

The Brain, The Body, and You: Swallowing, Feeding, Nutrition and Oral Care

Monika Bhatnagar, M.S, CCC-SLP, Reg.CASLPO
Delanya Podgers, BSc., RN, CNN(c)
Updated 2018

Objectives

- Review:
 - Definition of and risk factors for stroke
 - Signs and symptoms of a stroke and how to react
- Identify the structures used in swallowing and their functions
- Define terminology related to: swallowing, feeding, nutrition, oral care
- Identify factors affecting swallowing
- Identify members and roles of the interprofessional dysphagia team
- Be aware of the process for dysphagia screening
- Be aware of common special diets
- Learn and practice feeding techniques for clients with dysphagia
- Understand the importance of mouth care practices for the stroke survivor

WHAT ARE THE SIGNS AND SYMPTOMS OF STROKE?



STROKE SIGNS

FACE is it drooping?
ARM**S** can you raise both?
SPEECH is it slurred or jumbled?
TIME to call 9-1-1 right away.

ACT **F****A****S****T** BECAUSE THE QUICKER YOU ACT,
THE MORE OF THE PERSON YOU SAVE.

© Heart And Stroke Foundation of Canada, 2014

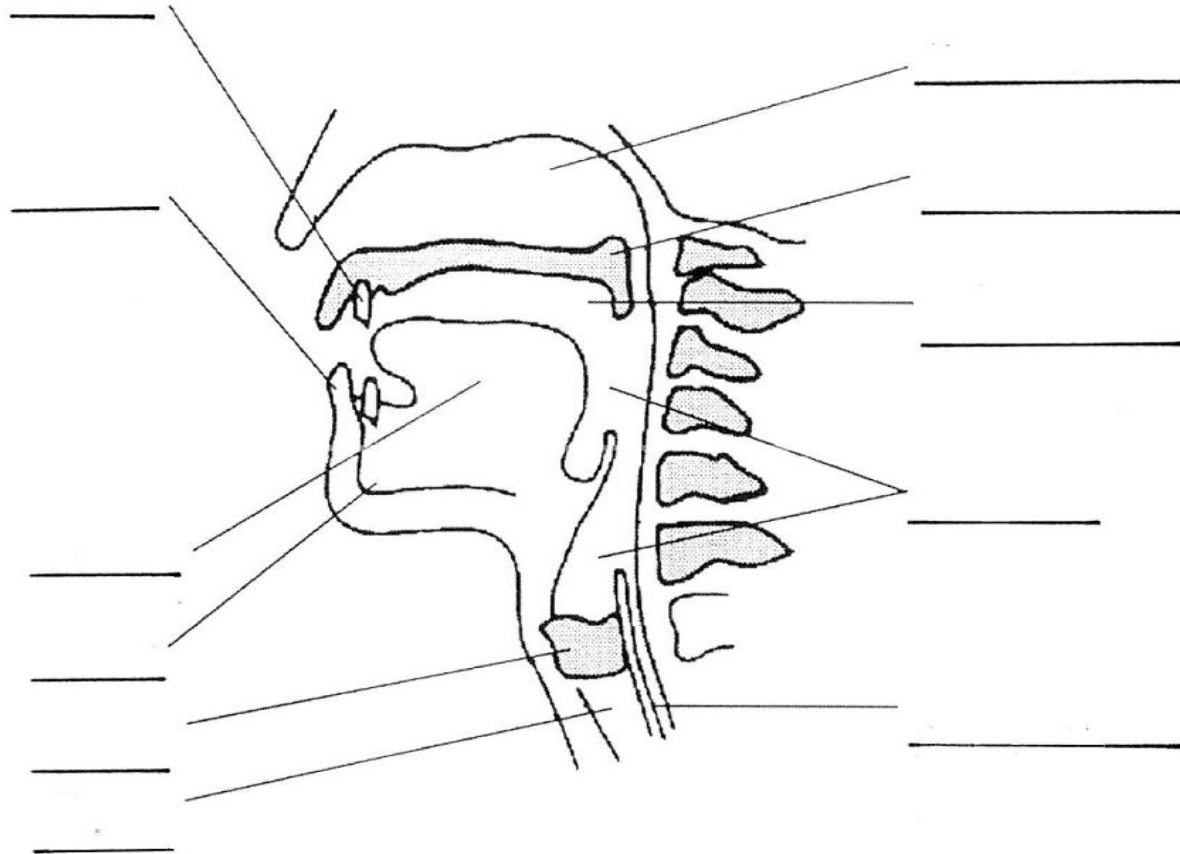
Also react to: dizziness, vision problems, swallowing problems, headache, leg weakness

