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Orthodontic Diagnosis

Why do we do orthodontics?

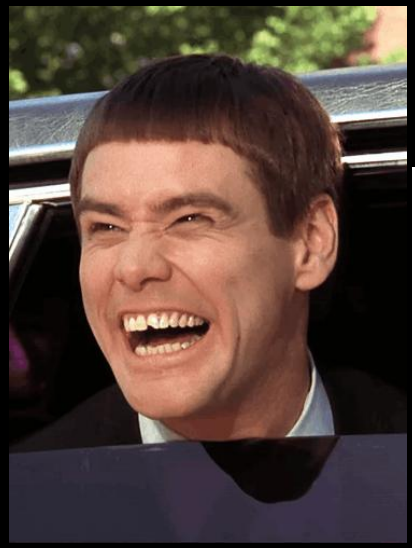
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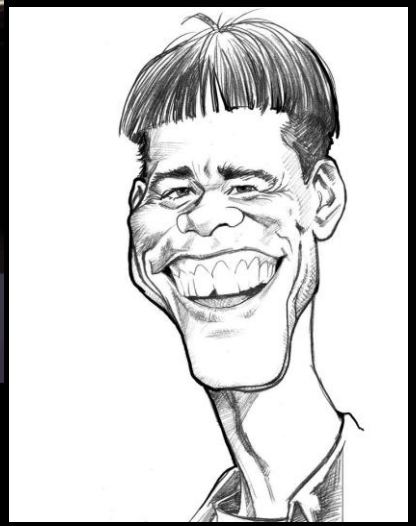
- Help patient overcome psychosocial handicaps
- Improve function
- Improve oral hygiene

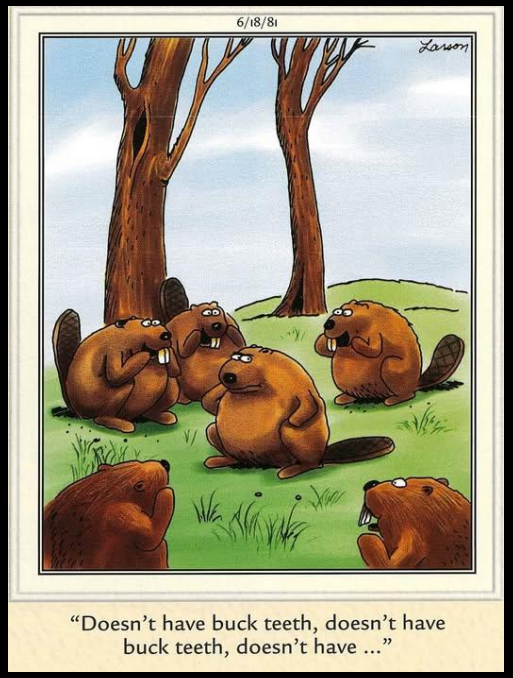
What are some stereotypes associated with malocclusion?

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- Protrusive upper incisors suggest lack of intelligence
  * 40-50% of children with Class II protrusive incisors will be teased







What are some stereotypes associated with malocclusion?

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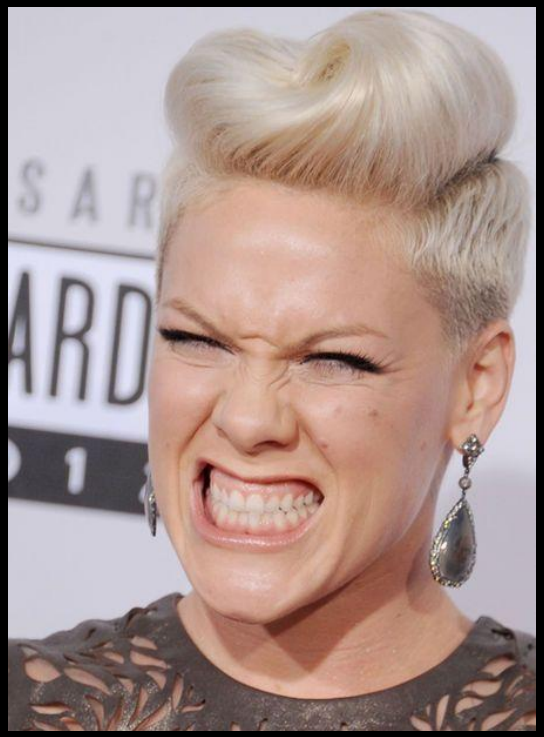
- Bad teeth suggest a lower economic status



