

# Nutrition and hydration | Te taioranga me te miti wai

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## Seek family involvement at meal times

### Identify and rule out contributing causes

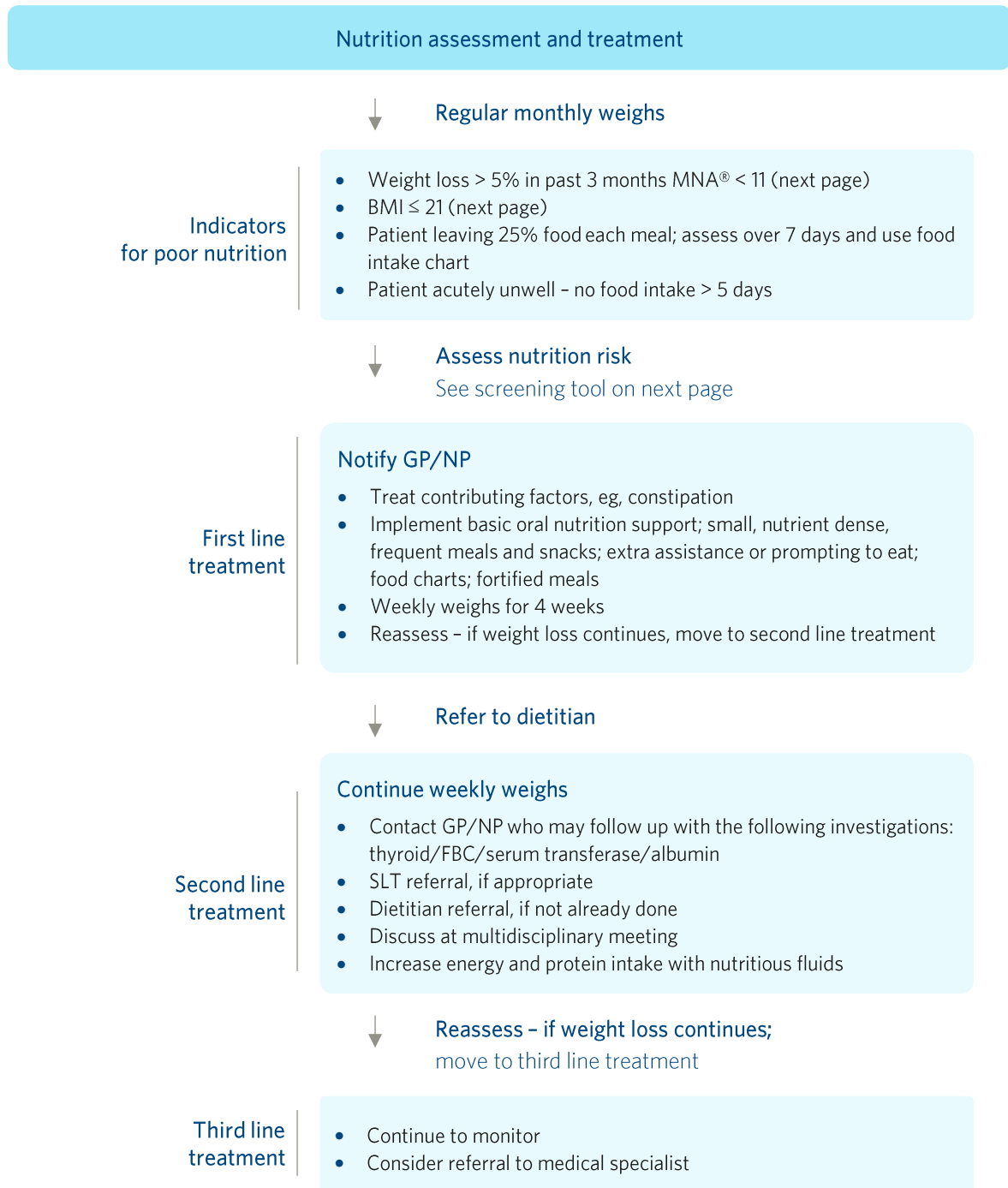
- Environmental issues
- Food preferences – food and fluid of choice
- Dentition and oral health
- Dysphagia/SLT referral
- Mental health – depression?
- Faecal impaction
- Infection – UTI/URTI/GI
- Decline in ADL/mobility
- Requires increased assistance
- Medication – iatrogenic causes
- Underlying pathology GI disturbance.

