# INTRODUCTION TO ORTHODONTICS

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### ORTHODONTICS

Orthos = correct, straight Odont= tooth





#### DEFINITION

Orthodontic is that branch of dentistry concerned with facial growth, with development of the dentition and occlusion, and with the diagnosis and treatment of malocclusion.

Thus, the study of orthodontics includes the growth, development and function of the total orofacial complex, whilst orthodontic techniques are concerned with the technique of the treatment of malocclusion.

ORTHODONTICS OCCLUSION & FACE

#### WHY ORTHODONTICS ?

## Malocclusion



## CLASSIFICATION OF OCCLUSION

- Class 1
- Class 2 div 1
- Class 2 div 2
- Class 3

### CLASS I MALOCCLUSION



#### CLASS II MALOCCLUSION

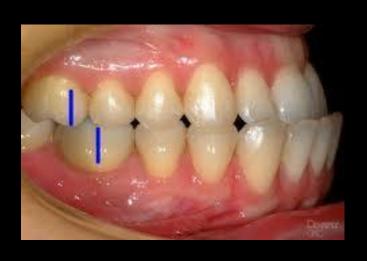






div I div II

### CLASS III MALOCCLUSION





## HOW NEEDS ORTHODONTIC TREATMENT

- Poor facial appearance
- Risk of caries
- Predisposition to periodontal health
- Psychological disturbances
- To close diastema
- Oral habits
- Correction of speech defects
- Risk of trauma: Class II malocclusion
- Cleft lip and palate
- TMJ

## STEPS FOR ORTHODONTIC DIAGNOSIS AND TREATMENT PLAN

Data needed to Orthodontic diagnostic be into three main grouped:

- 1. Information received from patients
- The information obtained from clinical examination
- 3. Examination of diagnostic recordings (dental models, radiographs, photographs)

## STEPS FOR ORTHODONTIC DIAGNOSIS AND TREATMENT PLAN

## Ishik University- College of Dentistry Department of Orthodontic Information form healthy adult nurse

Date:/2010 the name of the physician		
The patient, Name and surrame: Age (year and month); Years, Address: Tel: House: Mobile 2:		
Health history of the patient:		
Answer the following questions Bello a circle as:	road the appropriate asswer.	
1) Is your health the public good?	Yes, so, I do not know	
Do you doubt of anything?     if your answer is Yes, Please Explain.	Yes, so, I do set know	
3) Is it before you enter the hospital, do you have enter?	received general anesthesia or Applycan you Yes, no, I do not know	
Do you have an allergy to any substance?     If your answer is Yes, Please Explain	Yes, so, I do sat know	
5) Are any season Talit?	Yes, no, I do not know	
Do you Daljan communicable from one of thes     Problems at birth O cancer O     Epilepsy O rheromatic O     ansemia O cleft lip and pal     problems in speech and hearing O blood     Hepatitis O problems in t     sleep problems O liver disease     kidney disease adiotherapy O     growth problems Anthritis O	heart problems O fever, asthma O ate O bleeding hemophika O tannsfassions O vision problems O he skin O AIDS or HIVO	
History of health of the mouth patient:  1) What is that thing in your teeth that disturbs yo	ro ?	
do not you picked for your teeth?     If your answer is yes, remember the last date for	Yes, so, I do set know or the film?	
Is there a problem after you treat your teeth?     If your answer is Yes, Please Explain?	Yes, no, I do not know	

4) Did you decay and / or pain in your teeth? 5) Are your teethsensitive to heat or to eat?	Yes, no, I do not know	
5) Are your teeth sensitive to heat or to eat?		
	Yes, no, I do not know	
6) Are your teeth after relieve bleeding gums?	Yes, no, I do not know	
7) Do you use teeth brash or gargling contains fluoride?	Yes, no, I do not know	
8) Is there a sound or pain in the jaw joint?	Yes, no, I do not know	
9) Is there a problem when you open your mouth and shut up?	Yes, no, I do not know	
10) which indeed is where the parents of the teeth and face?  If your answer is Yes, Please Explain?		
11) Has there been an accident of your teeth?	Yes, no, I do not know	
12) Do you sorcery in the jaw or face?	Yes, no, I do not know	
13) Do you have one of these habits?  O sucking the cheeks mouth breathing O O eat nails grinding teeth O O pressure teeth		
14) We need to know any other problem faced teeth?	~~~~~	
Do you have any suggestions for treatment?	***********	
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Name and surname, which fill out the form; Signature:

