





Swallowing Problems in Elderly

Presented by:

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Outline

- Normal Swallowing Mechanism in Elderly
- Presbyphagia Vs. Dysphagia
- Characteristics of Swallowing in Elderly
- Prevalence of Swallowing Problems in Elderly
- Complications of Swallowing Problems in Elderly
- Evaluation of Swallowing Problems in Elderly
- Management of Swallowing Problems in Elderly
- Tips for Caregivers and Family



Swallowing & Elderly

1. The number of elderly people in the world is increasing.
2. One of the essential cares in the elderly that needs to be considered is the issue of adequate and appropriate nutrition in these people.
3. For proper nutrition, a person's digestive system must function effectively.
4. The main role of the digestive system is to mechanically and chemically break down food into simple components that can be absorbed and assimilated by the body.
5. Swallowing is an important stage in the digestive process.



Effects of Aging on Digestive System

- Food intake diminishes with age due to a range of complex reasons that lead to reduced appetite.
- Reduction in sense of smell and taste. Most older people experience regional taste deficits in the mouth.
- A dry mouth (xerostomia) is common among older people.
- Age-related shrinkage of the maxillary and mandibular bones and reduction in bone calcium content cause a slow erosion of the tooth sockets, leading to gum recession and an increased risk of root decay.



Normal Swallowing

- Normal deglutition (swallowing) as the first phase of digestion is one of the most complicated neuromuscular processes of the central nervous system that involves a complex series of voluntary and involuntary neuromuscular contractions (about 30 pair muscles) and typically is divided into four distinct phases:

1- Oral Preparatory Phase

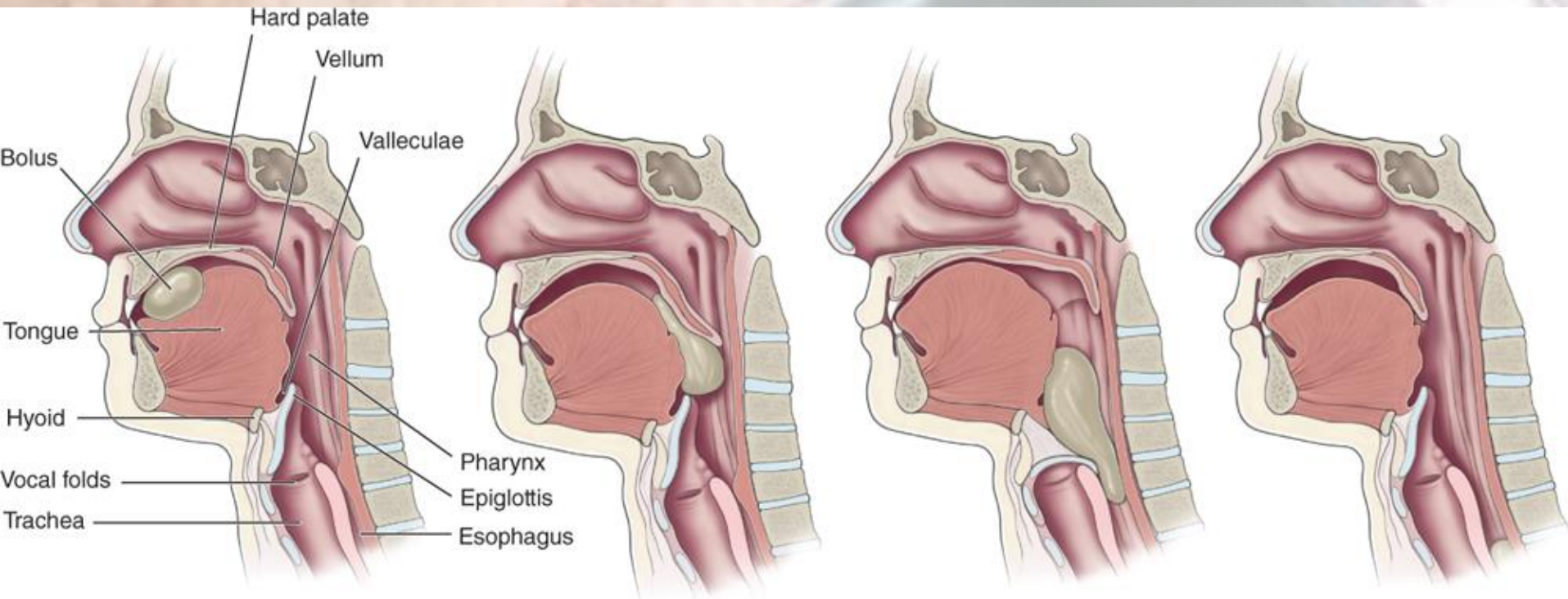
2- Oral Transport Phase } Oral Phase

3- Pharyngeal Phase } Oral Phase

4- Esophageal Phase } Oral Phase



