

# Frailty Focus Autumn Series

## Nutrition, Hydration, Medications and Mouthcare

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- ▶ Why do we worry about nutrition and hydration in frail patients
  - ▶ What signs to look out for and questions to ask
  - ▶ Early interventions that can be offered before referral
  - ▶ Referral pathways/signposting formulary resources

**Lauren Schuler- Care Home Pharmacist**

- ▶ Impact of medications on hydration status

**Ingrid Bowden - Clinical Mouthcare Training Lead**

- ▶ Importance of mouthcare

# Why do we worry about nutrition in frail patients?



## Consequences of Malnutrition<sup>1,2</sup>

- Increased falls risk
- Impaired recovery from illness and surgery
- Poor clinical outcomes e.g. higher mortality, complications, infections
- Impaired immune response
- Reduced muscle strength and frailty
- Impaired wound healing
- Impaired psycho-social function

Greater  
Healthcare Usage  
e.g. GP visits,  
antibiotics

More Hospital  
Admissions/  
Readmissions

Longer Length of  
Stay in Hospital

### References:

1. Stratton R, Smith T, Gabe S. Managing malnutrition to improve lives and save money. BAPEN. October 2018. <https://www.bapen.org.uk/pdfs/reports/mag/managing-malnutrition.pdf>
2. Holdaway A et al. Managing Adult Malnutrition in the Community. December 2017 [https://www.malnutritionpathway.co.uk/library/managing\\_malnutrition.pdf](https://www.malnutritionpathway.co.uk/library/managing_malnutrition.pdf)



## Cost comparison - nourished vs malnourished individuals

- Estimated annual health and social care costs:
  - 3 x greater for a patient with malnutrition = **£7,408<sup>1,2</sup>**
  - Compared to a similar patient without malnutrition = **£2,155<sup>1,2</sup>**

### References:

1. Stratton R, Smith T, Gabe S. Managing malnutrition to improve lives and save money. BAPEN. October 2018.

<https://www.bapen.org.uk/pdfs/reports/mag/managing-malnutrition.pdf>

2. Holdoway et al. Managing Adult Malnutrition in the Community. December 2017 [www.malnutritionpathway.co.uk](http://www.malnutritionpathway.co.uk)



# Groups at risk of Malnutrition includes those with:<sup>1,2</sup>

- Chronic disease e.g. COPD, cancer
- Progressive neurological disease e.g. dementia, MND
- Acute illness (more common in hospital than the community)
- Debility e.g. frailty, old age, recent discharge from hospital
- Social issues e.g. housebound, difficulty obtaining or preparing food
- Rehabilitation e.g. after stroke, injury
- End of life/palliative care

## References:

1. Stratton R, Smith T, Gabe S. Managing malnutrition to improve lives and save money. BAPEN. October 2018. <https://www.bapen.org.uk/pdfs/reports/mag/managing-malnutrition.pdf>

2. Holdoway A et al. Managing Adult Malnutrition in the Community. December 2017 [https://www.malnutritionpathway.co.uk/library/managing\\_malnutrition.pdf](https://www.malnutritionpathway.co.uk/library/managing_malnutrition.pdf)



# How do we identify malnutrition?

## Section A: Initial assessment

Tick the relevant box to indicate the person's answers, then refer to the actions section below

