Developed by British Columbia Provincial Nursing Skin & Wound Committee in collaboration with Provincial RD Wound Sub-Committee & NSWOCs/WCs/RDs from:

Nutrition Screening for Wound Prevention & Healing: Guideline for Nurses

Endorsement **British Columbia & Yukon**	• Endorsement done: N/A • Endorsement pending: FNHA, FHA, ISLH, NHA, PHSA & Yukon; until endorsement has been granted by your health authority (HA), please follow your HA's current document.
DST Indications for Use	• This Decision Support Tool (DST) guides nurses in screening for nutritional concerns, when to refer to a Registered Dietitian and understanding the appropriate nutritional interventions for adult clients who have a wound or are at risk for developing a wound.
Practice Level **British Columbia & Yukon**	British Columbia: • Entry level competency: Registered Nurses, Registered Psychiatry Nurses, and Licensed Practical Nurses. Yukon: • Registered Nurses, Registered Psychiatric Nurses and Licensed Practical Nurses refer to organizational policy and practice in accordance with regulatory bodies.
Need to Know	• Nutrients and fluids are required for skin health and are vital in all stages of the wound healing trajectory. For the client with a wound, or at risk for a wound, screening for nutritional risk is an important part of their holistic wound assessment. • Malnutrition is a deficiency, excess, imbalance and/or impaired utilization of nutrients. It can: ◦ Increase the risk of skin breakdown and predisposes the client to the development of a wound. ◦ Interrupt the healing process contributing to wound chronicity and severity. ◦ Increase the risk of infection. ◦ Reduce the tensile strength of a closed/healed wound. ◦ Increase length of stay in hospital and community care. • While a wound may result from a variety of different etiologies, (e.g., diabetes, venous and/or arterial insufficiency, pressure injury, surgical intervention, thermal injury, skin tears, trauma, moisture associated skin damage, lymphedema), the nutritional considerations for prevention and treatment are the same. • Cultural considerations should guide the assessment and care planning to support client preferences, cultural safety and relevance to the client.
Bookmarks	Screening Determination of Care Strategies Interventions Client Education & Resources Client Clinical Outcomes Quality Assurance Indicators Documentation Definitions References/Bibliography Document Creation/Review Appendix A Appendix B Appendix C
Related Documents	Guideline for Dietitians: Nutrition for Wound Prevention & Management Learning Module: under development

Note: This is a **controlled** document. A printed copy may not reflect the current, electronic version on the CLWK Intranet (www.clwk.ca). Any document appearing in paper form should always be checked against the electronic version prior to use; the electronic version is always the current version. This DST has been developed as a guide to support nursing practice in British Columbia, however it is not a substitute for education, experience & the use of clinical judgment.

Screening and Determination of Care Strategies

In talking with the client and/or their family regarding the following, keep in mind the concepts of Trauma Informed Practice and, where appropriate for the client/family, Indigenous Cultural Safety.

1. Assess client/family's current strategies for maintaining a healthy diet considering their social determinants of health, (e.g., income, food security, housing, etc.) and medical condition:
   - Access to nourishing food and fluids that meet the client's preferences and culture.
   - Medical nutrition therapy, (e.g., allergies, vegan, celiac disease, renal diet) as these diets may be low in nutrients.
   - Ability to prepare meals and feed self, (e.g., hemiplegia, spinal cord injury, arthritis).
   - Access to meal delivery or home support for preparation/assistance with meals if needed.
   - For the client living with diabetes, what processes are in place for glucose monitoring and management of medications.
   - Client family's goals of care, (e.g., nutrition support at end of life).

2. Screen for the client's risk of malnutrition:
   - On admission to acute care, complete the Canadian Nutrition Screening Tool(CNST) see Appendix A.
   - On admission to community or long-term care, complete HA/site approved nutrition screening tools, such as the Mini Nutritional Assessment (MNA), if available.