Swallowing Phases



A Oral preparatory phase

B Oral transit phase

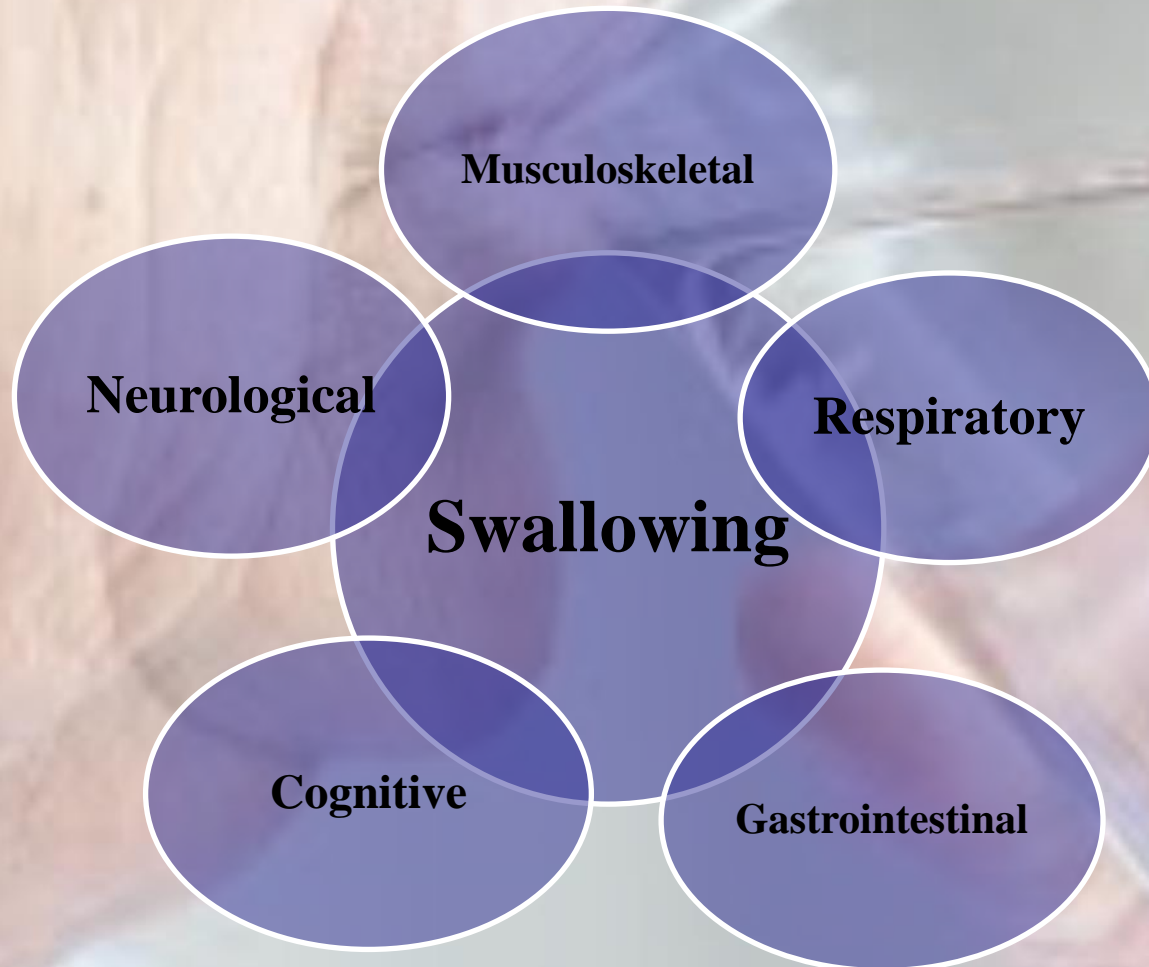
C Pharyngeal phase

D Esophageal phase