What are some stereotypes associated with malocclusion?

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- Chin prominence is associated with strength for males and anger for females



What types of malocclusions are associated with TMD?

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- Crossbite with a lateral shift
  - * Only 1:6 chance of developing TMD
- Class III
  - Small chance of developing TMD if there is anterior shift.
- Class II deep bite
  - Associated with shift?
- Openbite?? weak correlation

Improve Oral hygiene

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- There are some evidence that patients with severe malocclusion are more likely to develop periodontal problems
  - Crooked teeth are harder to keep clean
  - Improved occlusion can decrease the force felt by vulnerable teeth during bruxism

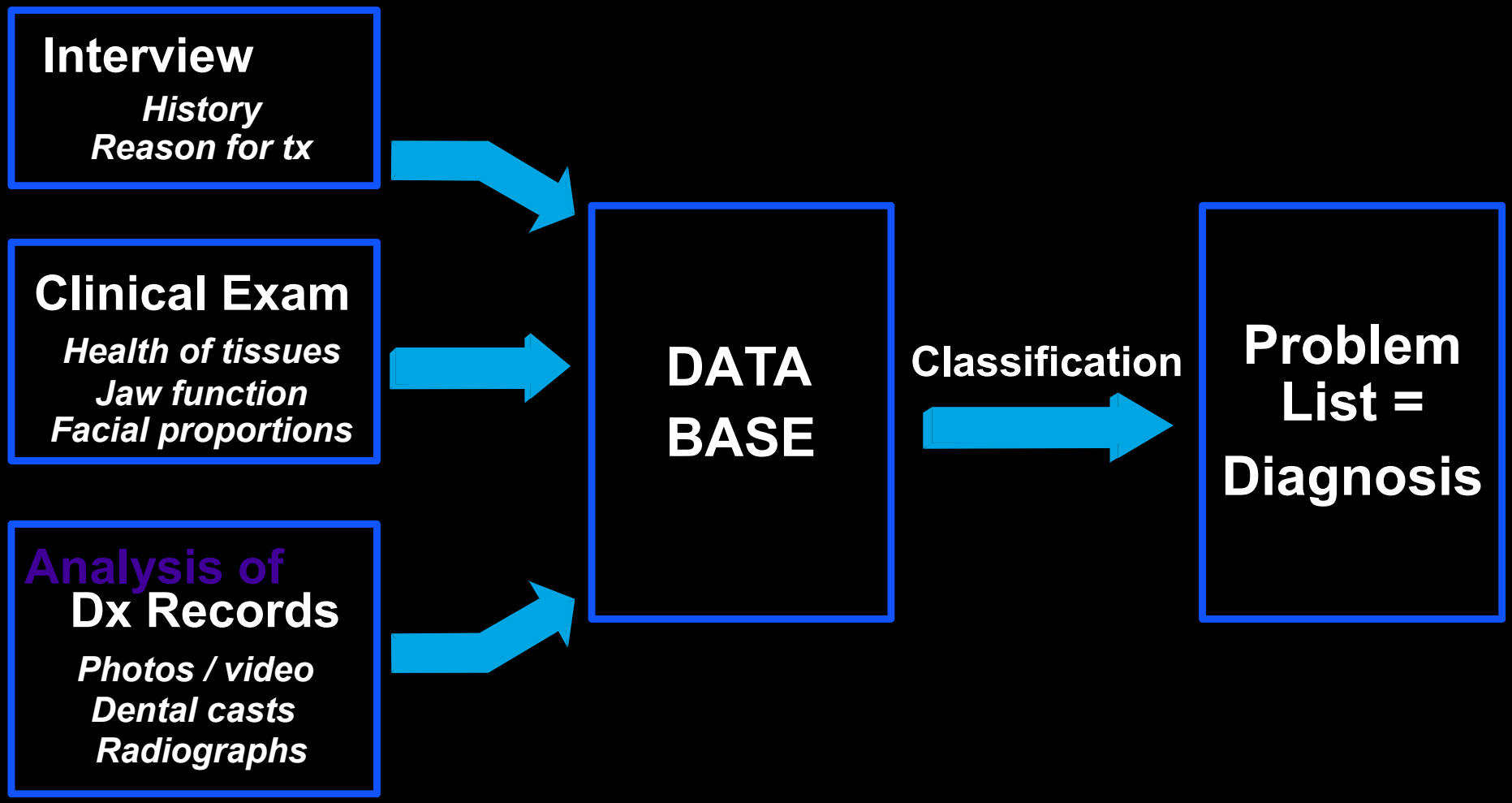
Level IV Unit A

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Orthodontic Diagnosis

Orthodontic Diagnosis

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Medical/ Dental history

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Why is this patient seeking treatment, now?

