

Beginning of orthodontic treatment and the length of treatment time

mixed dentition
permanenet dentition
adulthood

Dr. Kaán László Miklós

Semmelweis University,
Department of Paediatric Dentistry and Orthodontics



SEMMELWEIS
UNIVERSITY 1769

Development of the denture

- Primary dentition 0-6 év
- Mixed dentition 6-12 év
- Permanent dentition 12 év felett

Dens (con)natalis

Dens connatalis

Dens neonatalis = appears in the first month of extrauterine life



„Normal” caries of primary teeth

Difficult to treat the young children

Difficult to keep dry the cavity

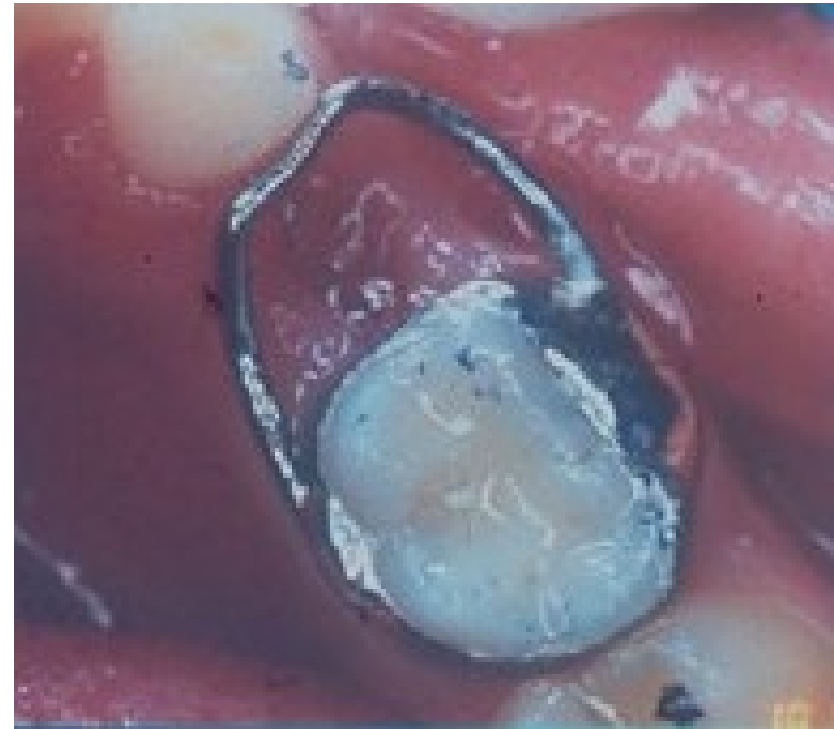
Huge pulp chamber, thin hard tissues

Deep or medium caries - pulpitis, after the filling !!

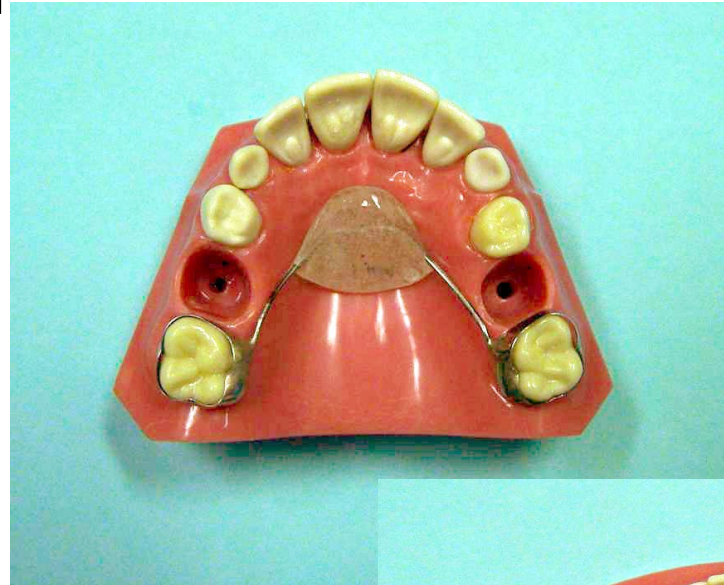


Orthodontic treatment in primary dentition

- **1. Progenia**
 - appliance: chin cap
- **2. Bad habits: thumb sucking,**
 - appl.: oral screen
- **3. Cleft lip and cleft palate**
- **4. Loss of primary teeth**
 - appl.: space maintainer
- **5. Crossbite**
 - appl.: inclined plane

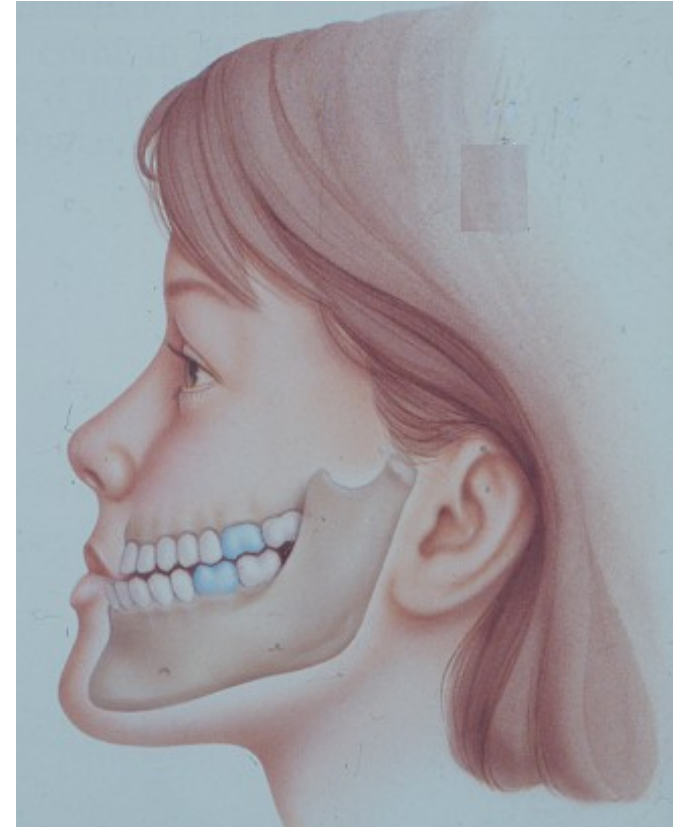


Space maintainers



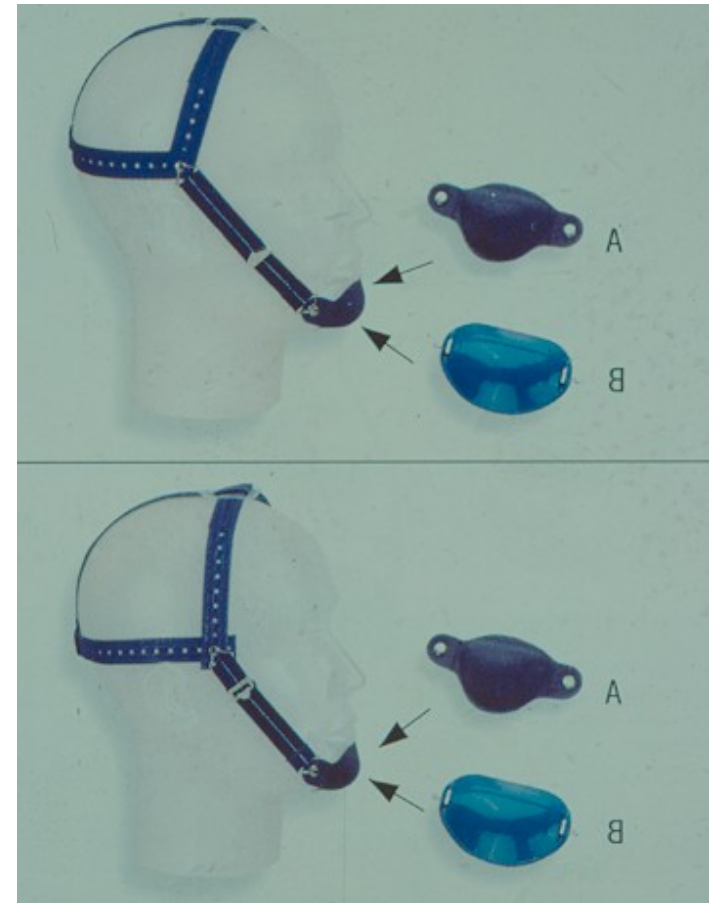
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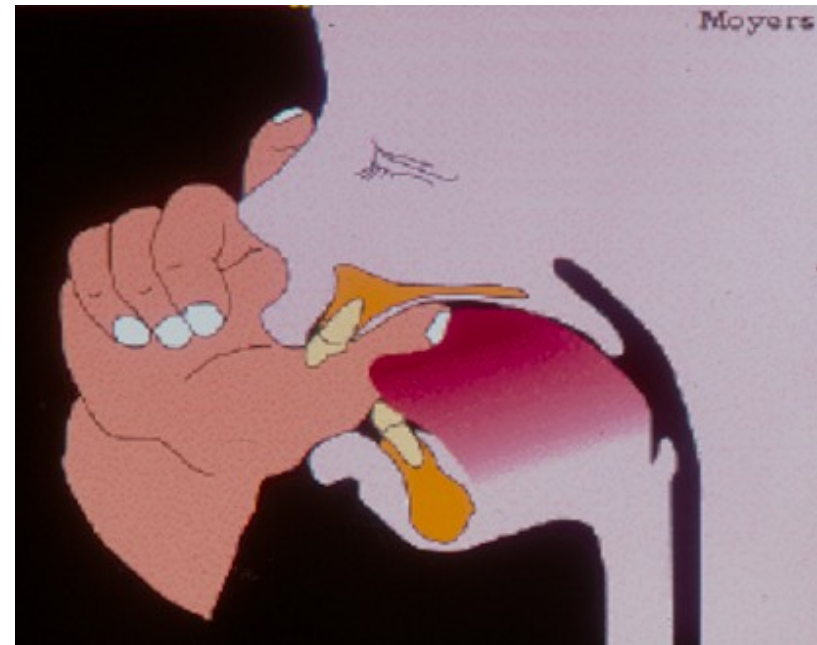
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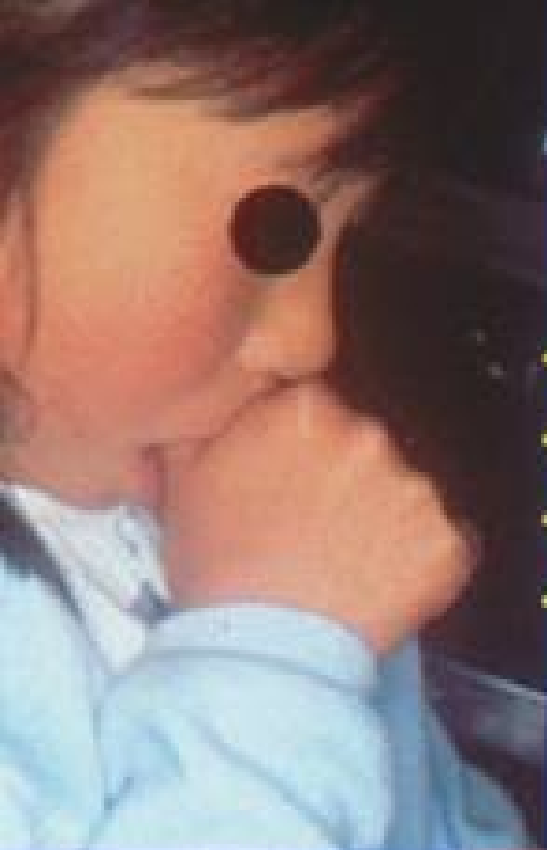
Orthodontic treatment in primary dentition