1. Are you or your family concerned that you may be underweight or need nutritional advice?

Yes  No  Don't know

2. Have you lost a lot of weight unintentionally in the past three - six months?

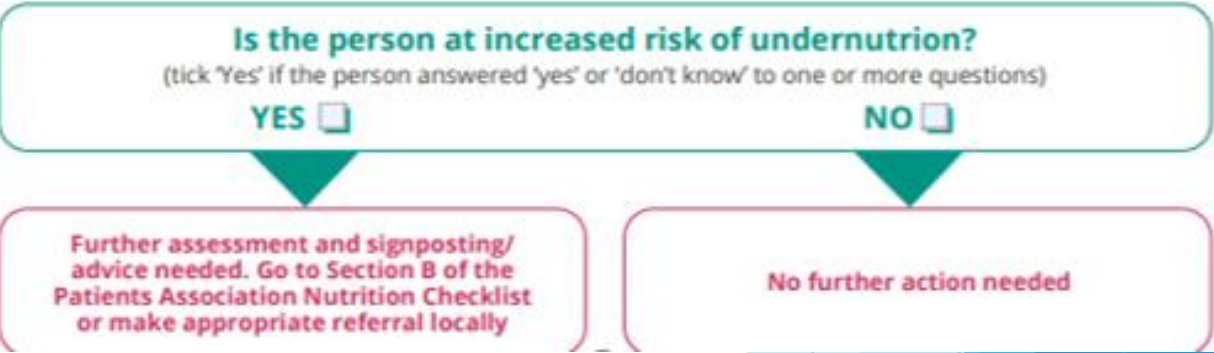
Yes  Do you know why? .....  
No  Don't know

3. Have you noticed that your clothes or rings have become loose recently?

Yes  No  Don't know

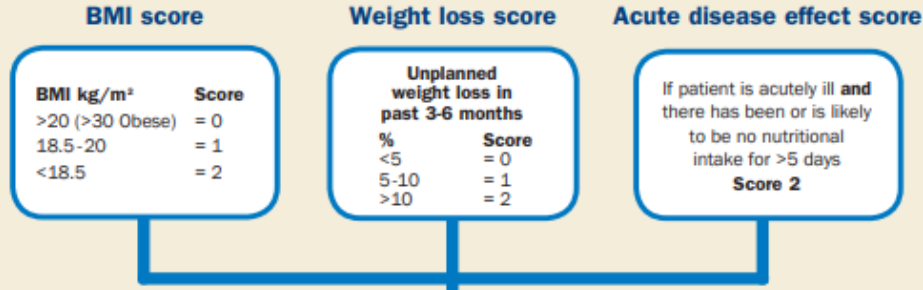
4. Have you recently found that you have lost your appetite and/or interest in eating?

Yes  No  Don't know



- Consider referral to local Dietitians
- Access local Devon Formulary page for advice on appropriate prescribing of ONS

**Step 1** + **Step 2** + **Step 3**



If unable to obtain height and weight, see reverse for alternative measurements and use of subjective criteria

Acute disease effect is unlikely to apply outside hospital. See 'MUST' Explanatory Booklet for further information

**Step 4**

**Overall risk of malnutrition**

Add Scores together to calculate overall risk of malnutrition  
Score 0 Low Risk Score 1 Medium Risk Score 2 or more High Risk

**Step 5**

**Management guidelines**



**All risk categories:**

- Treat underlying condition and provide help and advice on food choices, eating and drinking when necessary.
- Record malnutrition risk category.
- Record need for special diets and follow local policy.

**Obesity:**

- Record presence of obesity. For those with underlying conditions, these are generally controlled before the treatment of obesity.

Re-assess subjects identified at risk as they move through care settings

See The 'MUST' Explanatory Booklet for further details and The 'MUST' Report for supporting evidence.

**Score MUST of 2 and above High Risk\* (likely to be at risk of disease related malnutrition)**

**\*Unless detrimental or no benefit is expected from nutritional support e.g. imminent death.**

**Follow medium risk guidelines and add in the following care:**

- Encourage foods/snacks high in energy and protein.
- Nutritional supplements are prescribable under ACBS criteria for "disease related malnutrition". Prescribe 2 oral nutritional supplements daily. **Foodlink Complete is recommended as first line prescribable supplement unless contraindicated or an alternative is requested by a Dietitian. Ensure patient has adequate dexterity to make up the supplement with milk.** Please prescribe a starter pack with initial prescription (contains a shaker and sachet of each flavour). **See Joint Formulary for guidance (chapter 9).** Prescriptions should be endorsed 'ACBS'.
- Set goal for treatment (e.g. stabilise weight loss, weight gain, improved oral intake, MUST score, improved well-being).