- Chief complaint, motivation

How did things get to be the way they are?

- Medical / dental history, etiology

What is likely to change in the near future?

- Medical condition, growth status

What does he or she expect as a result?

- Internal / external motivation, expectation

Medical/ Dental history

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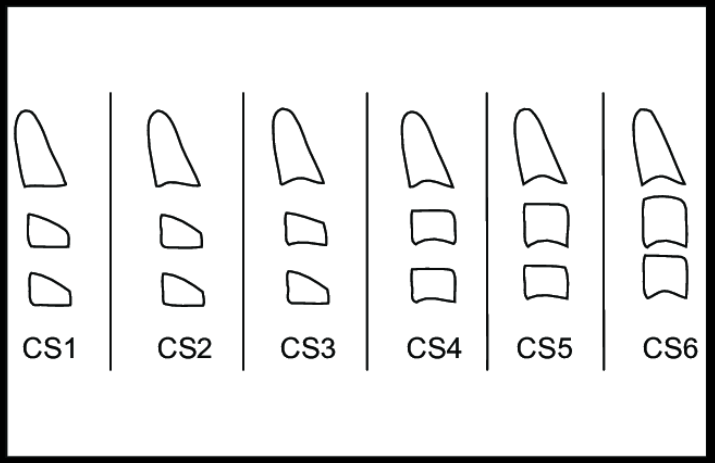
What information from the medical/ dental history is pertinent to orthodontic treatment?

- Nickel Allergy – why is it important and what are possible options for these patient?
- Pre-medication - which orthodontic procedure requires it?
- Rheumatoid and Juvenile arthritis – what might you see with these patients?
- What drugs interfere with orthodontic movements?

Medical Conditions/ Growth Status

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- Why is growth status important in orthodontic treatment?
- How do we assess it?





Clinical Examination

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Facial proportions / tooth-lip relationships
- Facial form analysis