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Ujjszopás

- nyitott harapás
- felső metszőfogak protrusioja
- alsó metszőfogak retrusioja
- (néha distalharapás)



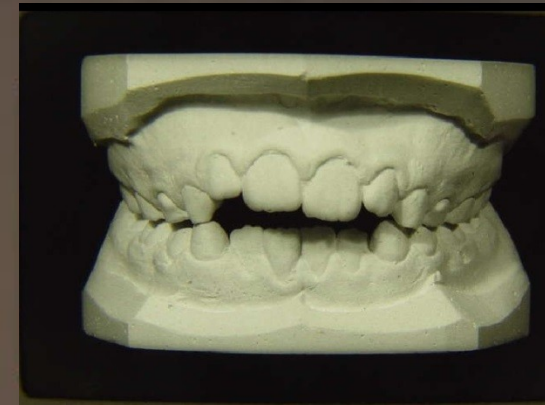
-Consequences of thumb sucking

- Open bite**
- Protrusion of upper incisors**
- Retrusion of lower incisors.**
- Distalocclusion**



Dangers of Thumb Sucking

If thumb sucking persists after the primary teeth have erupted, it can change the growth patterns of the jaw, and cause significant misalignment of the teeth.



Open bite caused by thumb sucking



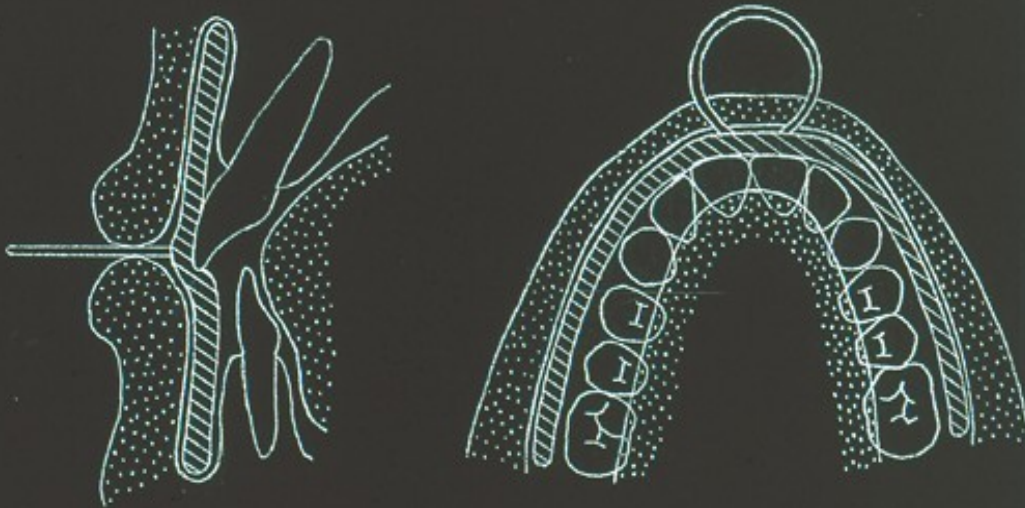
Oral screen



Oral screen

- Foglalja össze a hallgatóságra hámuló teendőket
- Foglalja össze az ezzel kapcsolatos saját terveit

PITVARLEMEZ



Habit breakers



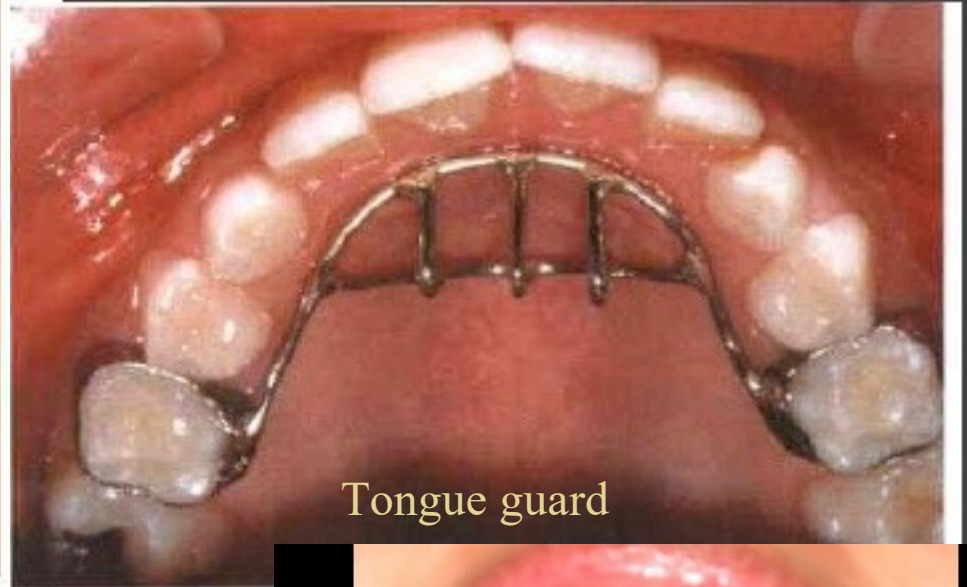
Bitter materials against finger suckinas

MAVALA

SWITZERLAND
USA



Habit breakers



Tongue guard



Spikes against tongue
trusting

Orthodontic treatment in primary dentition

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- appl.: inclined plane
- (treatment: im mixed dentition)



ERUPTION - TIMETABLE

PERMANENT T.	Hidasi	Fehér
1. Molars	6	6-7
1. incisos	8	6-8
Lateral incisor	8	7-9
Canine	11	9-12
1. and 2. Praemolars	9-10	10-12
2. Molar	12	11-13
3. Molar	-	17-21



Upper	Eruption sequences
♂	4→5→3
♀	3→4→5 vagy 4→3→5

Lower	Eruption sequences
♂, ♀	3→4→5

The eruption of the lower central incisors, 5-6(-7) years of age

The lower central incisors often erupt lingually , but

The tongue pushes them to the normal position



The eruption of the lower central incisors, 5-6 years of age

The lower central incisors often erupt lingually , but

The tongue pushes them to the normal position



Orthodontic treatment in mixed dentition

- **1. Crossbite**
- **appl.: inclined plane**
- **2. Early loss of primary teeth**
- **appl.: space maintainer**
- **3. Functional jaw orthopedic (skeletal anomalies)**
- **Sagittal anomalies: Angle II. – distalocclusion**
- **Angle III. – mesialocclusion**
- **Vertical anomalies: open bite**
- **deep bite**
- **appl.: bimaxillary functional appliances activator, bionator, Frankel-appl., Hansa-appl. etc.**
- **4. Diasthema medianum**
- **appl.: removable appliance with springs**
- **brackets**
- **5. Crowding with or without lateral crossbite**
- **appl.: expansion of the dental arch with active removable plates or quad-helix**
- **6. Timing of first molar's extraction**
- **(reason: gangrena, periostitis, periodontitis etc.)**
- **7. Hotz serial extraction**
 - **primary canines**
 - **primary first molars**
 - **permanent first premolars**

