

EXTRAORAL ORTOPEDIC APPLIANCES



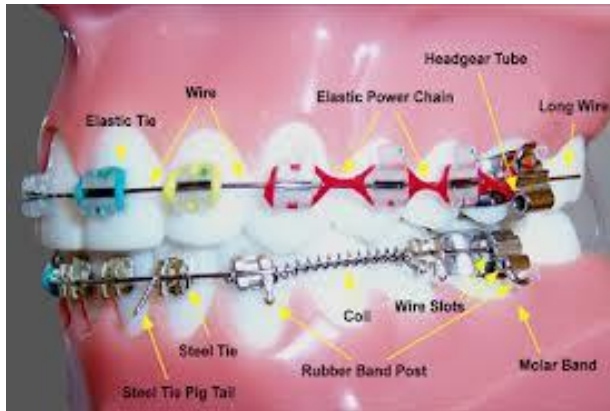
Dr. Ayşe Tuba Altuğ
Dept. of Orthodontics

*Orthodontic Appliances That Apply
Extraoral Forces*

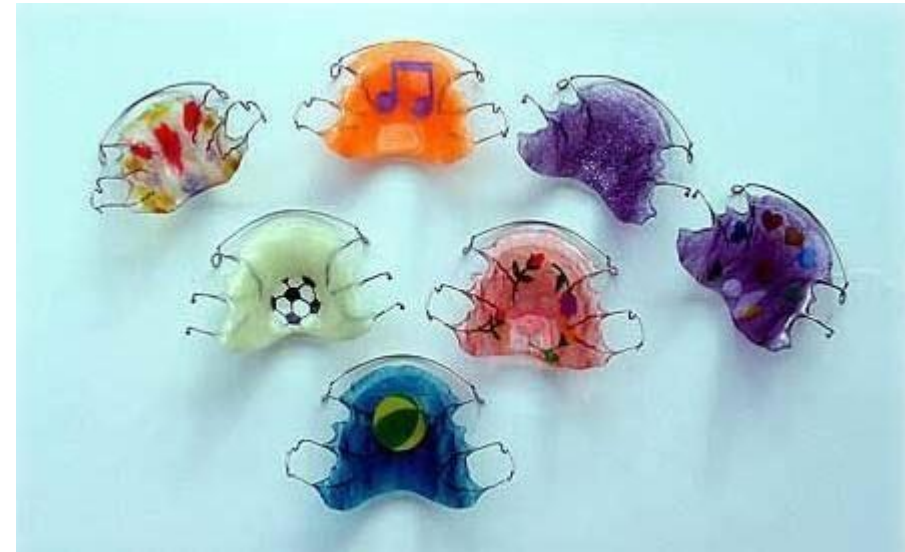


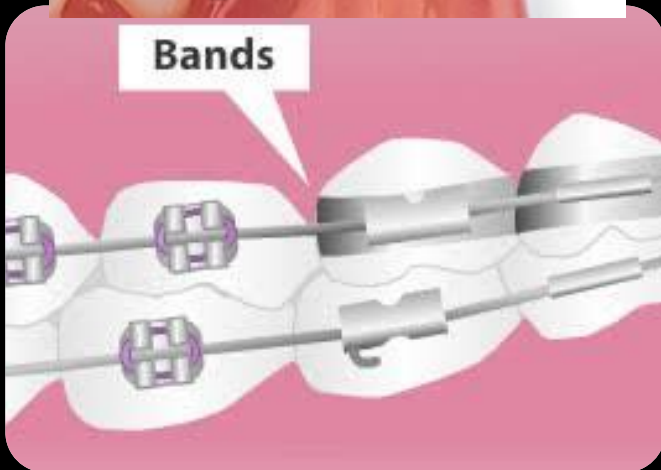
ORTHODONTIC APPLIANCES

FIXED APPLIANCES



REMOVABLE APPLIANCES





ORTHODONTIC REMOVABLE APPLIANCES




EXTRAORAL
APPLIANCES

INTRAORAL
APPLIANCES






EXTRAORAL APPLIANCES

THE PURPOSE OF EXTRAORAL APPLIANCE USAGE

- Anchorage  to enrich the anchorage of the teeth
- Orthopedic  to align maxilla and mandible, to achieve a balanced maxillomandibular relationship
- Orthodontic  to move teeth

EXTRAORAL APPLIANCES

THE PURPOSE OF EXTRAORAL APPLIANCE USAGE

- Anchorage  to enrich the anchorage of the teeth
- Orthopedic  to align maxilla and mandible, to achieve a balanced maxillomandibular relationship
- Orthodontic  to move teeth




Balances maxillomandibular relationship

The effect that changes the position and form of the maxilla and mandible relative to the cranium with intraoral or extraoral appliances is called orthopedic force.



EXTRAORAL APPLIANCES

THE PURPOSE OF EXTRAORAL APPLIANCE USAGE

- Anchorage  to enrich the anchorage of the teeth
- Orthopedic  to align maxilla and mandible, to achieve a balanced maxillomandibular relationship
- Orthodontic  to move teeth

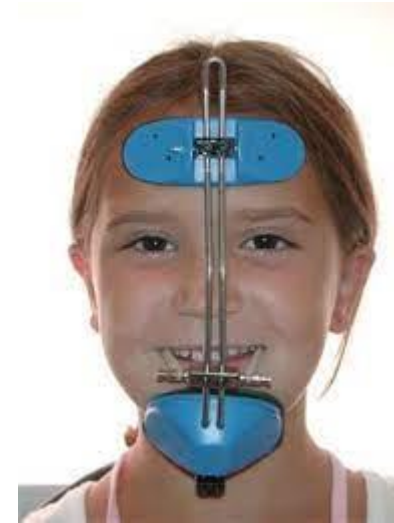
There are some anchorage zones for extraoral appliances;