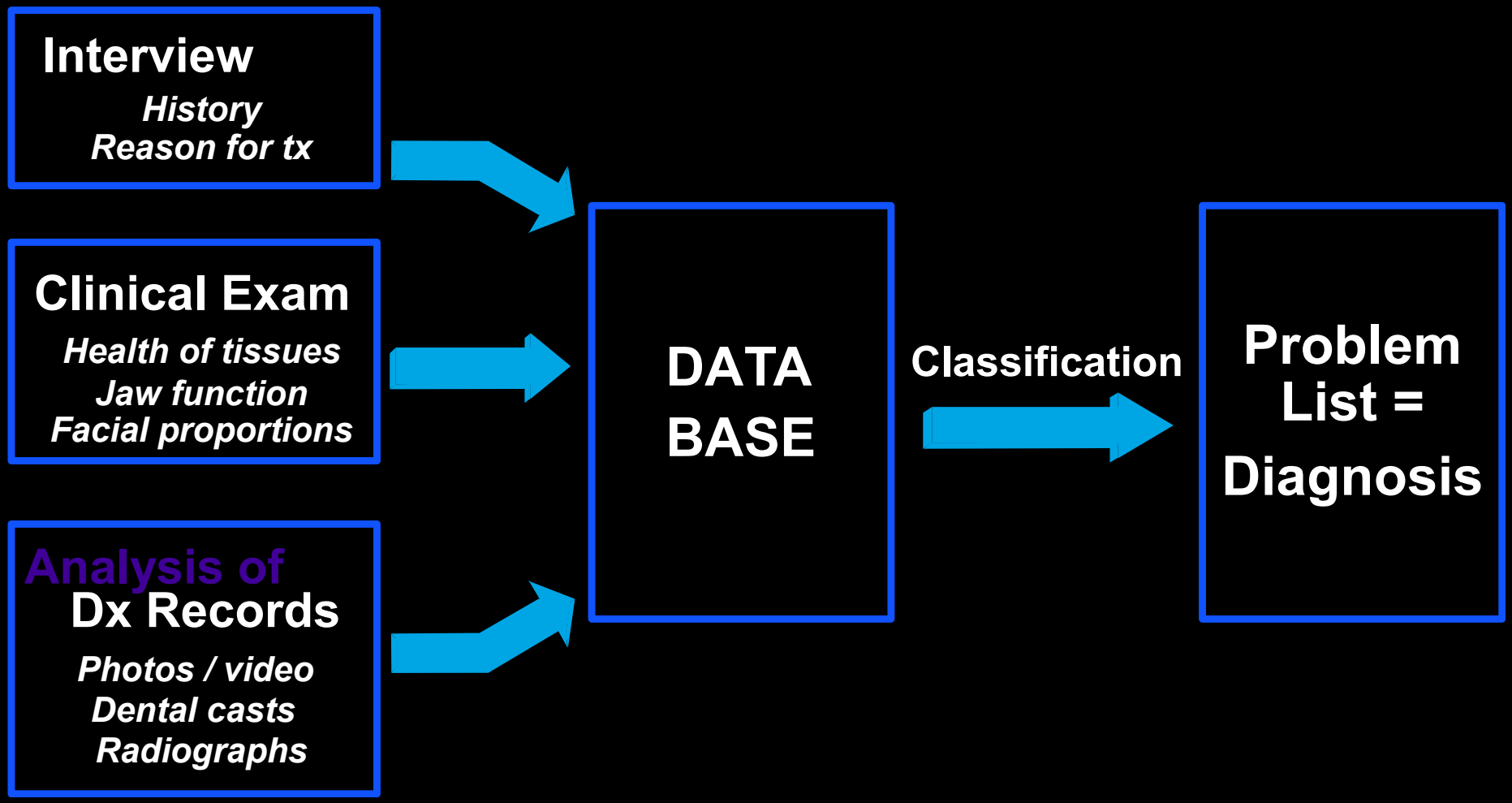
Health of intra-oral hard and soft tissues
- Caries, periodontal disease, other lesions

Jaw function
- chewing ability, TM joint function

What diagnostic records are needed?

Orthodontic Diagnosis

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Problem List

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Ackerman-Proffit Classification

1. **Dentofacial esthetics** - lip protrusion, anterior tooth display
2. **Alignment and symmetry** - crowding/ spacing, arch form
3. **Transverse** – posterior crossbite (skeletal vs dental) and midline deviations
4. **Anterior Posterior** –skeletal and dental AP, Angle classification, overjet
5. **Vertical** - skeletal and dental, overbite, face height, mandibular plane angle

Level IV Unit A

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- Orthodontic diagnosis
- Orthodontic treatment planning

Orthodontic Treatment Planning

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Problem List = Diagnosis

Pathology (caries, perio, etc.)