2
4
1
1
1
4
4

1. Crossbite (local anomaly)

appl.: inclined plane

2. Early loss of primary teeth appl.: space maintainer

3. Functional jaw orthopedic

Sagittal anomalies: Angle II. – distalocclusion

Angle III. – mesialocclusion

Vertical anomalies: open bite

deep bite

appl.: bimaxillary functional appliances activator,

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4. Diasthema medianum

appl.: removable appliance with springs

brackets

5. Crowding with or without lateral crossbite

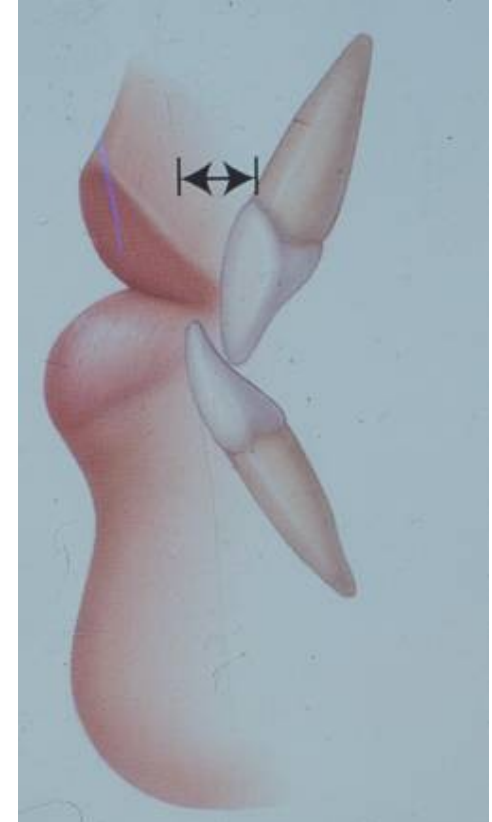
appl.: expansion of the dental arch with active removable plates or quad-helix

6. Timing of first molar's extraction

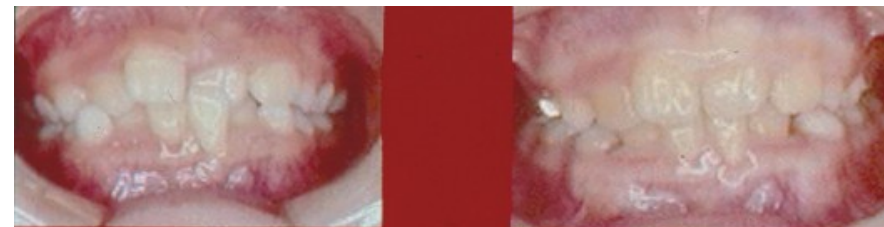
(reason: gangrena, periostitis, periodontitis etc.)

7. Hotz serial extractio

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Keresztharapás



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 - **primary canines**
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53. Ábra: Rögzített ferdesík



2
4
1
1
1
4
.

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6. Timing of first molar's extraction

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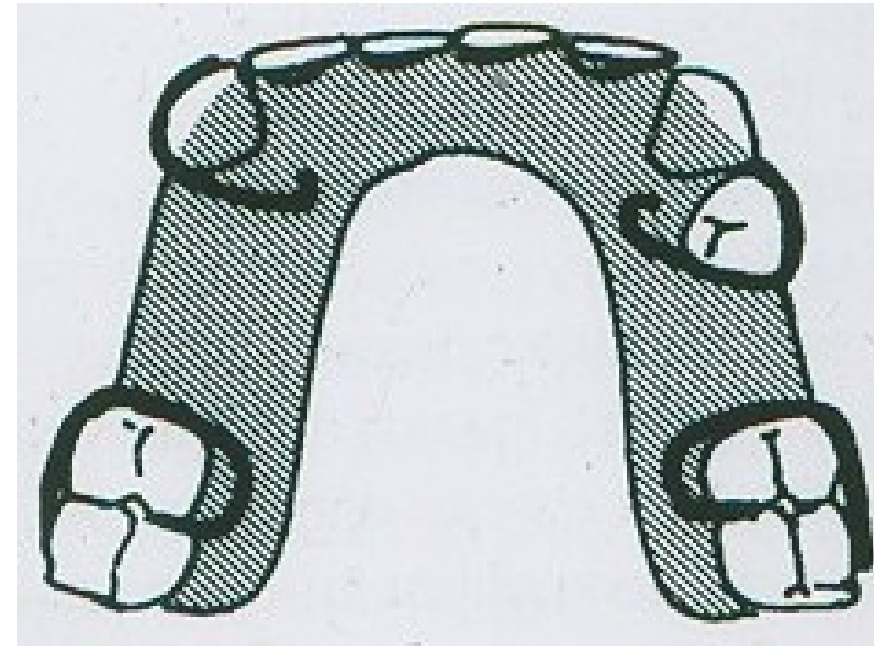
7. Hotz serial extractio

- ◆ primary canines
- ◆ primary first molars
- ◆ permanent first premolars

HELYFENNTARTÓ (RÖGZÍTETT)



Passive space maintainers



2
4
1
1
1
4
1
4

1. Crossbite

appl.: inclined plane

2. Loss of primary teeth

appl.: **fixed or removable space maintainer, active or passive space maintainers**

3. Functional jaw orthopedic

Sagittal anomalies: Angle II. – distalocclusion
Angle III. – mesialocclusion

Vertical anomalies: open bite
deep bite

appl.: bimaxillary functional appliances activator,
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4. Diasthema medianum

appl.: removable appliance with springs
brackets

5. Crowding with or without lateral crossbite

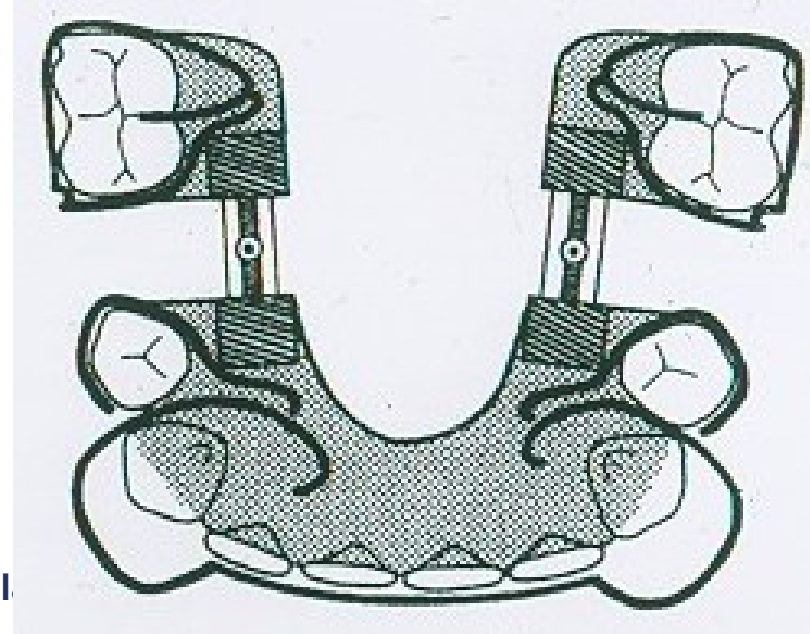
appl.: expansion of the dental arch with active removable
helix

6. Timing of first molar's extraction

(reason: gangrena, periostitis, periodontitis etc.)

7. Hotz serial extractio

- primary canines
- primary first molars
- permanent first premolars



Active space maintener

1. Crossbite

appl.: inclined plane

2. Loss of primary teeth

appl.: fixed or removable space maintainer

3. Functional jaw orthopedic

Sagittal anomalies: Angle II. – distalocclusion

Angle III. – mesialocclusion

Vertical anomalies: open bite

deep bite

appl.: bimaxillary functional appliances activator, bionator, Frankel-appl., Hansa-appl. etc.

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brackets

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appl.: expansion of the dental arch with activ removable plates or quad-helix

6. Timing of first molar's extraction

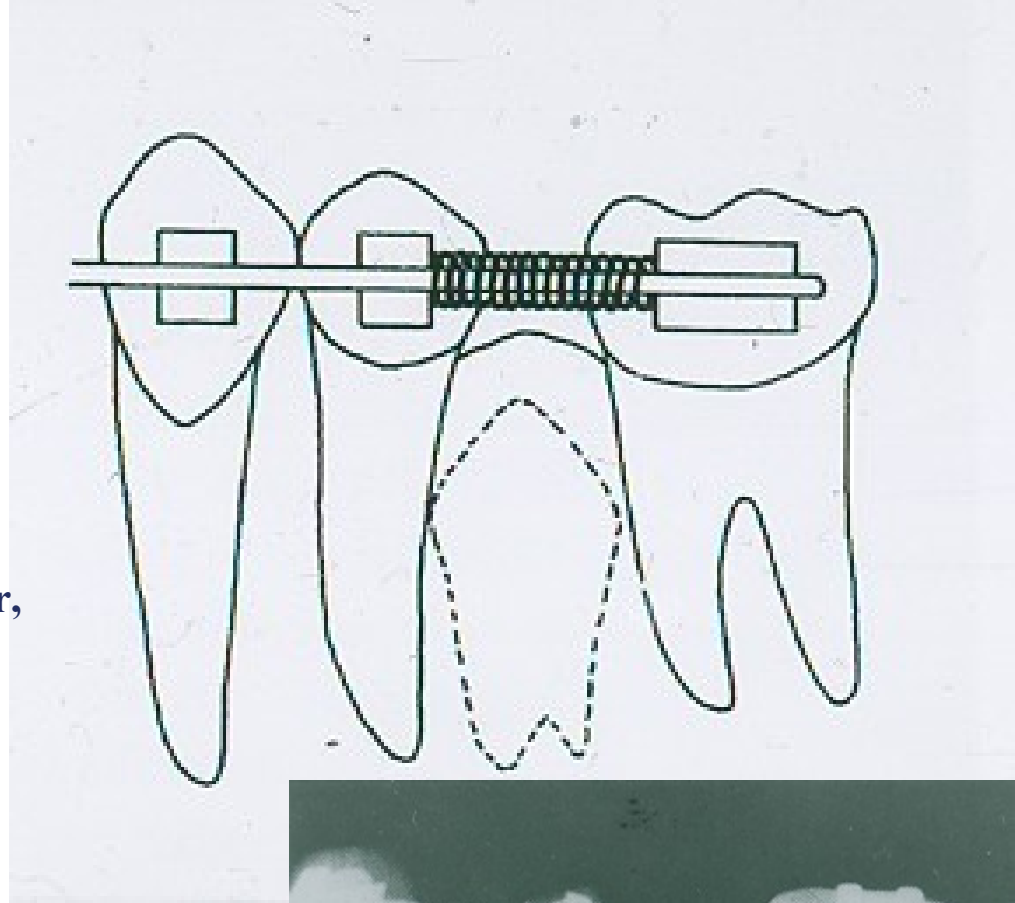
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7. Hotz serial extractio

