weight loss and malnutrition resulting in loss of muscle, reduced energy, poor wound healing and greater risk of infection
5. Reduced quality and length of life

Oral hygiene practices need to be safe for residents with dysphagia. Once swallowing has been assessed, an oral care plan should be developed with input from the speech pathologist and a dentist or a registered nurse trained in oral and dental health. Practices such as rinsing mouth with water may not be safe. A non-foaming toothpaste may be safer than foaming toothpaste.

Residents on a texture modified diet may feel 'left out' because their meal is 'different'.

To help reduce this feeling

- The menu should be planned so that most food can be texture modified
- If food is served in bite sized pieces, cut carefully so, if possible, food shape is retained
- Use the same crockery and cutlery that is used for other residents
- Wherever possible, encourage independent eating as this improves the biofeedback and swallowing function
- To support mealtime independence, special cutlery and crockery should be available (see chapter 'Mealtime Independence and Assistive Devices')
- When assisting resident to eat, describe food on the plate. Ask what they would like to eat next. Make sure their mouth is empty before the next mouthful is offered. The meal should not be hurried
- If possible, when assisting, sit down and face the resident. Standing may be intimidating. Standing can also cause resident to tilt their head back. This opens airways thus increasing the risk of choking

Residents who are on a texture modified diet often don't eat enough to obtain the required amount of calories and nutrients. A dietitian should be consulted to assess nutrition and hydration requirements of each resident with dysphagia and to advise on meal plans so that a nutritious and appealing, texture modified menu is offered.⁽²⁾

A detailed texture modified menu should be documented and updated as appropriate. Likes and dislikes should be catered for (if possible) and meal satisfaction regularly evaluated.

Once swallowing has been assessed, recommendations for food texture and liquid consistency must be adhered to.

Texture modified diets

The 'International Dysphagia Diet Standardisation Initiative (IDDSI) specifications provide clear and consistent guidelines in regard to texture modification. IDDSI describes the levels of texture modified food and thickened fluid to be used across all care settings (both nationally and internationally). Commercially prepared products will need to comply with IDDSI.

IDDSI terminology relating to food texture and fluid consistency is used throughout this chapter.

As well as the information in this chapter, for more detail, refer to the IDDSI website: www.iddsi.org

IDDSI has replaced the Australian Standard for Texture Modified Foods.

IDDSI TEXTURE LEVEL GUIDELINES



LEVEL 7 – REGULAR

- Everyday foods of various textures are suitable
- Biting and chewing ability is required
- ‘Regular’ foods are suitable if person has no chewing, swallowing or choking problems
- There is no restriction on size of food pieces

LEVEL 7 – EASY TO CHEW

- Serve foods with a soft/tender texture making them easy to bite and chew
- Food pieces can be larger or smaller than 1.5 cm
- Do not serve foods that are hard, chewy, fibrous, stringy or have seeds, bones or gristle
- Food should be soft and moist when chewing

This texture level is not suitable for people identified as being at risk of choking

LEVEL 6 – SOFT AND BITE SIZED

This level includes foods that are

- Naturally soft
- Easily mashed or broken with pressure from a fork (fork test)
- Easy to chew without having to bite
- Moist
- Cut to a size no larger than 1.5 x1.5 centimetres (1.5 is about the width of a standard fork)

Gravies and sauces can accompany food as long as consistency is appropriate for residents requiring thickened fluid.

Avoid foods that

- Are tough, fibrous, crunchy, chewy, sticky, crumbly or stringy
- Have seeds, bone, gristle, husks or hard outer skin e.g. corn and peas
- Have skin or crust including ‘crust’ that develops with cooking or reheating
- Are floppy e.g. lettuce or baby spinach leaves
- Have a mixture of textures e.g. juicy fruit (juice separates from the fruit pieces), soup with ‘bits’, cereal with milk that is not completely absorbed.

Note: Regular sandwiches, toast or dry bread are **NOT** permitted on this diet unless otherwise specified by the SP (in their report).

