

**Course title in English**

Maxillofacial orthodontic fellowship

**Course description**

This fellowship course has been designed for the first time at the Tehran University of Medical Sciences for orthodontics graduates to master in advanced training and skills regarding the special treatment and care to patients with craniofacial anomalies.

**The main subject:**

Craniofacial anomalies

**Main services for graduates:**

Diagnosis and treatment planning for patients with complex craniofacial anomalies and cleft lip and palate.

**Main field:**

Orthodontics

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**Program Objectives:**

1. Preoperative orthopedics (nasalveolar molding for infants with cleft lip and palate)
2. Management of orthodontic treatment of patients with cleft lip and palate or craniofacial anomalies from the stage of deciduous teeth to the adulthood
3. orthodontic and surgical treatment planning , performing orthodontic treatment before and after surgery, designing and fabricating surgical splints

**Course duration:**

12 months

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**Course titles (general, basic or clinical)**

- **Dependent courses**

1. Radiology: Three-dimensional diagnostic radiographs
2. Plastic Surgery:
  - ✓ Updates on maxillofacial adjunctive surgeries
  - ✓ Facial soft tissue surgeries in cleft lip and palate patients
3. Speech therapy:
  - ✓ Speech therapy in syndromic and cleft patients
4. Genetics: A study of genetic literature related to the development and treatment of severe malocclusions, cleft lip and palate and syndromes

- **Specialized and practical courses**

1. Oral and Maxillofacial Surgery

- ✓ Systemic evaluation of patients
  - ✓ Principles of treatment planning:
    - Cosmetic changes in the shape of the face following orthognathic surgery
    - Therapeutic considerations in patients with dentofacial deformity
    - Etiology, identification and control of complications and consultation with the patient
    - Maxillary surgery
    - Mandibular surgery
    - Bi-maxillary surgery
    - Familiarity with fixation methods
    - Distractions Osteogenesis
    - Adjunctive esthetic surgery
    - Soft and hard tissue surgeries in cleft patients
    - Diagnosis and treatment planning in common syndromic patients
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**Specialists allowed to enter the course**

1. Board-certified orthodontists with no legal problems for continuing their education.
  2. Interest
  3. Passing in the entrance exam and interview
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### The general structure of the fellowship course

<b>Department, unit or educational area</b>	<b>Content- actions</b>	<b>Number of units / patient</b>
Department of Orthodontics, School of Dentistry	<ol style="list-style-type: none"> <li>1. Performing orthodontic treatment before and after surgery in ortho-surgery patients</li> <li>2. Participating in interdisciplinary conferences such as pediatric, prosthetics, surgery, speech therapy ...</li> <li>3. Participating in weekly case presentation sessions for treatment planning in craniofacial and cleft palate patients</li> <li>4. Performing presurgical orthopedic treatment procedures in patients with cleft lip and palate</li> <li>5. Learning the orthodontic treatment steps of syndromic patients based on their treatment protocols</li> </ol>	10 patients
Oral and maxillofacial surgery department of Shariati Hospital	<ol style="list-style-type: none"> <li>1. Close cooperation with craniofacial surgeons in the treatment of patients</li> <li>2. Presence in orthognathic surgery room</li> </ol>	

## **Practical skills**

- ✓ Performing cephalometric prediction for patients who need ortho-surgery
- ✓ Performing model-surgery in pre-surgical stage to fabricate surgical splint which is used in the operating room
- ✓ Gaining the ability to design and fabricate the necessary devices for patients with cleft palate and lip included feeding palate and naso-alveolar molding appliance
- ✓ Achieving the ability to perform Finishing steps after surgery and designing the necessary retainers in the final stage of treatment

## **Courses**

- ✓ Cleft lip and palate surgical treatment
- ✓ Cranio-facial surgery (subspecialty of plastic surgery)
- ✓ Maxillofacial prosthodontics (fellowship of prosthodontics)

## **Teaching and learning methods**

Clinical practice

Literature review

Seminars and case presentation

Lectures

Group discussion

Observation and conclusion

## References

### A. Main textbooks:

	Title	Authors
1	Essential of Orthognatic Surgery (last edition)	Reyneke J. P.
2	Contemporary Treatment of Dento-facial Deformity (last edition)	Proffit W.R., White R.P., Sarver D.M.
3	Syndrome of Head and Neck	Gorlin
4	Dentofacial Deformities Integrated Orthodontic and Surgical Correction	Epker B. N., Stella J. P., Fish L. C.

### Main journals

1	America journal of orthodontics
2	European journal of orthodontics
3	Journal of cranio-maxillofacial surgery

### Explanation

In cases of final exams or exams for promotion of the residents, the references will be decided by the board of experts and authorities of the course and this chart is a guide and suggestion for this purpose

The latest printed version of the text books mentioned above should be available.

Articles of journals published during the fellowship course should be studied.

### Other related journals

International journal of oral and maxillofacial surgery

The angle orthodontist

The cleft palate journal

Plastic and reconstructive surgery

## **Other related text books**

Oral and maxillofacial surgery, Fonseca

## **Resident's assessment**

### A. assessment methods

Assessment of residents will be based on the completion of the portfolio which is consisted of:

Log book

MCQ

### B. Periods of Assessment

-Continuous

-Every six month

-End of the course

## **The fellowship resident should participate in:**

- Diagnosis and treatment planning for ten orthognathic, syndromic and cleft patients and following them up during the course.
- Presenting at least three cases at case presentation class.

## **The fellowship resident is also highly recommended to:**

- Participate in the rounds of maxillofacial surgery department and other educational, practical and research activities according to the department program.
- Have active participation in orthodontic and maxillofacial surgery department

### **Minimum academic staff needed for running fellowship course**

At least three faculty members are needed with the experience in orthognatic surgeries and treatment of patients with syndrome and cleft palate and lips. In addition, the cooperation of the rest of the group members is essential in implementing this program.

These conditions are predicted for two series of resident admission, and it will be revised and decided again if this course is going to be continued.

### **Well-informed staff required to run this program**

With the presence of existing staff, the current program is applicable.

### **Requirements**

- Special room for studying which is equipped with computer and internet
- At least one dental unit which is allocated to the residents for full time.
- The necessary facilities in the maxillofacial surgery department for the presence of a fellowship resident



### **Variation and minimum number of patients required**

- 5 ortho-surgery patients
- 3 patients with cleft lip and palate
- 2 syndromic patients

### **Number of seats required to train an assistant**

A dental unit with all the equipments

### **Special equipment**

- Orthosurgery special software
- Equipment and tools for impression making and fabrication of removable appliances for patients with cleft lip and palate and performing naso-alveolar molding
- Orthodontic routine equipment

### **Required departments and specialties**

Orthodontics, Maxillofacial surgery, Radiology, prosthesis, Plastic surgery, Speech therapy, ENT specialist