1 ▪ Flaccid Dysarthria
   ▪ pathology of LMN's innervating speech musculature
   ▪ affects all levels of speech processing
   ▪ Bulbar Palsy—medical condition associated with cranial nerve/brainstem injury

2 ▪ Etiologies
   ▪ any process that affects motor unit
   ▪ most common, surgical trauma (28%)
     ▪ cervical disk, vascular, thoracic

3 ▪ Signs and Symptoms
   ▪ LMN lesion signs
     ▪ weakness, hypotonia, absent/diminished reflexes, atrophy
   ▪ result from collective impairment of cranial nerves

4 ▪ Trigeminal Vth Nerve Lesions
   ▪ sensory and motor branches
   ▪ sensory branches - Trigeminal neuralgia
   ▪ motor branches for jaw movement
   ▪ rarely the only cranial nerve involved in flaccid dysarthria

5 ▪ Nonspeech sx’s
   ▪ masticator palsy
   ▪ unilateral: jaw deviates to weak side:
   ▪ bilaterally, hangs open: unable to clench teeth
   ▪ Pt c/o chewing difficulty, drooling, jaw is difficulty to close or move

6 ▪ Speech Sx; Vth
   ▪ unilateral damage - little effect
   ▪ sx’s most apparent in reading/conversation tasks
   ▪ AMR imprecise and slower for ‘puh’ than others
   ▪ vowel prolongation OK
   ▪ prosody = slow rate

7 ▪ Speech Processes
   ▪ affects two processes with bilateral damage
   ▪ articulation - all phonemes
     ▪ dimension: imprecise consonant production
   ▪ prosody
     ▪ slow rate
8 VII- Facial
   - innervate muscles for facial expression
   - innervate lips/ cheeks for speech
   - bilateral damage: facial paralysis
     - less common than unilateral

9 Bell’s palsy
   - unilateral facial paralysis
   - undetermined etiology
   - 86 % full recovery

10 Nonspeech - facial paralysis/palsy
   - facial symmetry
   - forehead
   - eyebrow
   - mouth
   - nasolabial fold
   - tip of nose

11 Other nonspeech sx's
   - drooling
   - c/o biting cheek or lip when chewing or speaking
   - difficulty keeping food in the mouth
   - pocketing of food between the teeth and cheek
   - unable to close eyes, dry eyes/unblinking

12 Speech Sx's: VII
   - flutter of cheeks when talking
   - noticeable mismatch between speech AMR's for puh vs tuh and kuh.
   - drooling during speech, when concentrating on another activity, during eating or during sleep

13 IX - Glossopharyngeal
   - little influence on or nonspeech
   - diminished gag reflex
   - effect present in association with Xth cranial nerve

14 X - Vagus
   - innervates velopharyngeal mechanism, laryngeal and pharyngeal mechanisms

15 Nonspeech Sx’s
• asymmetric sp movement/ bilateral weakness
• vocal cord paralysis
• dysphagia
• weak cough

16 ❇️ Speech Sx
• if vp mechanism effected, hypernasality & nasal emission
• with vf involvement, phonatory incompetence
• speech sx dependent on paralysis of vf’s

17 ❇️ VF Paralysis
• monopitch, monoloudness, short phrases
• Paramedian position
  • harsh, decreased loudness, inhalatory stridor
• Abducted position
  • harsh, breathy, short phrases, poss. diplophonia

18 ❇️ XI - Accessory
• usually damaged with Xth
• nonspeech sx’s
  • shoulder weakness, weak head turning

19 ❇️ XII - Hypoglossal
• innervates muscles of tongue
• unilateral effect less than bilateral
• major effect on speech as tongue is most important articulator

20 ❇️ Non speech sx’s
• tongue deviation to affected side
• inability to move food in oral cavity
• tongue “feels” heavy
• tongue atrophied, poss. fasciculation
• inability to protrude, lateralize

21 ❇️ Speech Sx
• AMR’s Ok for put but not tuh or kuh
• imprecise consonant production

22 ❇️ Summary: Clusters of Deviant Speech Dimensions
• phonatory incompetence
• resonatory incompetence
• phonatory-prosodic insufficiency

23 ❇️ Best Distinguishing Features
• hypernasality
- nasal emission
- continuous breathiness
- audible inspiration