## Common risk factors for malnutrition and dehydration

- Physical limitations: difficulty obtaining and preparing food, manual dexterity
- Sensory perception: decreased sense of taste and smell, impaired vision and hearing
- Socioeconomic: isolation, bereavement, lack of nutritional knowledge, poverty, institutionalisation
- Food restrictions: self-imposed or due to health conditions
- Acute illness, diarrhoea and vomiting
- Oral health/hygiene problems (dentures, tooth loss or poor dental health)
- Impaired ability to chew and swallow, or dysphagia
- Medication
- Drugs and alcohol
- Chronic disease processes
- Underlying pathology
- GI disturbances/faecal impaction
- Decreased thirst
- Cognitive impairment/confusion
- Decreased motivation, fatigue or apathy
- Requiring assistance with foods and fluids
- Older age
- Mental health – depression
- Incontinence.

### Signs of malnutrition

- Lack of appetite or interest in food or drink
- Tiredness and irritability
- Inability to concentrate
- Always feeling cold
- Loss of fat, muscle mass and body tissue
- The cheeks appear hollow and the eyes sunken, as fat disappears from the face
- Higher risk of complications after surgery
- Longer healing time for wounds
- Higher risk of getting sick and taking longer to heal
- Breathing becomes difficult
- Skin may become thin, dry, inelastic, pale and cold
- Hair becomes dry and sparse, falling out easily.



## Refusal to eat

- Assess personal preferences and whether the resident is enjoying their meals
- Discuss care plan with the family/whānau/EPOA
- Guidelines for a palliative approach to residential aged care (Australian Government Department of Health and Ageing 2006).

## Use mini nutritional assessment (MNA®) below

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final screening score.

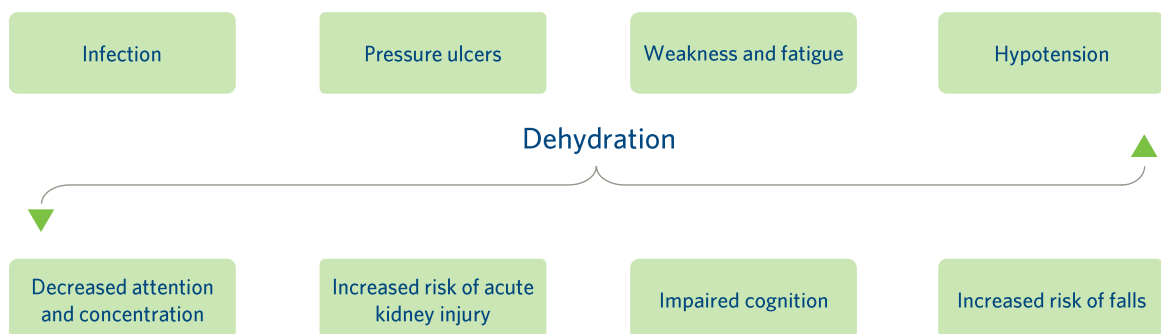
<b>A</b>	<b>Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?</b> 0 = severe loss of appetite 1 = moderate loss of appetite 2 = no loss of appetite	Score	enter
<b>B</b>	<b>Weight loss during past 3 months</b> 0 = weight loss greater than 3 kg 1 = does not know 2 = weight loss between 1 kg and 3 kg 3 = no weight loss	Score	enter
<b>C</b>	<b>Mobility?</b> 0 = bed or chair bound 1 = able to get out of bed or chair but does not go out 2 = goes out	Score	enter
<b>D</b>	<b>Has suffered physical stress or acute disease in past 3 months?</b> 0 = yes 2 = no	Score	enter
<b>E</b>	<b>Neuropsychological problems?</b> 0 = severe dementia or depression 1 = mild dementia 2 = no psychological problems	Score	enter
<b>F1</b>	<b>Body mass index (BMI) (weight in kilos)/(height in metres)</b> 0 = BMI < 19 1 = BMI 19 to < 21 2 = BMI 21 to 23 3 = BMI > 23	Score	enter
If BMI is not available, replace question F1 with question F2. Do not answer question F2 if question F1 is already completed.			
<b>F2</b>	<b>Calf circumference (CC) in cm</b> 0 = CC less than 31 3 = CC 31 or greater	Score	enter
	<b>Screening score (subtotal max 14 points)</b> 12-14 points: Normal nutritional status 8-11 points: At risk of malnutrition 0-7 points: Malnourished	Total score	enter

