ISTITUTO DI MEDICINA DELLO SPORT DI FIRENZE

"dal 1950 al servizio dello sport"

Prevenzione
"in movimento"

Sabato 11 ottobre 2008
Istituto di Medicina dello Sport
di Firenze
Sala convegni Klab Marignolle
Via del Ferrone, 5 Firenze

AMES

LA MEDICINA DELLO SPORT: DALLA CURA DELL'ATLETA ALLA CURA DELLA PERSONA

GIORGIO GALANTI

DIRETTORE DELLA SCUOLA DI SPECIALIZZAZIONE
DI MEDICINA DELLO SPORT
UNIVERSITÀ DEGLI STUDI DI FIRENZE
AGENZIA DI MEDICINA DELLO SPORT

AMS

La Medicina dello Sport, per il suo scopo di proteggere i soggetti che praticano o vogliono praticare attività fisica e sportiva, non rappresenta una imposizione limitativa ma un aiuto per il soggetto interessato affinché sia consigliato nella scelta e seguito nella pratica dello sport o dell'attività fisica.

Il supporto scientifico, didattico ed operativo della Medicina dello Sport è costituito dalla Federazione Medico-Sportiva Italiana che il C.O.N.I. costituì nel 1929 (come Federazione Italiana Medici degli Sportivi) in quanto convenne sulla necessità di una visita specializzata per i praticanti attività sportive a livello agonistico, da ripetere periodicamente.

Sempre nel 1929 venne costituito il primo Istituto di Medicina dello Sport presso il nuovo stadio di Bologna e negli anni successivi sorsero laboratori scientifici in varie città.

L'esigenza di una "Medicina dello Sport organizzata" era sentita all'epoca anche in campo internazionale: nel 1928, in occasione dei Giochi Olimpici, fu tenuto ad Amsterdam il primo Congresso internazionale di Medicina sportiva e poi, durante i Giochi Olimpici invernali di St. Moritz, venne costituita la Federazione Internazionale di Medicina Sportiva.

- TERAPIA DAL GRECO ΘΕΡΑΠΕΊΑ (THERAPEÍA): CURA, GUARIGIONE. ESSA SI OCCUPA DEL TRATTAMENTO DI MALATTIE E FERITE, DEI METODI USATI PER LA LORO GUARIGIONE E PER ALIENARNE I SINTOMI.
- LE TERAPIE SONO MISURE AVENTI LO SCOPO DI RIPORTARE UNO STATO PATOLOGICO A UNO STATO SANO O RENDERE SOPPORTABILE LA MANIFESTAZIONE DI SINTOMI DISAGEVOLI. CONCRETAMENTE, IL SIGNIFICATO DI TERAPIA, DIPENDE QUINDI DALLE DEFINIZIONI DI SALUTE,

DRUGS

- DRUGS ARE SELECTED BASED ON CHARACTERISTICS OF THE DRUG AND OF THE PATIENT
- RISKS AND BENEFITS OF THE DRUG ARE ALSO ASSESSED; EVERY DRUG POSES SOME RISK. RESPONSE TO A DRUG DEPENDS PARTLY ON THE PATIENT'S CHARACTERISTICS AND BEHAVIORS ,COEXISTENCE OF OTHER DISORDERS, AND USE OF OTHER DRUGS.

EXERCISE-DRUG

GENERICALLY SPEAKING, ANY EXERCISE PRESCRIPTION RESEMBLES A DRUG PRESCRIPTION: EXERCISE A, TAKEN N TIMES DAILY, FOR X DURATION OF WEEKS/MONTHS/YEARS.

THE EXERCISE TYPE AND DOSE ARE CHOSEN BY THE PERSON'S INDIVIDUAL NEEDS, GOALS, AND ABILITY LEVEL;THE FREQUENCY AND INTENSITY OF EACH SESSION ARE CHOSEN BY THE PERSON'S INTRINSIC ENDURANCE AND ABILITY TO RECOVER; THE PROGRESSION AND DURATION OF THE PROGRAMME IS DETERMINED BY THE PERSON'S INTERMEDIATE AND LONG TERM GOALS.