primary canines

primary first molars

permanent first premolars

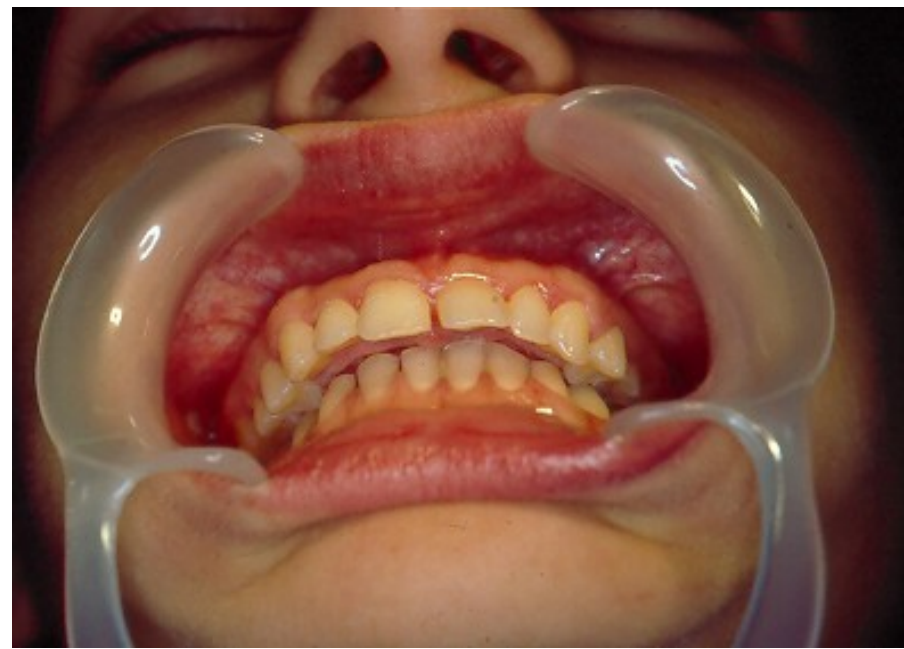


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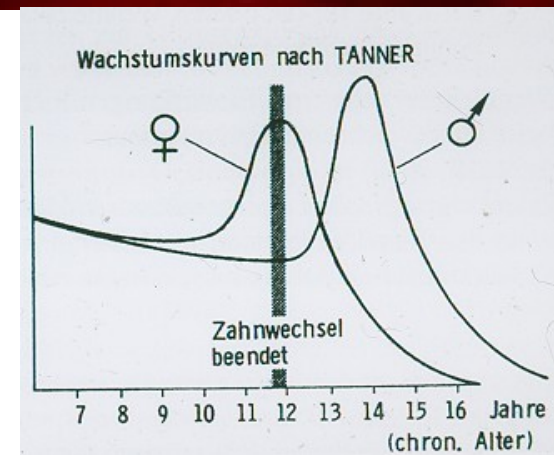


Angle II./1.

- distalharapás
- overjet
- felső frontfogak protrusioja
- overbite (?)

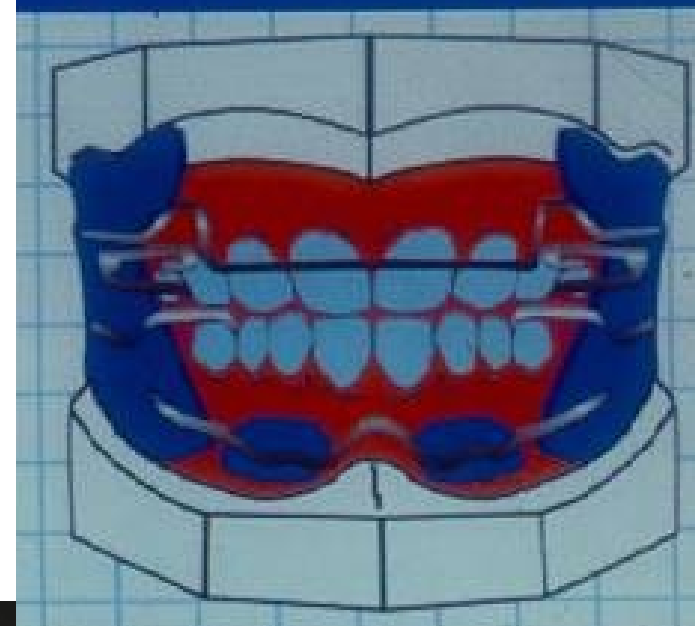


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FRÄNKEL KÉSZÜLÉK



Fixed bimaxillary appliances

- Herbst-appliance
- Forsus spring stb.



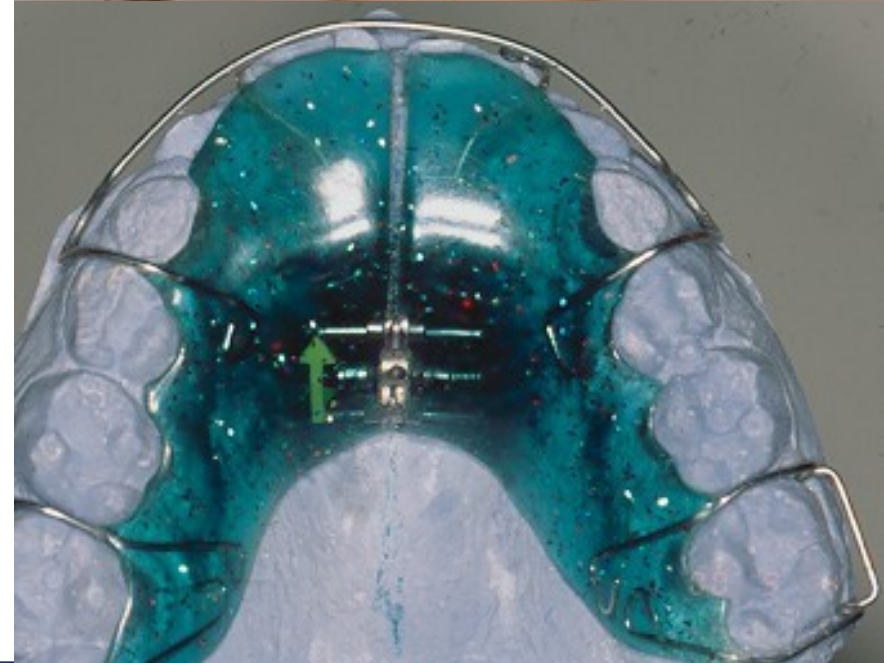
At the age of 11-12
Length of the treatment: 9-16 months



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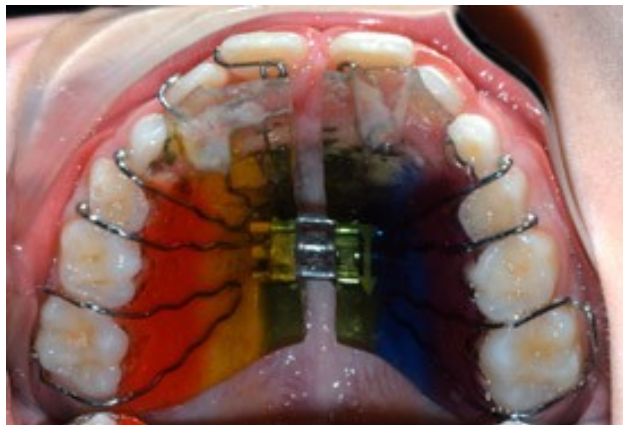


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removable plates or quad-helix or hyrax
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etc.)
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2024
11
14

- **Crowding with or without lateral crossbite**



INTERCEPTIVE ORTHODONTICS

Crowding: **with or without lateral crossbite**

• Treatment:

1-Space management. **Expansion, Leeway-space etc.**

2-Molar distalisation.

3-Serial extraction.

4-Premolar extraction.