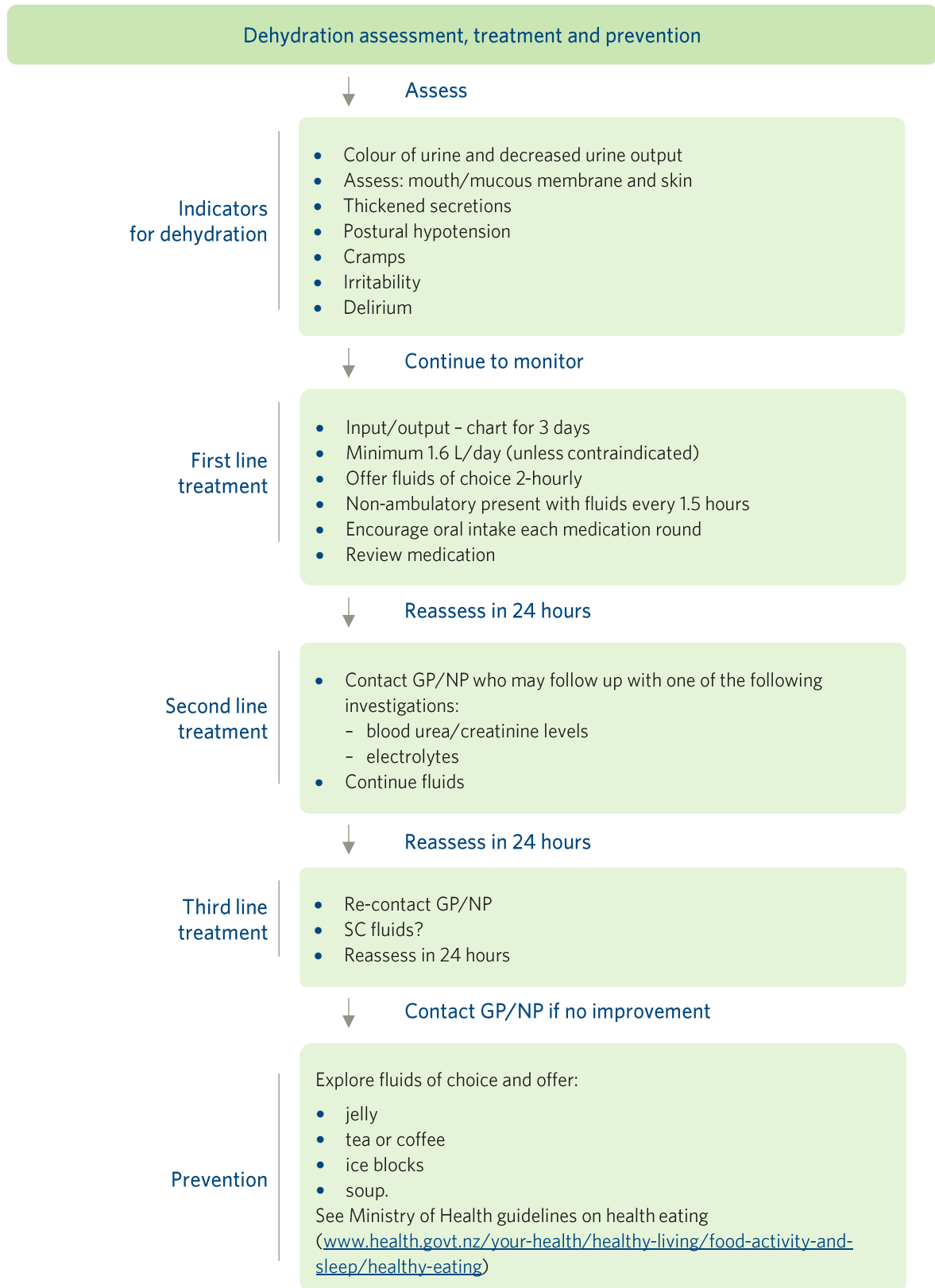
## Consequences of malnutrition in the elderly

## Signs of dehydration

- Dry mucous membranes
- Thickened secretions
- Reduced tissue turgor (elasticity)
- Reduced sweating
- Sunken eyes
- Tachycardia
- Low blood pressure and postural hypotension
- Altered consciousness including confusion and irritability
- Increasing functional impairment
- Weakness
- Constipation
- Reduced or concentrated (darker) urine output
- Reduced axillary sweating.