ADVERSE EFFECTS ARE RELATED TO THE TYPE OF EXERCISE-FOR EXAMPLE, DELAYED ONSET MUSCLE SORENESS-AND THE SPECIFIC CHRONIC DISEASE-

BR J SPORTS MED 2004;38:6–7.

The role of exercise prescription in chronic disease

G E Moore

Appropriate exercise should be included in the treatment of all patients

- THE FIRST RECORDED ANECDOTE OF EXERCISE AS A TREATMENT FOR HEART DISEASE IS THOUGHT TO BE FROM WILLIAM HEBERDEN,WHO WROTE OF A MAN WITH ANGINA PECTORIS IN 1772: "I KNEW OF ONE WHO SET HIMSELF THE TASK OF SAWING WOOD FORHALF AN HOUR EVERY DAY, AND WAS NEARLY CURED."
- PHYSICIANS OF THE 1800S WERE INTERESTED IN THE ROLE OF EXERCISE IN MAINTENANCE OF HEALTH, BUT THE MODERN NOTION OF EXERCISE AS A MEDICAL TREATMENTIS THOUGHT TO HAVE ORIGINATED WITH R TAIT MCKENZIE.
- MCKENZIE PERCEIVED EXERCISE AS A TECHNIQUE TO REHABILITATE PEOPLE

- **WILLIAM OSLER**, IN THE 1909, WROTE THAT BED REST AND BATHS WERE THE OPTIMAL TREATMENT FOR HEART DISEASE.
- IN 1939, **PAUL DUDLEY WHITE**, USED D HEART DILATATION AS AN ARGUMENT AGAINST EXERCISE AFTER MYOCARDIAL INFARCTION.
- BY 1958, DR WHITE HAD CHANGED HIS VIEWS LOW LEVEL EXERCISE WAS PROMOTED
- IN 60 YEARS, PHYSICIANS HAD LEARNED THAT EXERCISE WAS USEFUL IN MUSCULOSKELETAL INJURIES AND CARDIOVASCULAR DISEASE.

Circulation
JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association.
Learn and Live.

CARDIOLOGY PATIENT PAGE

Exercise and Cardiovascular Health

Jonathan Myers, PhD

Circulation **January 7/14, 2003**

BENEFITS OF REGULAR EXERCISE ON CARDIOVASCULAR RISK FACTORS

- Increase in exercise tolerance
- Reduction in body weight
- Reduction in blood pressure
- Reduction in bad (LDL and total) cholesterol
- Increase in good (HDL) cholesterol
- Increase in insulin sensitivity

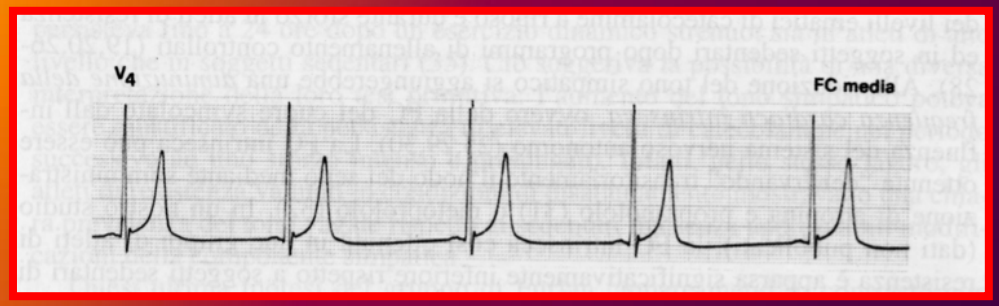
POSSIBLE BIOLOGICAL MECHANISMS FOR EXERCISE-INDUCED REDUCTIONS IN ALL-CAUSES AND CARDIAC MORTALITY

