Kerry Parents & Friends Association

Diet & Nutrition Policy

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Reviewed by:	**Clinical Nurse Specialist**
Approved by:	**Marie Linehan, Chief Executive**
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KERRY PARENTS AND FRIENDS ASSOCIATION

DIET AND NUTRITION POLICY

INTRODUCTION

This Policy sets out Kerry Parents and Friends Association's approach to food, fluid and nutritional care within its services. It supports a person-centred approach, and is underpinned by evidence based practice.

This is a living document and is subject to change, as research, knowledge and experience continue to impact on the care we provide to people.

POLICY STATEMENT

1.1 Policy Statement

Kerry Parents and Friends Association recognises the absolute importance of optimal nutrition and hydration for each person that we support ('the person' 'people'), and will make every effort to ensure that their nutrition and hydration needs are met.

1.2 Policy Purposes

The purposes of this Policy are:

- To create awareness of the diet and nutrition needs of people we support;
- To create an environment inclusive of good practice recommendations;
- To promote positive nutritional health throughout the lifespan of each person;
- To identify the roles and responsibilities of staff;
- To provide guidance to staff to maximize the nutritional health of each person;
- To reduce risk of nutrition and hydration problems arising.

1.3 Policy Scope

These guidelines apply to all Kerry Parents and Friends Association staff in any setting where care is provided.

1.4 Definitions/Terms (Appendix 2)

Clinical Concern: includes unintentional weight loss, fragile skin, poor wound healing, apathy, wasted muscles, poor appetite, altered taste sensation, eating, drinking and swallowing disorders, altered bowel habit; loose fitting clothes; prolonged illness; or an acute episode of illness. (NICE, 2006)

Nutritional Support: Refers to methods used to improve or maintain nutritional intake. These include: oral nutritional support such as additional snacks; food fortification; and oral nutritional supplements. (ONS)

Malnutrition: a state in which a deficiency of nutrients such as energy, protein, vitamins and minerals causes measurable adverse effects on body composition, function or clinical outcome. (NICE, 2006). The term includes over-nutrition and under nutrition. (Elia et al, 2005).

For further definitions see Appendix 2.

GENERAL PRINCIPLES AND RESEARCH

2.1 General Principles

- This Policy is founded on an interdisciplinary approach to maximising nutrition and hydration.
- The person's rights, choices and needs form the basis for any nutrition and/or hydration intervention plan.
- Prior to the introduction of any change to a person's food and fluid intake, he/she is consulted and agreement sought, and where required, his/her family is consulted.
- The Policy advocates for the least restrictive practices. This means that the person will have the most typical and normal diet possible, whilst at the same time acknowledging any nutrition and hydration issues.
- There will be a firm evidence base for modifying a person's diet, or for introducing nutritional support practices, such as oral nutritional supplements or enteral feeding.
- This Policy requires staff and families/guardians/advocates to be aware of the importance of achieving a diet which meets the nutrition and hydration needs of the person.
- This Policy requires that staff and families are aware of the risks and consequences for the person, where adequate and appropriate nutrition and hydration is not achieved.

2.2 Some Points from Research

- There is considerable evidence that people with intellectual disabilities (ID) are more likely than those in the general population to have nutritionally related ill-health. (Appendix 3)
- Research has identified that people with more severe disability are often most at nutritional risk (Appendix 4)
- It has been common for severe under nutrition to go unrecognised by support staff and health professionals, particularly when it has been longstanding.
- Almost all studies report greater levels of obesity among people with Intellectual Disability than among people without intellectual disability. (McGuire et al, 2007) (Appendix 5)
- Poor hydration is a hugely significant concern for people with intellectual disability. (Appendix 6)
- Research indicates that improved nutritional status is directly associated with improved quality of life.

2.3 Effects of Medication on Nutrition & Hydration Status

- Many people with intellectual disabilities take a number of different medications. Many of these medications affect appetite, food and fluid intake, and ultimately nutrition and hydration status.
- Between 20% and 50% of people with intellectual disabilities are prescribed psychotropic medication for treating mental illness, behaviours that challenge, anxiety and depression. The side-effects of some of these medications include weight gain, raised blood cholesterol levels, increased incidence of diabetes, dry mouth, poor hydration, and constipation, among others.
- Special consideration must be given to the person's nutrition and hydration requirements when on psychotropic medications. (Appendices 13, 14, 15)

ROLES AND RESPONSIBILITIES

3.1 Introduction

A team-based approach (which includes all staff that work with the person) is essential to ensure the effective delivery of good nutrition. Staff should have a heightened awareness of the close association between intellectual disability (ID), complex health care needs and malnutrition.

3.2 Senior Management Team

- To ensure this Policy is implemented, reviewed regularly and updated as required;
- To ensure the guidelines for implementation of the Policy are adhered to by all staff.

3.3 Manager

- To ensure the Policy is available to staff;
- To ensure staff have read, understood, accepted and signed the Policy.
- To ensure staff are familiar with the guidelines, and adhere to them.
- To ensure staff are aware and implement protected mealtime guidelines. Appendix 1.

3.4 Staff

- To read, understand and accept the Policy.
- To adhere to the Policy and guidelines;
- To ensure that timely interventions are initiated in accordance with the guidelines;
- To be alert to over-nutrition (overweight and obesity) and mindful of healthy eating guidelines;
- To be aware of the importance of optimal hydration and engage in strategies to prevent dehydration and its negative consequences.

GUIDELINES

4.1 Healthy Eating Guidelines (Appendix 7)

Food first – promote use of fresh, natural quality products.

4.2 Eating and Drinking Assessment

- Each person should have the option of having an Eating and Drinking Assessment completed on an annual basis, or more often, if clinically indicated/concerns arise.
- The Assessment will aid staff to identify people that are experiencing eating and drinking difficulties in a timely manner, so that interventions can be put in place.

4.3 Weight Recording (Appendix 8)

- Each person should have the option of having their weight checked and recorded by local staff, on a monthly basis.
- If a person's weight cannot be recorded, the reason should be documented.
- Weighing Guidelines: (Appendix 9)

4.4 Unintentional Weight Loss (Appendix 10)

- Where weight loss is observed on consecutive weight checks, the amount of weight loss should be noted and addressed.

4.5 Body Mass Index (BMI) (Appendices 2 & 12)

- BMI should be calculated for individuals who are mobile, and where an accurate height is available.

- BMI should not be calculated for persons who have limited or no mobility.

4.6 Subjective Global Assessment (SGA)

- When weight cannot be recorded, SGA will provide valid information.

- SGA includes visual and clinical impressions of the person, based on observation of changes. For example, the person's ability to perform daily activities, weight loss, loose clothing, loss of appetite etc. In the absence of weight measurements, etc., such observations should be recorded; for example: 'based on observations, appears normally nourished/over nourished/under nourished'.