5-First molar extraction. **If the molars are raunchy (caries etc.)**

6-lower incisor extraction. **Lower crowding**

7-Second molar extraction. **+ molar distalisation**

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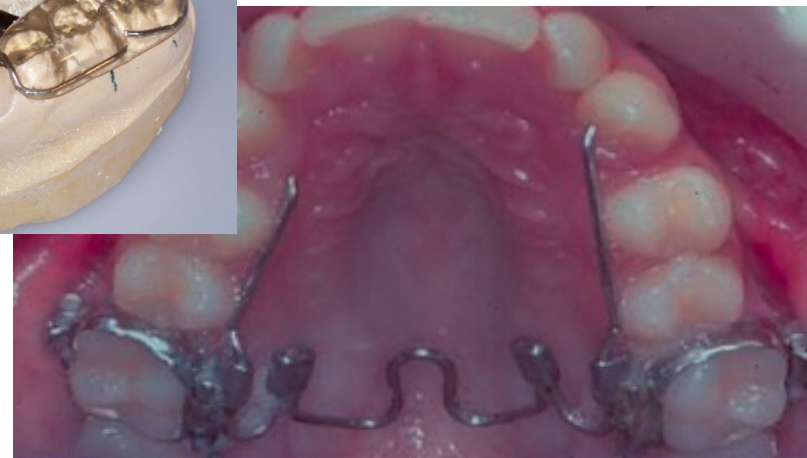
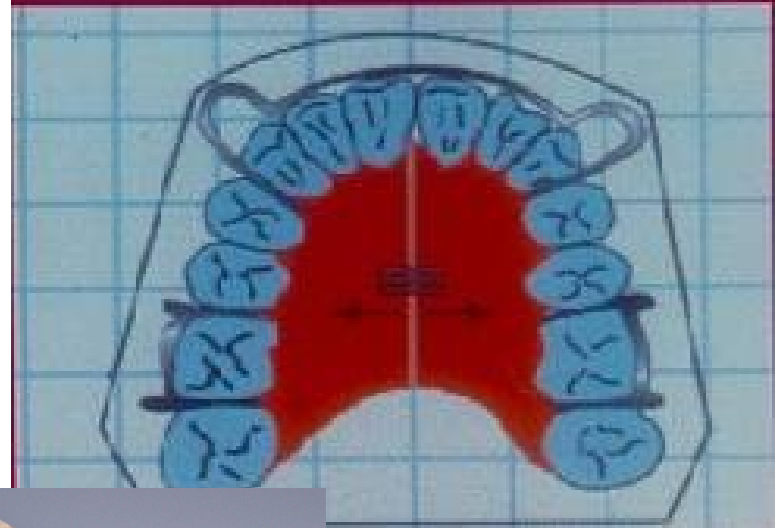
appl.: expansion of the dental arch with activ
removable plates or quad-helix, or hyrax
(skeletal expansion)

6. Timing of first molar's extraction

(reason: gangrena, periostitis, periodontitis
etc.)

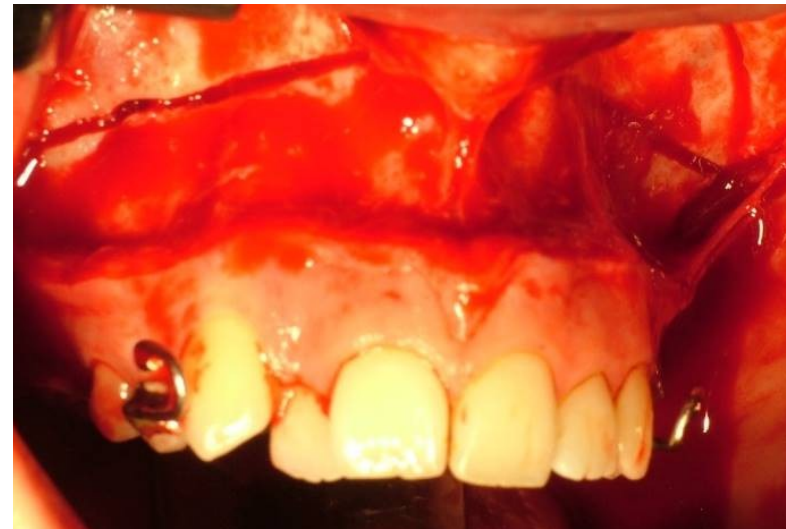
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SARME (when growing has already finished)

- Surgically Assisted Rapid Maxillary Expansion (SARME)
- After the closure of the sutura palatina mediana



Maxillary Space Regaining



Headger (molar distalisation)

Distalisation of the upper molars

- Distal Jet



- Pendulum



- Beneplate



Scelatal anchorage ?!

Hyrax appliance (skeletal expansion)

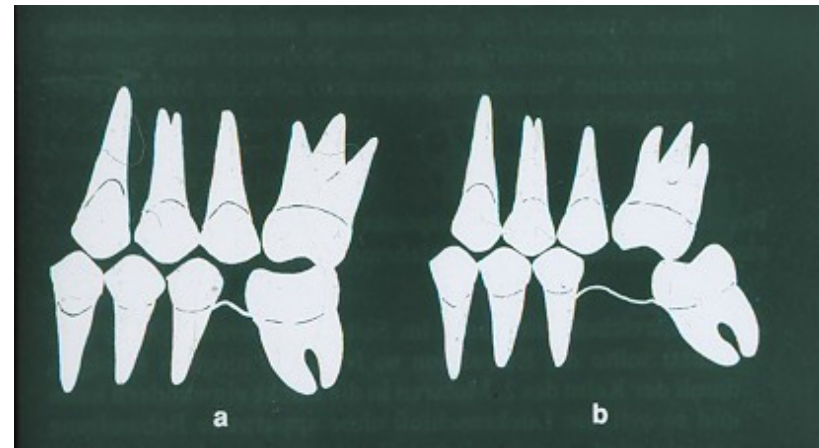
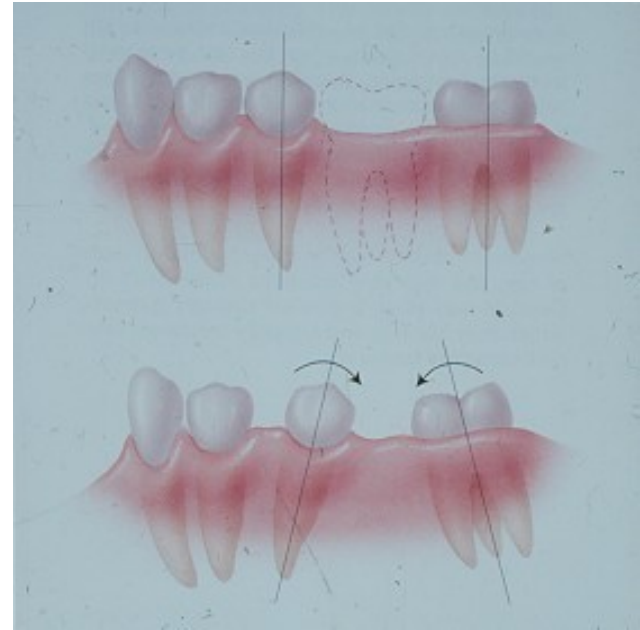
TPD



Heckenast Lili és
Nemes Bálint
vizsgálata



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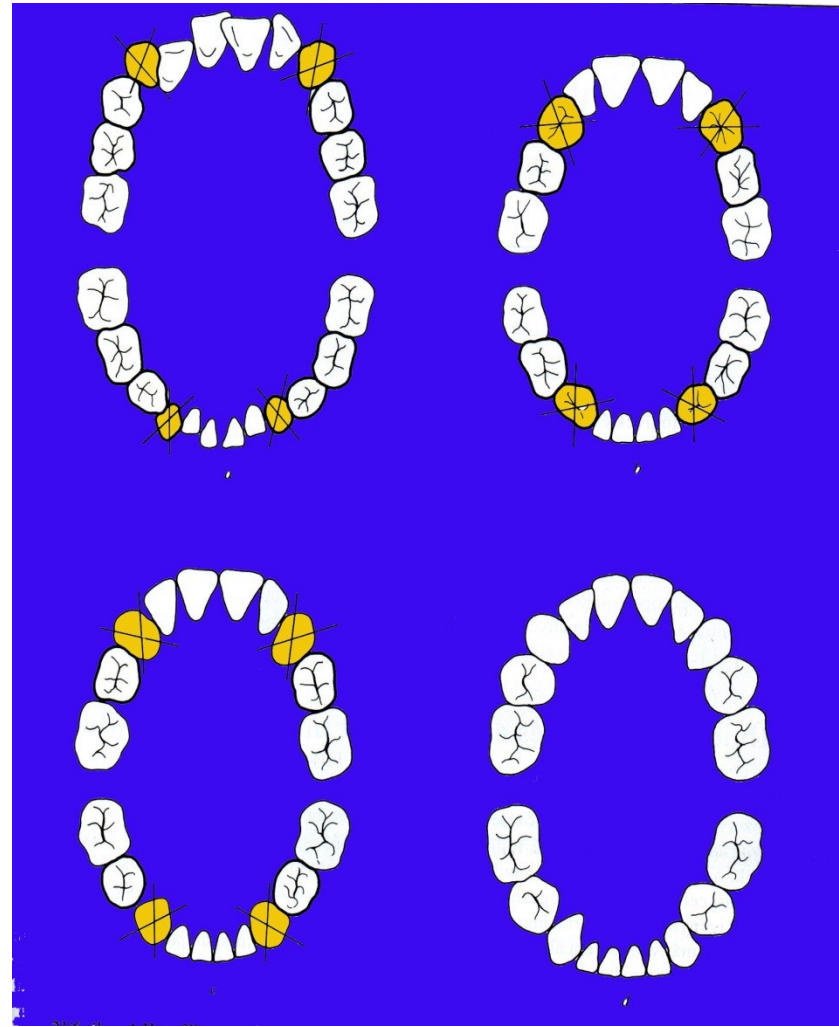
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(reason: gangrena, periostitis, periodontitis etc.)

