

# Speech – dynamic production of sounds for oral communication

- The basic components of speech production are articulation, voice and fluency.
- The vocal tract includes the structures used to produce speech – the larynx, pharynx, velum, tongue, teeth, lips and the oral and nasal cavities
- Phonology is the study of speech sounds.
- Speech sounds can be analyzed as individual sound productions, called phones, or as groups of similar sounds, called phonemes.
- Phonemes distinguish the meanings of words and have been classified by their unique characteristics, called distinctive features

# **Language – is an essential aspect of human social interaction and transmission of information**

- Language is the use of symbols in a shared code to convey meaning.
- Dialects are variations of a language that develop in cultural, socioeconomic, or geographic subgroups.
- Receptive and expressive involve different processes and factors.
- Language can be defined as a social behavior, as a complex learned behavior, or as a system of mental rules.
- Linguistics, the scientific study of language, has a number of branches that study several aspects of language.

# The major linguistics aspects of language

- Grammar (its structure) – of words, morphology, syntax – structure of sentence types
- Semantics (its meaning and word relationship)
- Pragmatics (its social use – the social nature of language is reflected in alternation, in which speakers choose alternate ways of saying the same thing based on the situation.

# Communication disorders

- Dyslalia – articulation disorders
- Dysarthria – a group of disorders which stem from defined neurological conditions and which manifest abnormalities of respiration, phonation, resonance and articulation
- Aphasia, dysphasia – the commonest causes are cerebrovascular accident, head injury or brain tumor which have affected part of the brain, usual the left cerebral hemisphere
- Apraxia, dyspraxia – it may be developmental or acquired, is usually associated with central nervous system impairment

# Communication disorders

- Articulation – the production of vowels and consonants by the active and passive articulators in the mouth
- The active articulators are the moving parts in the mouth which modify the airflow as it passes into and through the mouth to produce sounds whilst the passive articulators are the non-moving parts of the mouth against which – come to contact
- There are 3 ways for describing articulations of sounds:
- Place of artic., manner of artic., voicing sounds

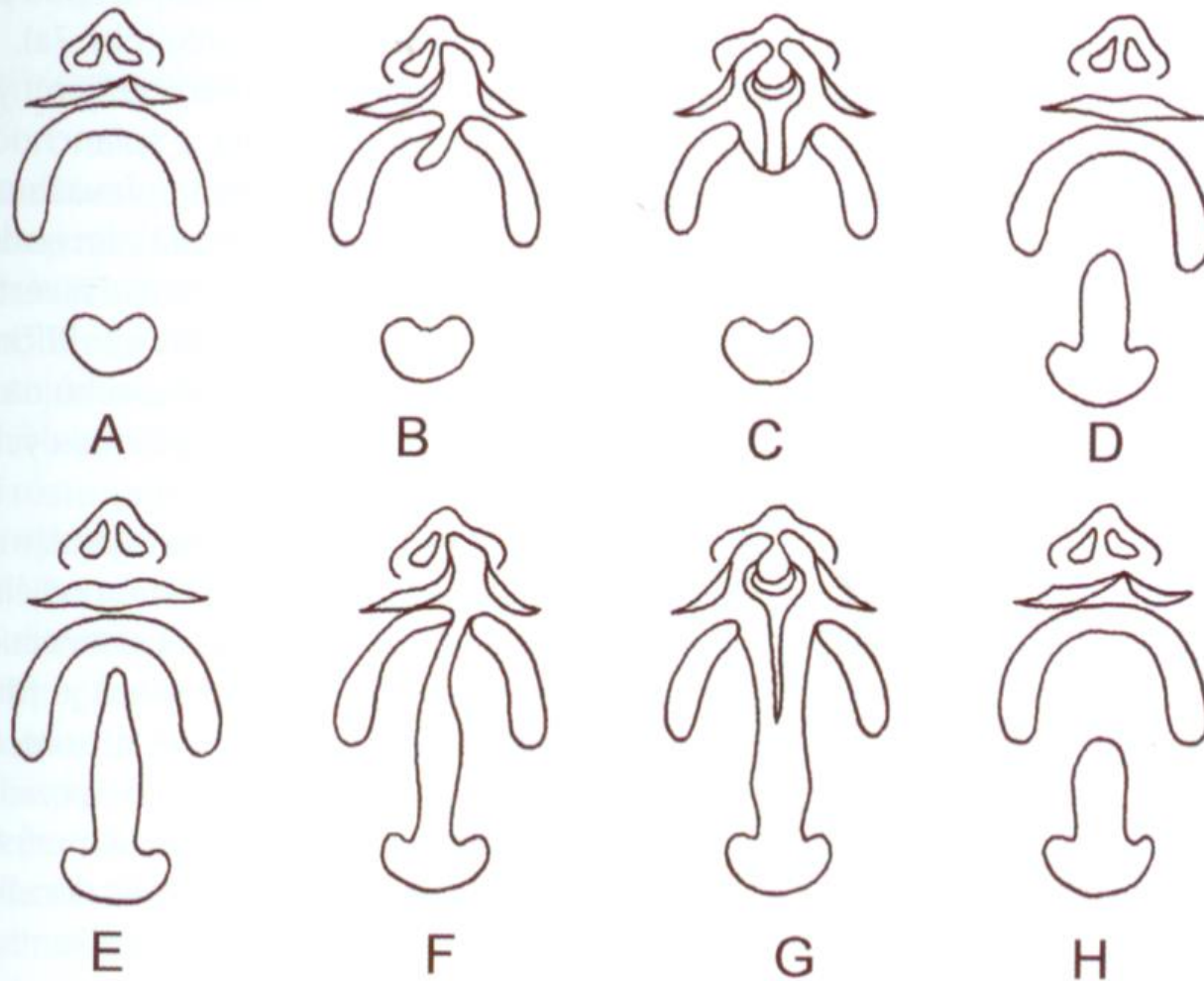
# **Motor speech disorders – dysarthria: disturbances in muscular control of the speech mechanism**