4.7 Food & Fluid Records (Appendix 11)

- Where there is concern about a person's nutritional and/or hydration status, a food and fluid record should be commenced and maintained. (Booth et al, 2005).
- Appropriate interventions must be implemented to support the person to meet their nutrition and hydration needs. (Appendix 13)

4.8 Hydration & Nutrition Supports

Hydration Support

- As a general rule, each person should achieve a minimum of 1500 mls fluid daily.
- When concerns regarding hydration are noted, a fluid intake and urinary output (where possible) chart should be completed.
- A Dehydration Checklist is also available as an aid in identifying people at risk of dehydration. (Appendix 15).
- Where risk is identified, Hydration Management Strategies should be implemented. (Appendix 16)
- If fluid intake remains inadequate, or a person is unable to tolerate oral fluids and is demonstrating signs of dehydration, the use of alternative methods of hydration e.g. sub-cutaneous fluids, enteral feeding, should be discussed with the person's medical team.

4.8.2 Nutrition Support

A fortified (high energy, protein) diet should be followed in the following circumstances:

- Appetite / intake is poor.
- Person is unintentionally losing weight.
- Person is already underweight (BMI <18.5).

In addition to normal food provision, additional nutritional support should be considered for these individuals.

Types of Nutritional Support include:

- Food fortification (Appendices 13 & 16);
- Oral nutritional supplements (Appendix 17);
- Enteral tube feeding (Appendix 18).

4.9 Guideline when supporting someone to eat – See Appendix 19

More than one approach may be required. The aim is to re-establish the person back onto a normal oral diet.

4.10 Dsyphagia & Modified Diets (see our policy)

- There is a high incidence of dysphagia (eating, drinking and swallowing difficulties) among people with intellectual disabilities. (Appendix 20: Signs and Symptoms).
- People exhibiting signs/symptoms of dysphagia should be referred to the Speech and Language Therapy (SLT) for assessment through the GP.
- Following an assessment, the SLT will recommend the appropriate food and fluid consistencies to promote the safety of the person during the meal-time experience.
- The SLT's recommendations must be followed carefully.
- Where food and fluid intake is reduced, the person will need:
    - Nutritional support;
    - Regular weight checks;
    - Recording of food and fluid intake.
- Arrange for GP visit for referral to Dietician, if support strategies prove ineffective following a 4 week intervention period.

REFERRAL TO DIETICIAN

5.1 Nutritional Concern

When a nutritrional concern is identified, staff are advised to take the following steps, prior to arranging for GP visit to make a referral to the Dietician:

- Commence food and fluid records.
- Provide regular meals and snacks; high protein high energy foods; fortified foods and drinks.
- Consider Hydration Management Plan (Appendix 16) where hydration status is a concern.
- After 4 weeks, reassess dietary intake and weight.
- Where initial measures implemented by staff are successful, continue with intervention and reassess monthly.
- Where initial measures are unsuccessful and clinical concern remains, a referral to the Dietician is warranted through the G.P. / Primary Care.

  The referral should include details of interventions already implemented by staff and results of same.

STAFF TRAINING

Staff Training

- Training on implementation of the Policy will be facilitated.

DIET AND NUTRITION MANAGEMENT ACTIONS

SUMMARY OF ACTIONS

People in Residential Settings

The following support is available from staff:

- Eating and drinking assessment annually as part of the individual's assessment of needs with individual support plans as required.
- Monthly weights and assessment of weight change:

- Recent unintended weight change ± 3kg/6.6 lbs is significant in an adult.
- Weight loss in a child should never be ignored.

- BMI Calculation:

  - If person is mobile, BMI may be calculated to ascertain if underweight / healthy weight / overweight / obese.
  - If person is not mobile or has limited mobility, do not calculate BMI.
  - Consult with GP/Dietician if calculating BMI for a child.

- Observation for changes in nutrition and/or hydration status – weight changes; changes in appetite; food and fluid intake etc.

- Food and Fluid Record where there is clinical concern.

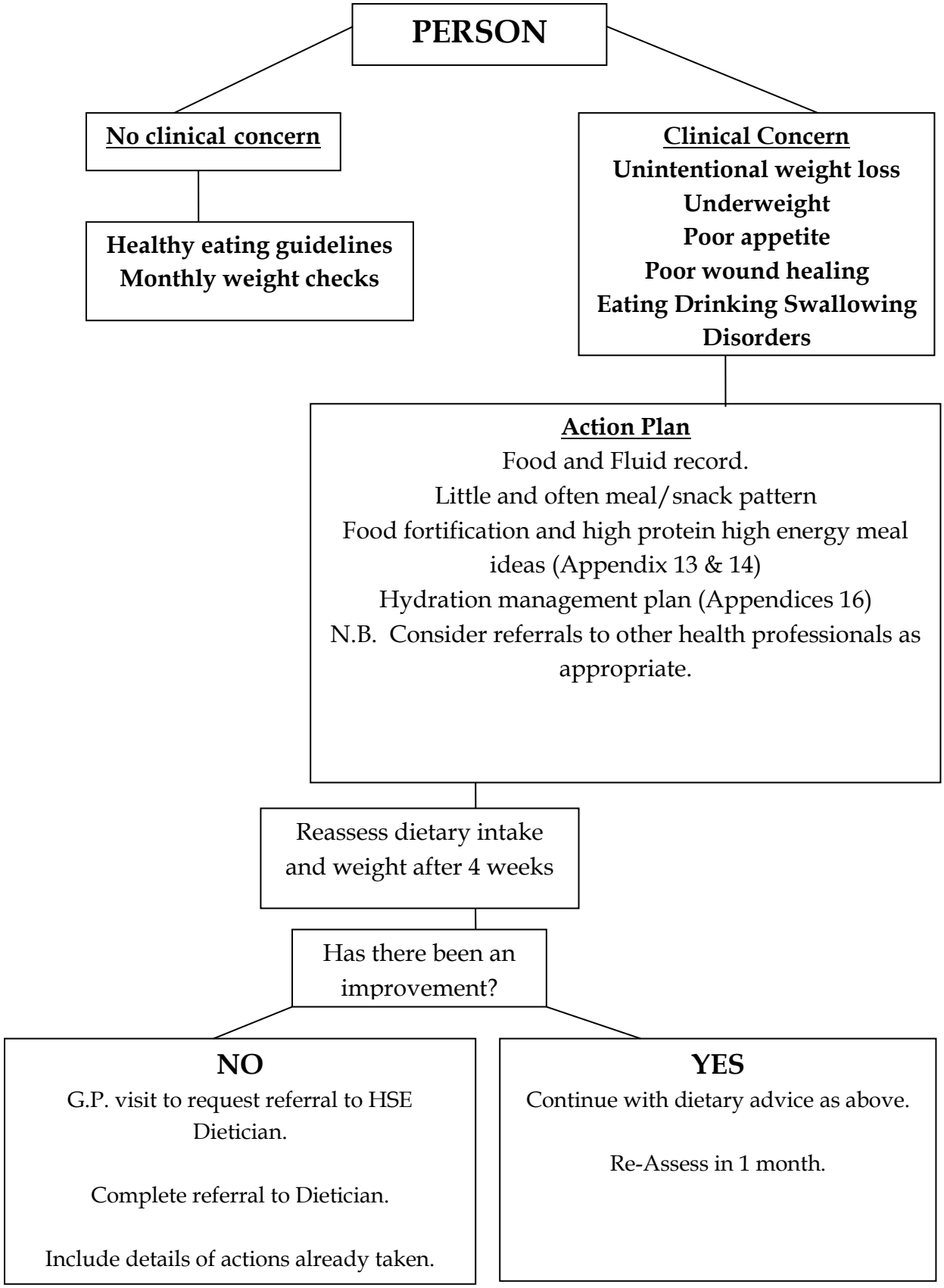
- Side-effects of medications to be considered.