Meat - Beef, lamb, veal, kangaroo and pork

Before cooking, soften tough meat by marinating, mincing or pounding. Cook by slow moist methods such as stewing, casseroles, pressure cooking or with a slow cooker.

When cooking by dry heat methods such as roasting or baking, leave the fat on as this will help to keep meat moist.

When serving make sure there is no skin (including sausage skin), bone, gristle or chewy fat.

When making mince dishes such as rissoles or meat loaf, premium mince can produce a hard, dry result so, try

- Using $\frac{3}{4}$ mince with $\frac{1}{4}$ sausage mince
- Using mince that contains about 15% fat
- Using about $\frac{1}{4}$ mashed legumes e.g. butter beans, to $\frac{3}{4}$ meat.

Fish

- Fresh or smoked fish fillets (no skin or bones). Steam or poach. Bake in foil or a covered container. The result should be moist, soft and easily flaked or broken up. If overcooked fish can be dry
- Serve with white sauce, cheese sauce or Tartare sauce remembering consistency must be compliant with fluid consistency required by resident
- Canned fish is suitable. Bones of canned fish may be removed or mashed well and eaten.

Chicken

- If baking, leave skin on as melting fat helps to keep meat moist. Before serving remove skin and gristle then cut into bite size pieces. Serve with gravy or sauce of appropriate consistency
- Gentle moist cooking should produce a tender result if not overcooked. If skin is not removed before cooking make sure it is all removed before serving. Skin is a choking hazard
- Chicken tenderloins and breast can be gently stir fried taking care not to overcook. Prepare by cutting into pieces of recommended size.
- Cut across the meat grain. Serve with gravy or sauce of appropriate consistency.

Eggs

Eggs are an excellent source of protein and when cooked carefully, are well suited to this level diet (Level 6).

Suitable egg dishes include

- Baked custard - both sweet and savoury. This includes bread and butter custard. There should be plenty of custard. The bread should be totally moist. Use bread that has no seeds, bran or crusts
- Scrambled egg. plain, no additional ingredients such as bacon bits or cheese
- Quiche - plain with no base or additional 'bits'. Basically, it is a savoury custard.

Cook eggs and egg dishes by low or moderately low heat. Once cooked, eggs and egg dishes should be served as soon as possible. If overcooked or kept hot for any length of time the protein toughens and shrinks causing syneresis. This is when liquid is forced from the egg structure spoiling the appearance, mouth feel and creating a choking hazard.

Note: As eggs are considered a high risk food (especially for vulnerable people) it is advisable to seek advice from the Food Authority in your state in regard to safe egg choice and preparation.

Cheese

- Cheese that becomes sticky or 'gluey' when chewing is not suitable
- Grated cheese sprinkled on the top of dishes to be cooked (such as mornays) is not suitable as it can become stringy, tough or hard
- A small amount of matured, full fat cheddar cheese in a white sauce should produce a smooth, non- stringy result
- Cottage and ricotta cheese are both suitable for the Level 6 'Soft and Bite size' diet.

Vegetables

- Cook vegetables until soft. Cut into bite sized or mash. Vegetables can be moistened with cream, butter, margarine or smooth, plain yoghurt
- Cooked, mashed legumes can be offered. If outer skin is not soft, remove. Broad beans can be mashed once the skin is removed
- Roast vegetable salad is suitable provided there is no skin or seeds and the surface of the vegetable has not become dry, tough or hard. Vegetables must be soft and cut into bite sized pieces 1.5 x 1.5cm
- Grated raw or crisp salad vegetables are not suitable nor are 'floppy' salad vegetables
- Thick and hearty vegetable soups can be an important menu item, especially if they contain meat or fish. As residents with dysphagia may find it difficult to manage different textures, soups are best blended for a smooth even texture. Stringy and fibrous vegetables are not suitable for soups e.g. celery, spinach stalks, cabbage, beans and asparagus stalks (asparagus tips are usually soft and OK)
- Consistency of soup needs to be compliant with resident requirements.