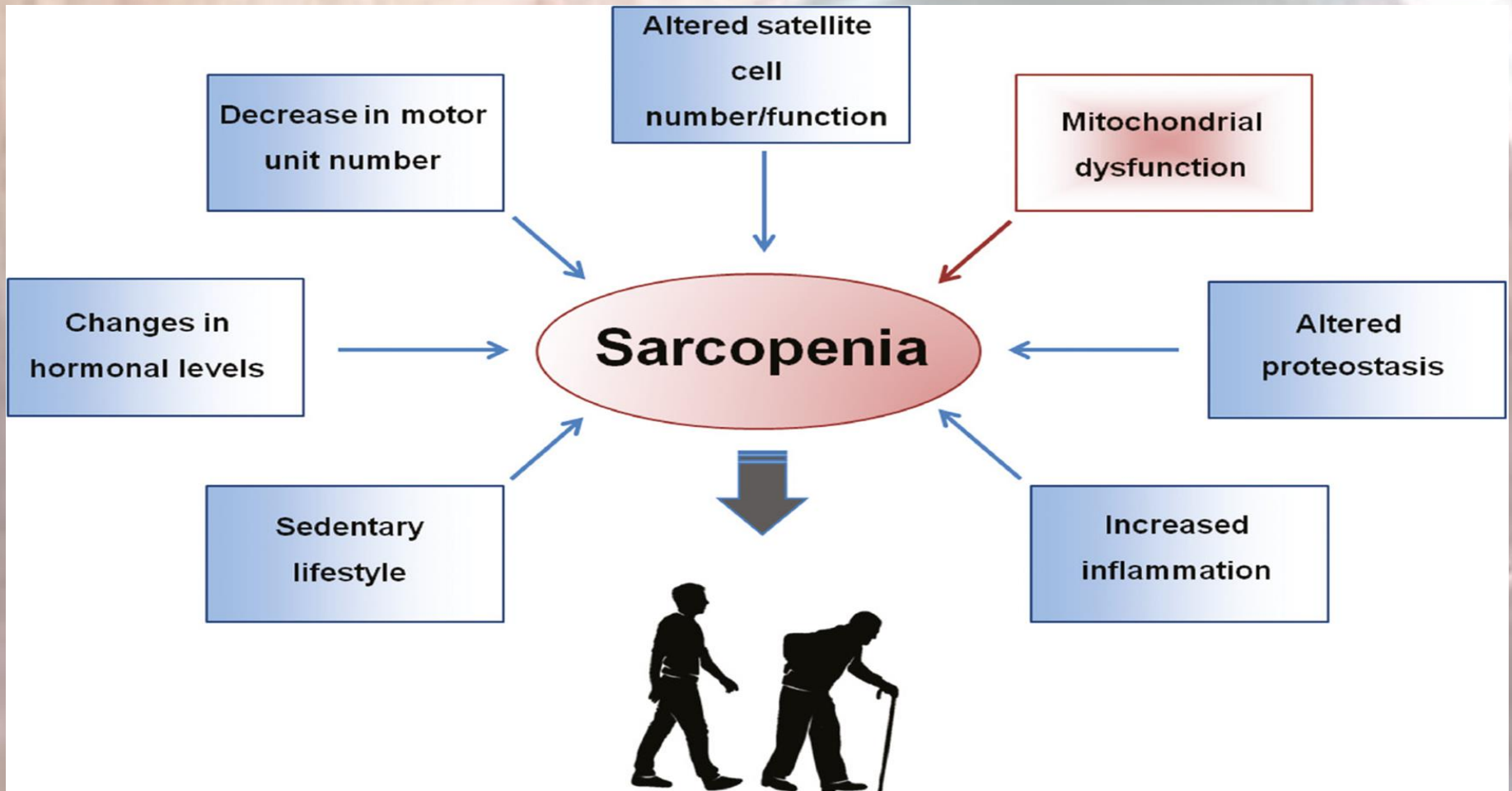
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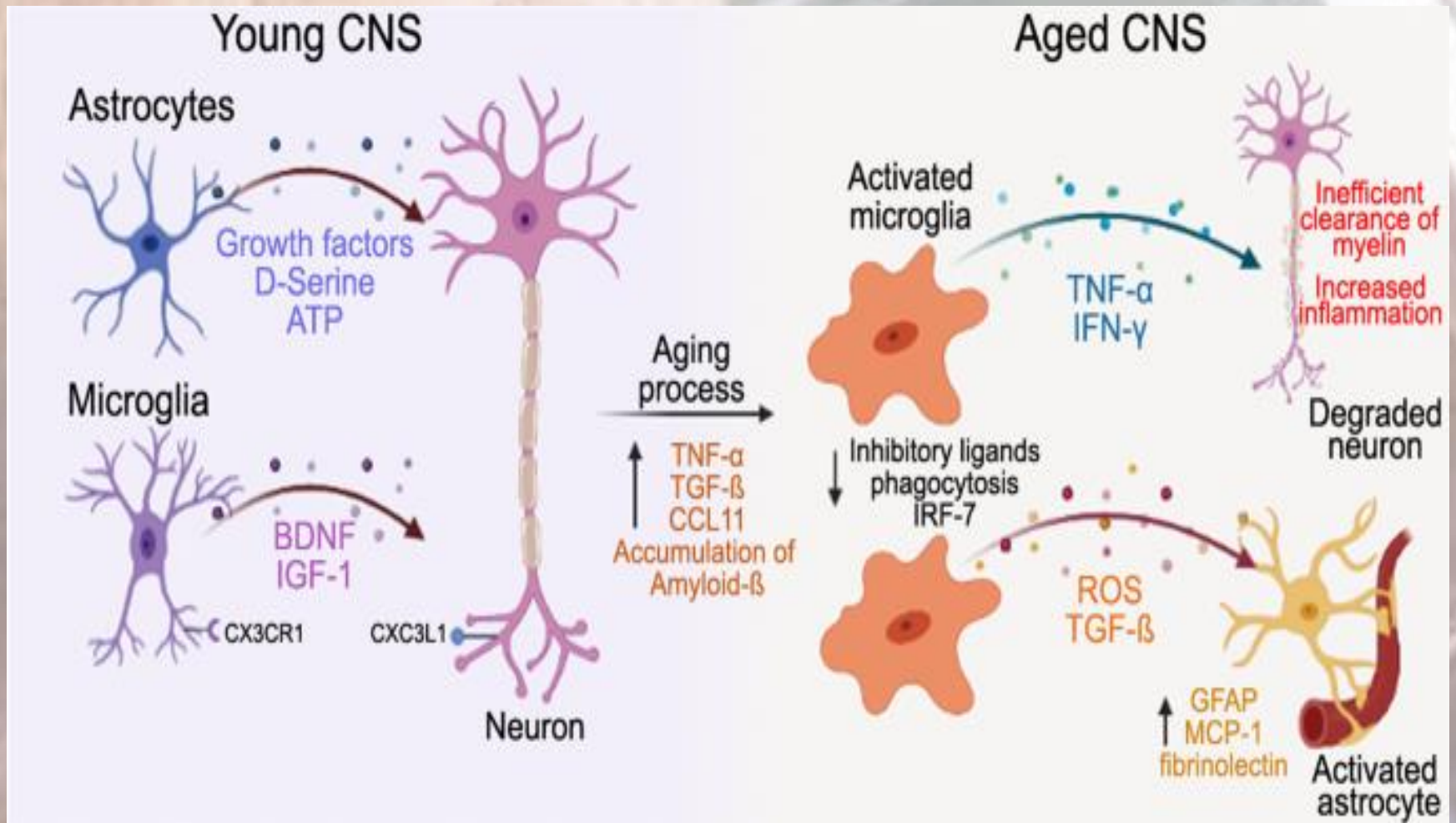
Swallowing Prerequisites