3. Screen for the client's risk of poor nutritional intake:
   - Complete the Braden Risk & Skin Assessment Flow Sheet as per the care settings guidelines. Determine nutritional adequacy using the Braden Scale for Predicting Pressure Sore Risk – Nutrition, see Appendix B.

4. Determine client's height and weight, if possible, and if a change in weight has occurred over the past six months.

5. Assess client for hydration status. Indication of dehydration may include:
   - Reduced daily fluid intake.
   - Dark coloured, concentrated urine.
   - Poor skin turgor.
   - Dryness of mucous membranes, (e.g., lips, oral cavity).
   - Hypotension.
   - Confusion.
   - Elevated serum sodium level.
   - Diminished sense of thirst, in particular older clients due to the aging process.

6. Screen for client specific risk factors/food intake barriers that may lead to impaired nutritional status:
   - Poor Appetite:
     - Reduced intake at meals and snacks.
   - Taste changes:
     - Loss of taste or smell in particular older clients due to the aging process
   - Difficulty chewing:
     - Poor dentition
   - Difficulty swallowing:
     - Coughing after meals.
     - Choking
   - Shortness of breath and/or frailty:
     - Shortness of breath due to medical condition
     - Limited energy to eat independently or eat adequate amount of food at one sitting.
   - Pain:
     - Pain related to medical condition, (e.g., cancer) or wound.

- Pain with mobility.
- Gastro-intestinal symptoms or conditions:
  - Nausea and/or vomiting.
  - Diarrhea or constipation.
  - High output ostomy, (e.g., output greater than 1.5 L in 24 hours).
  - Diverticulitis.
  - Inflammatory bowel disease.
  - Abdominal pain.
- Access to food:
  - Mobility issues affecting ability to shop for food.
  - Lack of communication tools to order food from grocery shores or other meal programs.
  - Geographically distanced from food sources.
- Difficulty with food preparation:
  - Physical hand limitations.
  - Physical mobility issues.
  - Unable to follow steps to put together a meal, (e.g., reduced executive function).
  - Inability to get to the kitchen, (e.g., stairs).
  - Inadequate kitchen set-up, (e.g., no stove and/or fridge).
  - No running water.
- Frequent meal interruptions:
  - Within an acute care setting; tests, procedures, medications, etc.
- Financial insecurity:
  - Low income.
  - High expenses, (e.g., rent, medications or medical equipment).
  - Unhoused or living without access to basic kitchen equipment.
- Mental health concerns:
  - Disordered eating, (e.g., restrictive, irregular or inflexible eating patterns, overeating/binge eating).
  - Depression.
  - Mania.
  - Anxiety.
  - Grief.
  - Social isolation.
  - Food aversions.
  - Eating at risk.
- Decreased cognitive status:
  - Dementia
  - Loss of short-term memory
- Therapies/treatments:
  - Medication side effects, (e.g., chemotherapy agents, prednisone, antibiotics, diuretics, oral hypoglycemic agents).
  - High volume wound exudate and/or wound therapies that generate exudate volume, (e.g., Negative Pressure Wound Therapy).
- Medical conditions:
  - Health condition which requires a restriction in nutrients and fluid, (e.g., chronic kidney disease, liver disease, congestive heart failure).
  - Difficult-to-manage blood glucose, (e.g., diabetes, post-op period, acute infection, high dose steroids, critical care).

Determine Care Strategies

Based upon the information gathering from the above screening for impaired nutritional status and malnutrition risk, implement the appropriate interventions.

Interventions

1. If any of the following have been noted:
   - Braden Nutrition Subscale Score of 2 or less.
   - CNST score of 'Yes/Yes'.
   - Client has a significant weight loss; 5% in one month, 7.5% in three months, or 10% in six months.
   - Signs of dehydration and/or hypernatremia are present.

   then refer to the Registered Dietitian (RD) on your team, (e.g., home care primary care, long term care) for individualized nutritional assessment and therapy.
   - If your community and long-term care site does not have access to an RD, the client or site can call 8-1-1 for HealthLinkBC's free telephone dietitian service or obtain the services of a private practice dietitian through one of these directories, Dietitians of Canada or BC Dietitians. This service may be covered under some health care benefits programs.