STROKE IS A MEDICAL EMERGENCY!

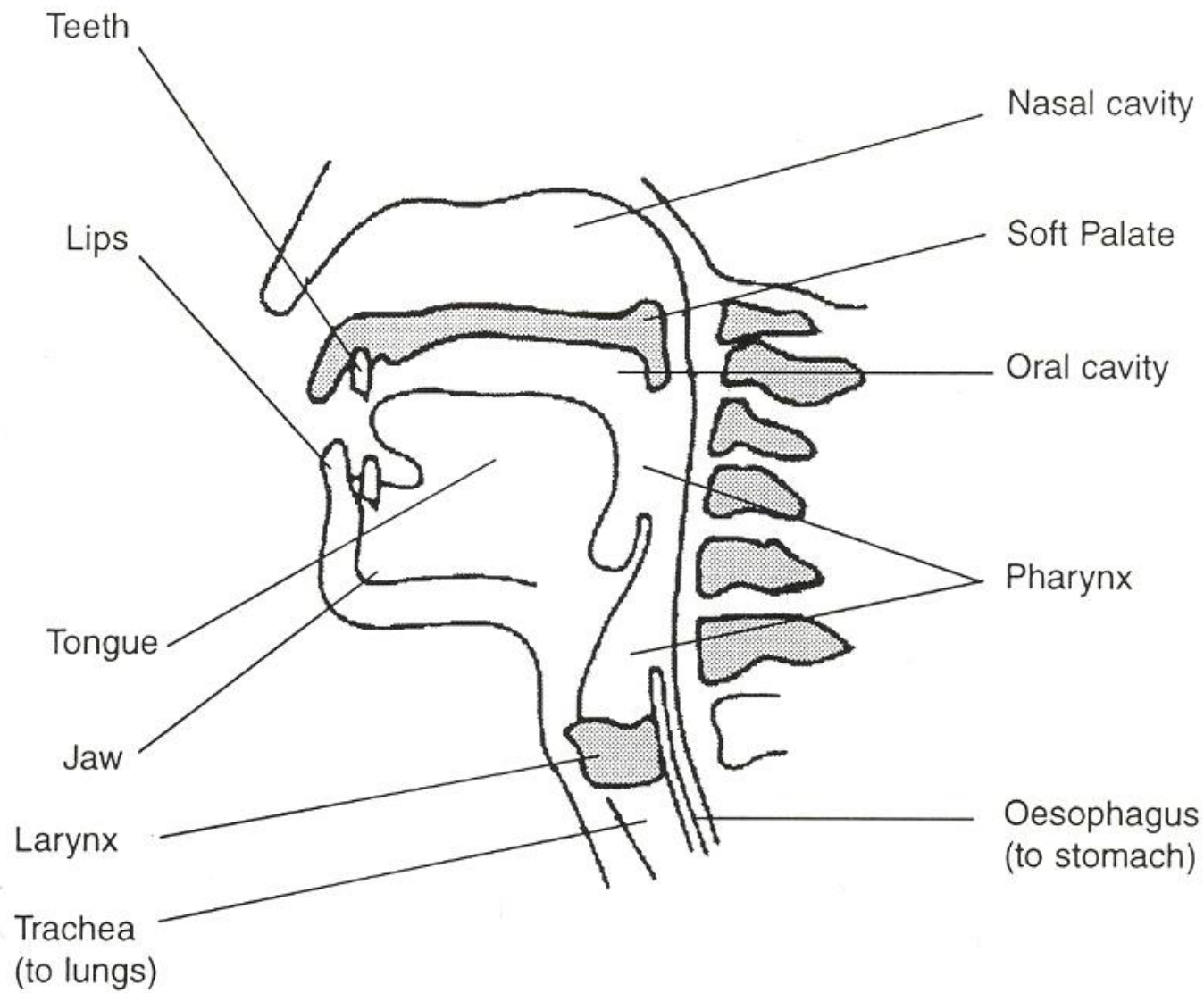
- ❑ 86% of individuals experiencing stroke symptoms did not feel they were serious enough to call 911
- ❑ For every minute delay in treating a stroke, the average patient loses 1.9 million brain cells