Control before orthodontic treatment

Pathologic problems must be under control before treatment of developmental problems begins

* For patients with existing periodontal disease orthodontics should not start until the perio control phase is completed and can be maintained.

Why?

Orthodontic Treatment Planning

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Problem List = Diagnosis

Orthodontic (developmental) Problems

Priority Order

A → A
B → B
C → C
etc → etc

Possible Solutions

Evaluate

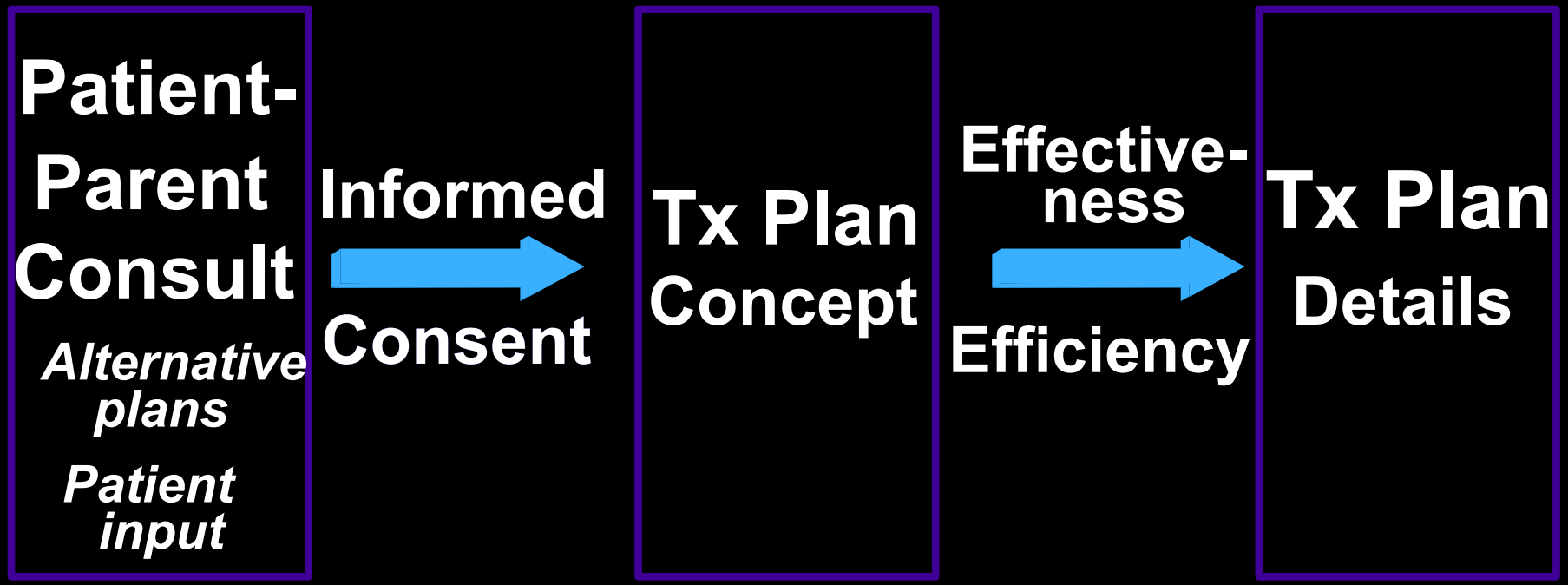
Interaction
Compromise
Cost/Benefit
Other factors

Patient-Parent Consult

Alternative plans
Patient input

Orthodontic Treatment Planning

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Level IV, Unit A

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- Orthodontic diagnosis
- Orthodontic treatment planning
- Clinical examples