2. Explore the client's concept of food security and wellness:
   - Acknowledge that food is more than nutrients and can represent culture, connection, relationship, and medicine.
   - Ask the client which foods/fluids are most healing and nourishing to them.
   - Explore access to these foods, through family/community connections or networks and local area's food meal programs, such as *Better Meals, Heart to Home Meals, Meals on Wheels.*

3. Promote nutrition intake for client's health condition(s):
   - Encourage consumption of a variety of high protein and high energy foods at meals and snacks as outlined in the Canada's Food Guide; there are food guides to support 30+ cultural-based diets and Indigenous diets.
   - If appetite continues to be poor, (i.e., eating less than 50% of their usual meal) or if intake is compromised for other reasons, consult with an RD on appropriate Oral Nutritional Supplement (ONS) for clients.
     - Encourage ONS between meals or if appropriate, with medications, as to not impact the client's appetite for meals.
   - Encourage/support families to supply preferred and/or culturally appropriate foods.
   - Provide positive encouragement to eat but avoid pressure or stress that could compromise comfort or interest in eating.
   - Offer skilled hand feeding, if appropriate.
   - Encourage efforts at weight maintenance or weight gain. Efforts to lose weight will impact wound healing even for those living in larger bodies.

4. Promote fluid intake, where appropriate for client's health condition(s):
   - Situations that require further consultation:
     - Conditions such as chronic kidney disease, liver disease, or congestive heart failure; consult with RD/MRP as fluid restriction may be required.
     - Some clients may require oral rehydration solutions (ORS). Refer to RD for hydration options.
   - Encourage a minimum of 1500 to 2000 mL of fluid daily unless client has a fluid restriction. Preferred fluids include water, milk or plant-based alternatives, coffee, tea, or sparkling water beverages. Encourage or provide frequent sips of fluids throughout the day to meet this goal. Other fluids may be fruit and/or vegetables juices, soups, and other fluid-containing foods, (e.g., gelatin desserts or ice cream).
   - For those with additional fluid losses, (e.g., diarrhea, vomiting, high exudative wounds, fever, and excessive sweating), or those on fluid restriction, consult RD/MRP.
   - If applicable, reassess the client's toileting schedule to decrease the client's stress of taking in fluids and then being incontinent.
   - Discuss ways to encourage fluid intake, (e.g., a timed reminder on the phone, a big note).
   - Consider having a fluid/hydration station on the nursing unit or in the clinic.

5. Practice protected mealtimes:
   - Avoid scheduling tests or activities during mealtimes.
   - Avoid unnecessary interruptions during mealtimes, (e.g., assessments, dressing changes, etc.).
   - Give assistance and support as required to optimize intake during mealtimes.

6. Optimize the eating environment as per the client's needs and/or preferences:
   - Recommend eating with others during mealtimes to support socialization.
   - Minimize factors that may cause discomfort or agitation, (e.g., bright lights, noise).
   - Minimize or provide distractions during mealtimes, (e.g., watching TV), whichever is most helpful.

7. Avoid extended 'nothing by mouth' (NPO) times:
   - NPO greater than 3 days leads to impaired nutritional intake which, in turn, leads to increased risk of malnutrition, poor skin integrity/health and delayed wound healing, (e.g., surgical incision).
   - To avoid unnecessary delays in eating, confirm at the start of each shift if NPO is still required.
   - If NPO greater than 72hrs, refer to RD for assessment.
   - For the client experiencing cancellation/rebooking of their Operating Room (OR) time, look for an opportunity to provide fluids/food, as appropriate, for their upcoming surgery.