## STEPS FOR ORTHODONTIC DIAGNOSIS AND TREATMENT PLAN

ISHIK UNIVERSITY FACULTY OF DENTISTRY	Y/DEPARTMENT OF ORTHODONTICS	
CLINICAL EXAMINATION FORM		5) TMJ Evaluation:
	Date:/201	TMJ problems
Doctor Name:	200000	6) Minor problems:
Patient Name, Surname:	000000000	- Decalcification (Yes/No) EDCBA ABCDE
The main questions:		7 6 5 4 3 21 1 2 3 4 5 6 7 7 6 5 4 3 21 1 2 3 4 5 6 7
1) The based complain of the patient: a. Anterior crowding: b. Crowding: c. Overjet: d. Overbite: e. Aesthetic: f. TMJ problems:	3) Orthodontic dental evaluation  a. Dentition evaluation:  Right molar relationship Class:(1) (2) (3)  Left molar relationship Class:(1) (2) (3)  Right canine relationship Class:(1) (2) (3)  Left canine relationship Class:(1) (2) (3)  Overiet (mm)	ED C BA A B C D E
2) Evaluation of the functional matrix: a. Nasopharyngeal airway: - Tonsils (available, been taken, hypertrophic) - Adenoids (available, been taken, hypertrophic) - Outcome of the nose (Edema/Bleeding) - Breathing (Nose/ Mouth)	Overbite (mm)  Open bite (mm)  b. Functional evaluation  Transverse/Sagittal/Both  "V" shape maxilla (Yes/No)  Upper incisors locks the lower incisors (	- Periodontal evaluation  EDCBA ABCDE  7 6 5 4 3 21 1 2 3 4 5 6 7  7 6 5 4 3 21 1 2 3 4 5 6 7  EDCBA ABCDE
b. Habits:  Tongue thrust (Yes/No)	- Cross Bite (Yes/No) Cross Bite (Right/ Left/ Bilateral/ Anterior) - Mandible functional dislocation (No/ Right/ Left) c. Facial aesthetic dentition evaluation - Face midline- maxillar dentition midline (Compatible/ Right/ Left) Face midline- mandibular dentition midline (Compatible/ Right/ Left)  - Maxillar midline — mandibular midline (Compatible/ Right/ Left)	- Caries evaluation (Yes/No)  EDCBA   ABCDE  7 6 5 4 3 21 1 2 3 4 5 67  7 6 5 4 3 21 1 2 3 4 5 67  EDCBA   ABCDE
Myotherapy (Yes/No)     Other diagnostic evaluation (Yes/No)	Lip line (Rest position mm) Smile line (mm) Appearing ginglya (Rest position mm) Appearing ginglya (Wide Smile mm) Appearing ginglya (Wide Smile mm) Facial asymmetry (Yes/No) Facial asymmetry (Right/Left)	- Hygiene evaluation (Perfect/Medium/Bad):

### EXTRAORAL PHOTOGRAPHS





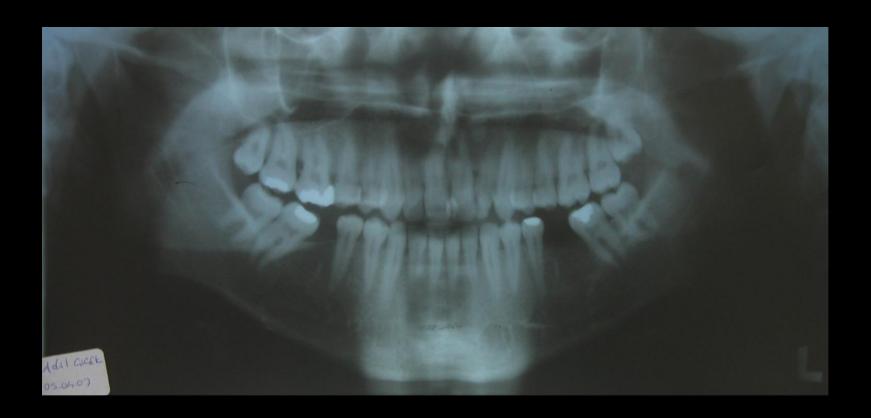




### INTRAORAL PHOTOGRAPHS



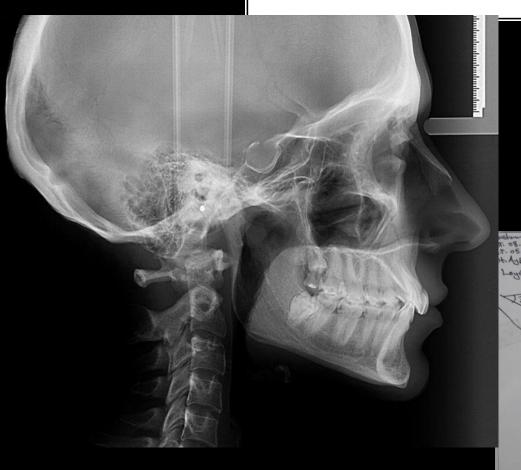
## PANORAMIC RADIOGRAPHY

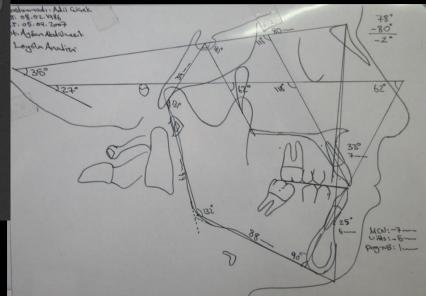


#### ANTERIOPOSTERIOR AND TMJ X-RAY



## LATERAL SEPHALOMETRIC X-RAY





## TYPES OF ORTHODONTIC TREATMENT

- PREVENTIVE ORTHODONTICS
- INTERCEPTIVE ORTHODONTICS
- CORRECTIVE ORTHODONTICS
- SURGICAL ORTHODONTCS

- No active orthodontic treatment
- Restoration for deciduous teeth
- Oral hygiene