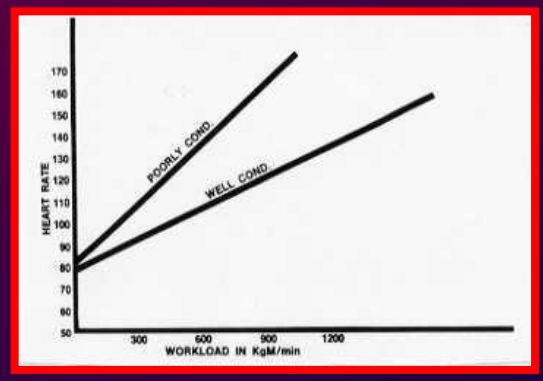
CARDIOVASCULAR INFLUENCE

- REDUCTION OF RESTING AND EXERCISE HEART RATE
- REDUCTION OF RESTING AND EXERCISE BLOOD PRESSURE
- REDUCTION OF MYOCARDIAL OXIGEN DEMAND AT SUBMAXIMAL LEVELS OF PHYSICAL ACTIVITY
- ESPANSION OF PLASMA VOLUME
- INCREASE OF MYOCARDIAL CONTRACTILITY
- INCREASE IN PERIPHERAL VENOUS TONE
- FAVORABLE CHANGES IN FIBRINOLYTIC SYSTEM
- INCREASED ENDOTHELIUM-DEPENDENT VASODILATION
- INCREASE GENE EXPRESSION FOR NITRIC OXIDE SYNTHASE
- ENHANCED PARASYMPATHETIC TONE
- POSSIBLE INCREASE IN CORONARY BLOOD FLOW,CORONARY COLLATERAL VESSEL, AND MYOCARDIAL CAPILLARY DENSITY

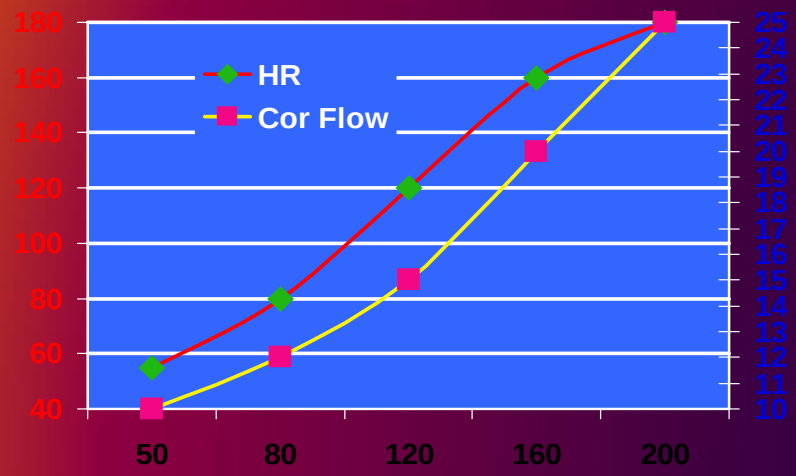
AMS

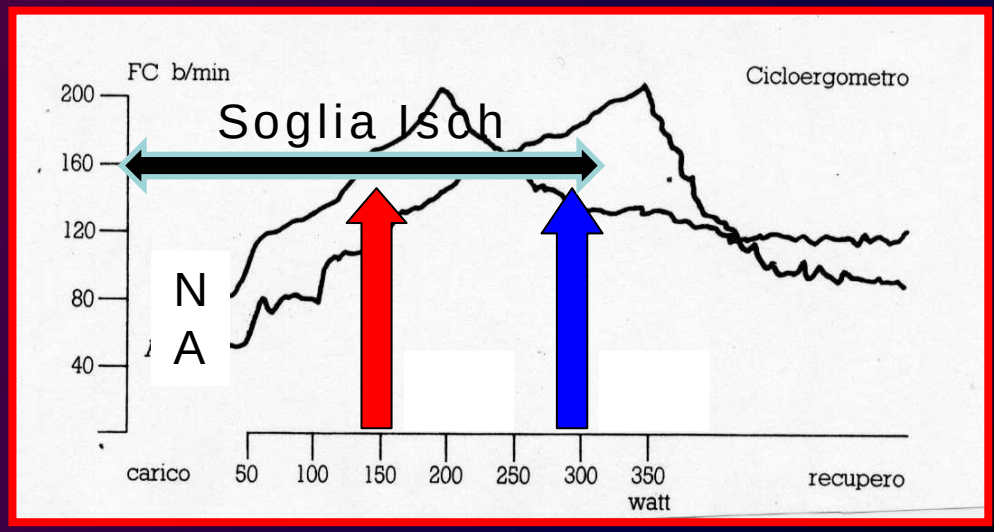
REDUCTION OF RESTING AND EXERCISE HEART RATE