## Consequences of dehydration in the elderly





## Dysphagia and safe feeding

### Signs and symptoms of swallowing problems

- Coughing and/or choking when eating or drinking
- Drooling/poor management of oral secretions
- Pocketing of food in cheeks
- Facial weakness
- Gurgly, hoarse voice or a lot of throat clearing
- Multiple swallows for each bolus
- Decline in respiratory status
- Prolonged meal times
- Weight loss or malnutrition
- Dehydration
- Recurrent chest infections
- Pain with swallowing
- Increasing avoidance of multiple foods/liquids.

### Safe feeding strategies

- Make sure you have everything you need within reach (utensils, condiments, napkins and so on).
- Ensure you are both sitting comfortably upright and the person is alert.
- Reduce distractions and interruptions as much as possible.
- Place the meal tray in front of the person.
- Encourage the person to feed themselves if able. Help the person to feed themselves by guiding their hand – this can reduce risk as gives person more control.
- If you are feeding them, feed from the front so they can see the food coming.
- Offer one small mouthful at a time. Allow rests in between.
- Make sure you see a swallow before you give another spoonful.
- If food is still leftover, prompt another swallow.
- Consider offering the most nutritious part first.
- Make sure you have plenty of time for mealtimes.
- Keep a record of how much has been eaten and any concerns you have.

## Eating or drinking should be stopped if any of the following happen

- Drowsiness
- Coughing a lot
- Choking
- Shortness of breath
- Voice sounds wet or gurgly.

Contact a GP/NP if a chesty cough, fever or difficulty breathing develops. A reassessment of swallowing may be required.

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## Safe feeding strategies



Before



After



Even better

## How to refer to speech language therapist

Follow local guidelines when referring.

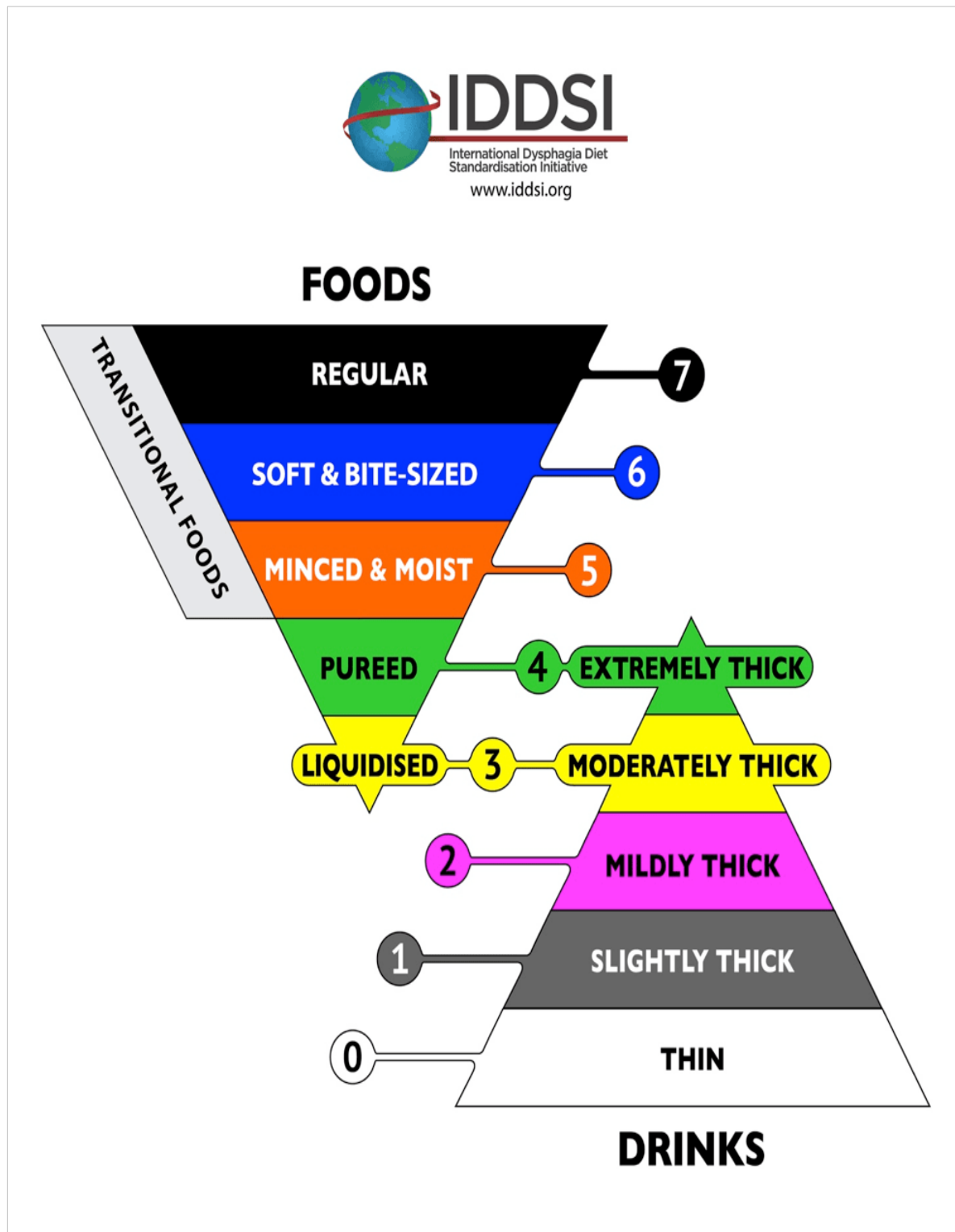
When referring a person, include the following useful information:

