

Faculty of Medicine



FYSL1302 Human physiology and pathophysiology (part 2) : the endocrine, digestive and reproductive systems.

[60h+12h exercises] 8 credits

This course is taught in the 1st and 2nd semester

Teacher(s): Jean-Claude Henquin
Language: French
Level: First cycle

Aims

To understand the mechanisms regulating the endocrine, digestive and reproductive systems in healthy man. To understand the pathophysiological basis of the major dysfunctions of these systems. To integrate the knowledge of the three systems as the basis for future studies of human pathology.

Main themes

Endocrine physiology : A first section deals with general aspects of functioning, regulation and dysfunctioning of endocrine glands. The major part is devoted to the different endocrine glands: the hypothalamus and pituitary gland, the adrenal cortex and adrenal medulla, the thyroid gland, Ca-regulating hormones, pancreatic hormones and glucose homeostasis, adipocytokines. **Digestive physiology:** The general mechanisms of regulation are first described before all levels of the digestive tract are envisaged successively (mouth, oesophagus, stomach, biliary secretion, exocrine pancreas, small intestine, colon and rectum). The last chapters integrate the mechanisms of nutrient digestion and absorption, water and electrolytes movements, and food intake regulation. **Reproductive physiology:** The first chapters discuss sexual differentiation, gonadal function in foetal life, infancy, puberty and adult age. Then are presented the physiology of fecondation and of pregnancy (hormonal changes, maternal adaptation, foetal homeostasis, delivery). The end of the course deals with lactation and the physiological bases of contraceptive methods.

Content and teaching methods

A regularly updated and complete, printed version of the course is available to students. During the lectures, all chapters of the course are covered and illustrated, with particular emphasis on the major points and more extensive explanations of the difficult concepts. The practical exercises serve to illustrate selected points of the course by demonstrations, and mainly to teach students how to integrate different aspects of medical sciences.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Solid bases of cellular biology, of general physiology and biochemistry, and of human anatomy are prerequisite. Knowledge evaluation is based on an oral examination after written preparation.

Other credits in programs

MED13	Troisième candidature en médecine	(7 credits)	Mandatory
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