REDUCTION OF MYOCARDIAL OXIGEN DEMAND AT MAXIMAL LEVELS OF PHYSICAL ACTIVITY





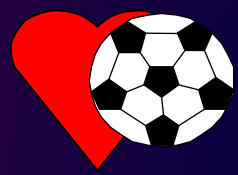
Cardiac Adaptation to Exercise
chronic

Morphological

- ***Myocardial***
- ***Vascular***

Functional

- ***Neural***



J Appl Physiol 100: 896–906, 2006.
First published December 1, 2005; doi:10.1152/japplphysiol.01328.2005.

Effects of endurance exercise training on heart rate variability and susceptibility to sudden cardiac death: protection is not due to enhanced cardiac vagal regulation

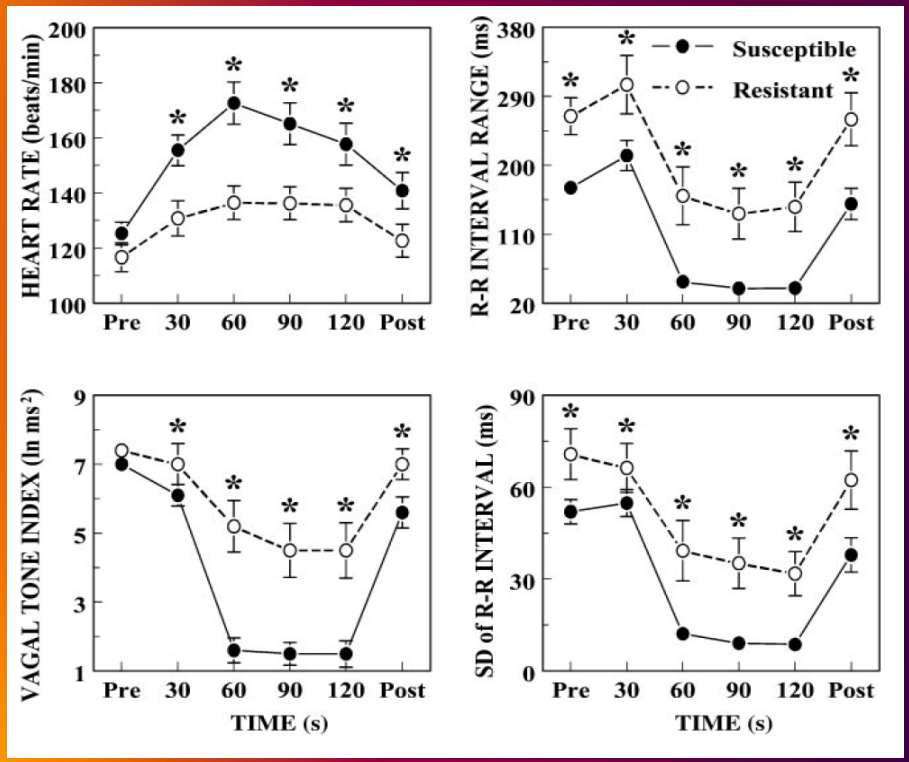
George E. Billman and Monica Kukielka
Department of Physiology and Cell Biology, The Ohio State University, Columbus, Ohio