- Description of difficulties
- Current diet and fluids
- Relevant background information, ie, Parkinson's disease
- Chest status, ie, current aspiration pneumonia
- History of dysphagia, if any
- GP/NP consent.

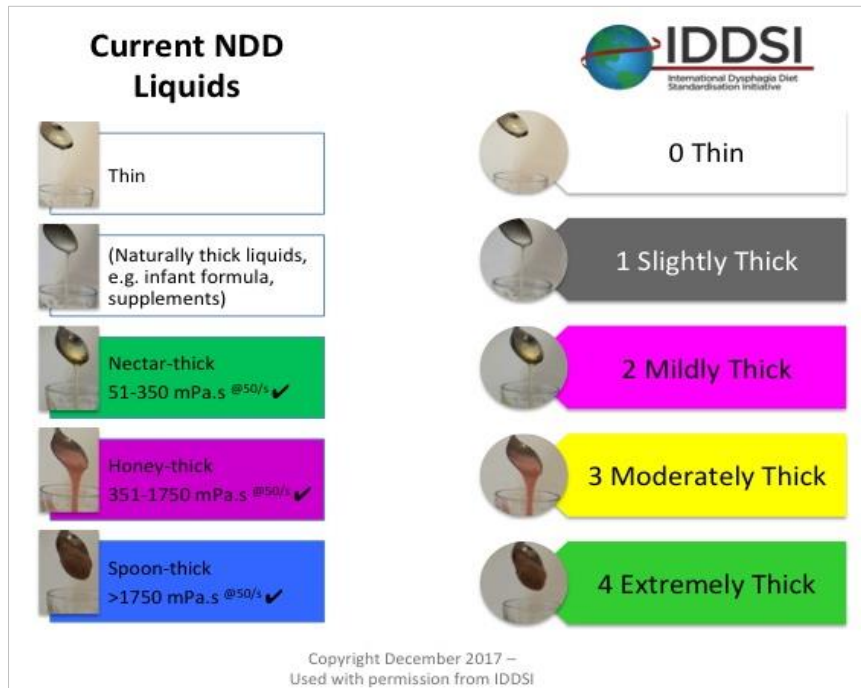


## Food and fluid textures

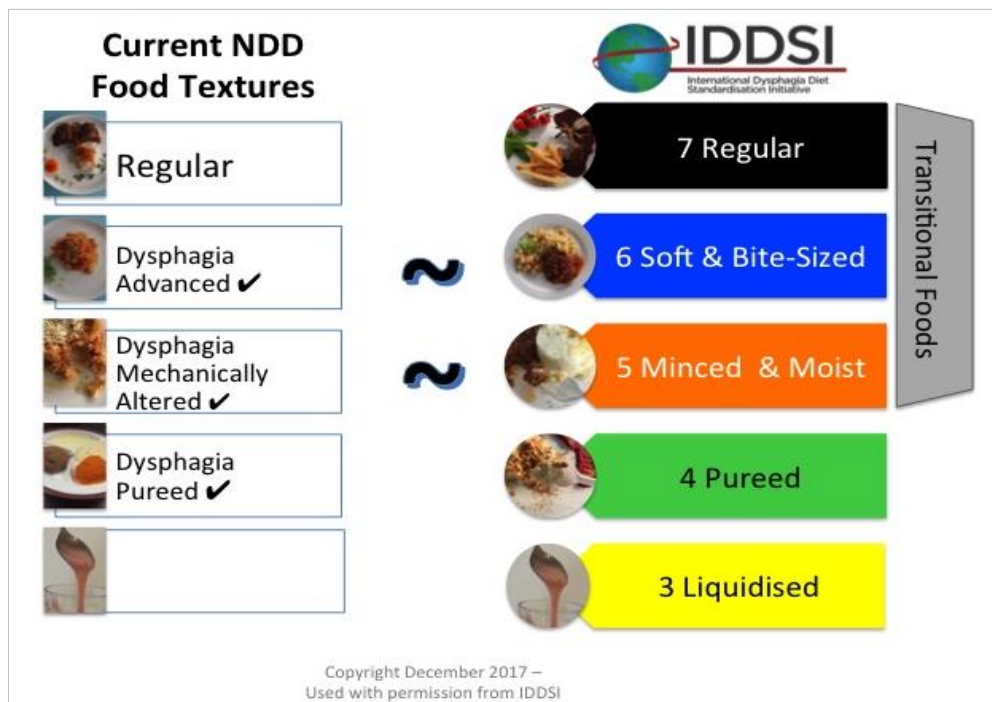
### Food and fluid textures pyramid



## Mapping to IDDSI – drinks



## Mapping to IDDSI – foods



## National descriptors for texture modification in adults

### Transitional foods

- Food that starts as one texture (eg, firm solid) and changes into another texture specifically when moisture (eg, water or saliva) is applied, or when a change in temperature occurs (eg, heating)

### 7 Regular

- Normal, everyday foods of various textures that are developmentally and age appropriate
- Any method may be used to eat these foods
- Foods may be hard and crunchy or naturally soft
- Sample size is not restricted at Level 7, therefore, foods may be a **range of sizes**:
  - Smaller or greater than 15 mm = 1.5 cm pieces (adult)
- Includes hard, tough, chewy, fibrous, stringy, dry, crispy, crunchy or crumbly bits
- Includes food that contains pips, seeds, pith inside skin, husks or bones

### 6 Soft and bite-sized

- Can be eaten with a fork, spoon or chopsticks
- Can be mashed or broken down with pressure from fork, spoon or chopsticks
- A knife is not required to cut this food, but may be used to help loading a fork or spoon
- Chewing is required before swallowing
- Soft, tender and moist throughout but with no separate thin liquid
- 'Bite-sized' pieces as appropriate for size and oral processing skills
  - Adult, 15 mm = 1.5 cm pieces**

### 5 Minced and moist

- Can be eaten with a fork or spoon
- Could be eaten with chopsticks in some cases, if the individual has very good hand control
- Can be scooped and shaped (eg, into a ball shape) on a plate
- Soft and moist with no separate thin liquid
- Small lumps visible within the food
