

UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Gnathology

2526-5-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 breathing, as well as the generation and proper dissipation of occlusal forces on the skull.

Only by understanding the correct functionality of the system it is possible analyze why the system becomes dysfunctional or, in other words, affected by signs and symptoms of a altered function that may evolve into a structural damage.

From this follows a second objective: the understanding of pain-related and dysfunctional pathologies of the stomatognathic system, describing their causes, clinical presentation, prognostic development, and possible therapies for gnathological dysfunctions.

An additional area of study concerns the correlations between the stomatognathic system and body posture, within the context of occluso-postural relationships.

Contents

Gnathology is the study of the masticatory function and the other functions of the stomathognathic apparatus, understanding the anatomical 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 and hinge axys
- · centric occlusion
- protrusion and neuromuscular control
- · sideshift and neuromuscular control
- retruded position
- · Posselt diagram and gothic arch

The four principles of stomatognathic rehabilitation and their implications in clinical planning

Other fixed occlusal basics of classical gnathology:

Bennett's Angle, Bennett's Movement and Fisher's Angle Intercondyle distance 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)
Mandibular lockings

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

Lecture notes created by the teacher

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