Fruit

- Canned fruit is suitable as long as the flesh and skins are soft and there are no seeds. Juice will need to be drained off and fruit cut to required size. The degree of canned fruit softness can vary from brand to brand. Canned pineapple is not suitable. Canned fruit salad may not be suitable
- Dried fruit e.g. peaches and apricots can be stewed or poached until flesh and skin is soft. Drain well and cut into bite size pieces. There should be no separate liquid
- Suitable fresh fruit includes soft bananas, soft ripe plums and soft, ripe peaches (without skin), mango, paw paw and avocado. Ensure fruit is cut to bite size pieces of correct size (1.5mm x 1.5mm) and avoid fruits where juice separates when eating e.g. watermelon and other melons, oranges and mandarins
- Unsuitable fruits include hard crunchy and fibrous fruits, grated apple, grapes and cherries.

Breads and cereals

- Dry bread is not compliant with this level diet due to the high risk of choking
- Breakfast cereals that absorb milk e.g. Weetbix™ and Vitabrits™ are suitable. Their texture becomes soft and smooth (especially if warm milk is used). Baby rice cereal is suitable if mixed to a smooth consistency with no separated liquid
- Cereals that retain their shape and do not absorb milk are not suitable e.g. cornflakes
- Semolina, polenta and rolled oats are suitable if cooked to have a smooth even texture. Added milk should be stirred to a uniform texture
- Cooked cereal should not be 'gluggy'. Follow manufacturer instructions, add more milk if necessary
- Medium grain rice and risotto rice is suitable if cooked until soft and mushy, moist. Not sticky or gluggy. Long grain rice is not suitable
- Well cooked, bite size pasta (no larger than 1.5 x 1.5cm) e.g. shell pasta and small macaroni

Desserts

Most milk and soft fruit based desserts will be suitable including

- Bite sized pieces of soft fresh fruit, drained stewed or canned fruit and cut to correct size
- Creamed sago and creamed tapioca are suitable as long as not gluey or gluggy. To achieve a palatable and appropriate result it is essential to have the correct ratio of cereal to milk
- Ground rice makes a creamy dessert when cooked correctly (no separated liquid)
- Custard powder custard of consistency recommended by the SP
- Bread and butter custard. No crusts or 'bits' and bread must be completely moist. Important not to overcook egg custard (reasons in previous information in this section under heading 'Eggs')
- Blancmange and instant pudding
- Yoghurt and Fruche™ are suitable as long as there are no lumps or food 'bits'
- Trifle (no coconut). Ensure the cake is plain (no bits) and is completely soaked and there is no 'skin' on the surface of custard.

Mid-meals

Mid-meals should make a significant contribution to the daily food intake

- Any of the foods already listed in this section (level 6) are suitable especially the desserts
- Soft, moist plain cake. Must not be dry or crumbly. Cake could be moistened with custard or cream as long as there is no free liquid.

LEVEL 5 – MINCED AND MOIST

Minced and moist foods should be soft, easy to chew, require minimal chewing and should not be sticky.

Any food lumps need to be small (4mm x 4mm) and easy to squash with the tongue or easily mashed with just a little pressure from a fork.

Include naturally soft foods such as ripe bananas, mangoes and avocados cut up to correct size.

A thick puree containing small soft lumps could be offered.

Meat (beef, veal, pork, kangaroo) fish and poultry

- Minced or finely cut up (4mm x 4mm) tender meat, chicken or fish. No skin, gristle, bones, sinew or chewy fat
- To moisten serve with mildly, moderately or extremely thick sauce or gravy
- If making a casserole do not add tough, fibrous or stringy vegetables such as celery, peas, corn or chick peas. If tomato is added it should be skin free. Thicken casseroles and stews if necessary to be compliant with thickened fluid requirement.

Eggs

- Include soft scrambled egg. Cook using low heat in order to obtain a soft result. To help prevent syneresis see information under 'Eggs' in 'Soft and Bite Sized' Level 6 section
- Savoury baked custard or soft quiche without a base can be offered. No lumps or bits of food such as bacon pieces
- In regard to food safety, refer to information under 'Eggs' in 'Soft and Bite sized' Level 6 section.