- Implementation of Strategies based on concerns / findings:

  - Healthy eating guidelines if no concerns regarding nutrition and hydration status.
  - Food fortification if reduced appetite / losing weight / underweight.
  - Hydration Management plan if hydration is a concern.

- After a 4 week period, where clinical concerns remain (reduced appetite; unintentional weight loss; underweight, etc) refer to GP for Dietician referral.

DIET AND NUTRITION MANAGEMENT ALGORITHM



PEOPLE LIVING INDEPENDENTLY / IN SUPPORTED ACCOMMODATION

The following support is available:

- Eating and drinking assessment.
- Support re: implementation of Healthy Eating Guidelines.
- Support /education from staff re: healthy choice making; food shopping; cooking.
- Observation for changes in nutrition and/or hydration status – weight changes; changes in appetite; food and fluid intake etc.
- Side-effects of medications to be considered.
- Implementation of Strategies based on concerns/ findings:
    - Healthy eating guidelines if no concerns regarding nutrition and hydration status.
    - Food fortification if reduced appetite / losing weight / underweight.
    - Hydration Management plan if hydration is a concern.
- After a 4 week period, where clinical concerns remain (reduced appetite; unintentional weight loss; underweight), complete referral to Dietician.

POLICY REVIEW

Policy Review

- Kerry Parents and Friends Association undertakes to review this Policy at intervals not exceeding 3 years. Where necessary, the Policy will be reviewed and updated more frequently to reflect new research and changes to practice recommendations.

APPENDIX 1 PROTECTIVE MEALTIME GUIDELINES

1. Commence supporting residents to bathroom ½ hour before meal times to ensure everyone is sitting at the table before meal is served.
2. Offer all residents the opportunity to wash hands before meals or offer hand wipes which are in dining area.
3. Medications to be administered prior to or after meal not during meal time.
4. Ensure adequate staff in dining room to support residents.
5. Offer clothes protections and ensure that each resident has their own appropriate eating utensils.
6. Relaxing music playing in background.
7. Noise levels to be kept to minimum. Blenders etc to be used in the kitchen while residents eating.
8. Staff to interact with residents observing food/fluids intake. If food not eaten assess reason why.

APPENDIX 2 DEFINITION / TERMS

Body Mass Index (BMI):

A standard calculation to estimate an individual's weight for height. Calculated as weight (kg) ÷ height (m2).

BMI is a suitable and useful tool for assessing weight status of persons who are mobile.

BMI is not a suitable assessment tool for persons who have limited or no mobility and therefore should not be applied when evaluating weight status of such individuals. This relates to altered body composition, e.g. reduced muscle mass due to absence of weight bearing activity, etc. (British Dietetic Association, 2008)

Classification for Adults	**BMI**
Under-Weight	< 18.5
Healthy-Weight	18.5 – 24.9
Over-Weight	25 – 29.9
Obese	>30

Note: Classification of BMI for Children varies according to age as the amount and distribution of body fat changes as a child grows. Using the adult classification for children is inappropriate and unsafe.

Subjective Global Assessment (SGA): Where weight measurements are not practicable and where BMI is deemed in appropriate, subjective and non-specific markers are used for assessment purposes. Observations such as reduced ability to perform daily activities; reduced subcutaneous fat stores; signs of muscle wasting; reported loose clothing; ill-fitting dentures etc., all form part of an SGA. Such visual / clinical impressions of a person's nutritional status should be recorded, for example: "Appears normally nourished / over nourished / under nourished".

Dehydration: an abnormal depletion of body fluids. (Medline, 2008)

Dysphagia: Eating, drinking and swallowing disorders.

Over-nutrition: The state of nutrition in which there is an excess of energy stores represented by body fatness, causing measureable adverse effects on body function and clinical outcome.

Under-nutrition: The state of nutrition where there is a deficiency of energy, protein and other nutrients, including minerals and vitamins, causing measurable adverse effects on body function and clinical outcome.

Enteral Tube Feeding: the delivery of a nutritionally complete feed directly into the gastrointestinal tract via a tube.

Food Fortification: A process for enriching a diet without increasing food volume using calorie rich foods or proprietary supplements.

Oral Nutritional Supplements: Commercially produced high energy and/or high protein products given for the purpose of providing additional nutrients.

Hydration Support: Methods used to improve or maintain fluid intake. These include oral hydration, subcutaneous fluids, enteral and thickened fluids.

APPENDIX 3 RESEARCH

- Issues relating to body weight (both underweight and overweight), swallowing difficulties, gastro-oesophageal reflux disorder, diabetes, bowel disorders, bone disorders, etc are frequently reported among people with intellectual disabilities. (BDA, 2008; Caroline Walker Trust, 2007).

APPENDIX 4 RESEARCH

- A review of 25 studies by Gravestcok (2000) concluded that between 35% and 72% of people with severe learning disabilities were significantly underweight (BMI < 17). This was mostly confined to those who were immobile, unable to feed themselves and those who experienced eating, drinking and swallowing difficulties.