Neck



Cranium



Forehead and chin



Cranium and chin



Cheeks



HeadGear



Headgear;

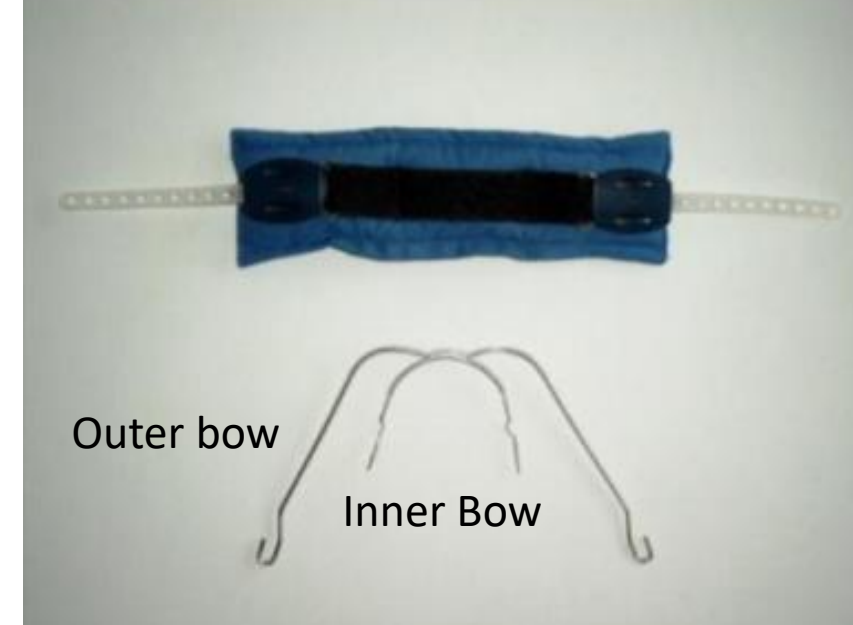
- Facebow

Inner bow

Outer bow

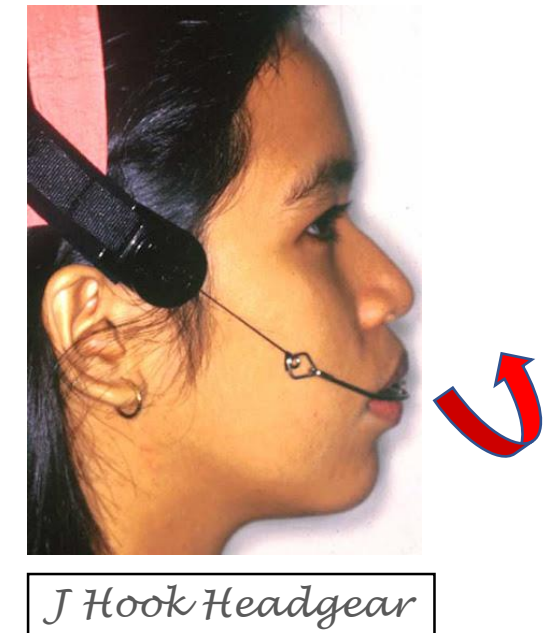
- Cervical and/or occipital pillow

- Maxillary molar bands



Types of Headgear;

- High-pull Headgear (Occipital HG)
- Low-pull Headgear (Servikal HG)
- Combined Headgear
- J-Hook Headgear