Cheese

- Soft cheese such as cottage cheese and ricotta can be offered
- Pieces of cheddar cheese are not to be given. If grated, small amounts of full fat cheddar cheese can be added to white sauce.

Vegetables

- Well drained, softly cooked vegetables finely diced or easily mashed with a fork
- Butter, margarine, sour cream, moderately or extra thick white sauce may be added as long as the result is the correct consistency
- Vegetables that require chewing such as corn, peas and cabbage are not suitable
- Well-cooked legumes that are soft and mash easily e.g. haricot beans (baked beans) and butter beans can be included. The outer skin must be soft or removed before mashing
- If serving (or including) tomato, the skin will need to be removed and the flesh soft enough to mash. If tomato is very watery thickening may be required.

Fruit

- Soft fresh fruit is suitable if finely diced, minced or mashed with a fork. Suitable soft ripe fruits include banana, pear, mango and avocado
- Canned and stewed fruit cut into small (4mm x 4mm) pieces or mashed can be offered. Skin will need to be soft and easily mashed. Juice must be completely drained from fruit. Liquid should not separate from food. Fruit may be served in a thickened sauce, yoghurt or custard.

Bread and cereals

Suitable foods include:

- Soft moist baked products such as plain cake and sponge can be suitable if moistened with such as custard or cream. Make sure there is no sticky, chewy upper surface on cake as this can be difficult to soften. There should be no separation of liquid
- Biscuits that soften easily can be prepared as per plain cake
- **Regular dry bread is not suitable**
- Breakfast cereals should be smooth with no large lumps or 'bits' such as sultanas. Suitable cereals include soft rolled oats (or instant porridge) semolina, fine rice cereal (including baby cereal). Completely softened breakfast biscuits such as Weetbix™ and Vitabrits™ are suitable. No liquid should separate from the food
- Well-cooked small pasta shapes (as long as size is 4mm x 4mm or less)
- Well-cooked medium grain rice or risotto rice. Rice grains should hold together, not separate into individual grains. Once cooked drain well. Product should not be sticky or gummy. Rice can be served with mild, moderate or extra thick sauce.

Desserts

Desserts should make an important contribution to both nutrition and meal enjoyment.

- Include smooth milky desserts e.g. blancmange, custard, milk pudding, smooth lump free yoghurt. Ice-cream can be offered as long as resident is not requiring thickened fluids
- Cake type desserts may be suitable if compliant with diet requirements (See above information on 'Breads and Cereals')
- Soft fresh or canned fruit as long as there is no separation of liquid and fruit is mashed or cut to size (4mm x 4mm) See previous information on 'Fruit'.

Mid Meals

Mid meals can make a significant contribution to daily food intake and nutrition. They are as important as main meals.

- Foods that could be offered include soft fruit, soft plain cake, soft biscuits, soft breakfast cereals, milk based desserts. See previous information regarding the preparation and presenting of these foods for residents requiring a 'Level 5' texture modified diet
- Milk shakes and smoothies as long as thickness is appropriate to consistency required by resident.

LEVEL 4 - PUREED

Pureed food may be recommended for people who have difficulty biting, chewing and swallowing

Correctly pureed food

- Should be smooth, moist and lump free
- Should not need to be chewed
- Is usually eaten with a spoon
- Cannot be drunk from a cup or sucked through a straw
- Falls completely off a spoon if the spoon is tilted but, still holds its shape on a plate
- Should pass the fork drip test. Food sits on a fork. A small amount may drip through leaving a tail below the fork prongs. It should not flow or continuously drip
- Forms a peak (like whipped cream) and, if pressed with a fork, a clear pattern is left
- Should not be dry, sticky or gluggy
- Should not be sloppy, runny or watery. There should be not separation of liquid from the solid component of the puree
- Should not liquefy or melt in the mouth e.g. Jelly, ice-cream, other foods thickened with gelatine

Note: that not all foods need to be pureed. Some come ready to eat while others are easily mashed to puree consistency. Ready to eat food that may be suitable include smooth yoghurt (no 'bits' or chunks), smooth mousse, thick stirred custard, blancmange, smooth rice cereal. Instant mashed potato is suitable as long as it is a soft, non- gluggy consistency. Foods that can mash easily to a puree consistency include well cooked, skin free potato, sweet potato and butternut pumpkin. Soft ripe fruit such as banana and avocado can be mashed to a puree consistency.