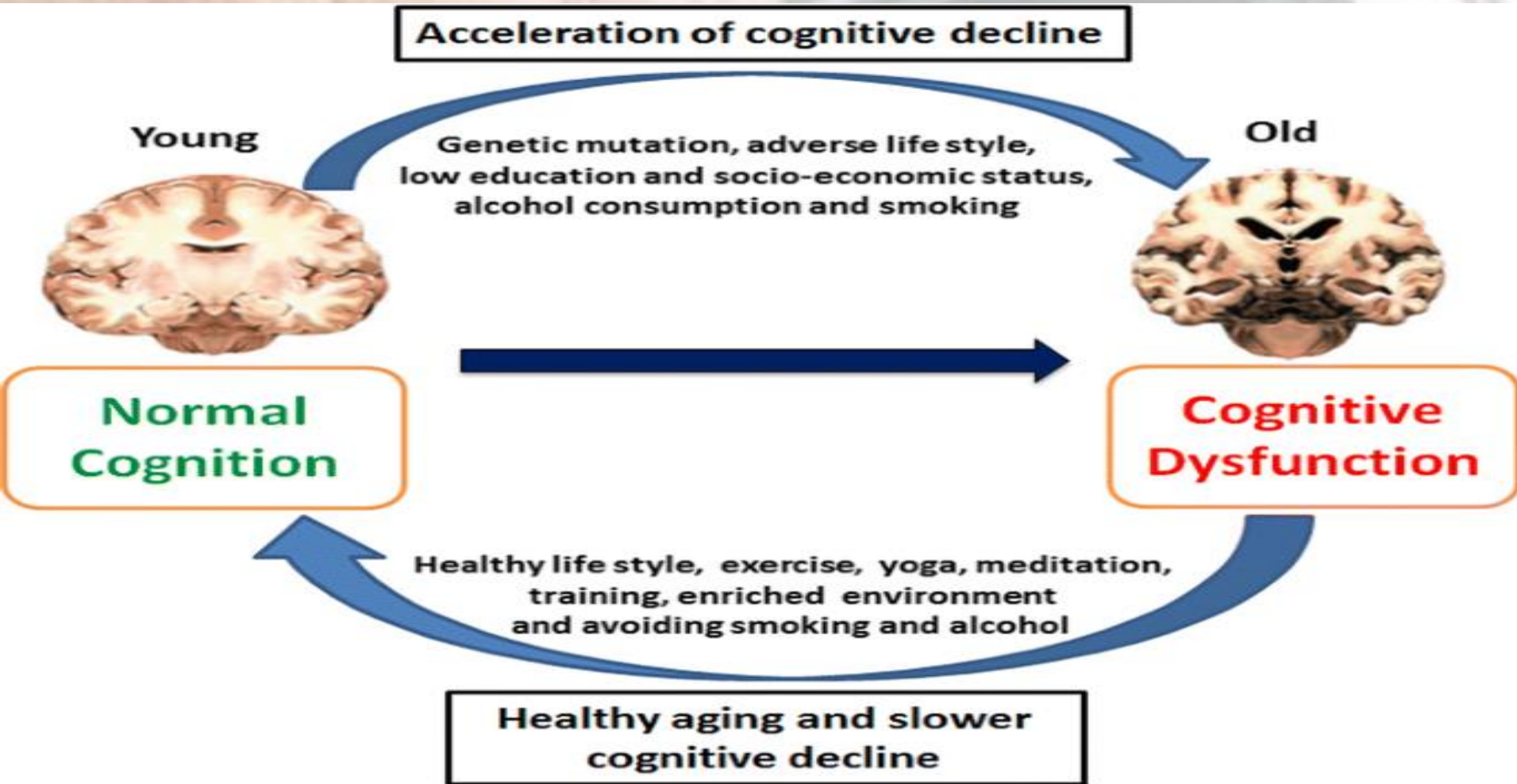
Musculoskeletal Changes in Elderly



Nervous System Changes in Elderly



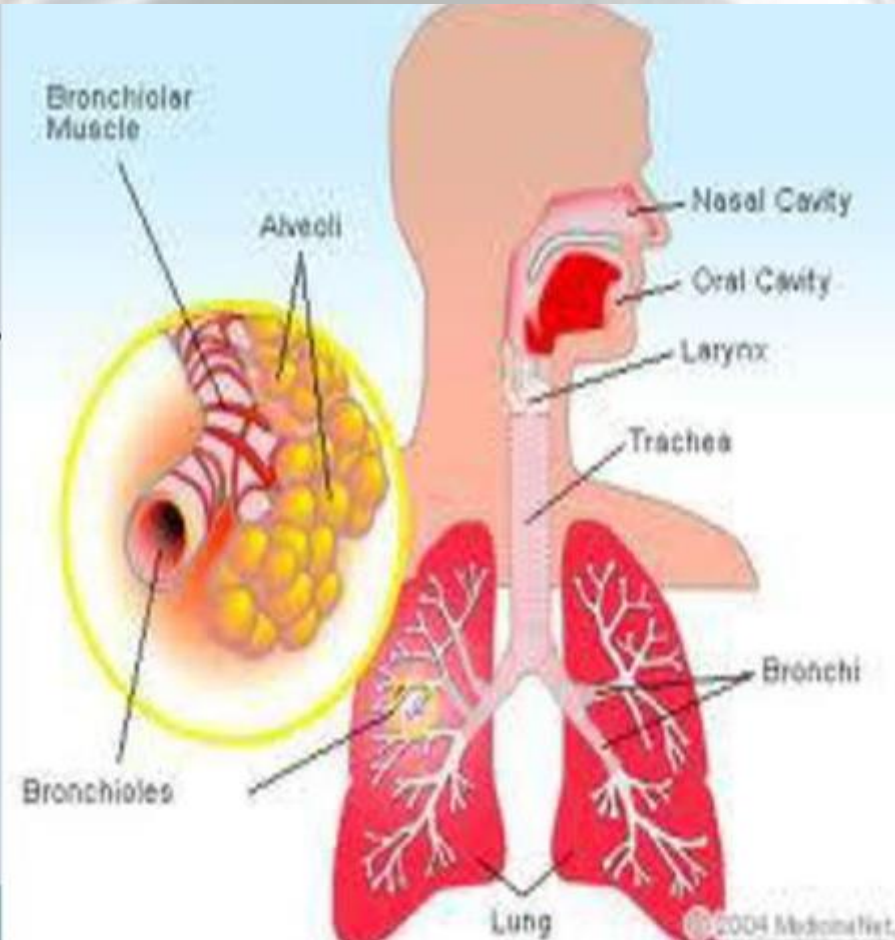
Cognitive Changes in Elderly



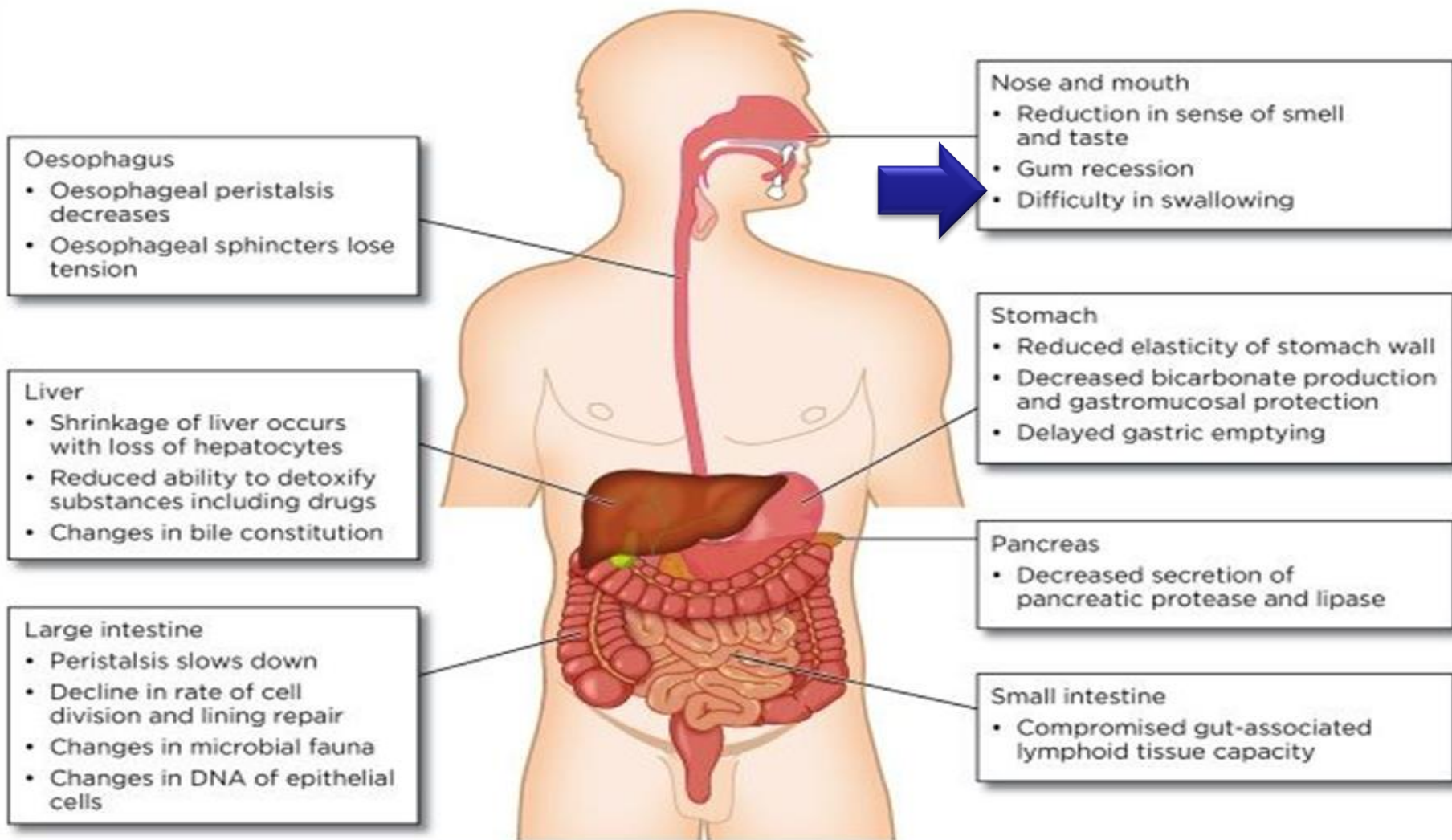
Respiratory System Changes in Elderly

. Respiratory System

- Rigid rib cage
- Alveoli (air sacs) thinner
- Larynx weakens = high pitch, weaker voice
- Emphysema = dyspnea
 - Alveoli lose their elasticity
- Bronchitis = dyspnea
 - Bronchioles become inflamed



Age-related Changes to the Gastrointestinal Tract



Swallowing Function in Elderly

Presbyphagia Vs Dysphagia

Changes Due to Normal
Aging Process

Changes Due to Pathologic
Conditions



Characteristic of Swallowing Function in Elderly

- ✓ Increased Oral Transit Time (OTT)
- ✓ Increased Pharyngeal Transit Time (PTT)
- ✓ Increased Delayed triggering pharyngeal swallowing
- ✓ Reduced Maximum Vertical and Anterior Hyoid Movement
- ✓ Longer pharyngeal delay
- ✓ Less Width Of Cricopharyngeal Opening
- ✓ Less Upper Esophageal Sphincter Flexibility