Send an immediate written referral (with patient's consent) to the Department of Nutrition and Dietetics if:


- ✓ Patient unable to eat at all/has severe dysphagia/supplements are sole source of nutrition
- ✓ Grade 3 or 4 pressure sore.
- ✓ MUST >3 or BMI <15
- ✓ Rapid clinical deterioration anticipated and nutritional intervention may be beneficial
- ✓ Full nutritional assessment is required in response to clinical judgement
- ✓ Specialist advice is required following diagnosis (e.g. renal disease, coeliac disease)
- ✓ Patient requiring PEG assessment or consideration of tube feeding
- ✓ Concerns about safeguarding/self-neglect relating to food and nutrition
- ✓ Patients with nutritional problems in severe crisis and at very high risk of hospital admissions or actual harm in the community due to acute changes in swallow, physical or cognitive abilities or social network issues
- ✓ Please contact the Department of Nutrition and Dietetics with any eating disorder referrals. At the time of writing there is no specialist Dietetic service available for eating disorders but further support and signposting is available.

**Review in one month and repeat risk score. Is there progress towards goals?**

- Consider referral to local Dietitians
- Access local Devon Formulary page for advice on appropriate prescribing of ONS

# Early Interventions

## Identifying the underlying cause of malnutrition

Examples of Problems	Considerations	
Altered bowel habit/N+V	Exclude red flags/disease/side effects of treatment etc.	<p>Consider medications!</p> <p>Seek advice from Pharmacist</p> 
Early satiety, reduced appetite, feeling full after small meals	Eating nutrient dense nutritious foods, little and often e.g. high calorie/energy high protein foods. "Food first approach"	
Pain	identify cause and seek advice on management	
Swallowing issues	Refer to SLT	
Oral hygiene	dental issues, sore mouth, oral thrush etc- refer to appropriate services	
Social isolation	meals on wheels, lunch clubs, grocery and meal delivery services, social prescribers	
Physical disability	home adjustments, adaptive cutlery/crockery, referral to S+B groups/physio /OT	
Exclude other nutritional deficiencies	e.g. folate/IDA/vit D	

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graph TD; RT((Resistance training)) --- EB((Evidence Base)); P((Protein)) --- EB; V((Vitamin D)) --- EB; FR((Future Research needed: - Essential AAs - HMB - Micronutrients - Alcohol - Microbiome));
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Resistance training