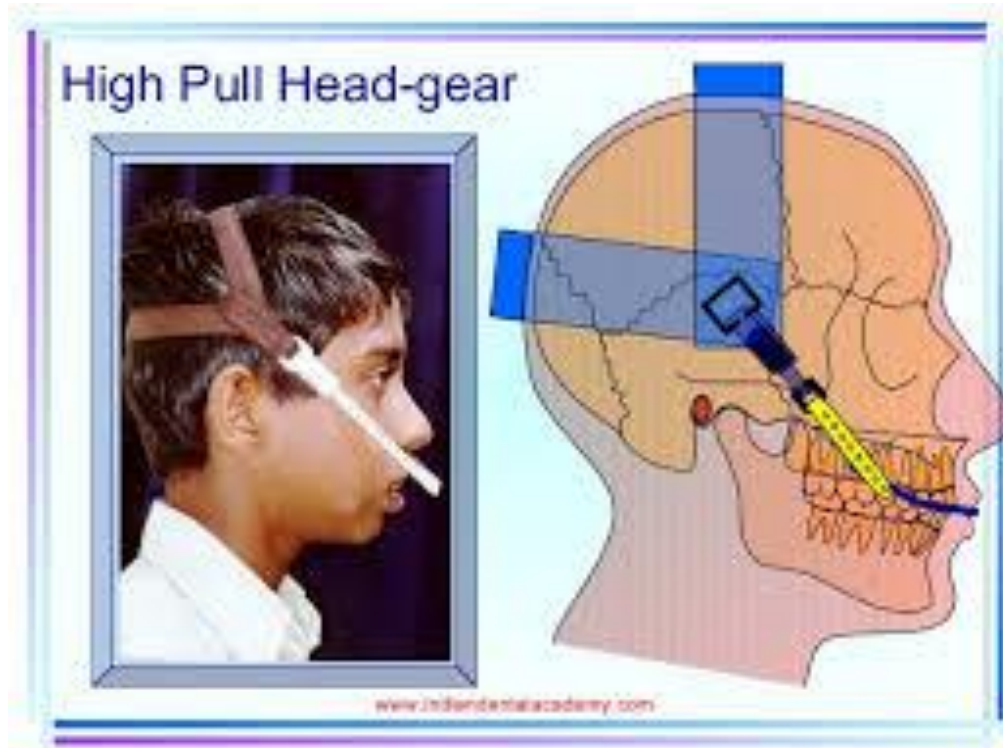
EXTRAORAL APPLIANCES

- **CERVICAL HEADGEAR**



EXTRAORAL APPLIANCES

- **OCCIPITAL HEADGEAR**



EXTRAORAL APPLIANCES

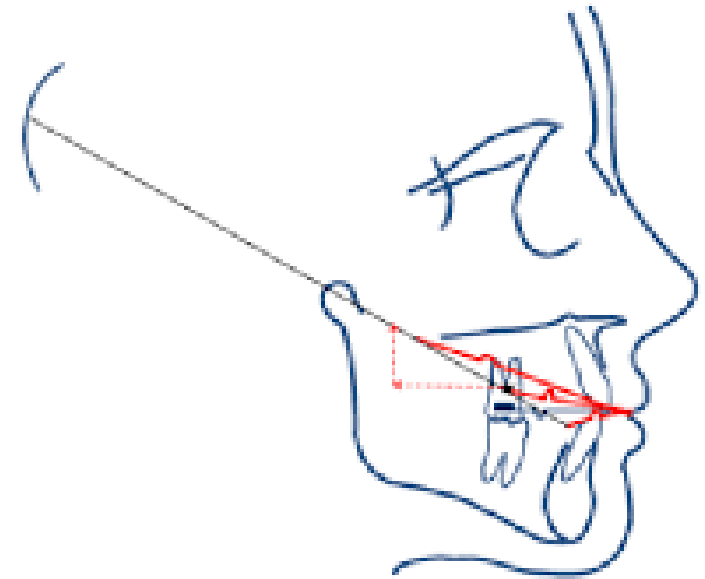
- **COMBINED HEADGEAR**





Powered by Ortho2


ORTHODONTICS
www.avaorthodontics.com



Why we are using Headgears?

- To modify the growth – inhibition of maxillary growth

Orthopedic Effect

- Tooth movement - Molar distalization

Orthodontic Effect

- To empower anchorage

Enrich Anchorage

Why we are using Headgears?

Orthodontic Use



☐ Maxillary molar distalization

☐ Total usage period is short
(6 months -1 year)

☐ Long daily use (22 hours)

☐ Low forces (350-400 gr)

Orthopedic Use



☐ Maxillary growth modification

☐ Total usage period is longer
(1 year)

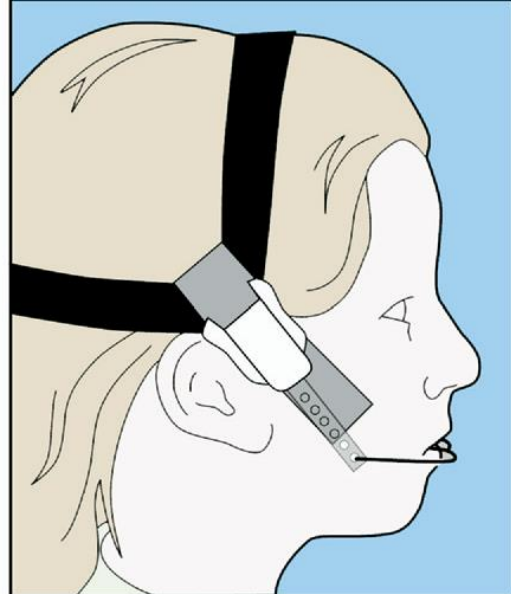
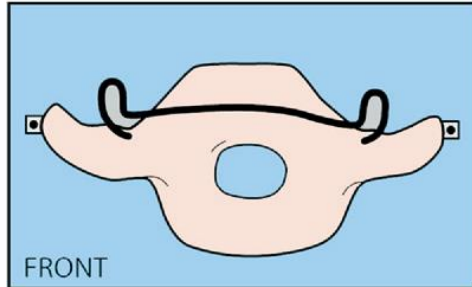
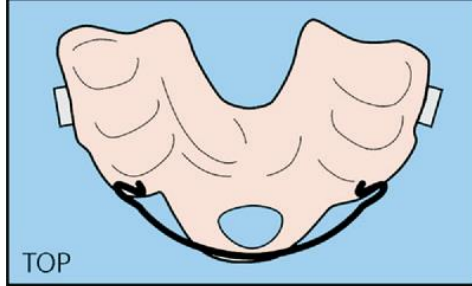
☐ Short Daily use (12-14 hours)

☐ High forces (min 1000 gr)