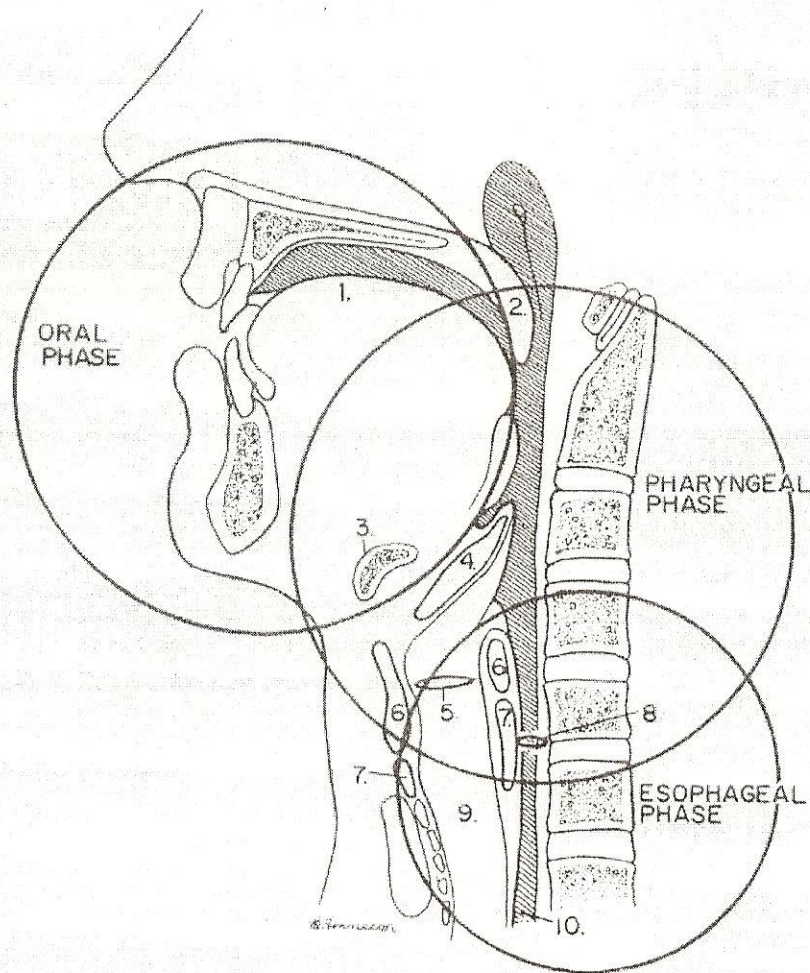
Swallowing structures and anatomy



Label the following structures: trachea, teeth, oral cavity, jaw, esophagus, larynx, soft palate, tongue, nasal cavity, lips, pharynx