8. Limit extended clear/full fluid diets:
   - Advocate for progression to full diet or previous diet order.

9. If using food and fluid record charts or calorie counts, ensure charts are completed with each meal. If applicable, teach client/family how to document food and fluid intake.

10. Address client specific risk factors for impaired nutritional intake, such as, poor appetite, shortness of breath, difficulty chewing or swallowing, taste changes, etc., see Appendix C.

11. For the client with a bowel diversion, either planned, (e.g., ostomy) or spontaneous, (e.g., fistula), consult RD for assessment of fluid and electrolyte needs, particularly those with a high output (greater than 1500mL/24hrs) ileostomy or enterocutaneous fistula.

12. For wounds with large volume exudate and/or use of Negative Pressure Wound Therapy (NPWT):
   - Refer to RD for nutritional assessment if large volume of exudate noted, (e.g., copious drainage requiring frequent changes, frequent NPWT canister changes. Note: if using NPWT instill-dwell feature, subtract the instilled volume from canister amount to determine exudate volume).
   - Consult with NSWOC for exudate management.
   - Discuss/inform MRP if not already aware of large exudate loss and potential impact on nutritional status.
   - Encourage additional fluid and protein intake to compensate for losses in wound exudate.

13. Diabetes management;
   - Hyperglycemia impairs wound healing and increases the risk of dehydration and weight loss.
   - Glycemic targets may be individualized for those living with frailty, functional dependence, hypoglycemic unawareness and/or recurrent severe hypoglycemia. Refer to the client-specific targets as determined by the diabetes team and/or MRP.
   - Target for most clients is an A1c less than 7.0% and capillary blood glucose of 4.0 to 7.0 mmol/L before meals and 5.0 to 10 mmol/L 2 hour after meals (5.0 to 8.0 mmol/L if A1c not at target).

14. Coordinate nutrition care by referring to other care providers as needed:
   - Registered Dietitian.
   - Certified Diabetes Educator or MRP for glucose management.
   - Pharmacist (polypharmacy, medications impacting appetite).
   - Speech Language Pathology (SLP) (swallowing assessment).

- Occupational Therapy (OT) (positioning, equipment needs, swallowing).
- Elder and/or Indigenous Patient Navigator.
- Mental health clinician (mental health counselling, sleep disturbance, substance misuse)
- Social Worker (financial, mental health).
- Dentist/denturist (poorly fitting dentures, lost or missing teeth, oral concerns) and dental hygienist for teeth cleaning and oral hygiene.
- Case Manager or Liaison (Community Support at home, meal support, if eligible).
- Family member and other informal supports.

15. Monitoring:
    - Monitor body weight, appetite, and food intake. Document in client's medical record and report updates to dietitian as needed, for follow-up.
    - Monitor for signs and symptoms of dehydration, see Screening #5.
    - If ONS are recommended, monitor access to supply, acceptance, and use.
    - Re-screen for risk of malnutrition with each re-admission to acute or community care.
    - Complete the Braden Risk & Skin Assessment Flow Sheet as per the care setting's guideline. Score the Braden Scale for Predicting Pressure Sore Risk – Nutrition Subscale, see Appendix B.
    - Determine if referrals, services, and resources have been helpful. Adjust intervention plan as needed.

