

---

# The Brain, The Body, and You: Nutrition, Swallowing and Hydration

---

Audrey Brown, SLP & Ruth Doran, Professor

Presented by St. Lawrence College

With support from the MOHLTC Stroke System  
of Southeastern Ontario

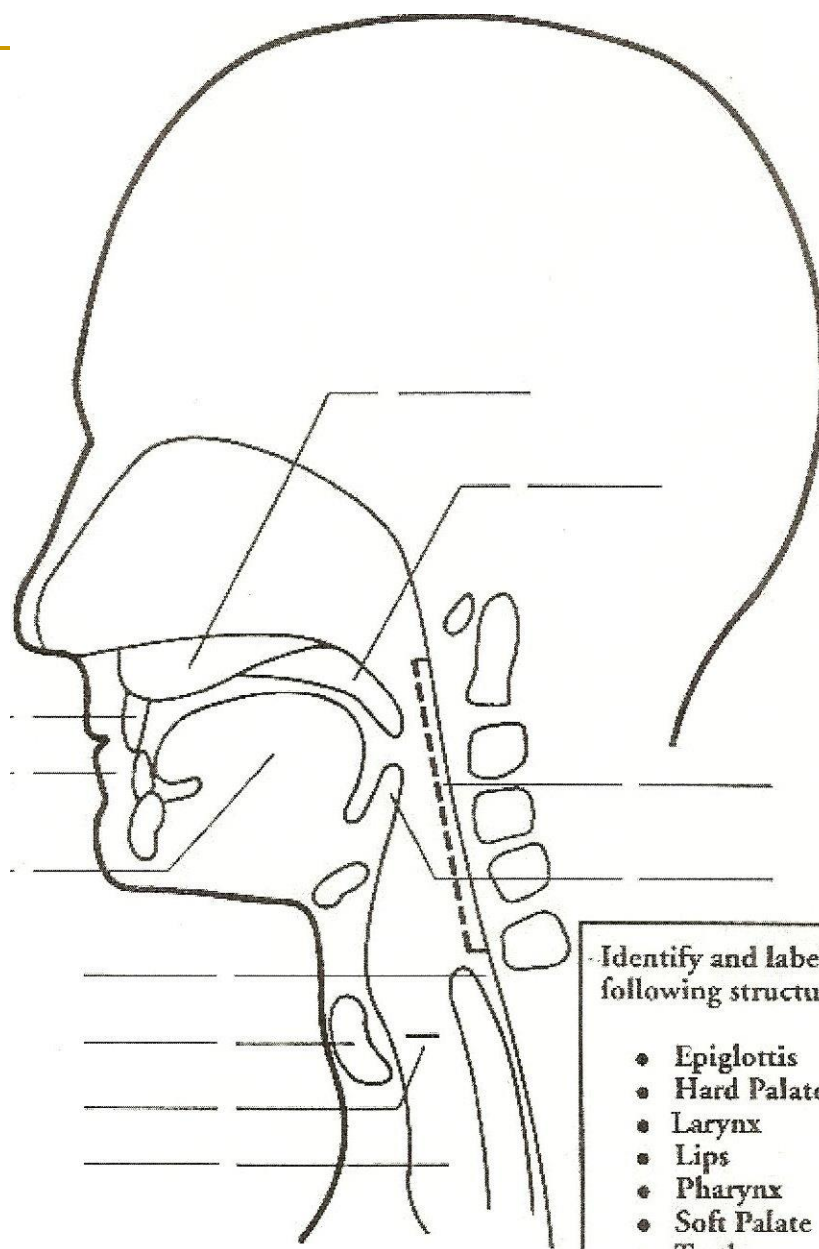
---

This project is supported by:



STROKE NETWORK  
*of* Southeastern Ontario

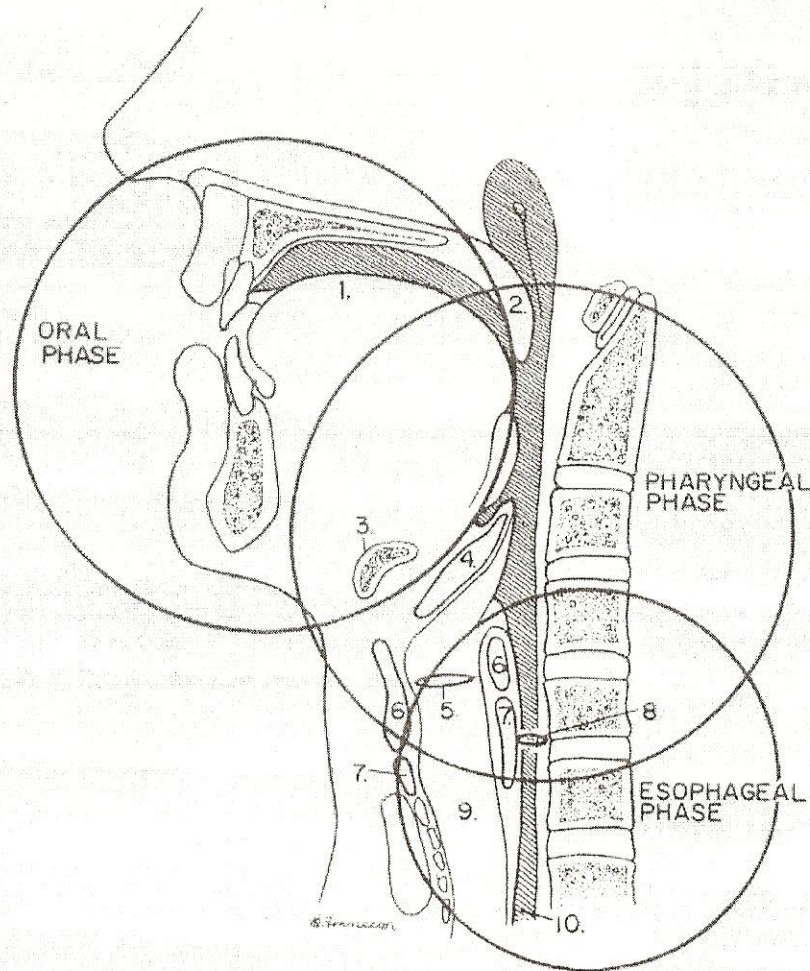
---



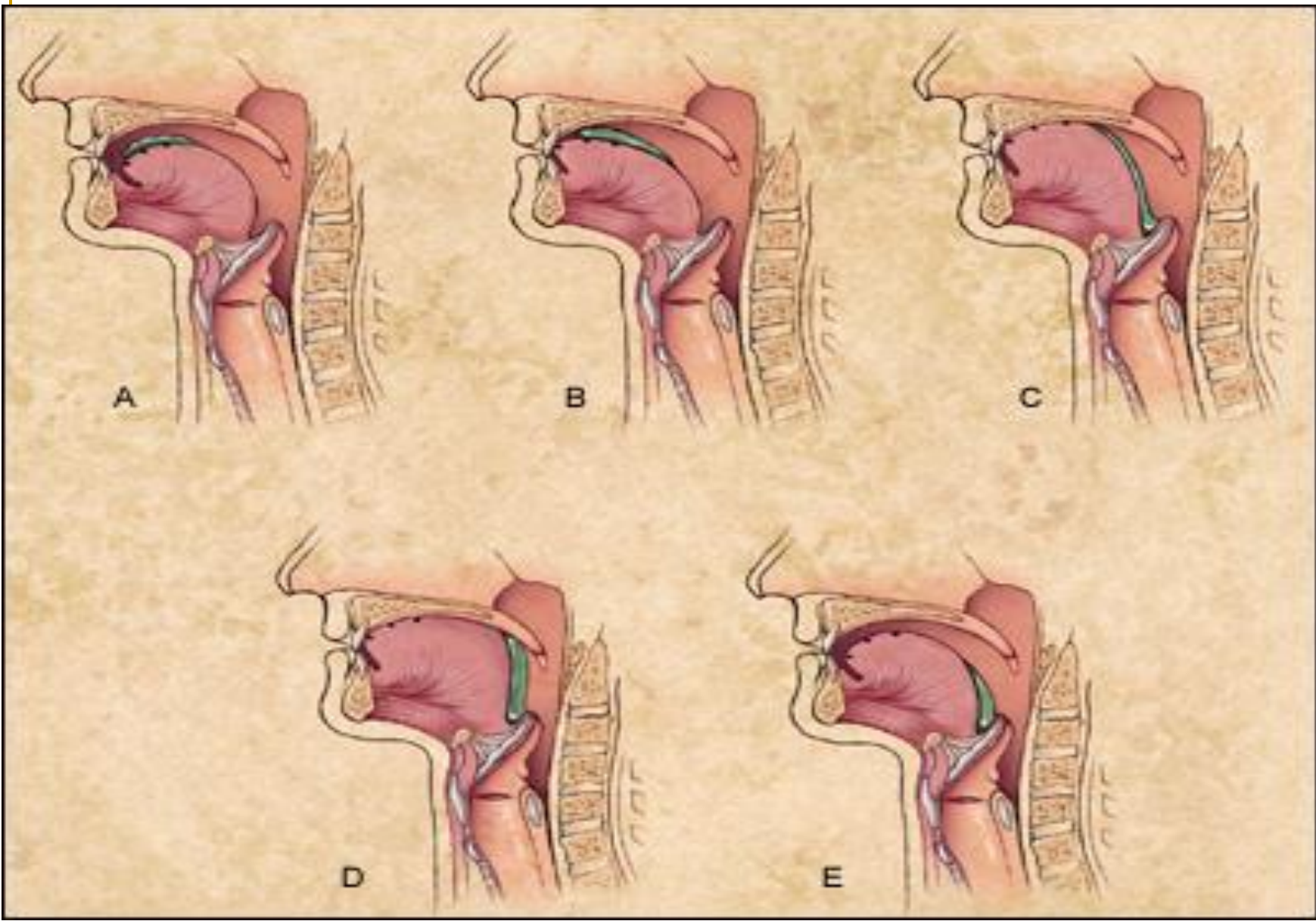
Identify and label the following structures:

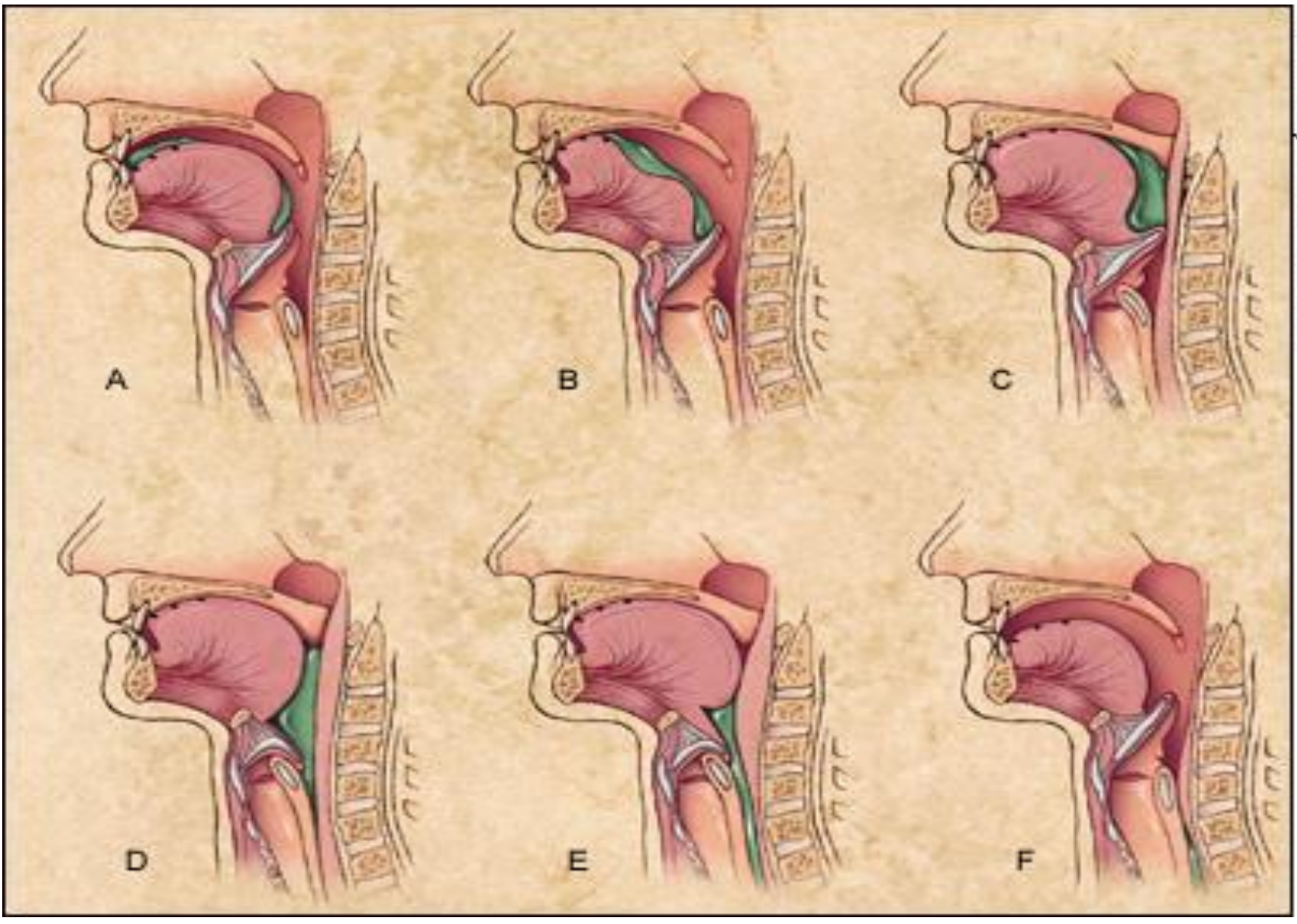
- Epiglottis
- Hard Palate
- Larynx
- Lips
- Pharynx
- Soft Palate
- Teeth
- Tongue
- Trachea
- Vocal Cords
- Esophagus