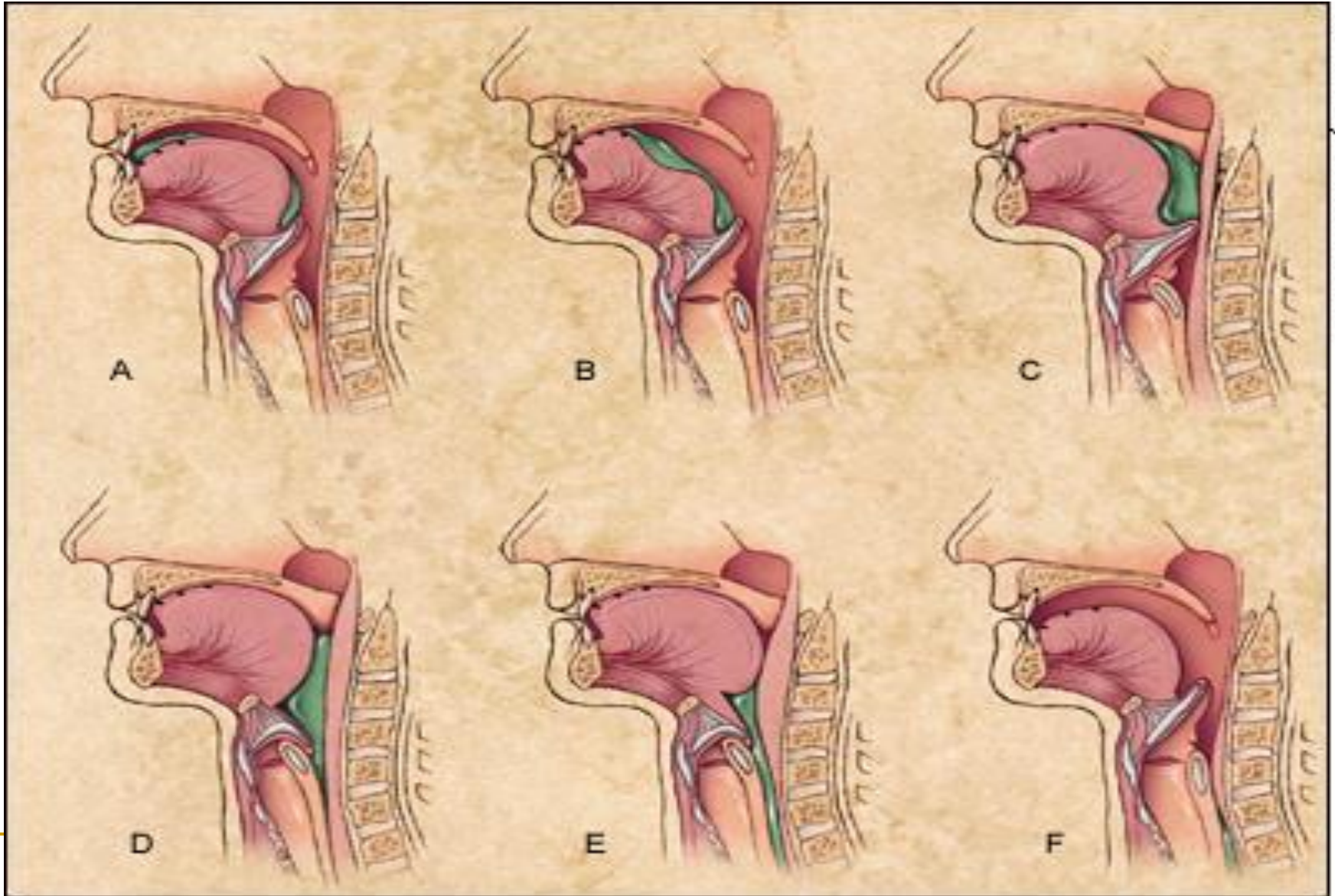


Phases of Swallowing



- Oral Phase
- Pharyngeal Phase
- Esophageal Phase

Normal Swallow



Video of a Regular Swallow

- [://www.youtube.com/watch?v=YQm5RCz9Pxc](https://www.youtube.com/watch?v=YQm5RCz9Pxc)
- <https://www.youtube.com/watch?v=adJHdrQ4CRM>

Effective Swallowing

- Complex neuromuscular process
- Sensory input
- Motor activities
 - Feeding
 - Swallowing