Headgear – Functional Appliance Combination

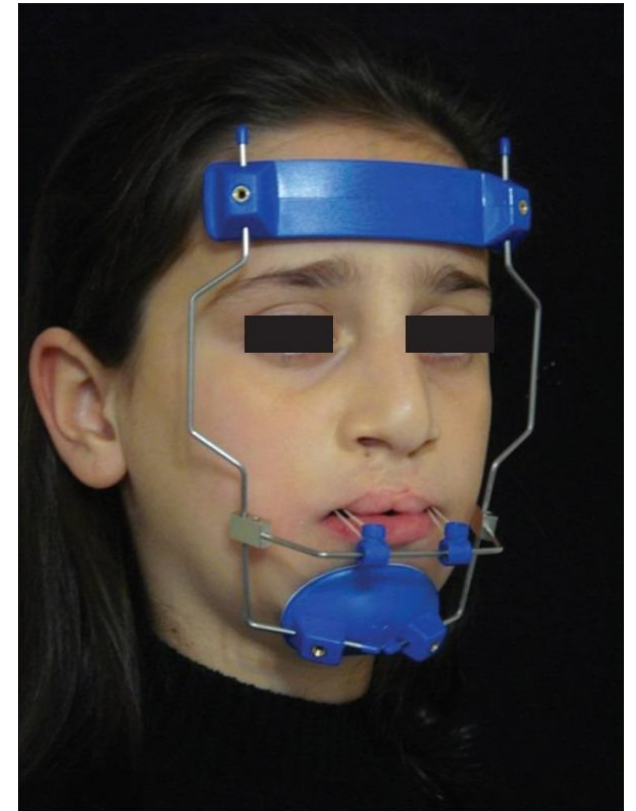
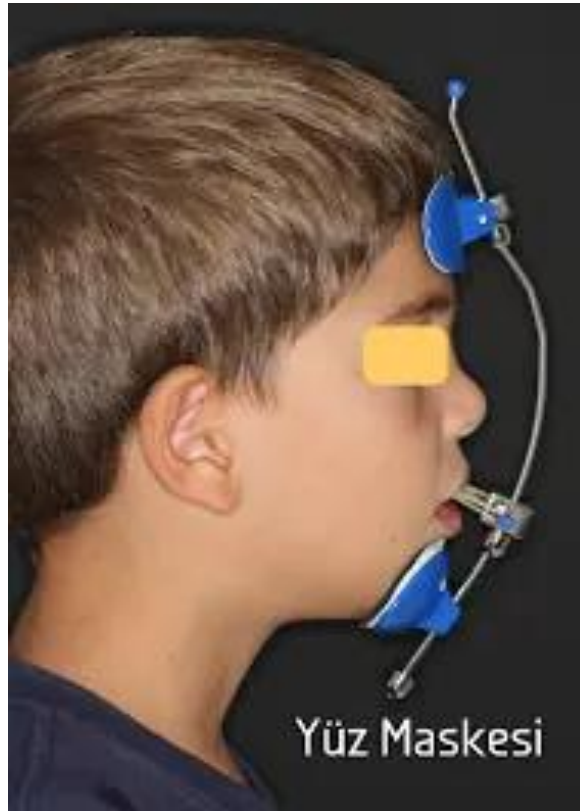
Stöckli Teuscher Appliance

- High-pull Headgear + Activator
 - Maxiller gelişim fazlalığı ile birlikte
Mandibular gelişim geriliği bulunan hastalarda uygulanır



EXTRAORAL APPLIANCES

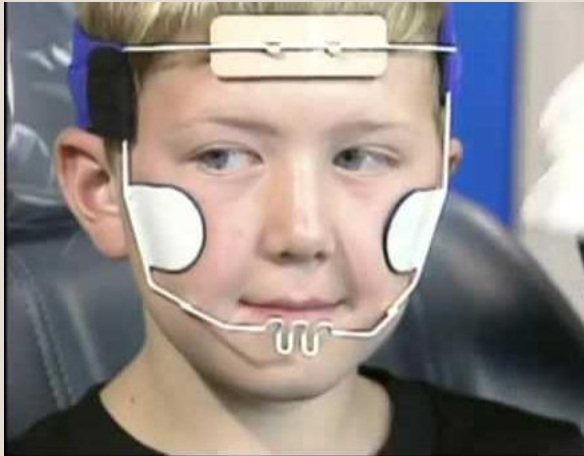
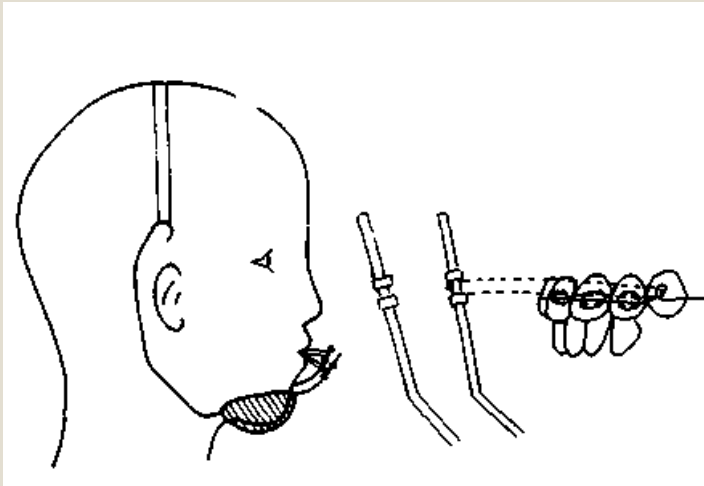
- **FACE MASK**