7. Hotz serial extractio

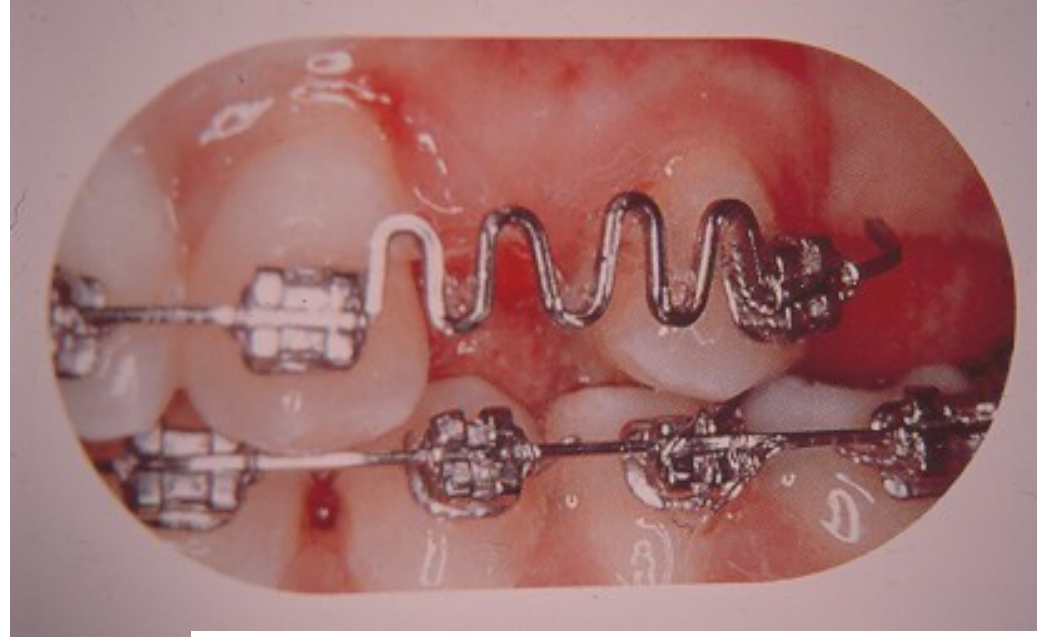
- primary canines
- primary first molars
- permanent first premolars



Orthodontic treatment in permanent dentition

- 1. Treatment with fixed appliances
 - - multiband, multibond
 - - lingual and palatinal arches
 - - Hyrax
- 2. Orthodontic treatment with extraction (most frequently: first premolars)
 - reason: crowding or overjet
- 3. Orthodontic treatment with surgical intervention
 - f.e.: impacted teeth
- 4. Treatment with missing teeth
 - space closure or preprosthetic orthodontic treatment
 - -reason: aplasia, accidents, caries
- 5. Dysgnathia operations (age: 18)
 - progenia, prognathia, open bite
- 6. Orthodontic treatment in periodontal diseases
- 7. Problems with wisdom teeth

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Fogszabályozás maradó fogazatban

1. Elsősorban rögzített készülékkel végzett kezelések

- 2. Orthodontic treatment with extraction (most frequently: first premolars)