Client Education & Resources

- First Nations Health Authority. (n.d.). Traditional foods fact sheets. Available at: https://www.fnha.ca/Documents/Traditional_Food_Fact_Sheets.pdf
- Fraser Health. (May 2022). Eating to help wounds heal. Available at https://patienteduc.fraserhealth.ca/file/eating-to-help-wounds-heal-595294.pdf
- Health Canada. (August 21, 2021). Health promotion – Facts on fluids: How to stay hydrated. Available from: https://www.canada.ca/en/department-national-defence/corporate/news/regional-news/western-sentinel/2021/08/facts-on-fluids-how-to-stay-hydrated.html
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- Indigenous Diabetes Health Circle. (2019). Iron and protein handout. Available at https://idhc.life/wp-content/uploads/2020/08/2019-10-11-Iron-Protein.pdf
- Nuu-Chah-Nulth Tribal Council. (Nov 2020). High protein handout. Available at: http://nada.ca/wp-content/uploads/Protein-Handout-NTC-1.pdf
- Primary Care Dietitians' Association. (n.d.). Nutrition and Hydration Tips on your Road to Recovery. Available at: https://nutritioncareincanada.ca/sites/default/uploads/files/Malnutrition%20Toolkit/Tips_for_Nutrition_and_Hydration.pdf
- Older Adult Nutrition Screening. (2022). Consider a High Protein, High Energy Diet order for inpatients/ residents. Available at Healthy Eating Factsheet for Older Adults.
- Vancouver Coastal Health & Providence Health Care (Feb 2020). Nutrition for wound healing. Available at: https://vch.eduhealth.ca/PDFs/BB/BB.200.N959.pdf

Discharge/Transition of Care

Refer the client being transitioned from an acute, community or long-term care setting to a Registered Dietitian at the receiving site. If the receiving site does not have a RD, then provide the site with the information found in Interventions #1.

Client Clinical Outcomes

1. For those clients admitted into care with a good nutritional status on admission, their status remains unchanged throughout their care journey.
2. For those clients admitted into care with a poor nutritional status on admission, their status improves during their care journey.

Quality Assurance Indicators

To assess the quality of care, the following quality assurance indicators may be used by a HA or agency:

1. Nutritional screening was done on admission.
2. Appropriate interventions were implemented to improve client's nutritional status if needed.
3. For those clients with a wound, their nutritional status was optimized to support wound healing.
4. Education resources were provided for those clients who indicated an interest in supporting or improving their nutritional status.

Documentation

Document as per BCCNM and Health Authority/agency standards, the assessment findings from the screening tools used, (e.g., CNST, Braden,) the interventions and the evaluation of the treatment plan.

Definitions

BCCNM: British Columbia College of Nurses & Midwives

Client: Generic term used to describe a person accessing care regardless of care setting; patient in the hospital, client in community; resident in long-term care.

Malnutrition: Defined by the World Health Organization[10] as 'deficiencies or excesses in nutrient intake, an imbalance of essential nutrients or impaired nutrient utilization. The double burden of malnutrition consists of both undernutrition and overweight and obesity, as well as diet-related noncommunicable diseases. Undernutrition manifests in four broad forms: wasting, stunting, underweight, and micronutrient deficiencies.'

In clinical practice, undernutrition and inadequate/deficient intake of energy, protein, and nutrients, are the focus. Undernutrition affects body tissues, functional ability and overall health. Malnutrition may result from an inadequate energy, protein, and nutrient intake, (i.e., starvation related), or from chronic disease, or injury/acute disease where marked inflammation is present.

MRP: Most Responsible Provider, (e.g., physician, surgeon, nurse practitioner).

Oral nutrition supplements (ONS): Nutritional supplements that provide additional nutrients, including protein and energy for clients who are not meeting their nutrition needs through food alone. ONS are available as ready-to-drink liquids (milk-style or juice-style), powders to add to meals, or dessert-style puddings.

Oral rehydration solutions (ORS): Liquids used as a source of hydration in situations of high fluid loss, (e.g., diarrhea, high stoma output, or enterocutaneous fistula). They usually contain glucose, sodium and potassium and can enhance fluid absorption from the GI tract.

NSWOC: Nurse Specialized in Wound Ostomy and Continence.

Protected mealtimes: An intervention developed to address the problem of malnutrition in patients and residents through increasing positive interruptions (such as feeding assistance) while minimizing unnecessary interruptions (including rounds and diagnostic procedures) during mealtimes.

WC: Wound Clinician.