- Fissure sealants
- Fluoride application (recommended every 6 months)





## Space maintainer





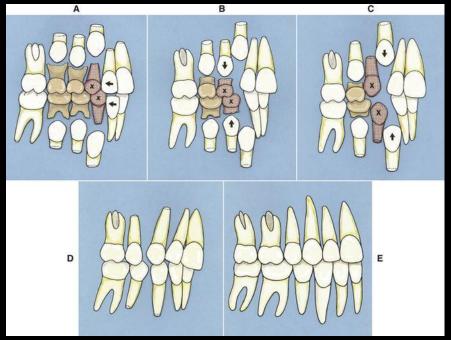
- Management of ankylosed tooth
- Extraction of supernumerary teeth





#### INTERCEPTIVE ORTHODONTICS

- Any procedure that eliminates or reduces the severity of malocclusion in the developing dentition.
- Procedures undertaken in this type:
- 1. Serial extractions



#### INTERCEPTIVE ORTHODONTICS

- 1. Correction of developing crossbite
- 2. Control of abnormal habits
- 3. Space reganing

4. Removable of soft tissue and bony barrier to enable eruption of teeth



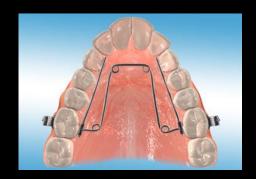




#### CORRECTIVE ORTHODONTICS

- Late mixed and early premanent dentition
- Recognizes the existance of malocclusion and the need for employing certain technical procedures to reduce or eliminate the problem.



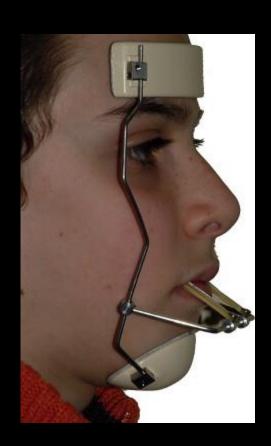




### CORRECTIVE ORTHODONTICS







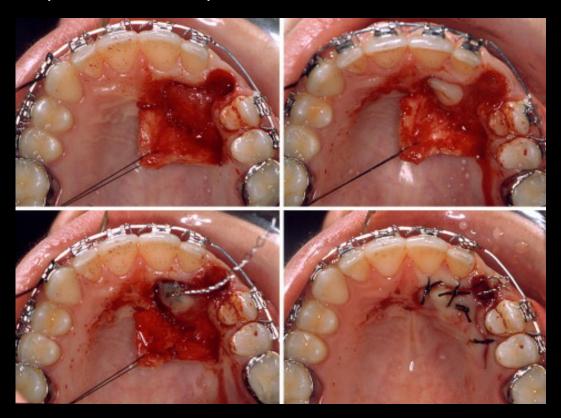
#### CORRECTIVE ORTHODONTICS





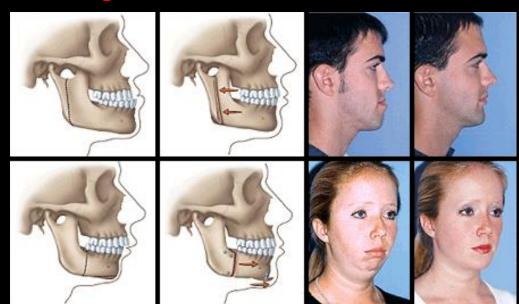
#### SURGICAL ORTHODONTCS

- □ Extraction and serial extraction
- □ Surgical exposure of impacted teeth



#### SURGICAL ORTHODONTCS

- □ Frenectomy
- □ Corticotomy
- □ Gingivoplasty
- Surgical correction of cleft lip and palate
- □ Orthognathic surgeries



#### TEMPOROMANDIBULAR JOINT

## Occlusal splint





### CLEFT LIP AND PALATE





## RISKS OF ORTHODONTIC TREATMENT





- Root resorption
- Enamel decalcificantion
- Gingival swelling, gingivitis
- Loss of tooth vitality



## RISKS OF ORTHODONTIC TREATMENT

- Allergies, nickel
- Ulceration, appliance trauma
- Incomplete treatment
- Relapse
- Patient not satisfied with result



## HOME CARE FOR ORTHO PATIENTS







