UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Gnathology

2425-5-H4601D070-H4601D068M

Aims

The objective is to understand gnathology, which encompasses masticatory function but, more broadly, the functional anatomy of the stomatognathic system. This involves understanding the structures involved in the various functions of the stomatognathic system, namely swallowing, chewing, phonation, and respiration.

Only by comprehending the correct functionality can one understand why the system becomes dysfunctional, manifesting signs and symptoms of malfunction that could potentially lead to structural damage.

Therefore, a second objective is to facilitate the understanding of painful and dysfunctional pathologies of the stomatognathic system, describing their causes, clinical presentation, and prognostic evolution.

An additional area of focus is the study of the correlations between the stomatognathic system and body posture.

Finally, the course aims to understand the prognosis and possible therapies for gnathological pathologies.

Contents

Gnathology is the study of the masticatory function and the other functions of the stomathognathic apparatus, analyzing the structures by a functional point of view.

Detailed program

Cranio-cervico-mandibular anatomy

TMJ anatomy and physiology

Functional anatomy of masticatory muscles

Functional anatomy of the dents-alveolar complex

Cranio-mandibular relationships:

rest position

centric occlusion

protrusion and neuromuscular control

sideshift and neuromuscular control

retruded position

Posselt diagram and gothic arch

The fixed occlusal basics of classical gnathology:

Bennett’s Angle, Bennett’s Movement and Fisher’s Angle

Intercondyle distance

Hinge axys and centric relation

The variable occlusal basics of classical gnathology:

Antero-lateral guidances

The occlusal plane

The Von Spee’s and Wilson’s curves

The height of the cusps

Overjet and overbite

The Frankfurt and Camper planes

The mandibular movements

The masticatory cycle, the swallowing and the concepts of working and balancing side

The occlusal contacts in centric occlusion and during the movements

Analysis of the occlusal contacts and relevations methods (clinical and instrumental)

The distribution and absorbtion of occlusal forces

The mandibular repositioning concept

The dysfunctional pathologies of stomatognathic apparatus (DCCM)

The joint pathologies

The disc dislocation (with or without reduction)

The neuromuscular pathologies

The gnathologic diagnosis

Anamnesis, examination and differential tests

Functional instrumental exams

Instrumental exams (X-rays, NMR, CT)

Prognosis

Gnathologic therapies

Drugs therapies

Physiotherapic and manipulative therapy

Relationships with other dental fields

Articulators

Body posture analysis

Relationship between body posture and stomatognathic apparatus

Headaches and migraines: clinical aspects and classification

Headache of dental and gnathologic origin

The cervical spine and the cranio-cervical dysfunctional pathologies

Other postural pathologies related to dental occlusion

Other postural therapies

Prerequisites

Completion of the examination in Human Anatomy, Physiology and Basic Pathology

Teaching form

Lectures with clinical samples. Stages in Gnathology department of Dental Clinic of S. Gerardo Hospital (Monza)

Textbook and teaching resource

L Fonzi
Anatomia funzionale e clinica dello splancnocranio
Edi.Ermes

Silvestrini Biavati
Trattamento semplificato in gnatologia
EDRA

Legall-Lauret
Occlusione e funzione
Masson

Papini
Origini, forma e (dis)funzioni dell'apparato masticatorio in Homo sapiens
Firenze University Press

Semester

Second semester 5??year

Assessment method

The oral examination method will be used for the knowledge and skills acquired.

Office hours

By appointment after phone or mailing contacts

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | PARTNERSHIPS FOR THE GOALS