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Document Management

This guideline is based on the best evidence-based information available at the time it was published and avoids opinion-based statements, where possible. It was developed by the Provincial Nursing Skin & Wound Committee and Provincial Registered Dietitians Wound Care Sub-Committee and has undergone provincial partner review.

Created By	British Columbia Provincial Nursing Skin & Wound Committee and Provincial Registered Dietitians Wound Care Sub-Committee in collaboration with NSWOCs/WC/RDs from across all Health Authorities.
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Appendix A: Canadian Nutrition Screen Tool (CNST)

Identify patients who are at risk for malnutrition

	Date:		Date:	
	Admission		Rescreening	
Ask the patient the following questions*	**Yes**	**No**	**Yes**	**No**
Have you lost weight in the past 6 months **WITHOUT TRYING** to lose this weight? If the patient reports a weight loss but gained it back, consider it as NO weight loss.				
Have you been eating less than usual **FOR MORE THAN A WEEK**?				
Two "YES" answers indicate nutrition risk†				

* If the patient is unable to answer the questions, a knowledgeable informant can be used to obtain the information. If the patient is uncertain regarding weight loss, ask if clothing is now fitting more loosely.

Link to full document Canadian Nutrition Screening Tool

Appendix B: Braden Scale for Predicting Pressure Sore Risk

Braden Risk & Skin Assessment Flowsheet

Form ID: NUAS100196F Rev: May 25, 2022 Page: 1 of 2

Braden Scale for Predicting Pressure Sore Risk

Sensory Perception Ability to respond meaningfully to pressure related discomfort	**1. Completely Limited** Unresponsive (does not moan, flinch, or grasp) to painful stimuli, due to diminished level of consciousness or sedation **OR** Limited ability to feel pain over most of body	**2. Very Limited** Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness, **OR** Has a sensory impairment which limits the ability to feel pain or discomfort over 1/2 of body	**3. Slightly Limited** Responds to verbal commands but cannot always communicate discomfort or need to be turned, **OR** Has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities	**4. No Impairment** Responds to verbal commands, has no sensory deficit which would limit ability to feel or voice pain or discomfort.
Moisture Degree to which skin is exposed to moisture	**1. Constantly Moist** Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**2. Very Moist** Skin is often but not always moist. Linen/ continent briefs* must be changed once a shift	**3. Occasionally Moist** Skin is occasionally moist, requiring an extra linen/continent briefs* change approximately once a day	**4. Rarely Moist** Skin is usually dry; linen only requires changing at routine intervals
Activity Degree of physical activity	**1. Bedfast** Confined to bed	**2. Chairfast** Ability to walk severely limited or nonexistent. Cannot bear own weight and/or must be assisted into chair or wheelchair	**3. Walks Occasionally** Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	**4. Walks Frequently** Walks outside room at least twice a day and inside room at least once every two hours during waking hours
Mobility Ability to change and control body position	**1. Completely Immobile** Does not make even slight changes in body or extremity position without assistance	**2. Very Limited** Makes occasional slight changes in body or extremity position but unable to make frequent or	**3. Slightly Limited** Makes frequent though slight changes in body or extremity position independently	**4. No Limitations** Makes major and frequent changes in position without assistance
Nutrition Usual food intake pattern	**1. Very Poor** Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein-rich foods** (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement, **OR** Is NPO and/or maintained on clear liquids or IV's for more than 5 days	**2. Probably Inadequate** Rarely eats a complete meal and generally eats only about 1/2 of any food offered. Protein intake includes only 3 servings of protein-rich foods** (meat or dairy products) per day. Occasionally will take dietary supplement, **OR** Receives less than optimum amount of liquid diet or tube feeding	**3. Adequate** Eats over half of most meals. Eats a total of 4 servings of protein-rich foods** (meat or dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement when offered, **OR** Is on a tube feeding or TPN regimen, which probably meets most of nutritional needs.	**4. Excellent** Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of protein-rich foods** (meat or dairy products). Occasionally eats between meals. Does not require supplementation.
Friction and Shear	**1. Problem** Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures, or agitation leads to almost constant friction.	**2. Potential Problem** Moves feebly or requires minimum assistance. During a move skin probably slides to some extent against sheets, chair, restraints or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	**3. No Apparent Problem** Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair.	

