

Faculty of Medicine



KINE1024 Pathology and Physiotherapy of the nervous system

[30h+45h exercises] 7 credits

Teacher(s): Philippe Hanson (coord.), Anne Jeanjean, Thierry Lejeune
Language: French
Level: First cycle

Aims

By the end of this course, students should be familiar with the basic physiopathology and symptomology of the principal neurological pathologies in adults.

They should also be aware of the indications and objectives of Physiotherapy treatments.

They should know the basics of the principal rehabilitation techniques currently in use and be able to adopt a critical approach towards these techniques. They will have learnt how to adapt their treatments in accordance with the properties of particular biomaterials to prevent tissue lesions. They will also be able to design and justify personalized treatment plans, adapted to the degree of severity and stage of development of each pathology. They will be familiar with the instruments used to evaluate perceptual-motor and functional skills.

Main themes

The main topics dealt with in this course are: stroke, pyramidal, extrapyramidal and cerebellar syndromes, stroke, spinal cord injuries, traumatic brain injuries, Parkinson's disease, multiple sclerosis, peripheral nerve lesions and myopathy. Basic Neuropediatrics will also be introduced. For each of these topics, teachers will draw students attention to the physiopathological issues crucial to a proper understanding of the consequences of the affections requiring therapeutic intervention.

Students will be taught the principles and techniques of treatment as they relate to different stages of development of these affections. They will also be introduced to the instruments used to evaluate the state of advancement and development of a particular affection.

Content and teaching methods

This course aims to teach students the physiopathology, symptomatology, indications and physiotherapy techniques for each of the pathologies listed in the course description (pyramidal, extrapyramidal and cerebellar syndromes, stroke, spinal cord injuries, traumatic brain injuries, Parkinson's disease, multiple sclerosis, peripheral nerve lesions and myopathy). Basic Neuropediatrics will also be introduced. It examines in detail the different stages of development of these pathologies, with particular emphasis on the therapeutic requirements, indications and contraindications at each stage, and the objectives and limitations of treatment. For all these pathologies of the central nervous system, students' attention will be drawn to the many problems (motor and sensory, cognitive, visual, balance, swallowing and sphincter-related) which have to be taken into consideration when drawing up a treatment plan and putting it into action. The teaching draws on real-life examples, videos and photographic material are used, case-studies are analysed and clinical demonstrations are used by way of illustration. As such, this course should prepare students for active involvement in dealing with the principal pathologies of the nervous system during their first on-the-job training period.

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

Pre-requisite: Anatomy and Physiology of the Nervous System, Biomechanics and Movement Analysis, Basic Techniques in Physiotherapy

Evaluation: oral examination with written preparation

Support: course handout and/or course books

Supervision: course-holders and technical advisorsOthers

Other credits in programs

KINE12BA	Deuxième année de bachelier en kinésithérapie et réadaptation (7 credits)	Mandatory
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