Submitted 19 October 2005; accepted in final form 23 November 2005

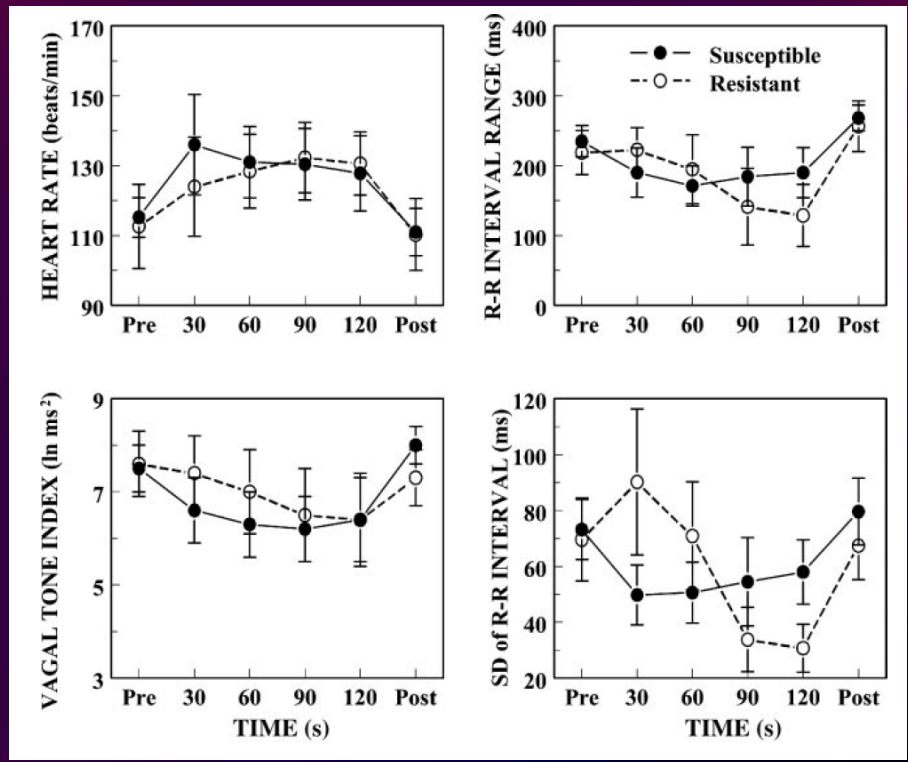
To test this hypothesis, a 2-min coronary occlusion was made during the last min of a 18-min submaximal exercise test in dogs with healed myocardial infarctions

Heart Rate And Heart Rate Variability Responses To A 2-min Coronary Occlusion

Before Training



After Training



Acta Physiologica

Acta Physiol 2008, 193, 331–339

Effects of chronic exercise on myocardial refractoriness: a study on isolated rabbit heart

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2 Department of Physiotherapy, University of Valencia, Valencia, Spain
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Received 19 December 2007, revision requested 15 January 2008, revision received 14 February 2008, accepted 6 March 2008
Correspondence: L. Such,

Abstract

Aim: To determine whether chronic physical training increases atrial and ventricular refractoriness in isolated rabbit heart.

Methods: Trained rabbits were submitted to a protocol of treadmill running. The electrophysiological parameters of refractoriness investigated in an isolated heart preparation were: (1) atrial effective refractory period (AERP)