Important considerations:

- A pureed diet can be monotonous leading to lack of interest in food. It is important that food be varied, palatable and visually appealing
- As far as possible the main menu should be planned so that most (if not all) of the food can be pureed. This may help to maintain resident interest in eating and reduce the feeling of 'missing out'

- Residents should not be kept on a puree diet longer than is necessary. A SP should regularly reassess and, if necessary, recommend texture changes
- Residents should not be placed on a puree diet just because they are slow eaters
- When assisting resident to eat, pureed foods should not be stirred together
- If facilities serve pureed food that has been 'molded' into a food shape, it is important to note that the process can make food drier than recommended. Provide sufficient gravy to stir into food to achieve a consistency that readily 'blobs' from a spoon.

Meat, fish and poultry

- Puree to a smooth, moist 'pate' consistency. Extra liquid may be needed. Water could be used, but it is better to use liquid such as milk or gravy using casserole liquid
- Pureed meat should not be sticky or gluggy
- There should be no skin, bones, gristle or lumps of fat.

Vegetables

- Vegetables that are able to comply with the requirements of a puree (see previous information under the heading 'Correctly Pureed Food')
- Avoid fibrous vegetables such as corn, peas and celery etc.
- Take care when blending or mashing potato as it can become 'gluey' if overdone. Instant potato may be suitable if prepared properly
- If pureed vegetable is too thin or there is a risk of liquid separating out, add instant mashed potato or fine rice cereal to stabilise and obtain correct consistency.

Fruit

- Once well drained, most stewed or canned fruit can be pureed. If result needs to be thickened, fine and soft plain cake crumbs (not pieces) or fine rice cereal are usually suitable
- Fresh ripe fruit that mashes well can be offered e.g. banana, avocado, mango and paw paw
- Commercially pureed fruit is available. Thicken if necessary
- Pulp free fruit juice can be offered. Thicken as recommended by speech therapist

Breads and cereals

- Smooth, lump free breakfast cereal may be offered e.g. semolina, smooth rice cereal, porridge. There should be no separation of liquid
- Creamed rice may be pureed
- Pasta may be pureed. When pureeing combine with the sauce that is part of the dish e.g. macaroni cheese
- Regular bread is not suitable.

Dessert

- Offer smooth and lump free milk pudding, custard and yoghurt of appropriate thickness
- Soft plain cake and very soft 'cake style' pastry may be suitable. It will need to be moistened by soaking in such as custard or thick cream then mashed. The result will need to be lump free and smooth and compliant with the 'fork drip' and 'spoon tilt' test
- Jelly and ice-cream are not suitable as both liquefy in the mouth.

Mid meals

It is important to ensure that residents who require a pureed diet are offered substantial mid meals to help ensure adequate food intake and nutrition. Any of the acceptable food items suggested in this section are suitable to offer throughout the day.

Providing extra fibre for residents on a level 4, puree diet

The fibre content of a puree diet may need 'boosting'. The following suggestions may help

- Serve smooth lump free high fibre cereal such as pureed rolled oats, completely softened and smooth breakfast biscuits such as Weetbix™, Vitabrits™ (or similar). Breakfast drinks such as 'Up and Go' would add extra fibre and nutrients if used to soften breakfast biscuits. There should be no separation of liquid
- Add fine textured wheat bran, oat bran or rice bran to breakfast cereal such a rolled oats. Do not add more than one to two tablespoon per serve. Always consult SP to make sure the resulting texture will be safe for individual residents (on a pureed diet)

- Fine textured brans could also be added to meat, fish, chicken, vegetables and fruit before pureeing
- To provide extra fibre, red lentils could be added to soups, stews and casseroles. Red lentils soften and disintegrate readily. They are mild in flavour and will help to thicken liquid. Add no more than one tablespoon per serve. Further thickening may be required to obtain desired result.