- Significant underweight/under nutrition is association with increased susceptibility to infection; poor wound healing; enhanced muscle weakness and reduced cough reflex; poor concentration and impaired learning; bone demineralisation / fractures; impaired gastrointestinal/ cardio respiratory / cerebral function; increased hospitalisations; increased morbidity. (Carter, 2006). It is essential that all staff are alert to under nutrition and are trained to identify signs that food intake is inadequate as early as possible. (Caroline Walker Trust, 2007)

APPENDIX 5 RESEARCH

- Evidence also suggests that people with intellectual disabilities will experience obesity at a younger age that the general population. (Melville et al, 2005). It is known that overweight (BMI 25-29.9) and obesity (BMI 30 or above) are linked to an increased risk of developing coronary disease, type2 diabetes, certain cancers, stroke and osteoarthritis (WHO, 2002)

APPENDIX 6 RESEARCH

- The medical evidence for good hydration demonstrates that it can assist in preventing or treating problems, such as: pressure ulcers, urinary infections and incontinence; heart disease; diabetes; dizziness and confusion leading to falls; poor oral health; skin condition; cognitive impairment; low blood pressure; kidney stones; constipation. (Royal College of Nursing/NHS, 2007)

APPENDIX 7 HEALTHY EATING TIPS AND FOOD PYRAMID GUIDELINES

Variety: Enjoy a wide variety of foods from the five food groups.

Physical Activity: Find enjoyable ways to be physically active every day. Balancing food intake with active living will protect against disease and prevent weight gain.

Serving sizes: Watch serving sizes. Choose smaller portions and add plenty vegetables, salad and fruit.

Healthy Weight: Wholemeal breads, cereals, potatoes, pasta and rice (eaten plain) are the best foods for providing calories for a healthy weight. Meals should be based on these simple foods with plenty of vegetables, salad and fruit.

Vegetables, Salad and Fruit: Eat plenty of different coloured vegetables, salad and fruit at least 5 a day.

Low Fat Dairy: Low fat milk, yogurt and cheese are best. Choose mild and yogurt more often than cheese.

Meat/Poultry/Fish and Alternatives: Choose lean meat and poultry; include fish (oily is best) and remember peas, beans and lentils are good alternatives.

Fat Spreads: Use polyunsaturated and monounsaturated spreads and oils sparingly. Reduced fat spreads are best.

Cooking Methods: Grill, bake, steam or boil food instead of frying or deep frying.

Other foods: Healthy eating can be enjoyed with limited amounts of 'otherfoods' like biscuits, cakes, savoury snacks and confectionary. These foods are high in calories, fat, sugar and salt so remember – NOT too MUCH and NOT too OFTEN.

Salt: Limit salt intake.

Fluids: Drink plenty of water.

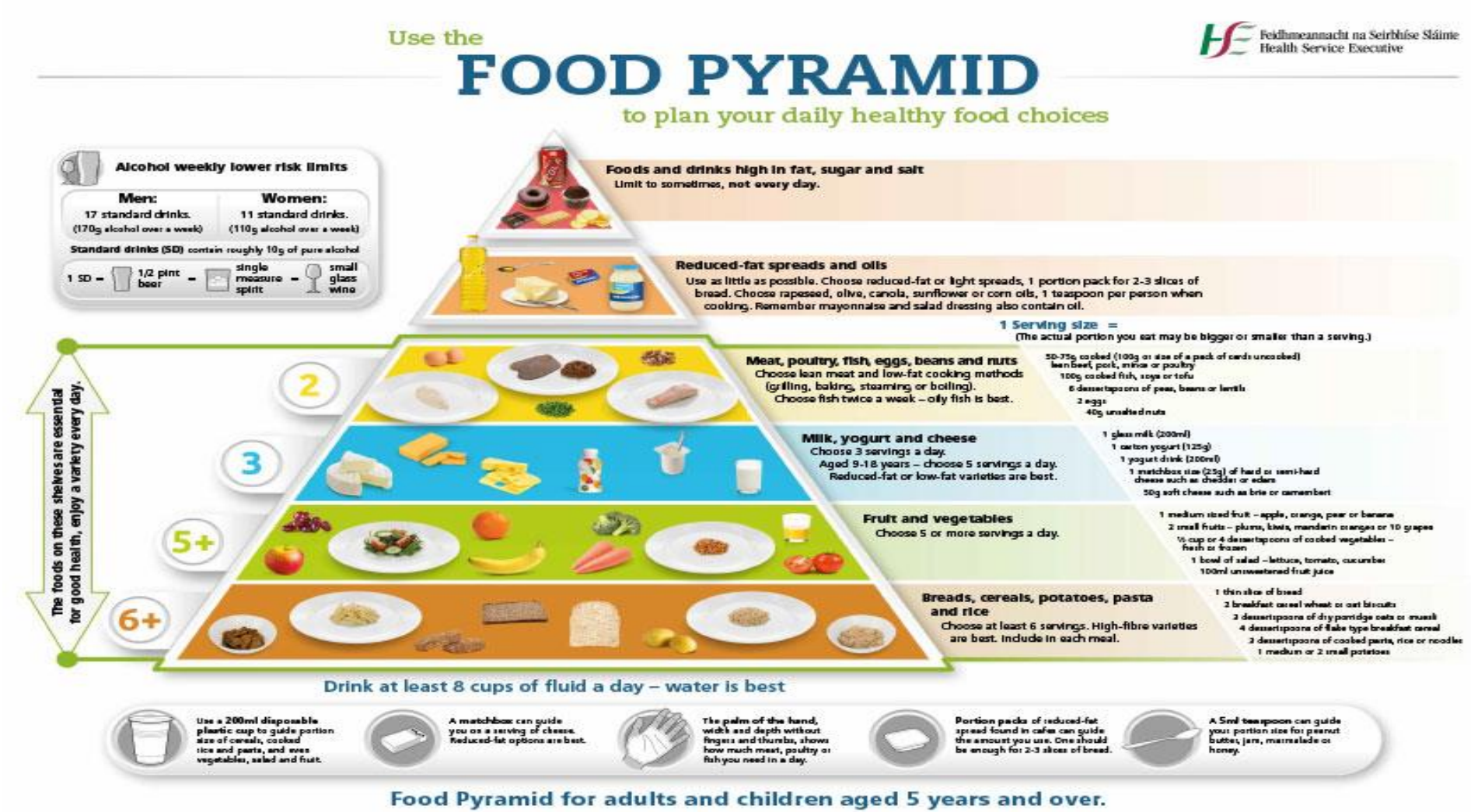
Vitamin D: Everyone should make sure they are getting enough Vitamin D. Taking oily fish once or twice a week is best. People choosing a supplement should be advised to take 5 micrograms of Vitamin D3 per day. People over 50 years may take 10 micrograms per day.

Folic acid: All women of child bearing age who are sexually active should take a folic acid supplement (400 micrograms) every day to help prevent neural tube defects in babies.

Breast is best: Breastfeeding should be encouraged and supported by everyone in Ireland, because it gives babies the very best start in life and helps protect women's health.

Food Safety: Prepare and store food safely.