Appendix C: Strategies to Address Risk Factors/Food Intake Barriers

Risk Factors/ Food Intake Barriers	Strategies
Poor Appetite	• Eat often; aim to eat every 2 to 3 hours. • Choose high energy, high protein foods. • Eat when appetite is best, (e.g., after physical activity) or earlier in the day. • Eat with others. Encourage family and friends to visit and share a meal. If there is no opportunity to eat with others, ask if sharing a "virtual" meal on a virtual platform, (e.g., Zoom, FaceTime, WhatsApp, etc.) would work. • Eat at the table and create an enjoyable relaxed eating environment, (e.g., set the table, play music). • Ask family and friends to help with cooking and shopping. • Consider taking medications with ONS, if appropriate. • If loss of appetite impairing intake continues, discuss with MRP.
Taste changes	• Discuss medication-related taste changes with pharmacist. • Stimulate the taste buds with citrus fruits (oranges/lemons); ensure citrus fruits do not interfere with medications, (e.g., grapefruit).

Risk Factors/ Food Intake Barriers	Strategies
	• Some protein-rich foods may no longer taste the same. Try a variety of other protein-rich foods, such as chicken, egg, fish/seafood, meat, peanut butter, beans, tofu, or dairy products. • **If sense of smell or taste is more sensitive**: try bland foods such as eggs, cheese, cooked cereal, puddings, toast, rice, and cream soups. Serve foods cold or at room temperature. Eliminate cooking smells by using an exhaust fan, cooking outside on a grill or buying pre-cooked foods. • Rinse mouth before and after eating to help clear the taste buds. Try plain soda water or solutions of 2.5mL baking soda in 250mL cup of water. Sucking on lemon candies or mints or chewing gum may help get rid of unpleasant tastes. • **Coping with bland taste**: try adding foods with strong flavours, such as herbs and spices, chili, spaghetti sauce, bacon, pizza, pickled foods or barbecued or grilled foods. • **Coping with metallic tastes**: Use plastic cutlery and glass cooking pots. Tart flavours from lemons and other citrus fruits, vinegar, and pickled foods may also be helpful. Sprinkle a little more sugar and salt on food as these decrease metallic tastes. • **Coping with bitter tastes:** Add honey, sweetener, or sugar to decrease the salty, bitter, or acid taste of foods. Add sweet fruits to a meal. Drink ginger ale or mint tea to cover up bitter tastes. • **Coping with sweet tastes**: Add a little salt or lemon juice to lower the sweetness of foods. Try vegetables instead of fruit. Dilute fruit juices or other sweet drinks with water or ice.
Difficulty chewing	• Choose easy to chew food. • Cut or mash foods into soft, small bites. • Add gravy, sauces, broth, margarine, butter, yogurt, sour cream to soften foods. • Refer to a dentist/denturist. • Consider physiotherapy referral for more severe temporomandibular joint issues.
Difficulty swallowing	• Refer to SLP/OT/RD swallowing specialists. • Provide basic information on swallowing safety. • Encouraged good oral hygiene and care to reduce risk of aspiration pneumonia. • Encourage proper mealtime positioning, (i.e., sitting upright in a chair). • Minimize distractions.
Shortness of breath and/or frailty	• Eat small portions of energy-dense foods throughout the day to meet energy needs. • Small portions take less time to eat thereby conserving energy. • Choose soft, moist foods that are easier to chew and swallow. • Choose high protein, high energy fluids. • Consider nasal cannula for those needing supplemental oxygen during mealtime. • Monitor fluid intake if fluid restriction has been recommended.
Pain	• Ensure a comfortable position for eating.