Sign & Symptoms of Dysphagia

- Drooling and Poor Oral Management
- Food or Liquid Remaining in the Oral Cavity after the Swallow
- Inability to Maintain Lip Closure, Leading to Food and/or Liquids Leaking From The Oral Cavity
- Food and/or Liquids Leaking from the Nasal Cavity
- Complaints of Food "Sticking"
- Globus Sensation or Complaints of A "Fullness" in the Neck;
- Complaints of Pain When Swallowing

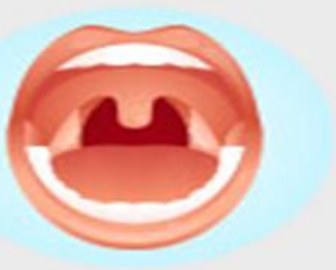
Sign & Symptoms cont.,

- Wet or Gurgly Sounding Voice During or after Eating or Drinking
- Coughing During or Right After Eating or Drinking
- Difficulty Coordinating Breathing and Swallowing
- Recurring Aspiration Pneumonia/Respiratory Infection and/or Fever
- Extra Effort or Time Needed to Chew or Swallow
- Changes in Eating Habits—specifically, Avoidance Of Certain Foods/Drinks
- Weight Loss or Dehydration From Not Being Able To Eat Enough

Complications of Dysphagia

- Aspiration leading to chest infection and pneumonia
- Silent Aspiration
- Malnutrition
- Dehydration
- Increased risk of death
- Because eating is an important social activity Dysphagia has negatively impact on:
 - Self-esteem
 - Social role functioning
 - Quality of life (QOL) functioning
 - Social isolation& depression

DEHYDRATION SYMPTOMS



Dry Mouth



Rapid Heartbeat



Headache



Dry Skin



Weight Loss



Stunted growth



Loss of appetite



Inactivity

Assessment

➤ **Bedside Evaluation of Dysphagia**

- ❖ Standardized Swallowing Assessment
- ❖ Clinical Swallow Evaluation (CSE)
- ❖ Comprehensive Geriatric Assessment (CGA)

➤ **Instrumental Evaluation of Dysphagia**

- ❖ Videofluoroscopic Swallowing Study(VFSS)
- ❖ Fiberoptic endoscopy Evaluation of Swallowing(FEES)
- ❖ Electromyography assessments of swallowing



Category	Signs	
Cognition	Delirium	
	Playing with food	
	Inappropriate sizes of bites	
	Eating behavior	Increased amount of fluid remaining on plate
		Specific food/texture avoidance
		Prolonged mealtime
		Laborious chewing
		Repetitive swallowing
		Food pocketing in cheeks
		Increased need to clear throat
Impaired oropharyngeal function		
	Wet, hoarse voice	
	Dysarthria	
	Drooling	
	Facial asymmetry, dystonia, atrophy	
	Cough, and choke when swallowing	
Complaints or observations		
	The sensation of obstruction or bolus in the throat or chest	
	Regurgitation of food or acid	
	Unexplained weight loss	
	Impaired breathing during meals or immediately after eating	

Tips for Safely Managing Dysphagia at Home (Caregiver and Family)

1. Make note of posture. Be sure the older adult is sitting completely upright, at a 90-degree angle, before trying to eat or drink.

2. Avoid the straw. Straws increase the rate at which the liquid enters the mouth, which can cause choking or aspiration.

Tips for Safely Managing Dysphagia at Home (Caregiver and Family)

1. Thicken liquids. Most pharmacies sell thickening gels or powders that should be added to all fluids for anyone with dysphagia. However, abstain from serving jello and ice cream, which change from their thickened form to a liquid in the mouth.

Tips for Safely Managing Dysphagia at Home (Caregiver and Family)

4. Keep nutritional needs in mind. Good options for dysphagia-friendly foods include yogurt, pureed fruits, pureed veggies, pureed lentils, and pureed beans, soft cheese, avocado, and creamy nut butters.

Tips for Safely Managing Dysphagia at Home (Caregiver and Family)

5. Consider prescription drug administration.

Washing down pills with thickened liquid could be challenging. Seek advice from the prescribing doctor and/or pharmacist to see if meds can be crushed and combined with applesauce or pudding to help them go down easier.

Tips for Safely Managing Dysphagia at Home (Caregiver and Family)

6. Timing is everything. The fatigue that accompanies a chronic medical condition that causes dysphagia can make it hard to eat or drink for more than fifteen minutes at any given time. Try to plan meals around times when your loved one is least tired, and have thickened drinks available during the day to ensure hydration.

Management of Swallowing Problems in Elderly

4. Timing is everything. The fatigue that accompanies a chronic medical condition that causes dysphagia can make it hard to eat or drink for more than fifteen minutes at any given time. Try to plan meals around times when your loved one is least tired, and have thickened drinks available during the day to ensure hydration.