# Phases of Swallowing



- Oral Phase
- Pharyngeal Phase
- Esophageal Phase





---

# Effective Swallowing

- Sensory Input
  - Motor Activities
    - Feeding
    - Swallowing
  - DYSPHAGIA (dis-FAY-ja)
    - Difficulty or discomfort in swallowing
    - Affects 50% of stroke survivors
-

---

# Factors Affecting Swallowing

- Motor control of the tongue and facial muscles
  - Sensory integrity
  - Ability to understand or use language
  - Cognition
  - Salivary flow
  - Taste and temperature sensitivity
  - Underlying conditions...
-



---

# And while we're thinking about spit...

- Try this...
    - Swallow the saliva in your mouth now.
    - Do it again.
    - Now do it again.
    - How about once more?
    - What's happening?
-

---

# Underlying conditions

- GERD
  - Decreased alertness
  - Impulsive behaviour
  - Respiratory complications
  - Sensory deficits
  - Abnormal reflexes
  - Reluctance to eat (multi-factorial)
-

---

# Types of Dysphagia

- Related to Phase of the Swallow
    - Oral-phase dysphagia
      - Difficulty manipulating food and forming a bolus
    - Oral-pharyngeal dysphagia
      - Delay or abnormality in transfer of bolus from oral cavity to pharynx
    - Esophageal dysphagia
      - Inefficient/impaired transfer of bolus through upper esophageal sphincter, down esophagus, and into stomach
      - Due to obstruction, dysmotility, or sphincter impairment
-

---

# Think about it...

- What are the challenges YOU face with NUTRITION, SWALLOWING AND HYDRATION in your workplace?
  - Nutrition
  - Swallowing
  - Hydration



---

# The Interprofessional Dysphagia Team

- Speech-Language Pathologist
  - Dietitian
  - Physician
  - Nursing Staff...
  - Occupational Therapist
  - Physiotherapist
  - Stroke survivor, family and care providers
-

---

# What is YOUR role

- You are the **FIRST LINE** in identifying swallowing problems in your clients
  - YOU can help actively contribute to:
    - The **PLEASURABLE EXPERIENCE** of eating
    - The **IDENTIFICATION** of potential swallowing problems
    - Carrying through with a **SWALLOWING CARE PLAN**
-

---

# Dysphagia Screening

- Identifies the presence or absence of dysphagia
  - Identifies risk of complications of dysphagia
  - What is your role?
    - Listen
    - Observe
    - Listen some more...
-