Evidence Base

Protein

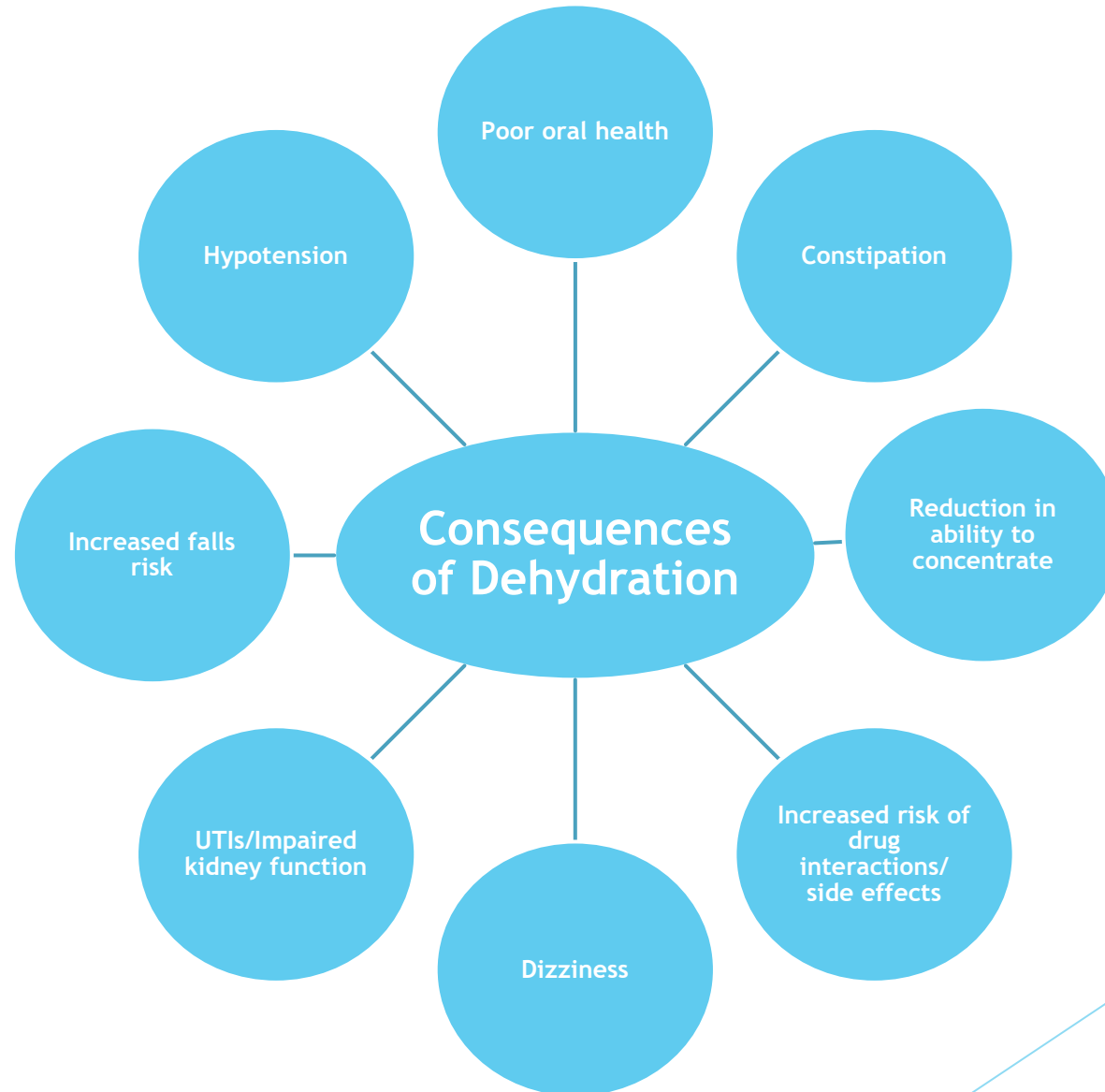
Vitamin D

Future Research needed:

- Essential AAs
  - HMB
- Micronutrients
- Alcohol
- Microbiome



# Why do we worry about hydration in frail patients?



# TSDFT Hydration Project

- ▶ The pilot study supported practical ways of increasing hydration in care home residents in 6 local care homes, with wraparound support and education from the wider MDT, led by local dietitians.

## Results:

- ▶ Reduced falls managed within a care home by 20%
- ▶ Reduced falls requiring admission by 50%
- ▶ 50% decrease in UTIs
  
- ▶ Funding has been continued until End May 2022



# Practice Points



- ▶ Frailty, malnutrition and dehydration are multifactorial so an MDT approach is important
- ▶ Screen and treat for malnutrition - screening tools /clinical judgement
- ▶ People at risk of malnutrition should have a care plan which: records risk and identified underlying causes, sets clear goals and monitors progress towards goals.
- ▶ First line information to improve the quality of diet <https://www.malnutritionpathway.co.uk/leaflets-patients-and-carers>
- ▶ First line information on oral nutritional supplements and vitamin D can be accessed via the Devon Wide formulary
- ▶ To assist rehabilitation and repletion of muscle mass patients will need to consume adequate energy, protein, vitamins and minerals, alongside physical activity.
- ▶ Consider Vitamin D and hydration
- ▶ Nutrition and hydration should be incorporated into falls and frailty pathways, with adequate and timely Dietetic support
- ▶ Communication of nutritional information is key as patients move between settings.