FACEMASK

Reverse Headgear



Delaire-Type Face Mask

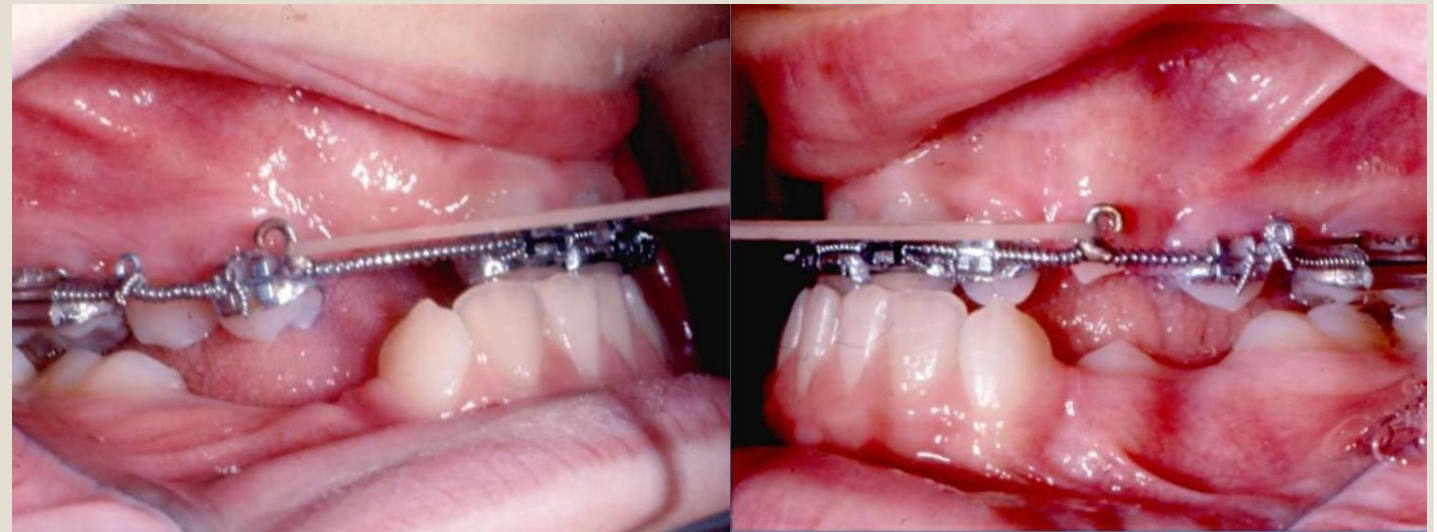
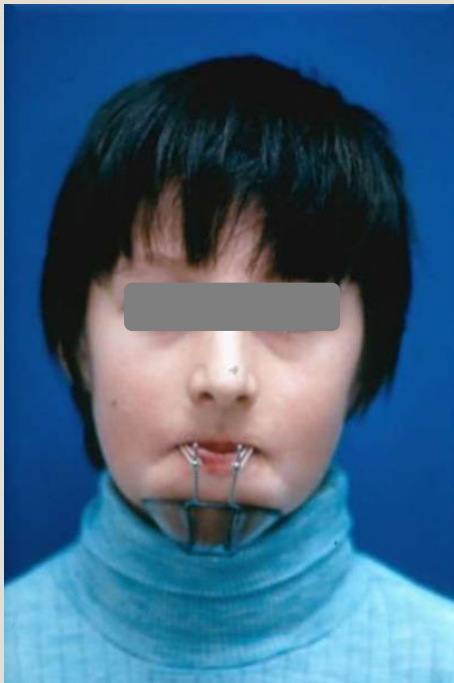
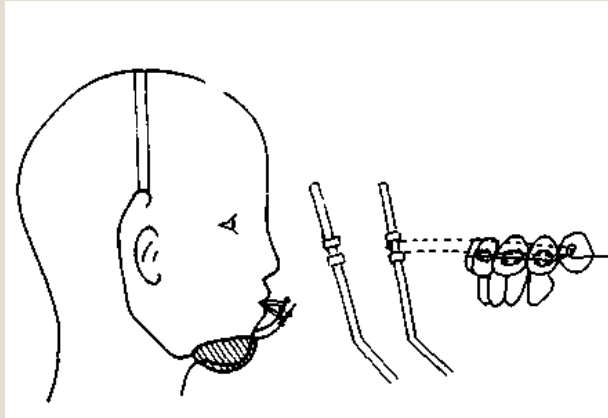


Grummons
Face Mask

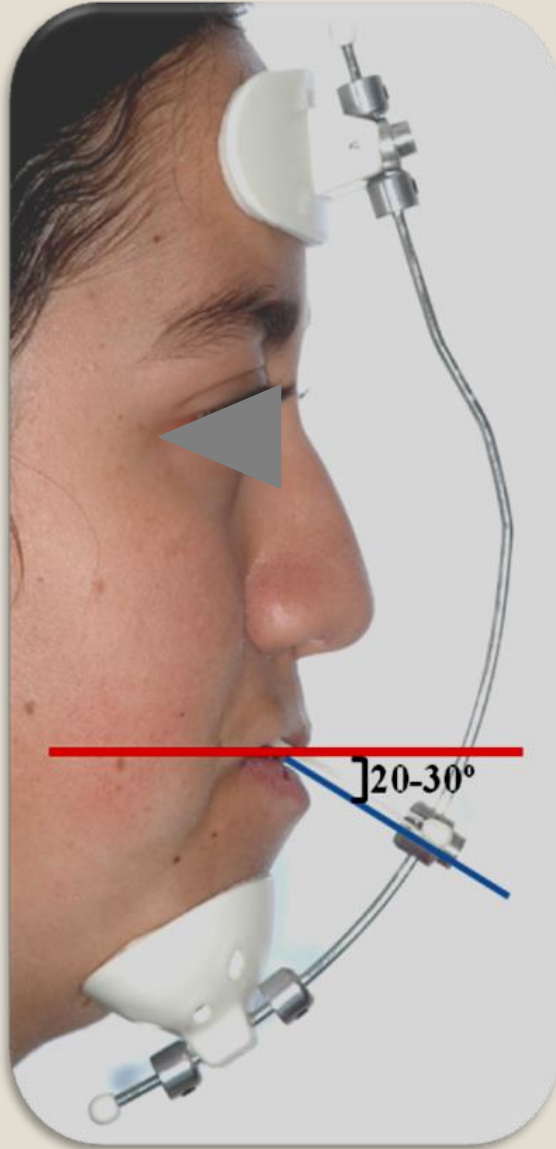
Petite-Type Face Mask



Reverse Headgear



Prof.Dr. Mustafa Ülgen's archieve



The protraction force we apply to the maxilla may cause ANTERIOR ROTATION in the maxilla.