---

# How can you tell?

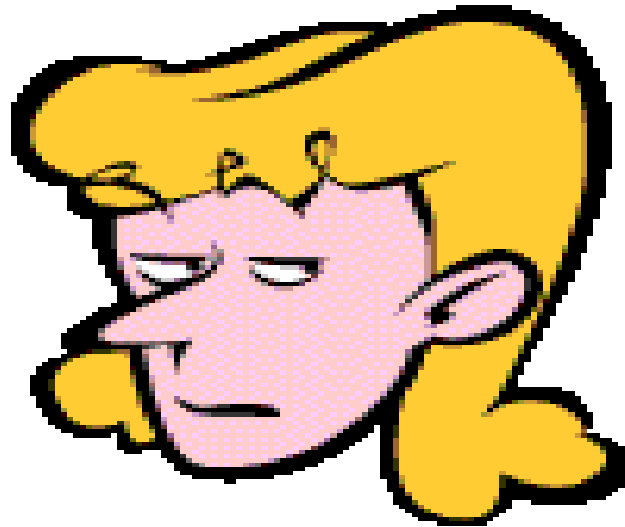
- Coughing or gagging
  - Throat clearing
  - Has a wet, “gurgly” voice
  - Takes a long time to swallow and eat
  - May attempt to swallow several times
  - Food pockets in mouth
  - Drooling
  - Poor chewing
  - Complaints of pain, “something sticking”
-



---

Sometimes...

...There are no signs at all!



---

# Dysphagia Management

- Based on history, assessment findings and prognosis
  - Objectives:
    - To protect the airway from obstruction
    - Reduce the chance of food or fluid entering the lungs
    - Ensure adequate nutrition and hydration
    - Maintain quality of life
-

---

# Common Special Diets

- Pureed foods
  - Minced/moist minced foods
  - No dry particulates (cookies, pie crust)
  - No bread products
  - No mixed consistencies
  - No thin fluids
  - Thickened fluids (proceed with caution...)
  - Foods which may cause reflux
-

---

# Swallowing Care Plan

- Positioning information
  - Pain management
  - Food/fluid texture
  - Adaptive equipment
  - Feeding techniques
  - Communication strategies
  - Behaviour management
  - After-meal care
-

---

# Remember...

- Do not call attention to food textures that are undesirable to you. Yes, this person may rather have a steak and baked potato, but he/she is not able to swallow that texture safely.
- ~~YUCK~~

---

# Complications of Dysphagia

- Aspiration – pneumonia, choking
  - Dehydration
  - Malnutrition
  - Increased length of hospital stay
  - Placement decisions
  - Social isolation
  - Quality of life issues
-

---

# Dehydration

- A client may be at risk for dehydration if he/she:
    - ❑ Has the inability to swallow thin fluids
    - ❑ Refuses to take fluids at meals/snacks
    - ❑ Needs assistance to eat/drink
    - ❑ Lacks the feeling of thirst
    - ❑ Has communication problems
    - ❑ Has memory problems
    - ❑ Is ill (e.g., GI complications, URI)
    - ❑ Has a fear of incontinence
-

---

# What are the signs of dehydration?

- Decreased urine output
  - Dark, concentrated or foul-smelling urine
  - Frequent UTIs
  - Thick, stringy saliva
  - Constipation
  - Confusion
  - Rapid weight loss
  - Fever
  - Decreased skin elasticity
-



---

# What are the signs of malnutrition?

- Weight loss
  - Reduced vitality
  - Skin breakdown
  - Impaired wound healing
  - Reduced resistance to infection
-

---

# General Feeding Tips and Strategies

- Keep client upright at 90 degree angle during meals, and between 60-90 degrees for at least ONE HOUR after meals
  - Head slightly flexed forward
  - Head in midline
  - Small amounts of food and liquid at a time (think about 1 level teaspoon ONLY) if feeding
  - Follow recommendations (e.g., double swallow, clear throat, cough, turn to left/right, diet modifications)
-

---

## Also, don't forget...

- Support the legs in bed (pillow under knees) and pillows to prop the body to midline
  - Slow rate of feeding – don't forget to talk!
  - ALWAYS be at eye-level or below. Absolutely NO exceptions.
  - Wait for the person to swallow before continuing
  - Minimize distractions. **KNOW YOUR CLIENT**
-

---

# Mouth and Dental Care

## ■ Oral Hygiene

- ❑ To remove plaque from teeth, dentures, roof of mouth, tongue and cheeks
  - ❑ Ideally after each meal (in some cases, before as well)
  - ❑ Especially after last meal
  - ❑ Check for pocketing of food
  - ❑ Assist the client as required in care plan
-

---

# Oral Care Tools

- Soft toothbrush or electric toothbrush
  - Alcohol-free mouthwash
  - If dentures, denture brush or soaking fluid
  - Toothettes are NOT effective – plaque is the ENEMY!
-