  - Adult, 4 mm lump size**
- Lumps are easy to squash with tongue

### 4 Extremely thick/pureed

- Usually eaten with a spoon (a fork is possible)
- Cannot be drunk from a cup
- Cannot be sucked through a straw
- Does not require chewing
- Can be piped, layered or moulded
- Shows some very slow movement under gravity but cannot be poured
- Falls off spoon in a single spoonful when tilted and continues to hold shape on a plate
- No lumps
- Not sticky**
- Liquid must not separate from solid

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## National descriptors for texture modification in adults continued

### 3 Moderately thick /liquidised

- Can be drunk from a cup
  - Some effort is required to suck through a standard bore or wide bore straw (wide bore straw = 0.275 inch or 6.9 mm)
  - Cannot be piped, layered or moulded on a plate
  - Cannot be eaten with a fork because it drips slowly in dollops through the prongs
  - Can be eaten with a spoon
  - No oral processing or chewing required – can be swallowed directly
  - Smooth texture with no 'bits'
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### 2 Mildly thick

- Flows off a spoon
  - Sippable, pours quickly from a spoon, but slower than thin drinks
  - Effort is required to drink this thickness through standard bore straw (standard bore straw = 0.209 inch or 5.3 mm diameter)
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### 1 Slightly thick

- Thicker than water
  - Requires a little more effort to drink than thin liquids
  - Flows through a straw, syringe, teat/nipple
  - Similar to the thickness of commercially available 'anti-regurgitation' (AR) infant formula
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### 0 Thin

- Flows like water
  - Fast flow
  - Can drink through any type of teat/nipple, cup or straw as appropriate for age and skills
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## Bibliography | Te rārangi pukapuka

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