# Medicines that can impact on hydration

- ▶ **Diuretics** - e.g. furosemide, bumetanide
  - Act on the kidneys by helping to turn excess body water into urine
- ▶ **Blood pressure medication** - e.g. ramipril, amlodipine
  - Cause more salt to pass through the kidneys and takes water with it
- ▶ **Laxatives**
  - Increase the amount of water absorbed from the body into the bowel
- ▶ **Sedatives** - e.g. zopiclone, lorazepam, antidepressants
- ▶ **Any medication that has diarrhoea or vomiting listed as a side effect**

# DAMN medicines

- ▶ Some medicines can contribute towards acute kidney injury (AKI) when a person is dehydrated

## **D**iuretics

**A**CE inhibitors and **A**RBs - BP lowering meds ending in 'pril' and 'sartan' e.g. ramipril, candesartan

## **M**etformin

**N**SAIDs - e.g. ibuprofen, naproxen

When a person is at risk of dehydration (e.g. vomiting, diarrhoea, fever) and taking a DAMN medicine, they should contact their GP because the medicine might need to be stopped temporarily.



# Useful Resources

- ▶ Medicines that affect fluid balance in the body:

<https://www.patientsafetyoxford.org/wp-content/uploads/2018/02/Medicines-that-affect-fluid-balance-in-the-body-draft-SJ-v2.0.pdf>

- ▶ Think Kidneys website

## What is mouthcare?

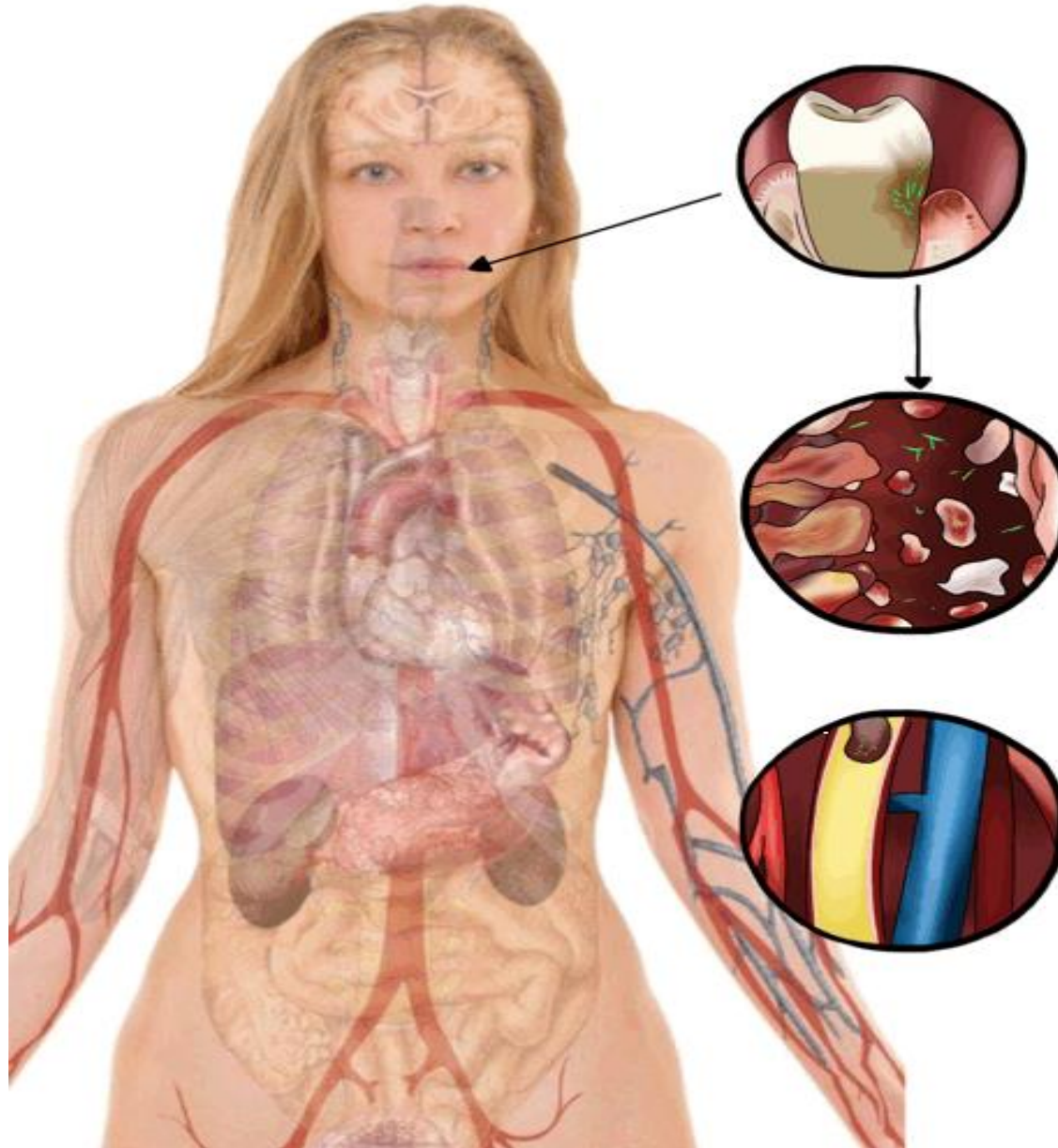
- ▶ **Toothbrushing**
- ▶ **Denture care**
- ▶ **Checking for abnormalities/pain/discomfort**
- ▶ **Relieving dry mouth**
- ▶ **Hydration**
- ▶ **Treating infections**