reason: crowding or overjet

3. Kombinált sebészi - orthodontiai kezelések

például: retineált fogak sorbaállítás

4. Fogak számbeli rendellenességeinek és a foghiánnyal kombinált anomáliák ellátása

hiány zárása orthodontiai úton
preprotetikai orthodontiai kezelések

5. Orthognath műtétek

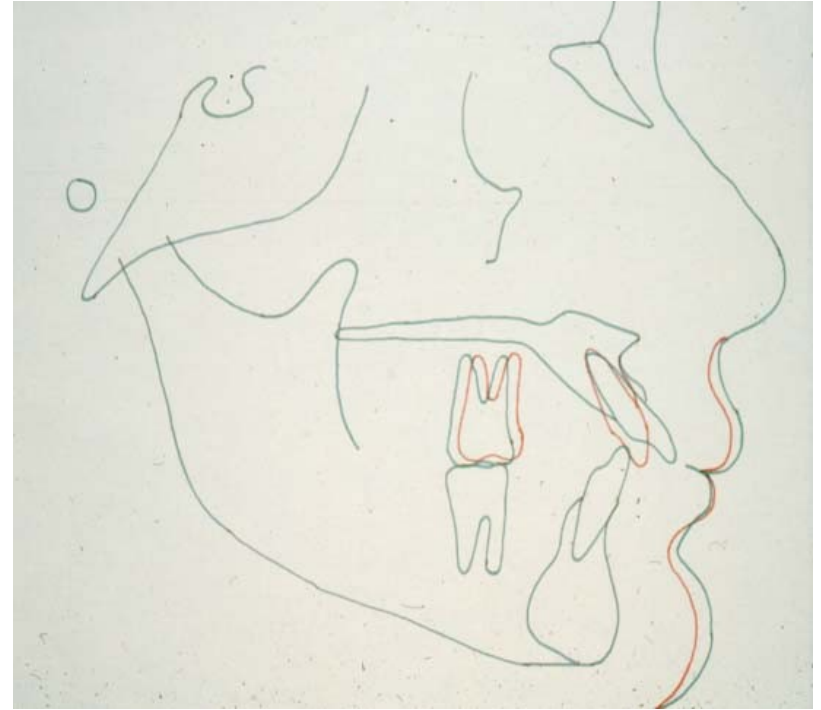
általában tizennyolc éves kor körül

6. Bölcsességfogakkal kapcsolatos problémák

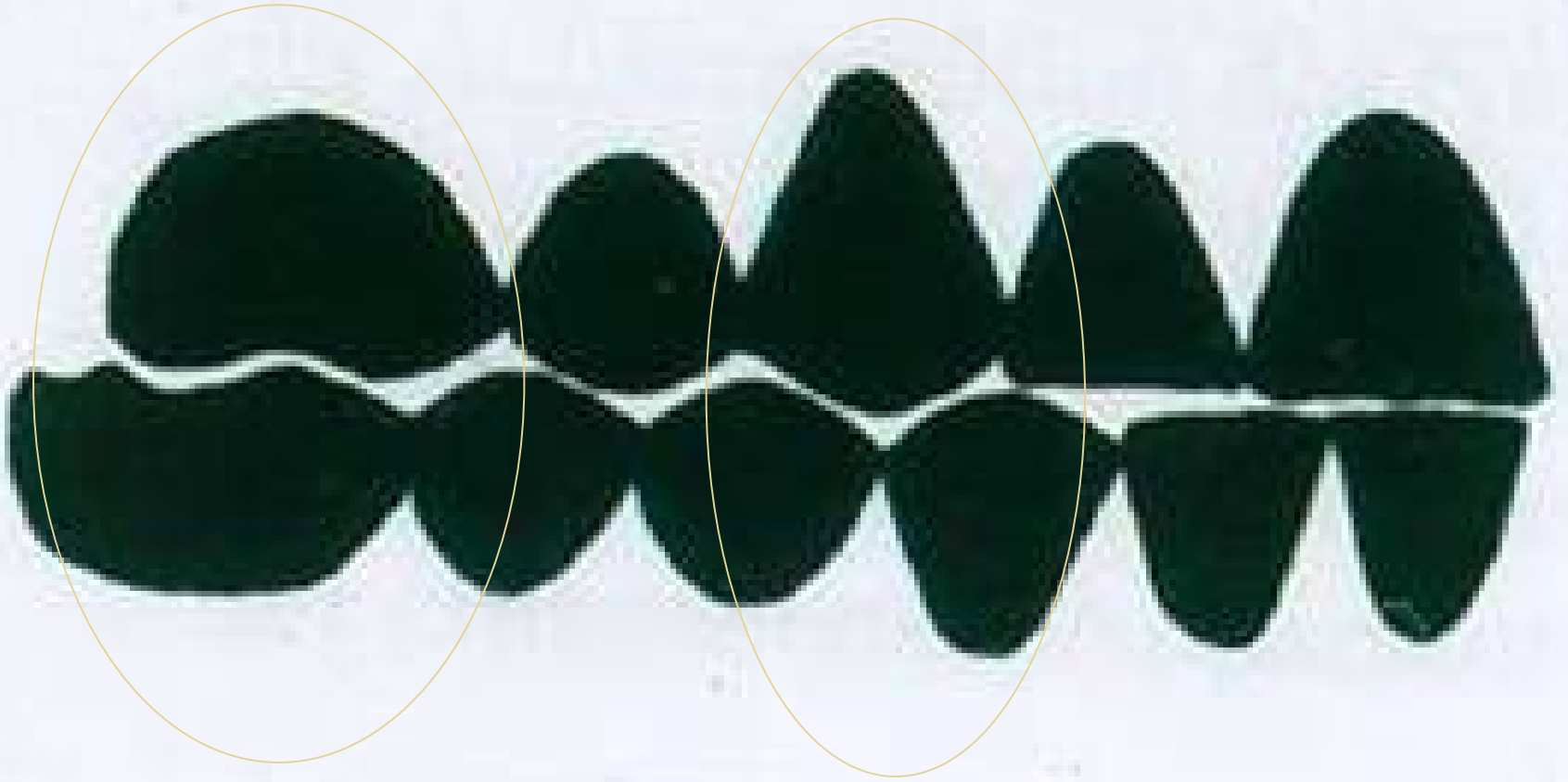


CLASS II

Extraction of upper premolars



The growing has already finished
OVERJET
PROGNATHISM
Functional open bite



Four premolar extraction



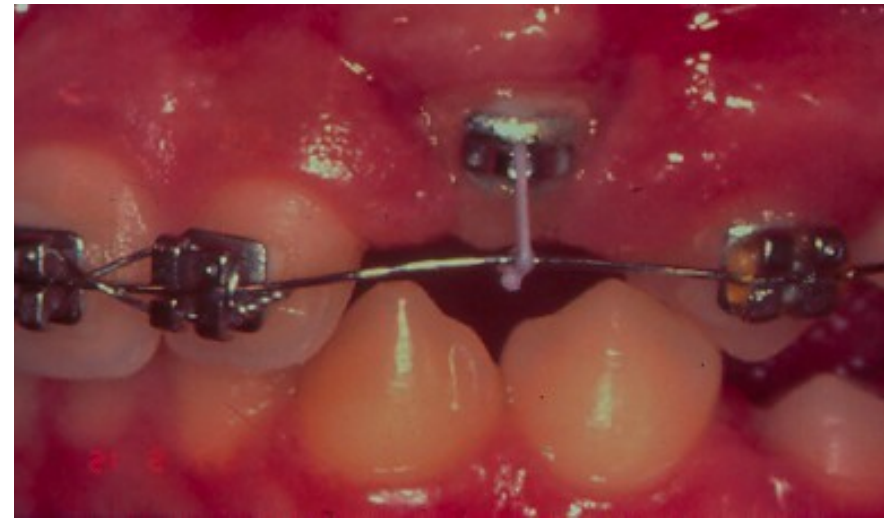
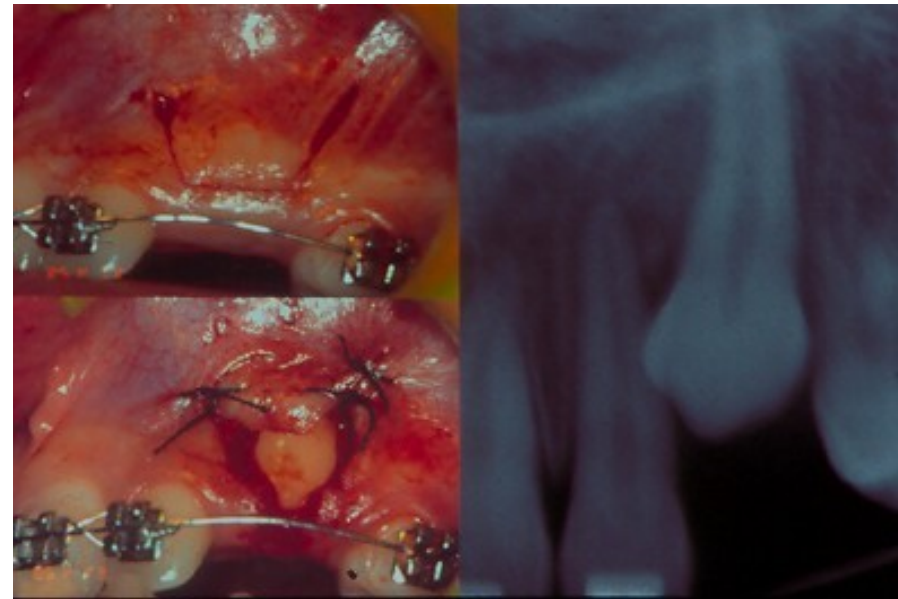
Crowding, prognathism, lack of place



Profile !!!