Case 1

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Case 1

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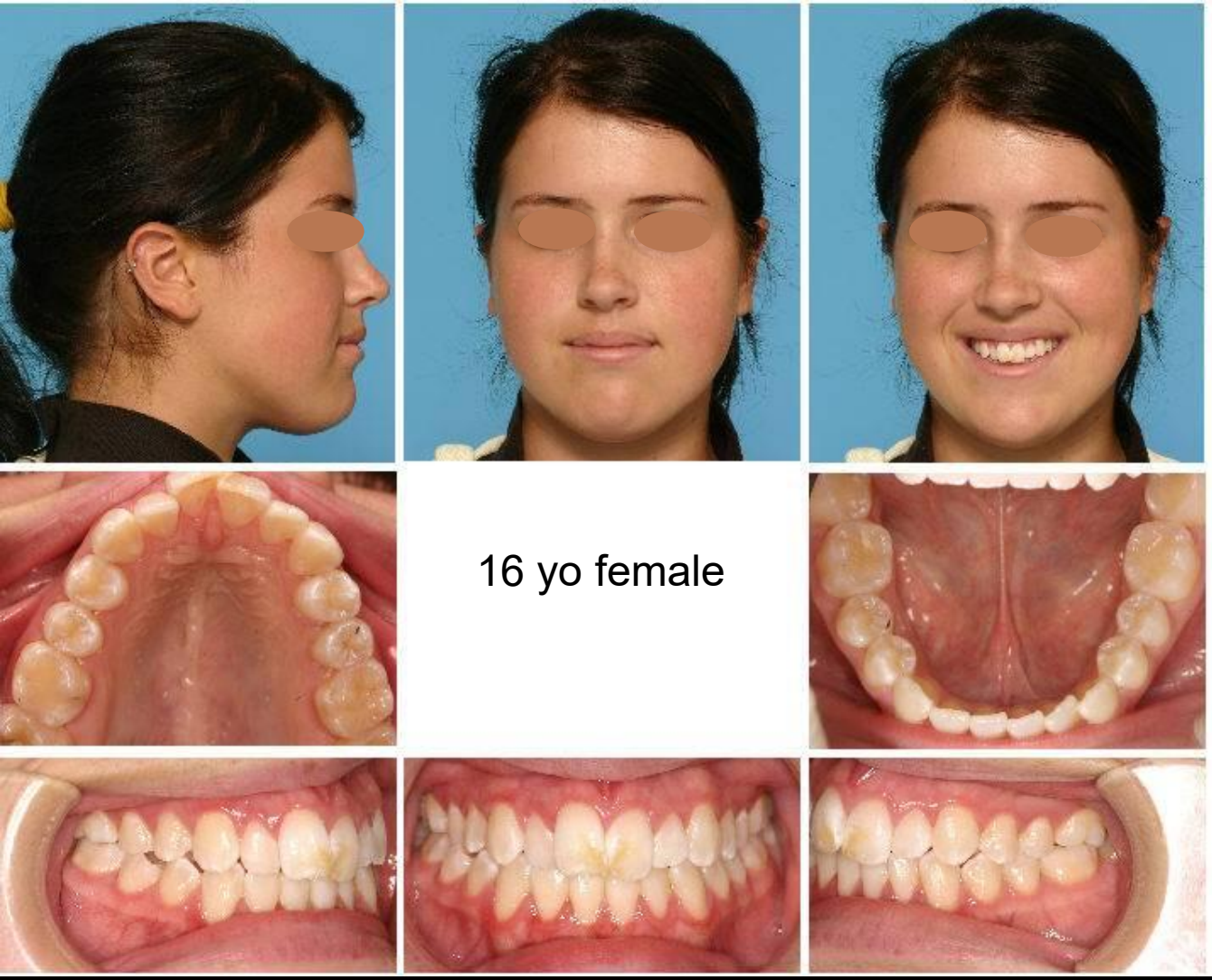


Case 1

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What information can we obtain from a panoramic film?