Dysphagia

- “dis-FAY-ja”
- dys=difficulty; phagia=to eat
- Refers to a disturbance in the normal transfer of food from the mouth to the stomach
- Affects ~50% of stroke survivors

Reading and Video

- Reading:

- The Diving Bell and the Butterfly

- Video:

- Swallow: A Documentary - Dysphagia Nov. 23, 2011 NFOSD Team
 - <https://www.youtube.com/watch?v=MrbEUDDO6S5U>
-

Factors Affecting Swallowing

- Motor control
- Sensory integrity
- Communication
- Cognition
- Salivary flow
- Taste and temperature sensitivity
- Respiratory status
- Level of alertness

Try this

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

Types of Dysphagia

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

Complications of Dysphagia

- Aspiration (pneumonia, choking)
- Dehydration
- Malnutrition
- Emotional/social isolation
- Quality of life
- Increased length of hospital stay
- Placement decisions

Think about it...

- What are the challenges and successes YOU have faced in your workplace?
 - ❑ Swallowing
 - ❑ Feeding
 - ❑ Nutrition
 - ❑ Oral Care
-

The Interprofessional Dysphagia Team

- Speech-Language Pathologist
 - Registered Dietitian
 - Physician
 - Nursing (RN, RPN, DSW)
 - Personal Support Worker
 - Occupational Therapist
 - Stroke survivor, family and care providers
-

What is YOUR role

- You are KEY in identifying swallowing problems in your patients
 - YOU can help actively contribute to:
 - ❑ IDENTIFICATION of swallowing problems
 - ❑ SAFE FEEDING PRACTICES
 - ❑ QUALITY OF LIFE
-

Dysphagia Screening

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

Warning Signs of Swallowing Problems

- Drooling
- Trouble chewing
- Long time to eat and swallow
- Several swallows for one bite
- Food residue in mouth/pill stays in the mouth
- Throat clearing
- Coughing or gagging
- Wet, “gurgly” voice
- Complaints of pain, “something sticking”

Sometimes...

...There are no signs at all!



Dysphagia Management

- Based on history, assessment findings and prognosis
- Objectives:
 - ❑ Protect airway from obstruction (choking)
 - ❑ Reduce chance of food or fluid entering the lungs (aspiration)
 - ❑ Maximize nutrition and hydration
 - ❑ Monitor medication swallowing ability
 - ❑ Maintain quality of life

Canadian Stroke Best Practice Recommendations

- NPO until swallowing screening completed, including medications
- Swallowing screen should occur asap using a validated screening tool
- Anyone showing signs and symptoms of difficulty swallowing should be kept npo and report to the appropriate registered staff
 - advise on swallowing management and consistency of food and liquids

Canadian Stroke Best Practice Recommendations

- A patient's clinical status can change in the first hours following a stroke or TIA
 - Patients should be closely monitored for changes in swallowing ability following initial screening
-

Swallowing Care Plan

- Oral care and hand hygiene
 - Positioning
 - Food/fluid texture
 - Adaptive equipment
 - Communication strategies
 - Behaviour management
 - Compensatory strategies
 - Safe feeding techniques
 - After-meal care
-

Common Special Diets

- **Solids:**

- ☐ Puree
- ☐ Minced
- ☐ Regular Soft

- **Fluids:**

- ☐ Thickened fluids (proceed with caution...)

- **Breads:**

- ☐ No bread products
- ☐ Crustless, buttered

- **Other:**

- ☐ No dry particulates (cookies, pie crust)
- ☐ No mixed consistencies
- ☐ High moisture

Safe Feeding Strategies:

Preparing for Feeding

- KNOW YOUR PATIENT
 - Minimize distractions
 - Get the person up and out of bed whenever possible
 - Body position:
 - Upright, 90 degrees
 - Support the legs & body in bed (pillows)
 - Head in midline, slightly flexed forward
 - Eye glasses, hearing aids and dentures in place
 - Oral care
-

Safe Feeding Strategies

- Introduce what they are eating
- Follow recommendations
 - e.g., turn to left/right, diet modifications
- Eye-level or below
- Small amounts (maximum 1 level teaspoon)
- Slow rate
- Wait and watch for swallowing before next bite
- Check mouth after pills are provided ('chaser')
- Chat between swallows not during
- Remain upright for at least 30 mins after meals

Remember...