There may be anterior rotation of the maxilla (30° angle to prevent it)

EXTRAORAL APPLIANCES

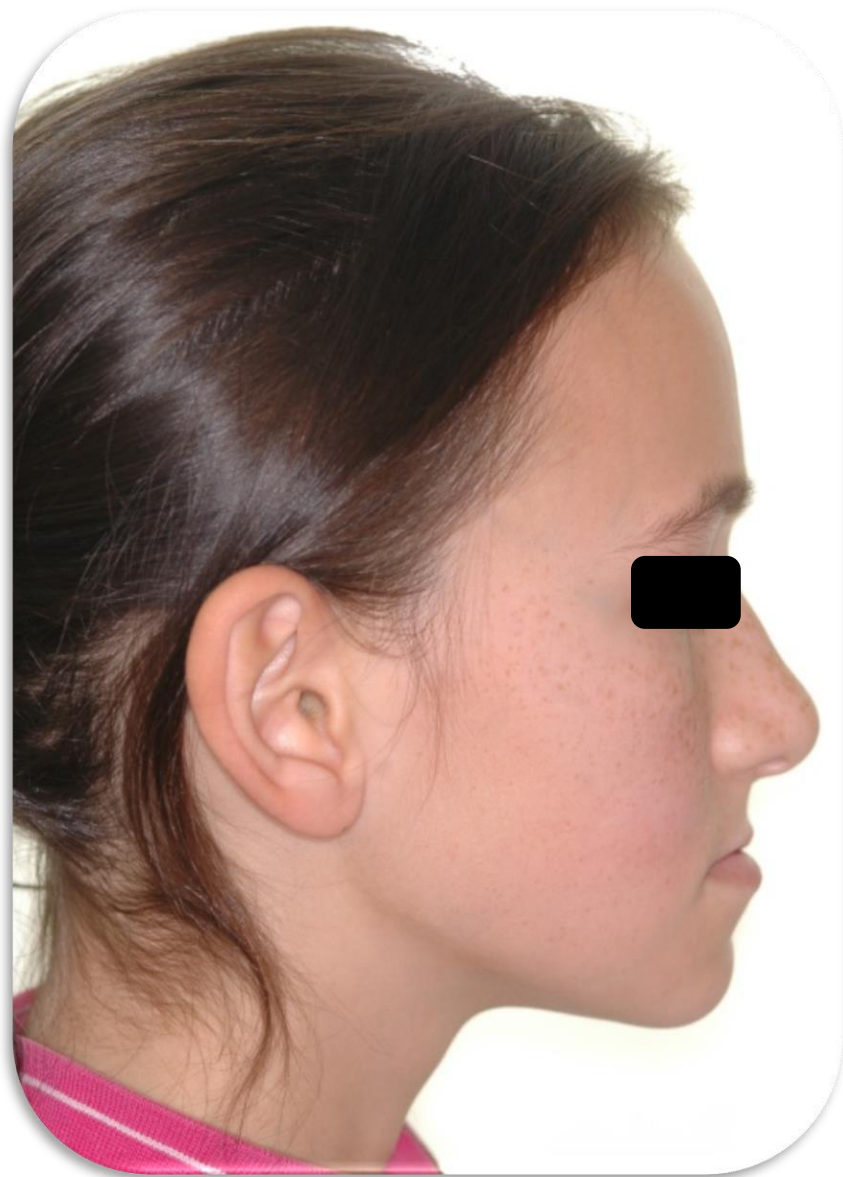
- ***CHIN CUP, CHIN CAP***



ORTHOPEDIC APPLIANCES USED IN CLASS III MALOCCLUSION TREATMENT



CHIN CUP



ORTHOPEDIC FORCE

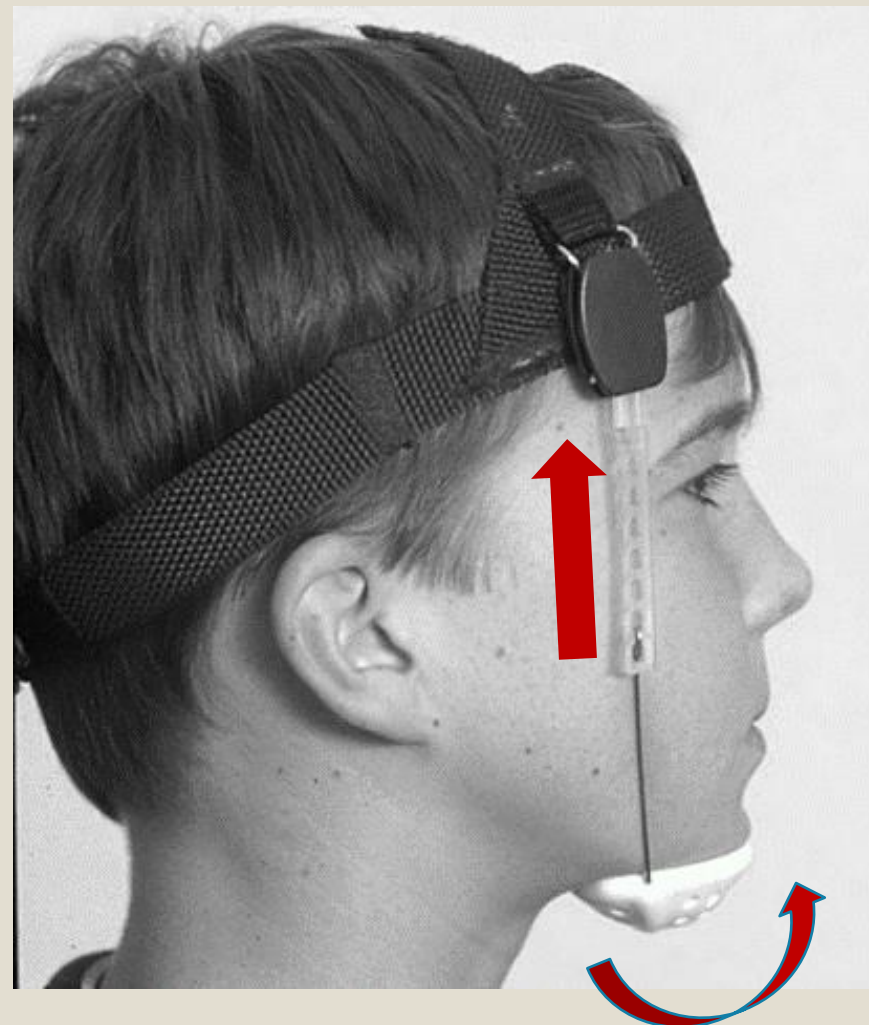
The effect that changes the position and form of the maxilla and mandible relative to the cranium with intraoral or extraoral appliances is called orthopedic force.