# Why is Mouthcare Important?

- ▶ **Comfort**
- ▶ **Nutrition/Hydration**
- ▶ **Communication/  
Speech**
- ▶ **Dignity/ Social  
Interactions**
- ▶ **Prevention**





## Systemic health link

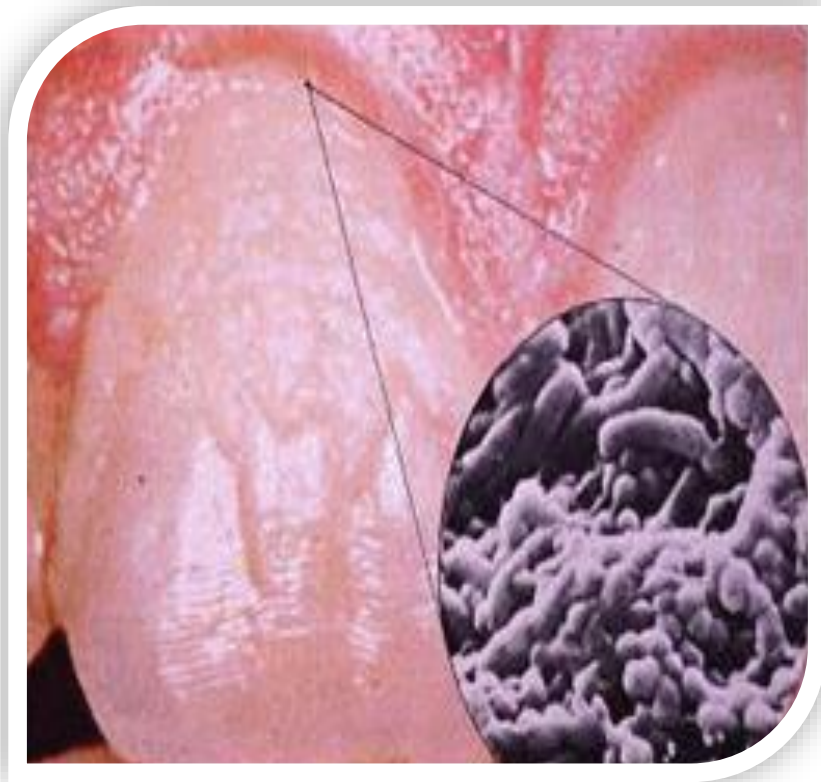
- Heart disease
- Diabetes
- Mouth cancer
- Lung conditions
- Strokes
- Dementia

