



SPORTS EXCELLENCE



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ΙΔΡΥΜΑ ΣΤΑΥΡΟΣ ΝΙΑΡΧΟΣ
STAVROS NIARCHOS FOUNDATION

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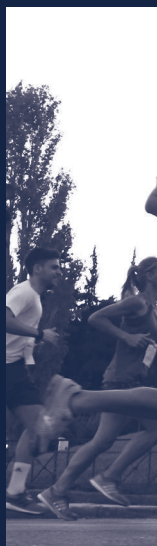
HELLENIC REPUBLIC
National and Kapodistrian
University of Athens

1st Orthopaedic Dept., School of Medicine
Sports Medicine Dept. - Sports Excellence



Regeneration
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CONTENTS

GROWTH STRATEGY

Vision

Mission

Goals

Our Philosophy

Our Values

STRATEGIC PRIORITIES

STRATEGIC PRIORITIES' PILLARS

People

Growth Culture

Planning and *kai* Monitoring

Holistic Development

Innovation

Knowledge

LOGISTICAL INFRASTRUCTURE

SPORTS EXCELLENCE SERVICES

SPORTS EXCELLENCE HUMAN RESOURCES

SPORTS EXCELLENCE IN SUMMARY

WHO WE ARE

GROWTH STRATEGY

Vision

To inspire our country's youth by driving them to make sports a part of their wholesome physical and mental development.

To contribute in the essential change of the sports development model in Greece.

To become an advanced sports medicine services provider for high level athletes.

To develop one of the most advanced athletes' scientific support systems in the world.

Mission

Our mission, to which we are totally committed, is:

To improve our youth's wholesome holistic development environment.

The long-term development of our young athletes, which will lead them to world level sports excellence.

To strengthen and protect the athletes' holistic development environment by close monitoring of the athletes by special sports and sports medicine scientists.

To actively help shape developments in the field of young people sports excellence development.



Goals

"Sports Excellence", under the umbrella of Athens Medical School and other institutions in Greece and abroad, aims to connect bodies, organizations and institutions to deliver constant reliable results, while at the same time it will operate as a model educational and research center, developing strategic partnerships with leading institutions and worldwide scope bodies.

Our Philosophy

Holistic Long Term Athletic Development, which will help young people achieve their athletic goals by developing their abilities as much as possible while they continue their academic pursuits, monitored by their coaches and our scientists.

- Excellence, thanks to the Holistic Long Term Athletic Development
- Led by the Coach
- Focused on the Athlete



Our Values

- Excellence
- Cooperation
- Integrity



STRATEGIC PRIORITIES

International Collaborations: Development of international collaborations and participation in certified international bodies for sports excellence, sports medicine and scientific athletes' support environment

Strategic Collaborations with scientific, educational and athletic bodies in Greece in order to help young athletes and their support environment.

Multilevel innovative educational programs that will contribute significantly to the coaches' professional development and to the improvement of the athletes' development environment. Emphasis is given to the introduction of new educational models, which support young people's developmental needs.

Research: Planning and implementation of basic and applied researches, as well as scientific knowledge exchange with other academic or research institutions in Greece and abroad. The goal is to publish scientific results and conclusions in order to establish the research and social aspect of the center at an international level.

Young People Inspiration: We want our Sports Excellence programs to be an inspiration for the young, in order to help increase the percentage of young people participating in sports and contribute to the decrease of the percentage of young people abandoning sports early

Creation and maintenance of a **Long Term Athletic Development (LTAD)** model, adapted to the needs and peculiarities of the Greek society.

Young People Athletic and Academic Guidance: Each and every young man and woman will choose the athletic pursuit that will offer the optimum athletic and personal development environment for him or her, and through that they will develop new skills, useful for their academic and personal life. We want to support the creation of dual careers, so that young athletes will also develop academically.

Mass Amateur Sports: Our interventions will significantly strengthen the safe and wholesome sports participation framework, with the aim of improving public health and fitness.

Health aspect of athletic activities: Interventions to help protect the young in health issues.



AAOS
AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS

STRATEGIC DEVELOPMENT PILLARS

Our developmental strategy is based on six basic pillars.

1

People

We will attract, develop and keep people capable to offer continuous top-level support and contribute to the coaches' professional development and to the improvement of the athletes' development environment.

2

Growth Culture

We will promote our growth culture through our human and material resources, as well as through our logistical infrastructure.

3

Planning and Monitoring

Needs analysis, planning and monitoring in order to achieve the athletes' long-term development.

4

Holistic Development

Methods and activities based on skills and knowledge lead to athletic excellence.

5

Innovation

Development and implementation of world leading innovations, acting with insightfulness.

6

Knowledge

Acquisition and preservation of knowledge and experience by studying international researches and practices. Development of proper management culture and proper use of knowledge.



LOGISTICAL INFRASTRUCTURE

Assessment, training and rehabilitation unit

To improve the scientific and sports medicine development environment of the athletes enrolled in the Sports Excellence program, we created an innovative holistic Sports Unit, based in the "P.N. Soukagos" Research and Training Center in Attikon University Hospital. The Unit's scientific personnel assesses all critical parameters of athletic skills and abilities of the athlete, enabling coaches, physiotherapists and doctors to acquire data that can be used to improve performance, to shorten rehabilitation times and to monitor the athletes' health.