Horizontal Chin Cup (oksipital)

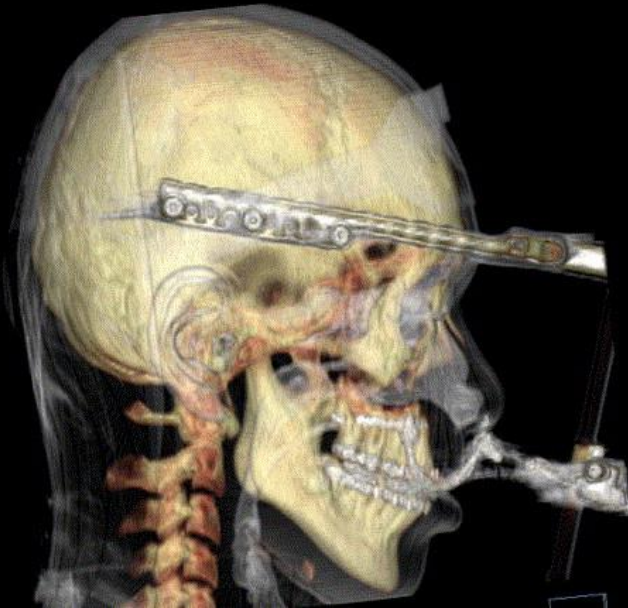
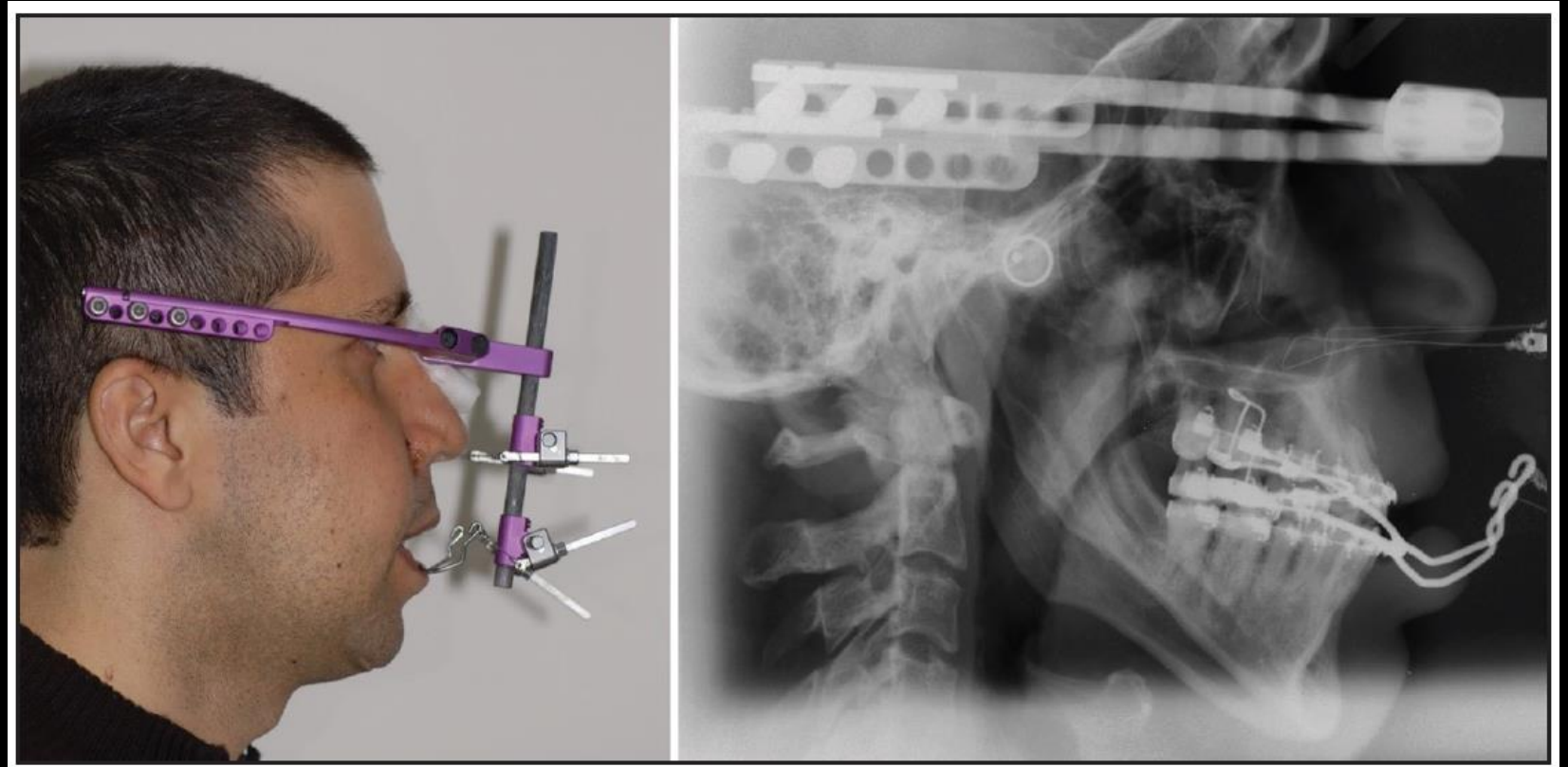