APPENDIX 7 CONTINUED




THE US FOOD PLATE
DAIRY
Get your calcium-rich foods
Include fat-free or low-fat milk as a beverage at meals.
Add milk instead of water to prepare oatmeal and hot cereals.
Use milk when making condensed cream soups – like tomato.
Choose calcium-fortified juices, cereals, and breads if you can't eat dairy products.
FRUITS
Focus on fruits
Vary fruit and juice choices – they vary in nutrients.
Top cereal, pancakes, waffles and yogurt with berries or diced fruit.
Snack on dried fruits – they are easy to carry and store well.
Select canned fruits in 100% juice or water, not syrup.
GRAINS
Make half your grains whole
Substitute a whole-grain product for a refined one.
Try brown rice or whole-wheat pasta.
Choose foods that list a whole grain first on the label – color is not an indication.
Add barley, bulgur or quinoa to soups, stews and casseroles.
VEGETABLES
Vary your veggies
Buy fresh vegetables in season – keep frozen on hand, too.
Plan meals around a vegetable main dish, such as a vegetable stir-fry.
Keep cut-up vegetables in a see-through container in the refrigerator.
Shred carrots or zucchini into meatloaf, casseroles, and quick breads.
PROTEIN FOODS
Go lean with protein
Start with lean choices, and remove visible fat and skin.
Choose fish more often.
Use dry beans or peas in meals.
Add nuts to salads or main dishes as a substitute for meat.
Based on:
A Whole Diet Approach to Healthy Eating
For individual recommendations on food intake for your age and activity level go to:
ChooseMyPlate.gov

APPENDIX 8: WEIGHT MONITORING CHART

Weight Monitoring Chart.docx (sharepoint.com)

APPENDIX 9: WEIGHING GUIDELINES

- People should have the option of having their weight checked on a regular basis.
- Weight checks should be carried out at the beginning of each month, preferable at the same time of the day, and if possible by the same person.
- Weights should be recorded on reliable scales, and the same scales should be used each time.
- Weights should be recorded preferable in Kg.
- If in doubt about accuracy of weight, always re-check.

Clothing

- Person should be weighed in light clothing, and shoes should be removed.

Bladder

- Bladder should be emptied prior to weight check.
- If a person has a urinary catheter, then the person's catheter bag should be emptied.
- If a person wears a pad, the pad should be dry.

Bowels

- Person should be weighed preferably when the bowel is empty.
- Note: If a person is constipated this may add 1-2 kg in weight.

Mobility

- If a person is able to mobilise independently, stand-on scales may be used.
- If a person is unable to stand independently, sit-on scales should be used.
- If a person is weighted in their wheelchair, make sure to get an accurate weight of the chair each time, as adjustments to chair can make a significant difference to the weight of the chair e.g. addition / removal of head rest; foot plates etc.

General Rule

- A recent unintended weight change of 3 Kg (6.6 lbs) is considered significant and warrants investigation and action.

APPENDIX 10 UNINTENTIONAL WEIGHT LOSS

Unintentional weight loss is considered significant as follows:

- Recent unintended weight loss of 3 Kg (6.6 lbs) in an adult.

  Or

- More than 10% of body weight within 3-6 months (NICE, 2006)

APPENDIX 11 FOOD AND FLUID RECORD CHART

Fluid & Food input Chart.docx (sharepoint.com)

APPENDIX 12 BMI CHART

BMI Chart (Kgs/m²) for use with the Weight Management Treatment Algorithm

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

icgp

A Quick Reference Guide For Primary Care Staff

(See www.icgp.ie/weightmanagement or www.hse.ie for additional online resources)

Underweight (<18.5 kgs/m²)	Healthy weight (18.5 -24.9 kgs/m²)	Overweight (25 - 29.9 kgs/m²)	Obese Class I (30 - 34.9 kgs/m²)	Obese Class II (35 - 39.9 kgs/m²)	Obese Class III (> 40 kgs/m²)