Fibre cannot relieve constipation without plenty of fluid in the diet.



IMPORTANT

If planning to increase the fibre content of food, talk to the Speech Pathologist first to make sure the result will be both safe and consistent with texture recommendations.

Supplements

A puree diet can be low in calories and other nutrients particularly if resident has a small appetite (as is often the case). Pureed food should be routinely fortified. Ways to accomplish this include

- making porridge on milk (not water)
- adding extra margarine, butter or cream to vegetables
- enriching custard or milk drinks by adding extra milk powder (2 - 3 tablespoons to 250mls of milk)
- making milk based sauces (savoury or sweet)

At least one high calorie, high protein drink of appropriate consistency, should be provided each day. Offered at a time least likely to interfere with appetite for main meals e.g. supper time. Liquid consistency will need to be appropriate.

A doctor or dietitian will advise in regard to supplements.

THICKENED FLUIDS

Regular fluids require intact muscle control and accurate timing between the swallowing and breathing system. Thickened fluids slow down the act of swallowing making it safer. Most liquids can be thickened.

It is important to note that thickened fluids may assist some (but not all) residents whose swallow is delayed or poorly coordinated. Thickened fluid may reduce (but not eliminate) the risk of aspiration. Thickened fluid is not a universal strategy for all residents with swallowing problems and should be given only when prescribed by a Speech Pathologist (SP). Residents should be assessed by a SP who will advise in regard to the need for, and level of thickened fluid.

IMPORTANT

- In order to prevent dehydration it is very important to closely monitor fluid intake and hydration level of residents on thickened fluid. Dehydration is a major medical issue
- Care plans should be developed to ensure resident receives only fluid of recommended consistency
- Thickened fluid is only as nutritious as the fluid being thickened
- Some liquid based foods e.g. ice-cream and gelatine containing foods, melt in the mouth and thus may pose a swallowing problem
- Always consult a SP.

LEVEL 0 - THIN

No modification of consistency at this level. Liquids that flow easily are provided at this level

LEVEL 1 - SLIGHTLY THICK

Liquid at this level

- Is thicker than water
- Requires a little more effort to drink than thin liquids
- Is able to flow through a straw

LEVEL 2 - MILDLY THICK

Liquid at this level

- Will flow off a spoon but slower than thin liquid
- Falls readily through fork prongs
- Is able to be sipped, pours from a spoon but more slowly than thin drinks
- Effort is required to suck through a standard straw bore

LEVEL 3 - MODERATELY THICK

Liquid at this level

- Can be drunk from a cup
- Effort is required to suck through both a standard and wide bore
- Drips slowly in strands, through prongs of a fork
- Liquids at this level include thick soup, sauces, gravy and thick milk drinks such as smoothies

LEVEL - 4 EXTREMELY THICK

Liquid at this level

- Cannot be drunk from a cup
- Cannot be sucked through a straw or a spout cup
- Will not fall through the prongs of a fork. Rather it sits on top of a fork with a slight 'tail' forming through the prongs
- Usually consumed using a spoon

Testing methods for the various fluid consistency levels can be found on the following site

[http://iddsi.org/ framework/drink-testing-methods/](http://iddsi.org/framework/drink-testing-methods/)

All staff should be aware of the importance of correct fluid consistency. Staff education by SP would be best practice.

Important:

- Residents on thickened fluids need to be given fluid frequently in order to maintain adequate hydration
- Residents requiring thickened fluid or a pureed diet may lack the tongue function to clear their mouth of food. This places them at high risk of dental caries and gum disease. Oral hygiene is important
- There is also an increased risk of developing aspiration pneumonia if oral hygiene is poor.