- Flaccid x spastic dysarthria
- Ataxic dysarthria (cerebellar)
- Hypokinetic x hyperkinetic dysarthria (extrapyramidal)
- Mixed dysarthria
- Apraxia of speech: impairment of motor speech programming

# The causes of velopharyngeal insufficiency

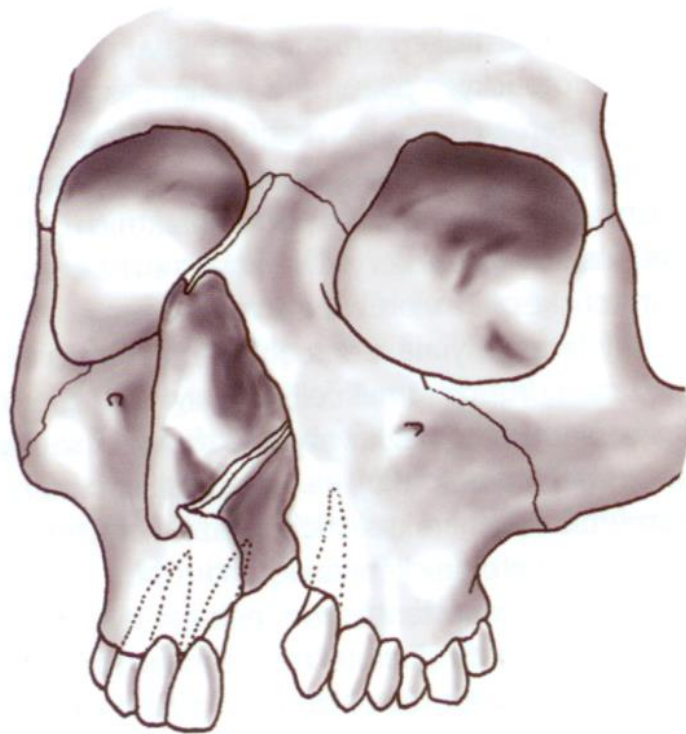
- Palatine malformations – cleft palate...velo submucose cleft, short congenital velo
- The results of incorrect adenotomy and/or tonsillectomy
- The results for neoplasm
- Paresis or velo-pharynx paralysis
  
- **Cleft palate symptoms – phonetic pathology: disturbances associated with resonance and articulation**