Management of Swallowing Problems in Elderly

1. Positioning:

- ✓ Comfortable
- ✓ Upright Position During Meals
- ✓ Preferably sitting out of bed if possible, during meals.
- ✓ More Forward Position
- ✓ keep the person upright for 30 minutes after eating.

Management of Swallowing Problems in Elderly

2. Minimizing Distractions

- ✓ Serve meals in quiet surroundings, away from the television and other distractions.
- ✓ Avoid placing unnecessary items on the table that might distract or confuse the person.
- ✓ Use only the basic utensils needed for the meal, serving one or two dishes at a time.

Management of Swallowing Problems in Elderly

3. Safe Feeding and Swallowing Strategies

- ✓ Alternate small bites and sips. Feed the person patiently, with a slow rate of intake.
- ✓ Make sure all the food and liquid are swallowed before feeding the next bite.
- ✓ Frequently check the mouth to make sure there is no accumulation of food, especially in the cavities of the cheek or on the tongue.
- ✓ Feed meals when the patient is most alert and attentive. Some might eat better if provided with smaller meals throughout the day, instead of three big meals at a time.
- ✓ Ensure dentures are cleaned and well-fitted before feeding.
- ✓ Also ensure proper oral care is being completed throughout the day.
- ✓ Maintaining good oral hygiene is critical.



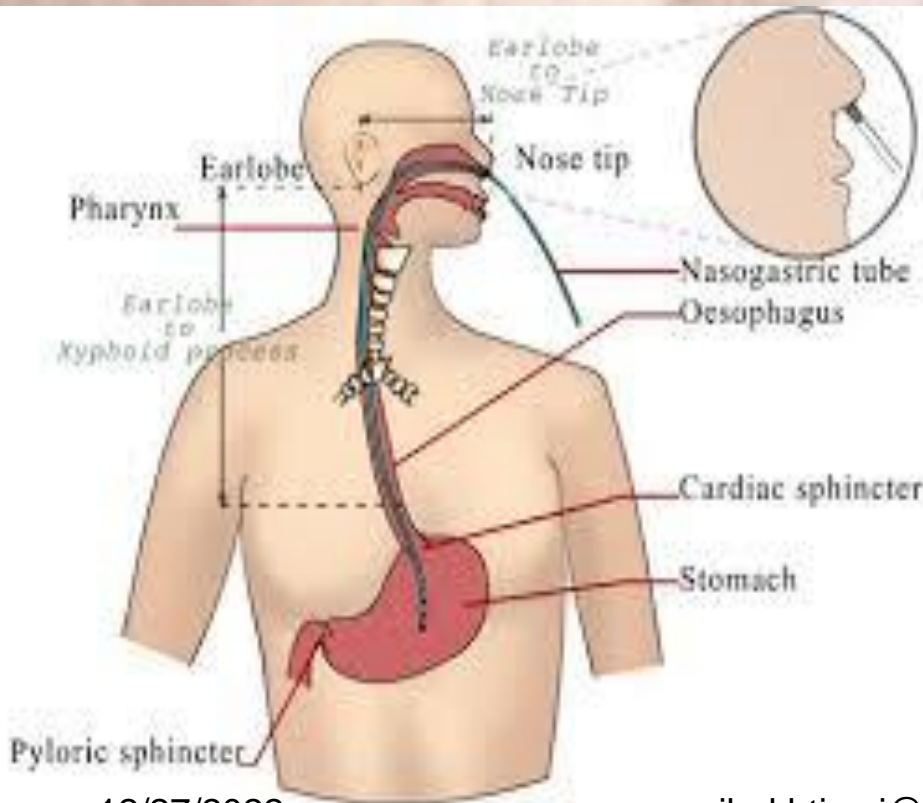
Management of Swallowing Problems in Elderly

1. Diet Modification

Non-Oral Feeding

Nasogastric Tube(NG)

Percutaneous endoscopic gastrostomy (PEG)



Swallowing Therapy

Conventional Swallowing Therapy

1. Compensatory Methods

Compensation uses strategies to protect the airway during eating and drinking. Compensatory strategies provide a scaffold to a safer swallow by reducing the complexity of the swallowing task.

2. Rehabilitative Methods

Rehabilitation aims to restore the functionality of the swallow through targeted exercises.

Conclusion

- One of the essential cares in the elderly that needs to be considered is the issue of adequate and appropriate nutrition in these people. For proper nutrition, a person's digestive system must function effectively, and swallowing is an important stage in the digestive process.
- Swallowing problems are prevalent condition among patients with cognitive impairments specially in elderly.
- The presence of Swallowing problems can itself cause medical, psychosocial, and economic complications in elderly.
- To prevent and minimize these complications, diagnosis and management of dysphagia must be done as soon as possible by a trained speech-language pathologist



