



Università degli Studi di Verona
Graduation in Movement and Sports Science
Master school in Sports Science
Master school in Adapted and Preventive Physical Activity
A.A. 2014-2015

***Functional adaptation to
exercise***

Prof. Antonio Cevese

Objectives

The Student will learn the concept of structural and functional modifications (remodeling) of several tissues; the causes of remodeling in physiological (including ageing) and pathological conditions. He will learn the possibility to change the remodeling process through physical activity and acute and chronic mechanisms induced both by aerobic and resistance training

Program

- Definition of tissue remodeling
 - Connective tissue, tendons and adipose tissue
 - Skin wound healing
- Skeletal muscle
 - Structural and functional remodeling induced by exercise
 - Muscle hypertrophy
 - Molecular basis of training adaptation
- Bone and cartilage
- Vascular remodeling
 - Effects of exercise without and with vascular pathology (atherosclerosis, hypertension)
 - “Athlete’s artery”
- Cardiac plasticity
 - Different types of cardiac hypertrophy
 - Remodeling of contractile function
 - “Athlete’s heart”

Examination

Written test: 60 multiple choice quizzes

Suggested lectures

All the slides projected during the lectures will be available in the web