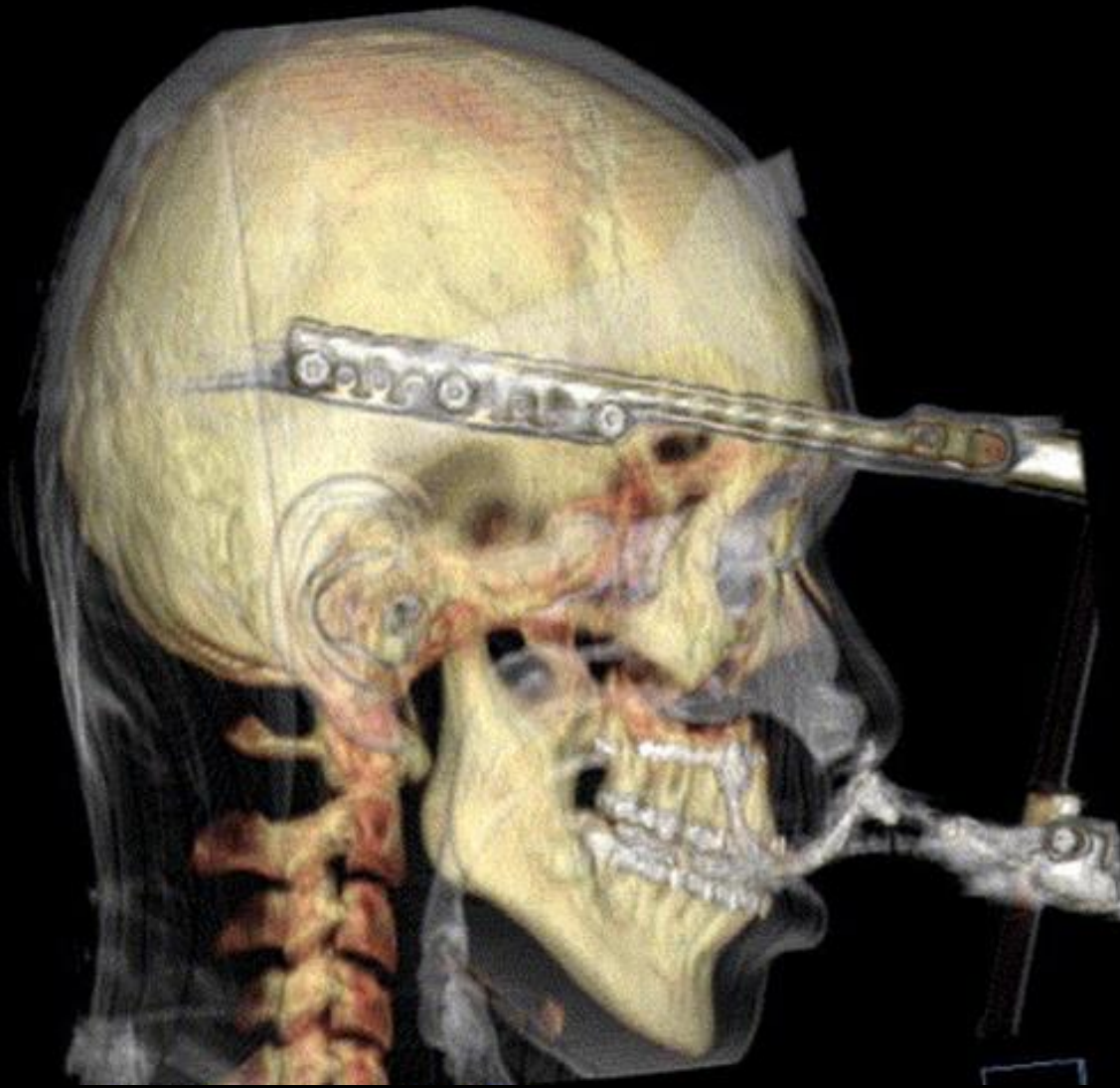
Vertical Chup Cup

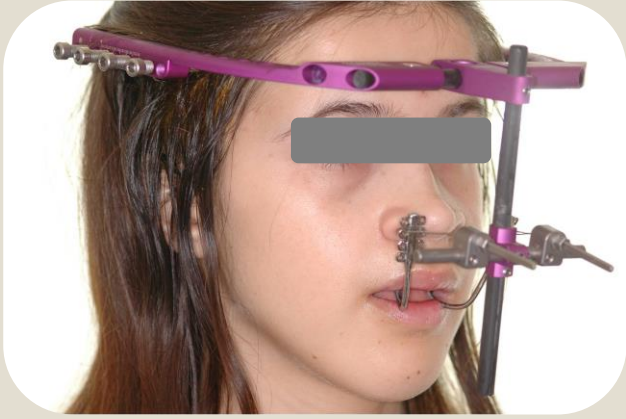




RIGID EXTERNAL DISTRACTION







**Maxillary Advancement
= 18 mm**



Surgery:
Prof.Dr. Ayşegül Tüzüner
and Surgery Residents





Prof.Dr. Ayşe Tuba Altuğ

Ankara University Faculty of Dentistry

Department of Orthodontics

BAŞARILAR DİLERİM

aysealtug@ankara.edu.tr



Happy 100th Anniversary of Turkish Republic