Stone	lbs	4' 10"	4' 11"	5' 0"	5' 1"	5' 2"	5' 3"	5' 4"	5' 5"	5' 6"	5' 7"	5' 8"	5' 9"	5' 10"	5' 11"	6' 0"	6' 1"	6' 2"	6' 3"	kgs
7st 2lbs	100	20.9	20.2	19.6	18.9	18.3	17.8	17.2	16.7	16.2	15.7	15.2	14.8	14.4	14.0	13.6	13.2	12.9	12.5	45.5 kgs
7st 7lbs	105	22.0	21.3	20.5	19.9	19.2	18.6	18.1	17.5	17.0	16.5	16.0	15.5	15.1	14.7	14.3	13.9	13.5	13.2	47.7 kgs
7st 12lbs	110	23.0	22.3	21.5	20.8	20.2	19.5	18.9	18.3	17.8	17.3	16.8	16.3	15.8	15.4	14.9	14.5	14.2	13.8	50 kgs
8st 3lbs	115	24.1	23.3	22.5	21.8	21.1	20.4	19.8	19.2	18.6	18.0	17.5	17.0	16.5	16.1	15.6	15.2	14.8	14.4	52.3 kgs
8st 8lbs	120	25.1	24.3	23.5	22.7	22.0	21.3	20.6	20.0	19.4	18.8	18.3	17.8	17.3	16.8	16.3	15.9	15.4	15.0	54.5 kgs
8st 13lbs	125	26.2	25.3	24.5	23.7	22.9	22.2	21.5	20.8	20.2	19.6	19.0	18.4	18.0	17.5	17.0	16.5	16.1	15.7	56.8 kgs
9st 4lbs	130	27.2	26.3	25.4	24.6	23.8	23.1	22.4	21.7	21.0	20.4	19.8	19.2	18.7	18.2	17.7	17.2	16.7	16.3	59.1 kgs
9st 9lbs	135	28.3	27.3	26.4	25.6	24.7	24.0	23.2	22.5	21.8	21.2	20.6	20.0	19.4	18.9	18.3	17.8	17.4	16.9	61.4 kgs
10st 0lbs	140	29.3	28.3	27.4	26.5	25.7	24.9	24.1	23.3	22.6	22.0	21.3	20.7	20.1	19.6	19.0	18.5	18.0	17.5	63.6 kgs
10st 5lbs	145	30.4	29.3	28.4	27.5	26.6	25.7	24.9	24.2	23.5	22.8	22.1	21.5	20.8	20.3	19.7	19.2	18.7	18.2	65.9 kgs
10st 10lbs	150	31.4	30.4	29.4	28.4	27.5	26.6	25.8	25.0	24.3	23.5	22.9	22.2	21.6	21.0	20.4	19.8	19.3	18.8	68.2 kgs
11st 1lbs	155	32.5	31.4	30.3	29.3	28.4	27.5	26.7	25.8	25.1	24.3	23.6	22.9	22.3	21.7	21.1	20.5	19.9	19.4	70.5 kgs
11st 6lbs	160	33.5	32.4	31.3	30.3	29.3	28.4	27.5	26.7	25.9	25.1	24.4	23.7	23.0	22.4	21.7	21.2	20.6	20.0	72.7 kgs
11st 11lbs	165	34.6	33.4	32.3	31.2	30.2	29.3	28.4	27.5	26.7	25.9	25.1	24.4	23.7	23.1	22.4	21.8	21.2	20.7	75 kgs
12st 2lbs	170	35.6	34.4	33.3	32.2	31.2	30.2	29.2	28.3	27.5	26.7	25.9	25.2	24.4	23.8	23.1	22.5	21.9	21.3	77.3 kgs
12st 7lbs	175	36.7	35.4	34.2	33.1	32.1	31.1	30.1	29.2	28.3	27.5	26.7	25.9	25.2	24.5	23.8	23.1	22.5	21.9	79.5 kgs
12st 12lbs	180	37.7	36.4	35.2	34.1	33.0	32.0	31.0	30.0	29.1	28.3	27.4	26.6	25.9	25.2	24.5	23.8	23.2	22.5	81.8 kgs
13st 3lbs	185	38.7	37.4	36.2	35.0	33.9	32.8	31.8	30.8	29.9	29.0	28.2	27.4	26.6	25.9	25.1	24.5	23.8	23.2	84.1 kgs
13st 8lbs	190	39.8	38.5	37.2	36.0	34.8	33.7	32.7	31.7	30.7	29.8	28.9	28.1	27.3	26.6	25.8	25.1	24.4	23.8	86.4 kgs
13st 13lbs	195	40.8	39.5	38.2	36.9	35.7	34.6	33.5	32.5	31.5	30.6	29.7	28.9	28.0	27.3	26.5	25.8	25.1	24.4	88.6 kgs
14st 4lbs	200	41.9	40.5	39.1	37.9	36.7	35.5	34.4	33.4	32.3	31.4	30.5	29.6	28.8	28.0	27.2	26.4	25.7	25.1	90.9 kgs
14st 9lbs	205	42.9	41.5	40.1	38.8	37.6	36.4	35.3	34.2	33.2	32.2	31.2	30.3	29.5	28.7	27.9	27.1	26.4	25.7	93.2 kgs
15st 0lbs	210	44.0	42.5	41.1	39.8	38.5	37.3	36.1	35.0	34.0	33.0	32.0	31.1	30.2	29.4	28.5	27.8	27.0	26.3	95.5 kgs
15st 5lbs	215	45.0	43.5	42.1	40.7	39.4	38.2	37.0	35.9	34.8	33.7	32.8	31.8	30.9	30.0	29.2	28.4	27.7	26.9	97.7 kgs
15st 10lbs	220	46.1	44.5	43.1	41.7	40.3	39.1	37.8	36.7	35.6	34.5	33.5	32.6	31.6	30.7	29.9	29.1	28.3	27.6	100 kgs
16st 1lbs	225	47.1	45.5	44.0	42.6	41.2	39.9	38.7	37.5	36.4	35.3	34.3	33.3	32.4	31.4	30.6	29.7	28.9	28.2	102.3 kgs
16st 6lbs	230	48.2	46.6	45.0	43.5	42.2	40.8	39.6	38.4	37.2	36.1	35.0	34.0	33.1	32.1	31.3	30.4	29.6	28.8	104.5 kgs
16st 11lbs	235	49.2	47.6	46.0	44.5	43.1	41.7	40.4	39.2	38.0	36.9	35.8	34.8	33.8	32.8	31.9	31.1	30.2	29.4	106.8 kgs
17st 2lbs	240	50.3	48.6	47.0	45.4	44.0	42.6	41.3	40.0	38.8	37.7	36.6	35.5	34.5	33.5	32.6	31.7	30.9	30.1	109.1 kgs
17st 7lbs	245	51.3	49.6	47.9	46.4	44.9	43.5	42.1	40.9	39.6	38.5	37.3	36.3	35.2	34.2	33.3	32.4	31.5	30.7	111.4 kgs
17st 12lbs	250	52.4	50.6	48.9	47.3	45.8	44.4	43.0	41.7	40.4	39.2	38.1	37.0	35.9	34.9	34.0	33.1	32.2	31.3	113.6 kgs
18st 3lbs	255	53.4	51.6	49.9	48.3	46.7	45.3	43.9	42.5	41.2	40.0	38.9	37.7	36.7	35.6	34.7	33.7	32.8	31.9	115.9 kgs
18st 8lbs	260	54.5	52.6	50.9	49.2	47.7	46.2	44.7	43.4	42.1	40.8	39.6	38.5	37.4	36.3	35.3	34.4	33.5	32.6	118.2 kgs
18st 13lbs	265	55.5	53.6	51.9	50.2	48.6	47.0	45.6	44.2	42.9	41.6	40.4	39.2	38.1	37.0	36.0	35.0	34.1	33.2	120.5 kgs
19st 4lbs	270	56.5	54.6	52.8	51.1	49.5	47.9	46.4	45.0	43.7	42.4	41.1	40.0	38.8	37.7	36.7	35.7	34.7	33.8	122.7 kgs
19st 9lbs	275	57.6	55.7	53.8	52.1	50.4	48.8	47.3	45.9	44.5	43.2	41.9	40.7	39.5	38.4	37.4	36.4	35.4	34.4	125 kgs
20st 0lbs	280	58.6	56.7	54.8	53.0	51.3	49.7	48.2	46.7	45.3	43.9	42.7	41.4	40.3	39.1	38.1	37.0	36.0	35.1	127.3 kgs
20st 5lbs	285	59.7	57.7	55.8	54.0	52.2	50.6	49.0	47.5	46.1	44.7	43.4	42.2	41.0	39.8	38.7	37.7	36.7	35.7	129.5 kgs
20st 10lbs	290	60.7	58.7	56.8	54.9	53.2	51.5	49.9	48.4	46.9	45.5	44.2	42.9	41.7	40.5	39.4	38.3	37.3	36.3	131.8 kgs
21st 1lbs	295	61.8	59.7	57.7	55.9	54.1	52.4	50.7	49.2	47.7	46.3	44.9	43.7	42.4	41.2	40.1	39.0	38.0	36.9	134.1 kgs
21st 6lbs	300	62.8	60.7	58.7	56.8	55.0	53.3	51.6	50.0	48.5	47.1	45.7	44.4	43.1	41.9	40.8	39.7	38.6	37.6	136.4 kgs
21st 11lbs	305	63.9	61.7	59.7	57.7	55.9	54.1	52.5	50.9	49.3	47.9	46.5	45.1	43.9	42.6	41.5	40.3	39.2	38.2	138.6 kgs
22st 2lbs	310	64.9	62.7	60.7	58.7	56.8	55.0	53.3	51.7	50.1	48.7	47.2	45.9	44.6	43.3	42.1	41.0	39.9	38.8	140.9 kgs
22st 7lbs	315	66.0	63.8	61.6	59.6	57.7	55.9	54.2	52.5	50.9	49.4	48.0	46.6	45.3	44.0	42.8	41.6	40.5	39.5	143.2 kgs
22st 12lbs	320	67.0	64.8	62.6	60.6	58.7	56.8	55.0	53.4	51.8	50.2	48.8	47.4	46.0	44.7	43.5	42.3	41.2	40.1	145.5 kgs
23st 3lbs	325	68.1	65.8	63.6	61.5	59.6	57.7	55.9	54.2	52.6	51.0	49.5	48.1	46.7	45.4	44.2	43.0	41.8	40.7	147.7 kgs
23st 8lbs	330	69.1	66.8	64.6	62.5	60.5	58.6	56.8	55.0	53.4	51.8	50.3	48.8	47.4	46.1	44.8	43.6	42.5	41.3	150 kgs
23st 13lbs	335	70.2	67.8	65.6	63.4	61.4	59.5	57.6	55.9	54.2	52.6	51.0	49.6	48.2	46.8	45.5	44.3	43.1	42.0	152.3 kgs
24st 4lbs	340	71.2	68.8	66.5	64.4	62.3	60.4	58.5	56.7	55.0	53.4	51.8	50.3	48.9	47.5	46.2	45.0	43.7	42.6	154.5 kgs
24st 9lbs	345	72.3	69.8	67.5	65.3	63.2	61.2	59.3	57.5	55.8	54.1	52.6	51.1	49.6	48.2	46.9	45.6	44.4	43.2	156.8 kgs
25st 0lbs	350	73.3	70.8	68.5	66.3	64.1	62.1	60.2	58.4	56.6	54.9	53.3	51.8	50.3	48.9	47.6	46.3	45.0	43.8	159.1 kgs
25st 5lbs	355	74.4	71.9	69.5	67.2	65.1	63.0	61.1	59.2	57.4	55.7	54.1	52.5	51.0	49.6	48.2	46.9	45.7	44.5	161.4 kgs
		147.3 cms	149.9 cms	152.4 cms	154.9 cms	157.5 cms	160 cms	162.6 cms	165.1 cms	167.6 cms	170.2 cms	172.7 cms	175.3 cms	177.8 cms	180.3 cms	182.9 cms	185.4 cms	188 cms	190.5 cms	