Case 1 Problem list

1. Dentofacial esthetic and protrusion
2. Alignment and symmetry
3. Transverse
4. AP
5. Vertical

Case 2

13 y/o male

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Case 2



How would you characterize his AP skeletal relationship? lip posture? Plane angle? Vertical proportions?











Case 2

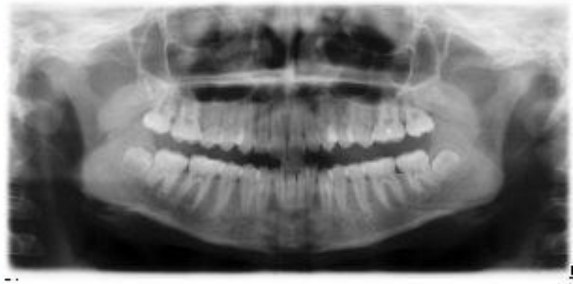
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13 y/o male






Case 2 Problem list

1. Dentofacial esthetic and protrusion
2. Alignment and symmetry
3. Transverse
4. AP
5. Vertical

Case 3

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Case 3



What molar relationship would you expect to see in this patient?

How will her jaws grow during puberty?







Why do we have a LLHA?

When is the best time to place a LLHA?





Case 3

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What is her dental age?






12 y/o female






Case 3 Problem List

1. Dentofacial esthetic and protrusion
2. Alignment and symmetry
3. Transverse
4. AP
5. Vertical

Case 4

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Case 4

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List his orthodontic problems