# Healthcare Associated Pneumonia





# Dental Plaque





## Plaque also grows on dentures



- **Dentures**

- **Identify if patient/client wears a dentures (complete or partial).**
- **Remove overnight**
- **Clean denture AND mouth/tongue**
- **Store in labelled pot**
- **Use fixative if needed**

## Impact of lost dentures

- **Dignity & self esteem**
- **Comfort**
- **Ability to eat/drink**
- **Unnecessary worry**
- **Cost**



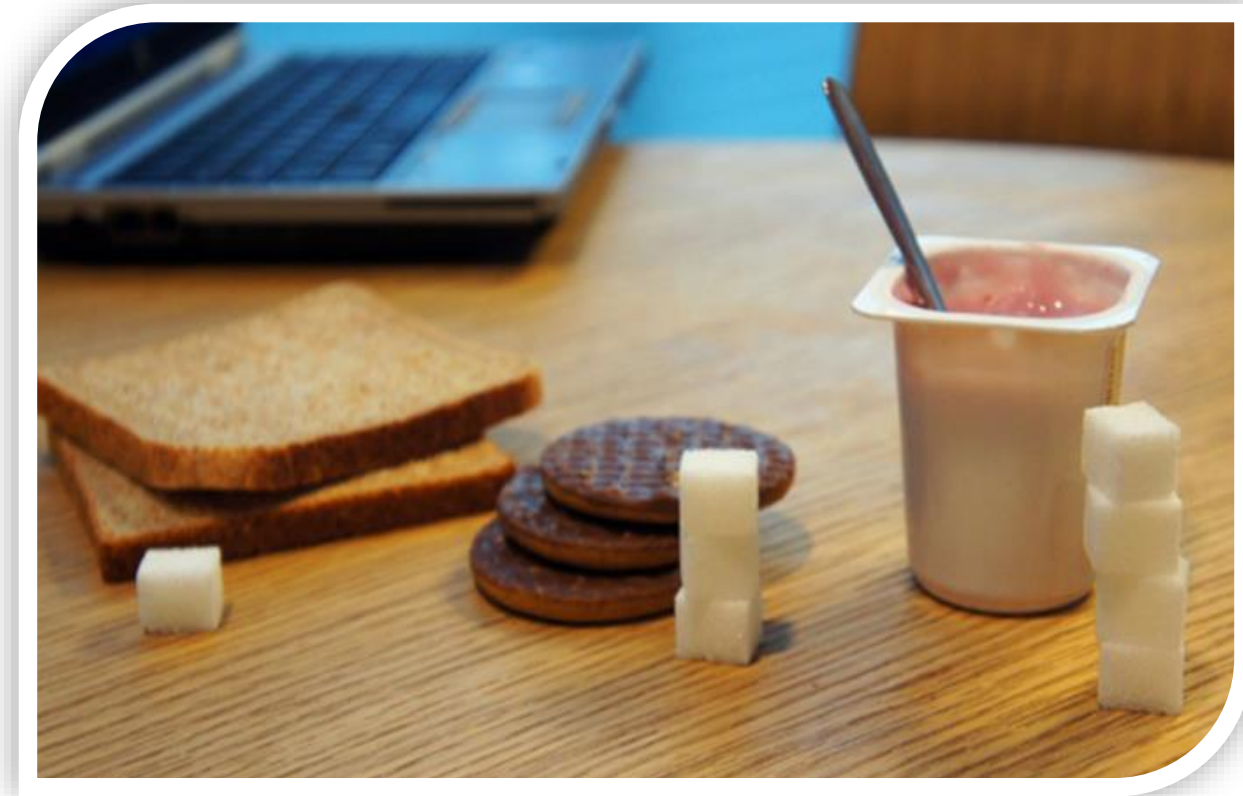




- **Tips and tools**
  - **Care plan**
  - **PPE**
  - **Pen torch**
  - **Tissues/Towel**
  - **Brush/Denture cleaning brush**
  - **Fl t/paste**
  - **Lip balms, moistening gels,**
  - **Hydration fluids and delivery tool**
  - **Receiver**



- Sugar



## Dental Decay and Root Caries