# Cleft lip, palate – complete, incomplete unilateral, bilateral

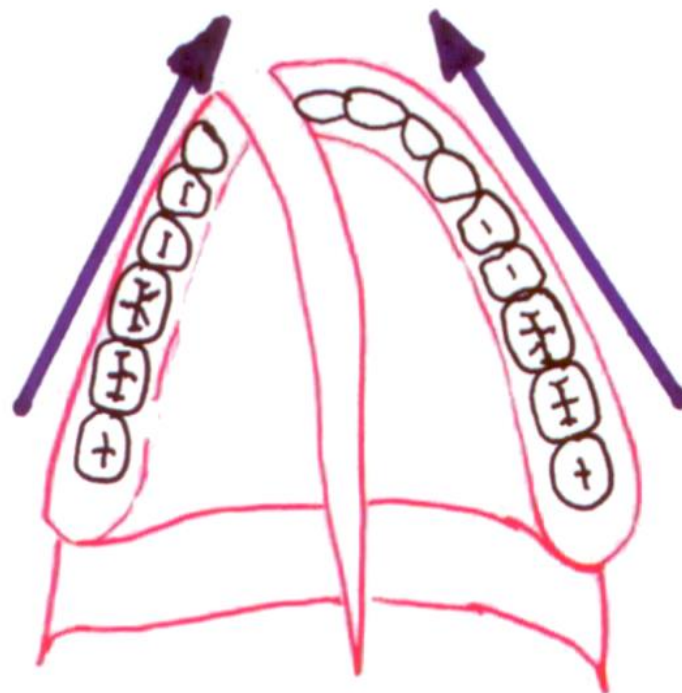


obr. 5. Schéma klasifikace (podle Kernahana a Starka 1958 in Mc Carthy 1990)

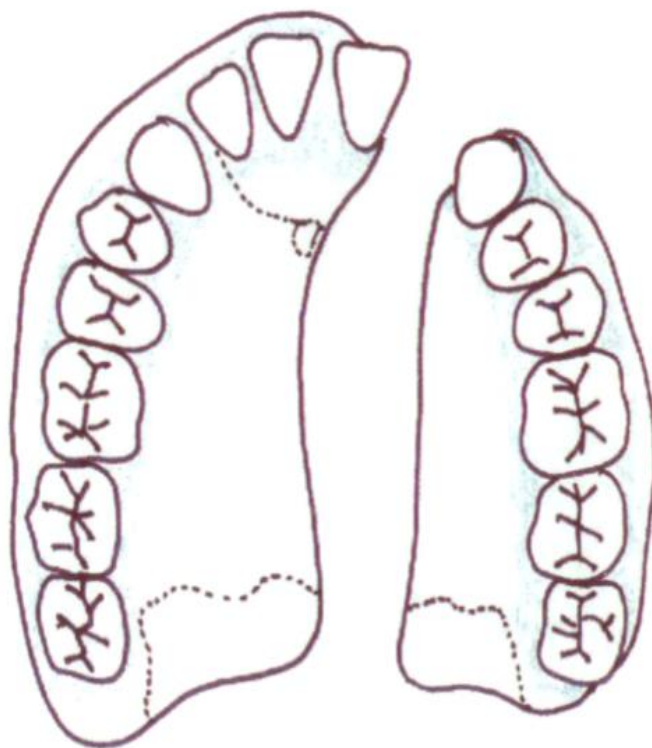
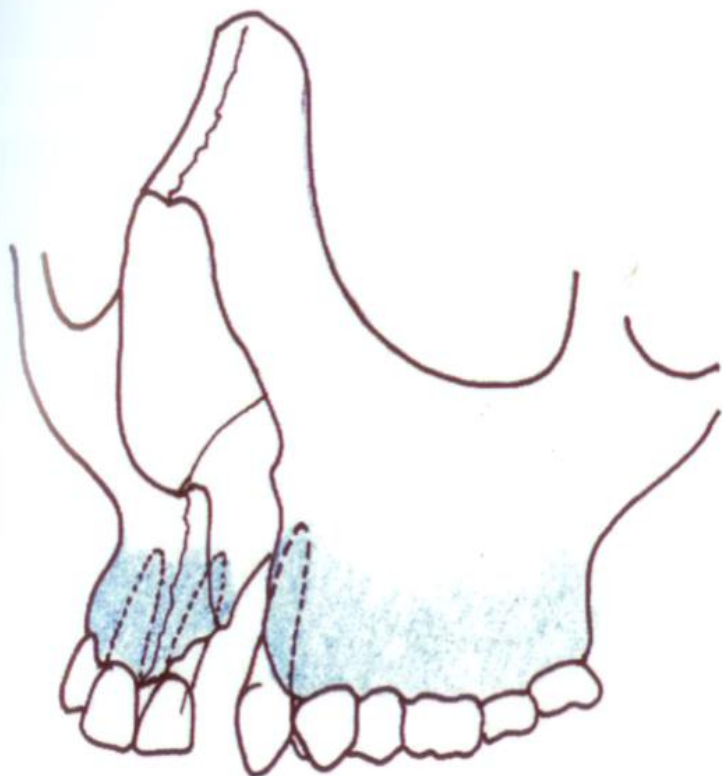




**obr. 12.** Rozštěpový defekt v horní čelisti



**obr.10.** Schéma posunu rozštěpových segmentů maxilly při distrakci u rozštěpového pacienta



obr.1a, 1b. Defekt alveolu a palatinální desky