APPENDIX 12 CONTINUED MEASURING HEIGHT

How to measure height of people who can stand upright

- Where possible, a height measure should be used in order to obtain the most accurate measurement.
- If a height measure is not available, choose a wall that is clear of hanging objects, etc., and which has a flat floor surface beneath.
- The individual to be measured should be barefoot or in thin socks.
- The person should stand with their back to the wall with weight distributed evenly on both feet.
- Heels should be together and the back of the heels should touch the wall if possible.
- The person is required to look straight ahead so that their line of vision is perpendicular to their body.
- A pencil mark should be placed on the wall at the exact top point of the head.
- The person can then move away and a measuring tape can be used to obtain the measurement.
- If height cannot be measured, use a reported or recently documented height.

For People who are unable to stand upright, but can maintain a flat lying position, use a measuring tape as follows:

- Individual should be lying down on their back on their bed or on a soft mat on the floor.
- Measure the length of the body in small sections.
- Add these together to provide a total length.

(NHS, Tayside, 2012)

Alternative Height Measurements

- For individuals who are unable to stand upright or maintain a flat lying position (e.g. due to spinal contractures, kyphosos, scoliosis), the use of alternative height measurements can be considered.
- Possible methods include: Ulna Length, Knee Height, Demispan.
- Please note that specialised equipment is required in order to perform these measurements accurately.
- Contact the Dietician if you require further information.

Where it is <u>not</u> possible to obtain a height measurement, please document in the care plan the reason for same.

HEIGHT CONVERSION CHART

Feet Inch	Metre	Feet Inch	Metre	Feet Inch	Metre
4 ft 0	1.21	5 ft 0	1.52	6 ft 0	1.83
4 ft 1	1.24	5 ft 1	1.54	6 ft 1	1.85
4 ft 2	1.27	5ft 2	1.57	6 ft 2	1.88
4 ft 3	1.29	5ft 3	1.60	6 ft 3	1.90
4 ft 4	1.32	5 ft 4	1.62	6 ft 4	1.93
4 ft 5	1.34	5 ft 5	1.65	6 ft 5	1.95
4 ft 6	1.37	5 ft 6	1.67	6 ft 6	1.98
4 ft 7	1.39	5 ft 7	1.70		
4 ft 8	1.42	5 ft 8	1.72		
4 ft 9	1.44	5 ft 9	1.75		
4 ft 10	1.47	5 ft 10	1.77		
4ft 11	1.49	5 ft 11	1.80		

APPENDIX 13 FOOD FORTIFICATION

- For people requiring additional calories in their diet, the focus, where possible should always be on 'food first'.
- Useful food fortification strategies include addition of cream; ice-cream; butter; cheese; sugar/glucose; jam/honey etc., to appropriate foods to increase the calorie content.
- Food fortification strategies may be implemented by staff as a first line of treatment and without prescription form the Dietician or Physician.

APPENDIX 14 FOOD FORTIFICATION IDEAS / HIGH ENERGY, HIGH PROTEIN

A Fortified (high energy, high protein) Diet should be followed when:

- Appetite / intake is poor;
- Person is unintentionally losing weight;
- Person is already underweight (BMI <18.5).

To increase Protein & Energy using everyday foods:

- Encourage little and often meal pattern with nourishing snacks in between meals.
- Aim for 1 pint/day . Can be used to make up sauces, soup, hot drinks.
- Include protein sources at least 2-3 times a day, if possible.
- Good sources of protein include dairy foods, meat, fish, poultry, pulses, nuts and eggs.

To fortify foods & drinks:

- Fortified Milk: Whisk 4 tablespoons of milk powder (e.g. Marvel) into 1 pint of full fat milk to increase calories and protein.
- Yoghurt: Can be used on desserts, milkshakes, and can be mixed with fruit.
- Cream: Add to soup, desserts, drinks, potatoes, scrambled eggs, sauces.
- Ice Cream: Add to milk shakes and puddings.
- Butter: Add to potato and vegetables; spread thickly onto bread, scones.
- Sugar / Glucose: Add to drinks, cereals and puddings.
- Jam/Honey: Spread on bread or scones.
- Eggs: Can be used in many ways (poached / boiled/scrambled).
- Cheese: Sprinkle grated cheese into soups, sauces, egg dishes or onto fish, potatoes and vegetables.