We offer specialized assessments according to sport, sex, age and level of athleticism, taking into account any special needs of the athletes during their training long-term cycle. These include:

- Cardiopulmonary assessment, anaerobic capacity, determination of training zones.
- Anthropometric measurements, body composition analysis and measurements of exercise physiology parameters.
- Measurements and assessments of biomechanical analysis in sport.
- Dietary habits evaluation.
- Configuring psychological profiles and assessment of psychological parameters
- Blood measurements such as haematocrit, haemoglobin and lactate concentrations



For measurement and evaluation of exercise physiological parameters, the lab / center has proceeded to a significant investment in the purchase of modern, innovative and reliable instruments in each type of measurement.

- **Muscle Strength Evaluation:**

Isokinetic dynamometer Biodex (Biodex Medical Systems, USA)

- **Aerobic and Anaerobic Capacity Assessment:**

Wearable metabolic system Cosmed K5 (Italy),

Indoor rower Concept II (USA)

Treadmill: Skillmill Connect (TechnoGym, USA) and Woodway Pro (USA)

Cycle ergometer Velotron (SRAM / Racer Mate, Inc. USA)

- **Skeleton muscle power and force-velocity evaluation:**

Motion 1080 Quantum Syncro and Motion 1080 Sprint (1080 Motion, Sweden)

- **Evaluation of explosive force of lower limbs:**

Optojump (Microgate, Italy)

- **Proprioceptive, reaction & response time assessment:**

Fitlight Trainer™ (CANADA)



Assessment - Prediction

Performance assessment with advanced technology laboratory and mobile equipment that measure strength, aerobic capacity and reaction times. We offer personalized result interpretation, we detect training deficiencies and design specialized training programs to improve strength and aerobic capacity parameters.

Field Tests

Field tests are not only about assessing basic physical abilities (speed, strength, flexibility, stamina) in the athletes' base, but also about assessing performance with specialized modern mobile aerobic ability parameter measuring equipment (ergospirometer K5), lower limb vertical strength measuring equipment (Optojump) and speed, asymmetries, and horizontal load measuring equipment for resistance training for running (Motion 1080).

Strength

We design muscular strength program according to each athlete's needs. Fitness improvement at the start of the sport season, preparation for events, maintenance programs, transitional period programs, rehabilitation after injury.



Training Counseling

We offer detailed training advice after interpreting and analyzing measurements and assessments. Monitor and assess effectiveness of training zones. We create training zones, defining a large number of training intensity variables (heart rate, lactic acid concentration in the blood, speed, power, resistance loads). We define the ideal training loads to improve performance.

Rehabilitation

A multidisciplinary team of orthopedics, physiatrists, physiotherapists, ergophysiologists and coaches cooperate in order to deal with injuries and to design a quick and safe rehabilitation program.

We give emphasis to injury prevention. Athletes and coaches are informed and trained accordingly. The center offers services to vulnerable population groups with chronic conditions such as: chronic obstructive lung disease (COPD), heart conditions, diabetes and post-surgery patients.

Monitoring

Athletes' monitoring helps record and manage the training load, as well as the fitness, health and wellness parameters, minimizing the restrictive risk factors with the use of holistic approach methods.



SPORTS EXCELLENCE SERVICES

1

Athlete's Holistic Support

- Physiological, Psychological, Biomechanical Assessments
- Design of personalized profile and needs of athletes
- Educational programs for athletes, coaches, parents, sports administrators
- Scientific support of the athletes, teams and coaches participating in the program
- Sports Medicine Support

2

Medical Specialities

- Orthopaedic
- Cardiological
- Gynecological
- Psychological
- Psychological
- Biochemical

3

Assessment, Training and Rehabilitation Unit

- Physiological Assessments
- Determination of training zones
- Strength
- Rehabilitation
- Psychology workshops

4

Mobile Sports and Medicine Unit

- Ergometric assessments in the field of exercise
- Sports activities in remote areas of Greece



SPORTS EXCELLENCE IN SUMMARY?

- Promotion of the athletic ideal for the wholesome development of our country's youth.
- Establishment of a developmental philosophy based on excellence, cooperation and integrity.
- Medical support and rehabilitation services to vulnerable population groups.
- Lifelong learning through innovative educational methods and programs.
- Research Development.
- Establishment of a single sports medicine support body.
- Improvement of the wholesome and holistic young people development environment.
- Long-term young athletes' holistic development.
- Application of modern knowledge and experience management methods.



WHO WE ARE

Department of Sports Excellence, part of the 1st Orthopedic Clinic of the Medical School of the National and Kapodistrian University of Athens. Sports Excellence is an innovative system for creating a scientific environment that provides holistic development for young athletes, lifelong scientific courses for the people close to them (coaches, parents, management and educational personnel), which is implemented in co-operation with the non-profit NGO **"Regeneration & Progress"** with an exclusive grant from the **Stavros Niarchos Foundation (SNF)**.



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EXCELLENCE**

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