Risk Factors/ Food Intake Barriers	Strategies
	• Offer pain medications prior to mealtime and allow time for medication to take effect, (e.g., 30mins). • Consider distractions as per client's preference.
Gastrointestinal symptoms or conditions	• If possible, replace lost fluids from diarrhea or vomiting. • Eat small portions of energy-dense foods throughout the day to minimize gastric reflux and abdominal distention. • Consult with RD/MRP if client is not meeting fluid needs or are showing signs of dehydration to discuss if ORS or IV fluids would be appropriate. • Refer to MRP for medical symptom management for nausea, (e.g., acid suppression, motility, antiemetic). • Refer to RD for management of gastroesophageal reflux disease, constipation, diarrhea, diverticulitis, intestinal strictures, ostomy concerns, (e.g., high output ileostomy), celiac disease, inflammatory bowel disease or irritable bowel syndrome.
Lack of food access or availability	• Collaborate on strategies to address food availability in isolated communities, communities with weather dependent food delivery and/or high prices due to delivery costs. • Consider community gardens, farmers markets and community kitchens. • Consider stocking up on canned or frozen fruits, vegetables, meats, fish, chicken and legumes. • Consider shelf-stable grains, (e.g., rolled oats, rice, pasta and whole wheat flour) and protein sources, (e.g., dried beans and peas). • Consider making more food from scratch if able.
Difficulty cooking	• Discuss meal planning and preparation with family, when appropriate. • Consider meal-based programs. • Consider home support agencies for meal assistance, assisted shopping and cooking services. • Investigate transportation services, (e.g., grocery store home delivery). • Consider day programs and respite care. • Consider OT referral for those with physical mobility or hand dexterity limitations impacting ability to shop for or prepare meals.

Financial insecurity	• Refer to Social Worker for system navigation:
	  ○ Financial subsidy or assistance - Benefit programs
	  ○ Veterans Affairs
	  ○ First Nations Health Benefits 1-855-550-5454
	  ○ BC government assistance program
	  ○ Yukon government assistance program
	  ○ Consider Eligibility for Monthly Nutritional Supplement (MNS).
	• Explore local programs that increase access to food and refer as appropriate.
	• Consider access to foods in the client's community (i.e., where do they buy groceries and what foods are available) and provide options of affordable high protein and high energy foods.
	• Discuss strategies to maximize resources (e.g., cook in bulk, use coupons and rewards cards, price match, buy no-name brands, use frozen and canned vegetables etc.)

Risk Factors/ Food Intake Barriers	Strategies

Mental health concerns	• Develop a supportive circle:
	  ○ Mental health services
	  ○ Spiritual care
	  ○ Local volunteer companion services, if available
	  ○ Adult day programs
	  ○ Religious-organized meals programs or other community-base meal programs

Decreased cognitive status (dementia, short term memory loss)	• Enlist family and caregiver support. • Arrange mealtime visits by community support workers, if possible.
Symptoms & related treatments	• If nausea/vomiting, review client's medications for potential GI side effects. • Change in appetite, consider medications, (e.g. prednisone may increase appetite or antibiotics may decrease appetite) https://nutritioncareincanada.ca/sites/default/uploads/files/Malnutrition%20Toolkit/Treating_Malnutrition_Medication_Interactions.pdf • Wounds with high fluid production (exudate) or wound therapies that may produce high exudate, (e.g., Negative Pressure Wound Therapy (NPWT); consult RD and NSWOC if not already involved in care).
Medical Conditions	• Health condition which requires a restriction in nutrients and fluid, (e.g., chronic kidney disease, liver disease, congestive heart failure); refer to RD. • Difficult-to-manage blood glucose, (e.g., diabetes, post-op period, acute infection, high dose steroids, critical care), refer to RD/MRP/diabetes team for glycemic management. • High-output ileostomy or enterocutaneous fistulas, refer to RD.