Ideas for Light Meals/ Snacks.

- Cheese/beans on buttered toast.
- Small sandwich / roll with fish, meat, cheese or egg (add mayonnaise).
- Cheese on crackers Or Savoury biscuits with cheese spread.
- Scrambled egg / omelette with added cheese /ham/mushrooms.
- Tinned /packet soup – make up with milk. Add chopped cooked meat if liked, and cream for extra calories. Serve with buttered bread.
- Cereal with fortified milk and sugar.
- Scone/biscuits with butter and jam Or toast/crumpets with butter and jam.
- Baked potato with butter/margarine filled with cheese/beans/mince meat.
- Small portions of pizza / quiche / flan.

Ideas for Desserts

- Milk puddings – tinned or made with milk, add extra cream.
- Yoghurt / Fromage Frais – 'thick and creamy' varities instead of 'diet' or 'low fat'.
- Pot of mousse / trifle / jelly and ice cream.
- Custard and fruit (fresh, tinned or stewed).
- Milk shakes – add cream or ice cream.
- Apple tart and cream.

Ideas for Nourishing Drinks

Sometimes if a person's appetite for solid foods is poor, nourishing drinks may be a better option. Offer some of the following:

- Hot milky drinks e.g. Horlicks, Ovaltine, Cocoa.
- Cold drinks e.g. Cold milk, milk shakes with added ice cream / fruit juice.
- Soup – made with milk instead of water.
- Complan, Build-up, etc. (make with milk). Available from pharmacies / supermarkets.

APPENDIX 15 SIGNS AND SYMPTOMS OF DEHYDRATION CHECKLIST

Signs & Symptoms of Dehydration Checklist.docx (sharepoint.com)

APPENDIX 16 CARE PLANNING FOR HYDRATION MANAGEMENT

Usual Hydration Management

1. Provide fluids consistently throughout the day.
2. Ensure each person receives a daily intake of a minimum of 1500 mls of fluids in 24 hrs.
3. Aim for 75% of fluid intake with meals and 25% at other times such as snack times and when taking medications.
4. Have a jug of fresh water and glasses available for visitors and staff to offer to the residents throughout the day.
5. Use a standardised amount of 100 mls of fluid when administering medications.
6. Offer a drink at the end of each meal to cleanse and refresh the mouth.
7. Offer a variety of fluids – water; milk; juice; tea; coffee; soup; fruit smoothies etc.
8. Monitor for fluid loss during hot weather.

Unwell: Day Hydration Management

1. Record food and fluid intake on Food and Fluid Record Sheet. (Appendix 10 above)/
2. Offer 30 – 60 mls fluid per hour when awake.
3. In order to maximise intake, ensure fluids are provided consistently throughout the day and when awake at night.
4. Offer a wide variety of fluids – water; milk; juice; tea; coffee; soup; fruit smoothies etc.
5. Offer hydrating foods for main meal / snacks – cereal with milk; soup; jelly and ice cream; yogurt drinks; etc.
6. Offer a drink every 2-3 mouthfuls of food in order to maximise intake.
7. Use a standardised amount of 100 mls of fluid when administering medication.
8. Schedule additional fluid rounds other than snack time.
9. Offer a drink at the end of each meal to cleanse and refresh the mouth.
10. Monitor for fluid loss related to vomiting; diarrhoea, fever.
11. Discuss administration of sub-cutaneous fluids with Physician.

APPENDIX 17 ORAL NUTRITIONAL SUPPLEMENTS

- Where food fortification strategies are unsuccessful or are not deemed adequate to meet the nutritional requirements of the person, a referral to the GP/Dietician is warranted to assess the need for oral nutritional supplementation.
- Oral nutritional supplements should only be commenced when advised by the GP/Dietician following a nutritional assessment, and should be charted in the person's Prescription Chart by the person's Physician.
- Oral nutritional supplements include: Standard adults 1.0 – 1.5 Kcal/ml sip feeds; Standard paediatric 1.0 – 1.5 Kcal/ml sip feeds; high calorie sip feeds (2.4 Kcal/ml): specialised disease specific sip feeds; Protein / energy supplements; Vitamin and mineral supplements.
- The need for oral nutritional supplements should be reviewed by the GP/Dietician on a routine basis, to ascertain if oral nutritional supplements remain necessary.
- Wherever possible, the aim is to re-restablish the person back onto normal oral diet.

APPENDIX 18 ENTERAL FEEDING

- When a person has been assessed by SLT and Dietetics are unsafe to feed orally, or unable to meet their nutrition and hydration needs with oral intake, a decision may have to be made by the interdisciplinary team to advocate for alternative feeding.
  Alternative feeding methods include insertion of a Nasogastric tube; a PEG tube; or a jejunostomy.
- At all times, this decision is to be made in the context of quality of life, nutritional and hydration needs, and the health and safety of the person.
- The decision making process should be carried out in consultation with the person themselves (where the person is an adult); the person's family/guardian/advocate, and relevant members of the interdisciplinary team.
- Where a decision to commence enteral feeding is made, the Dietitican must complete a comprehensive nutritional assessment to ascertain the person's nutrition and hydration requirements, and must develop a feeding regime to meet the nutrition and hydration requirements of the person.

APPENDIX 19 GUIDELINES – WHEN SUPPORTING A PERSON WITH EATING

1. Check that person is prepared for meal time i.e. hand washing, toileting, napkins/clothing protectors are in place.

2. Sit in front of or to the side of the person you support in order to maintain eye contact and person comfort.

3. Ensure person you support is positioned properly for feeding. If risk of aspiration slightly tilt the person's head to achieve a "chin down" position – often helpful in reducing aspiration (Shanahan et al 1993).

4. Allow adequate time – non rushed and calm approach.

5. Provide the person with choice and opportunity to do for themselves.

6. Describe the food items.

7. Understand the persons food preferences on limit mixing items.

8. Determine the food viscosity that is best tolerated by the person.

9. Alternate food and fluids in a logical order.

10. Spoons should never be more than half filled.

11. Ensure person has an empty mouth before offering more food.

12. Attended to face and hand hygiene.

APPENDIX 20 DYSPHAGIA: SIGNS AND SYMPTOMS

- Signs and symptoms of dysphagia include: coughing and/or choking before, during or after swallowing; difficulty controlling food and drink in the mouth; change in breathing patterns; recurrent chest infections; unexplained weight loss; ‘wet’ voice; hoarse voice; drooling; frequent throat clearing; eating more slowly or avoiding certain food groups; negative behaviours specifically at meal-times; etc.

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