- Be aware of your impact
 - Do not call attention to food textures that are undesirable to you

~~YUCK~~

Make Feeding Safer for Residents with Dysphagia

Make Feeding Safer



Over **50%** of the residents in your home have swallowing or feeding problems. People with stroke are at increased risk of swallowing problems.

Those with swallowing problems are at risk of:

- ☒ pneumonia
- ☒ malnutrition
- ☒ dehydration
- ☒ weight loss
- ☒ social isolation



What to listen for

- Wet, gurgly or phlegmy sounding voice
- Throat-clearing
- Coughing or choking
- Resident complaining of:
 - a 'lump in my throat'
 - throat 'feels tight'
 - something 'sticking in my throat'
 - heartburn



What to look for

- Pocketing food or medication in mouth or cheek
- Spitting out food
- Drooling
- Problems chewing
- Repetitive swallowing
- Shortness of breath after meals
- Taking longer to eat
- Losing interest in food or leaving food on plate
- Feeling anxious about meal times

If you notice a change in a resident's eating or swallowing, it should be reported to the team

Keys to Successful Feeding



- Oral care before and after eating
- Minimize distractions
- Make sure resident is sitting up at 80° to 90° angle and that the resident's head is not tipped back
- Position yourself at eye level
- Get resident up in chair to eat whenever possible
- Use assistive devices when required
- One type of food at a time

- Cue to look at whole plate if food is being missed
- Give one level teaspoonful of food or fluid at a time
- Check for complete swallowing after each spoonful
- Remind resident to keep swallowing, cough to clear throat and use tongue to clear food
- Check if food is left in mouth

Food for thought

pureed



minced



- ☒ Encourage residents to accept the food textures. Be positive. What you say does make a difference
- ☒ Special diet textures include **pureed and minced** foods
- ☒ Popsicles, ice cream, liquid supplements and milkshakes are **not** considered thickened fluids

Oral Care



A clean mouth and teeth are essential to comfort and good health. Gum disease, bacteria and particles in the mouth can lead to stroke, heart disease, pneumonia, and infections.



DO NOT USE...

- ☒ Oral swabs because they do not clean the mouth properly
- ☒ Alcohol-based mouthwashes as they dry and irritate the mouth
- ☒ Toothpaste or mouthwash if resident is at risk of aspiration

If you notice a change in a resident's eating or swallowing, it should be reported to the team



DO...

- ☒ Provide oral care **before and after** meals, each morning and at bedtime
- ☒ Provide assistance with brushing mouth, teeth and dentures
- ☒ Check for **pocketing** of food and medications
- ☒ Use a soft toothbrush

STROKE NETWORK of Southeastern Ontario

For More Information Go To: Heart & Stroke Foundation of Canada (2015) Taking Action for Optimal Community and Long Term Stroke Care (TACLS) [Link](#)

Participant Feeding Exercise #1

- You will take turns feeding each other a single serving of pudding
 - Each person will do both of the following:
 1. Stand to feed, over-fill your spoon
 2. Proper seating and proper portion sizes
 - Now switch roles
-

Participant Feeding Exercise #2

- You will take turns using a thickening product to thicken various liquids/drinks to nectar consistency
 - Taste the different drinks with a spoon
-

Dehydration

- A client may be at risk for dehydration if s/he:
 - ❑ Cannot 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
 - Less energy
 - Skin breakdown
 - Impaired wound healing
 - Less resistance to infection
-

Mouth and Dental Care

■ Oral Hygiene

- ❑ To remove plaque from teeth, dentures, roof of mouth, tongue and cheeks
 - ❑ Especially before 1st and after last meal
 - ❑ Check for food residue
 - ❑ Assist the client as required in care plan
-

Oral Care Tools

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