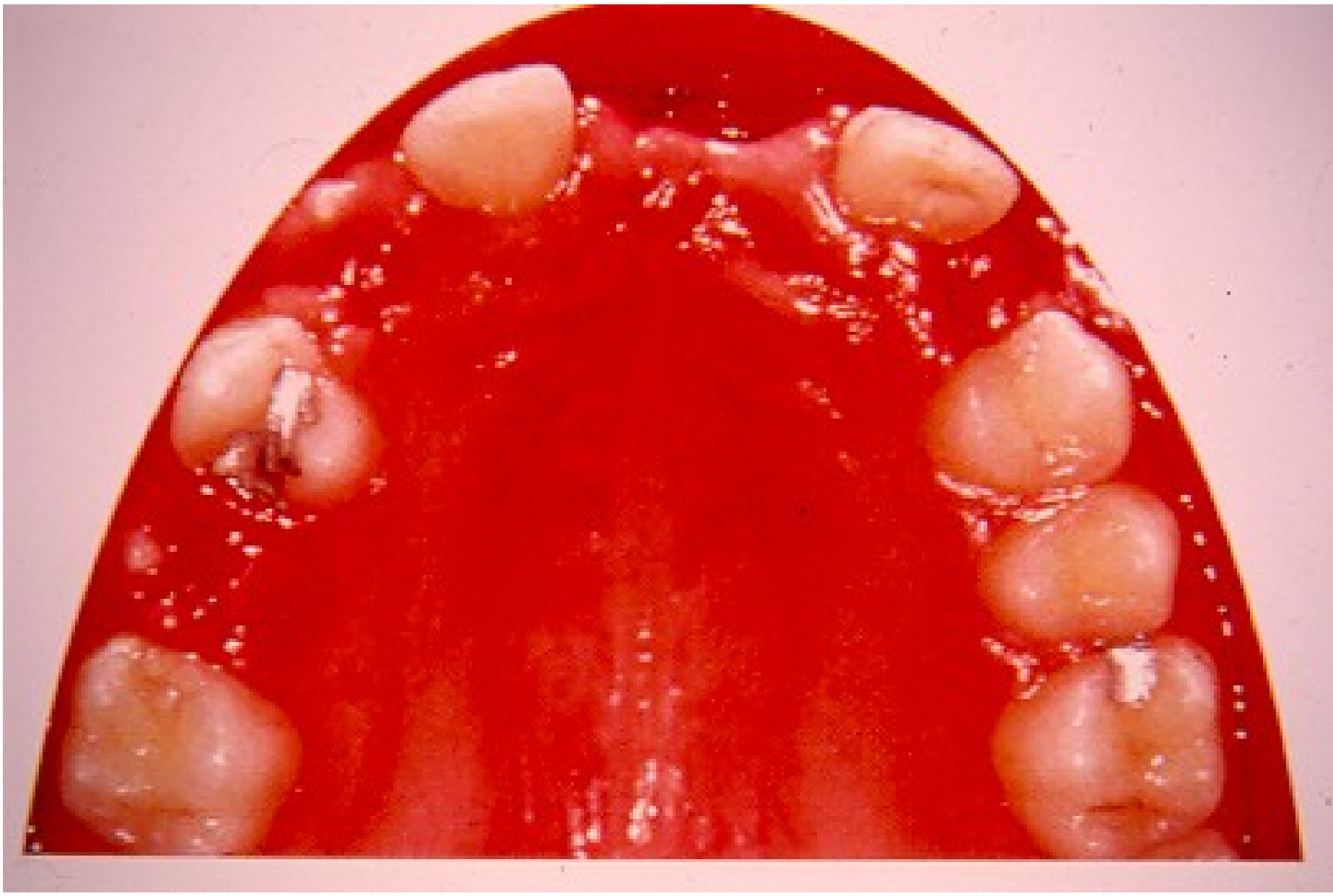


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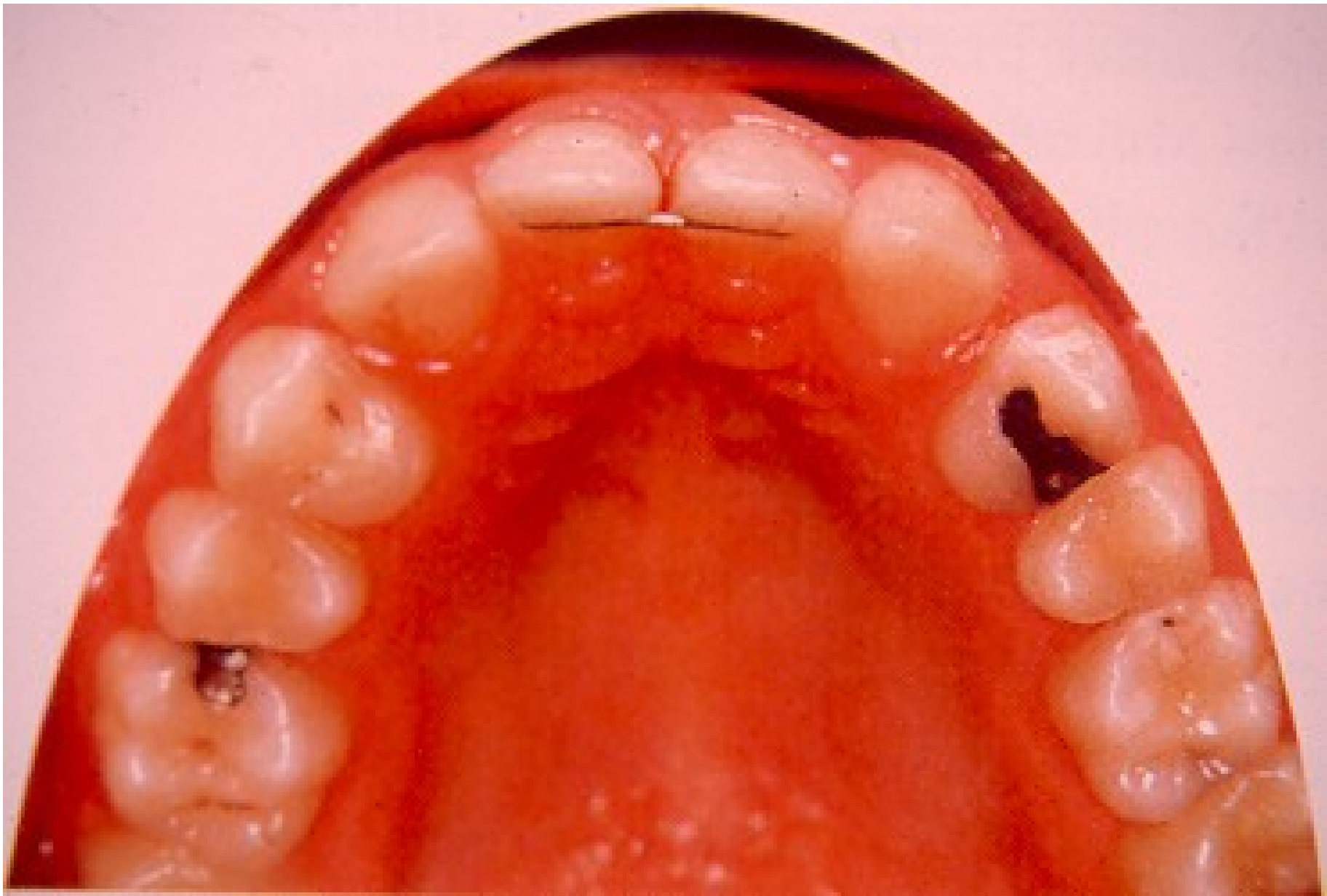
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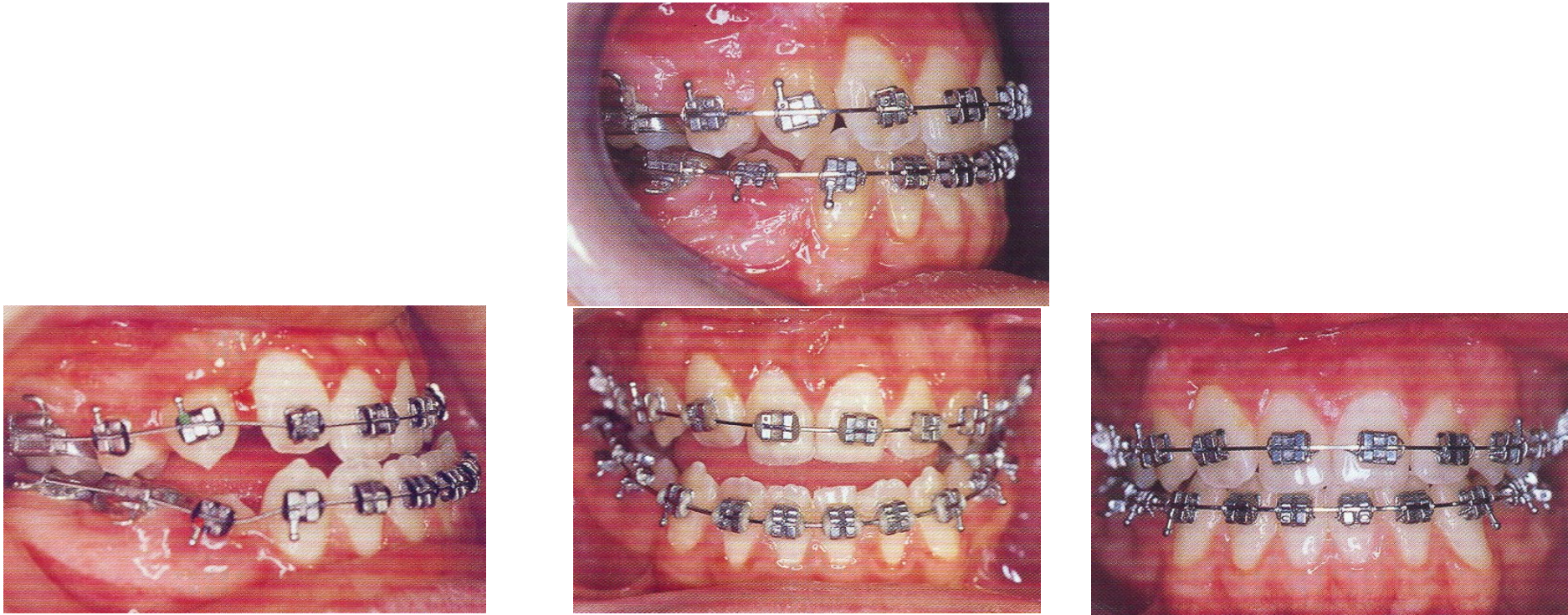
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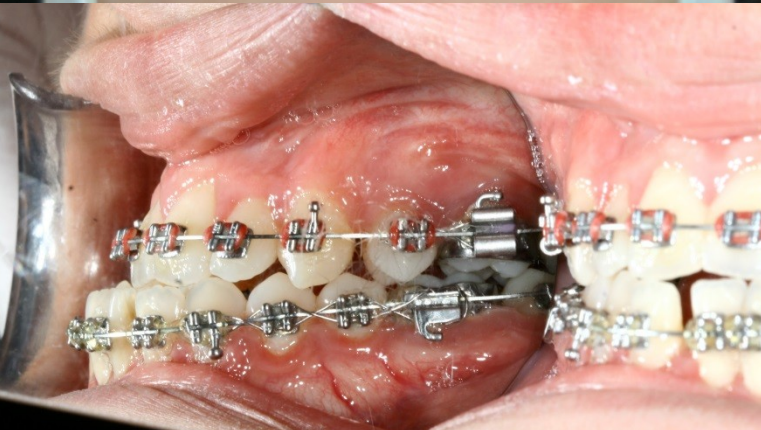


Orthognath surgery

- After the age of 18

Orthodontic treatment before the surgical intervention

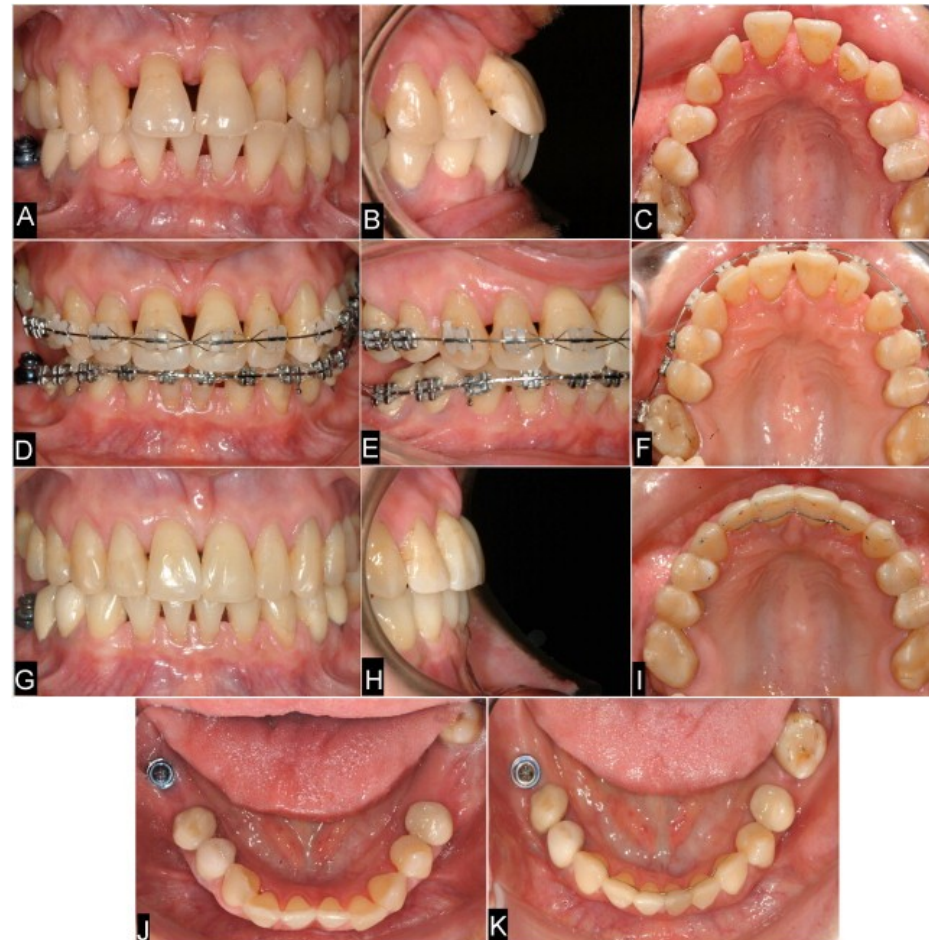




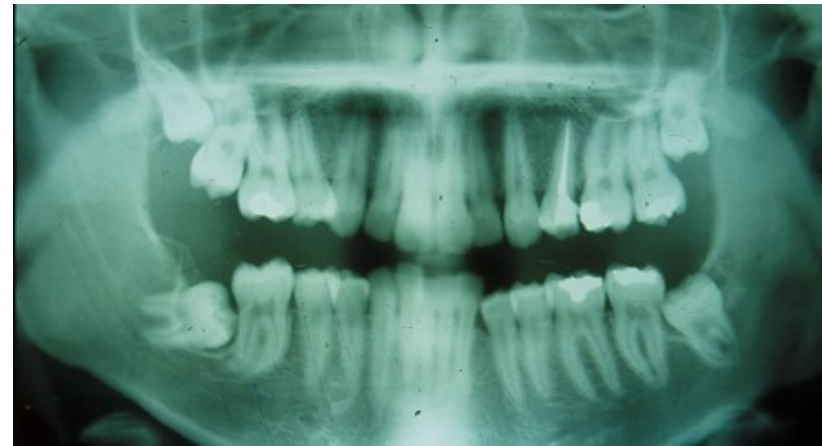
Prognathism of the mandible



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- Treatment with fixed appliance: 1-3 (4-5) years
- The length of retention is twice longer than the active treatment

1 év > 2 év

- The treatment with removable appliance takes several years
- The retention time is shorter (half year)