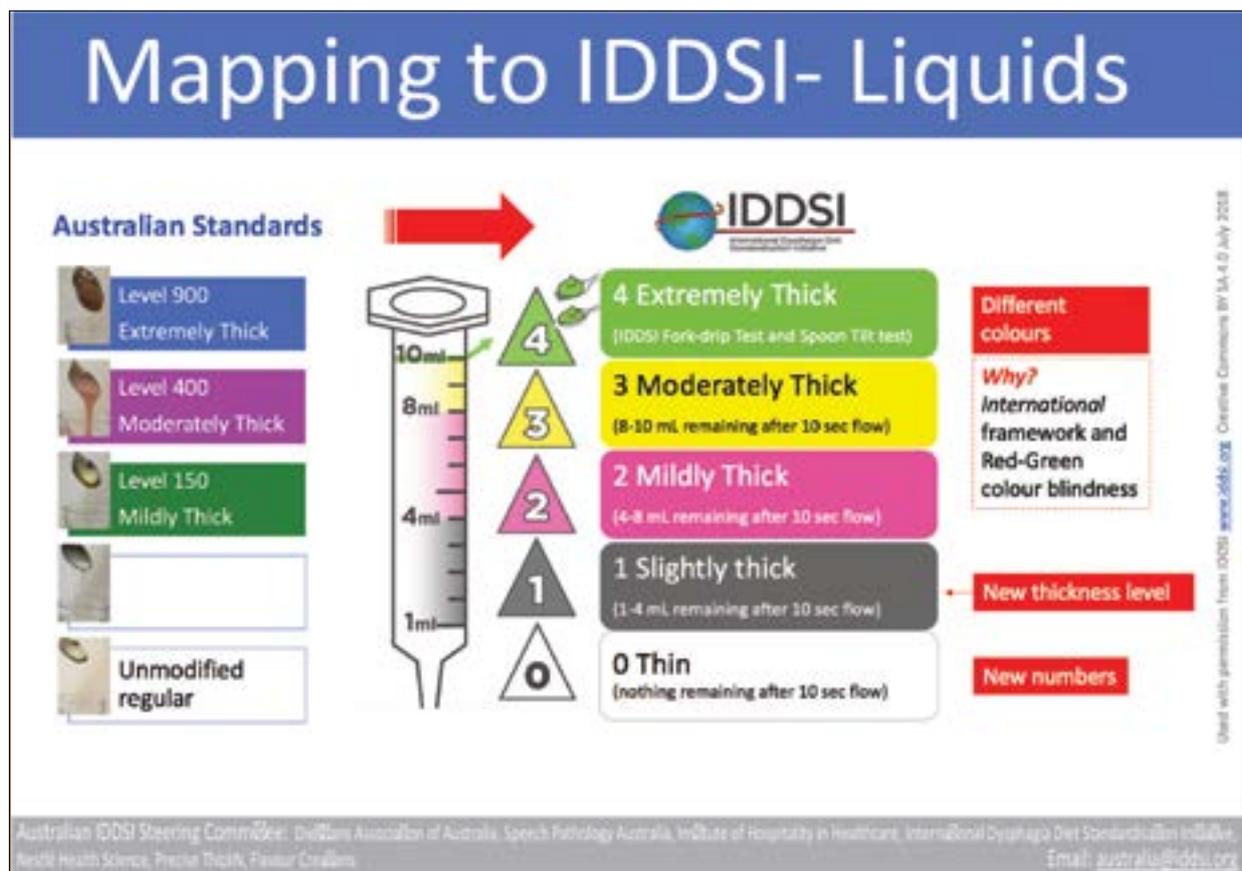
IMPORTANT

THIS CHAPTER IS AN OVERVIEW ONLY FOR FURTHER INFORMATION

- Consult a Speech Pathologist
- www.iddsi.org

IDDSI FLUID CONSISTENCY GUIDELINES

Comparing drinks in Australian standards to IDDSI



2. Wright L, Cotter D, Hickson M, Frost G. Comparison of energy and protein intakes of older people consuming a texture modified diet with a normal hospital diet. *Journal of Human Nutrition & Dietetics*. 2005 Jun;18(3):213-9.