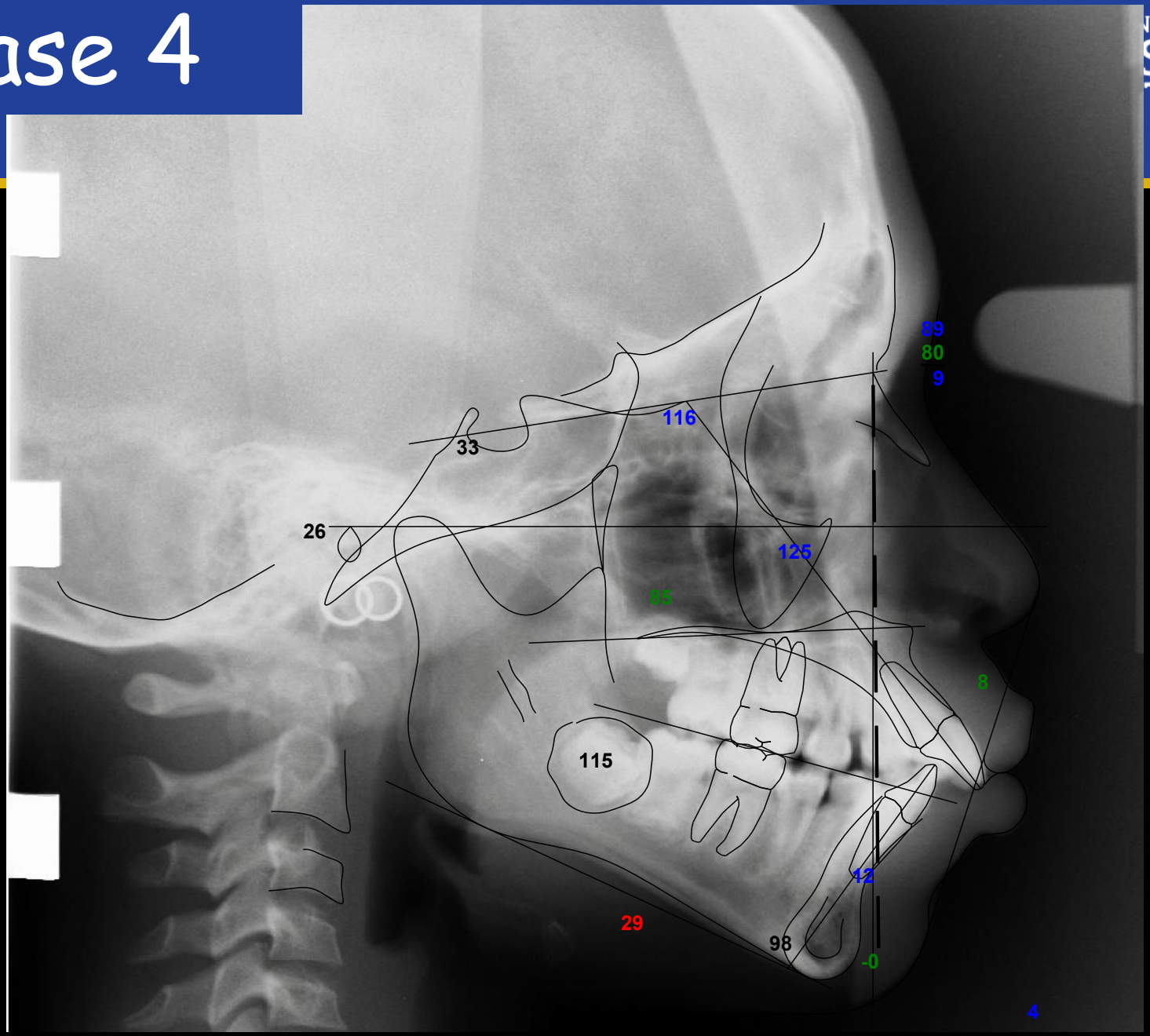
Case 4

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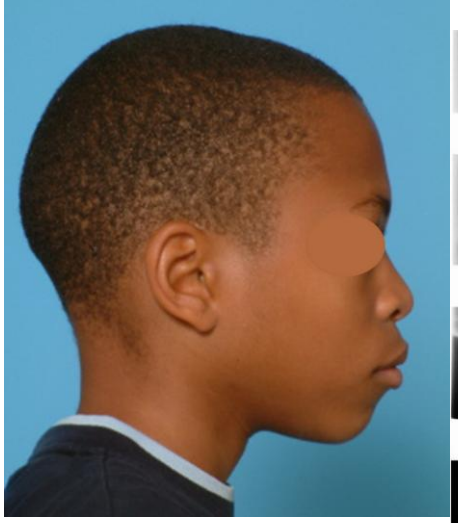
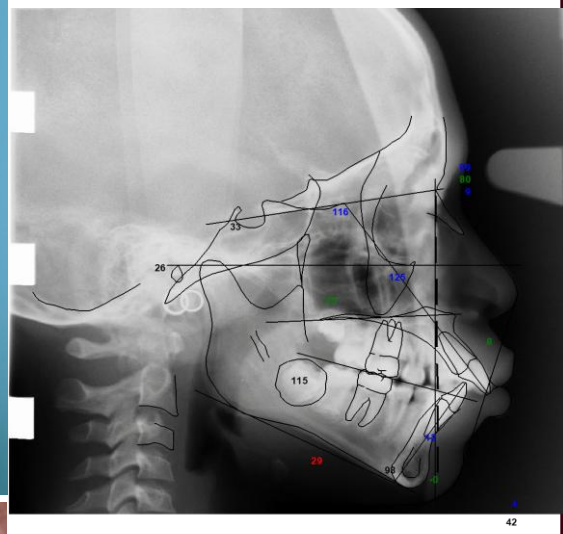


What is the likely cause of the impaction?

Case 4













Case 4 Problem List

1. Dentofacial esthetic and protrusion
2. Alignment and symmetry
3. Transverse
4. AP
5. Vertical



At the end of this course you DO NOT have the didactic knowledge or clinical skills to treat comprehensive orthodontic cases.