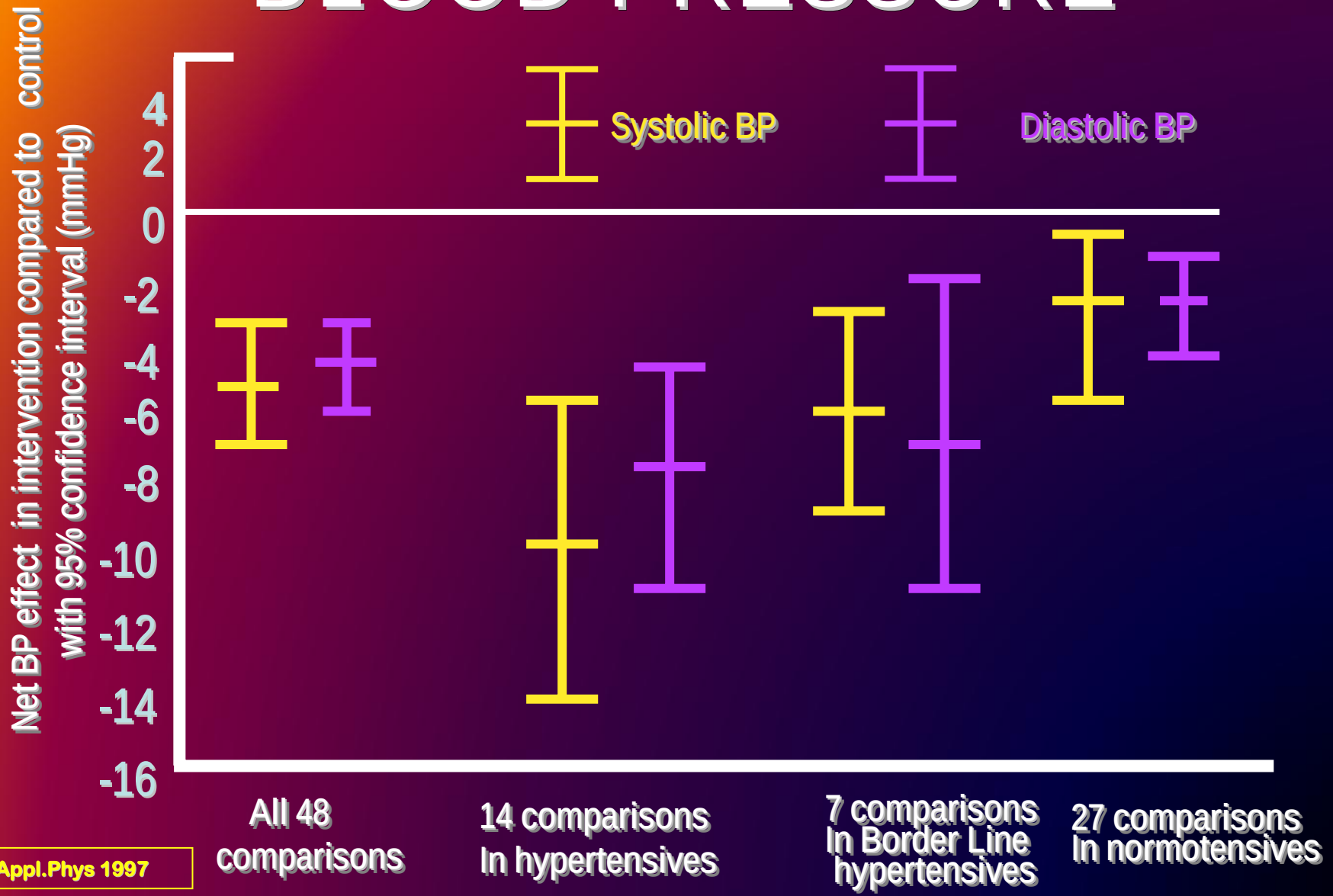
Conclusion: Training seems to increase the electrical stability of ventricular myocardium. As the electrophysiological modifications were exhibited in hearts not submitted to extrinsic nervous system or humoral influences, they are, at least in part, intrinsic modifications. These electrophysiological data also suggest that training could protect against reentrant ventricular arrhythmias.

The mean DF of VF was lower in the trained group than in the . Despite the fact that training did not significantly modify the AE ed to be longer in the trained group ($P = 0.09$).

Conclusio Training seems to increase the electrical stability of ventricular myocardium. As the electrophysiological modifications were exhibited in hearts not submitted to extrinsic nervous system or humoral influences, they are, at least in part, intrinsic modifications. These electrophysiological data also suggest that training could protect against reentrant ventricular arrhythmias.

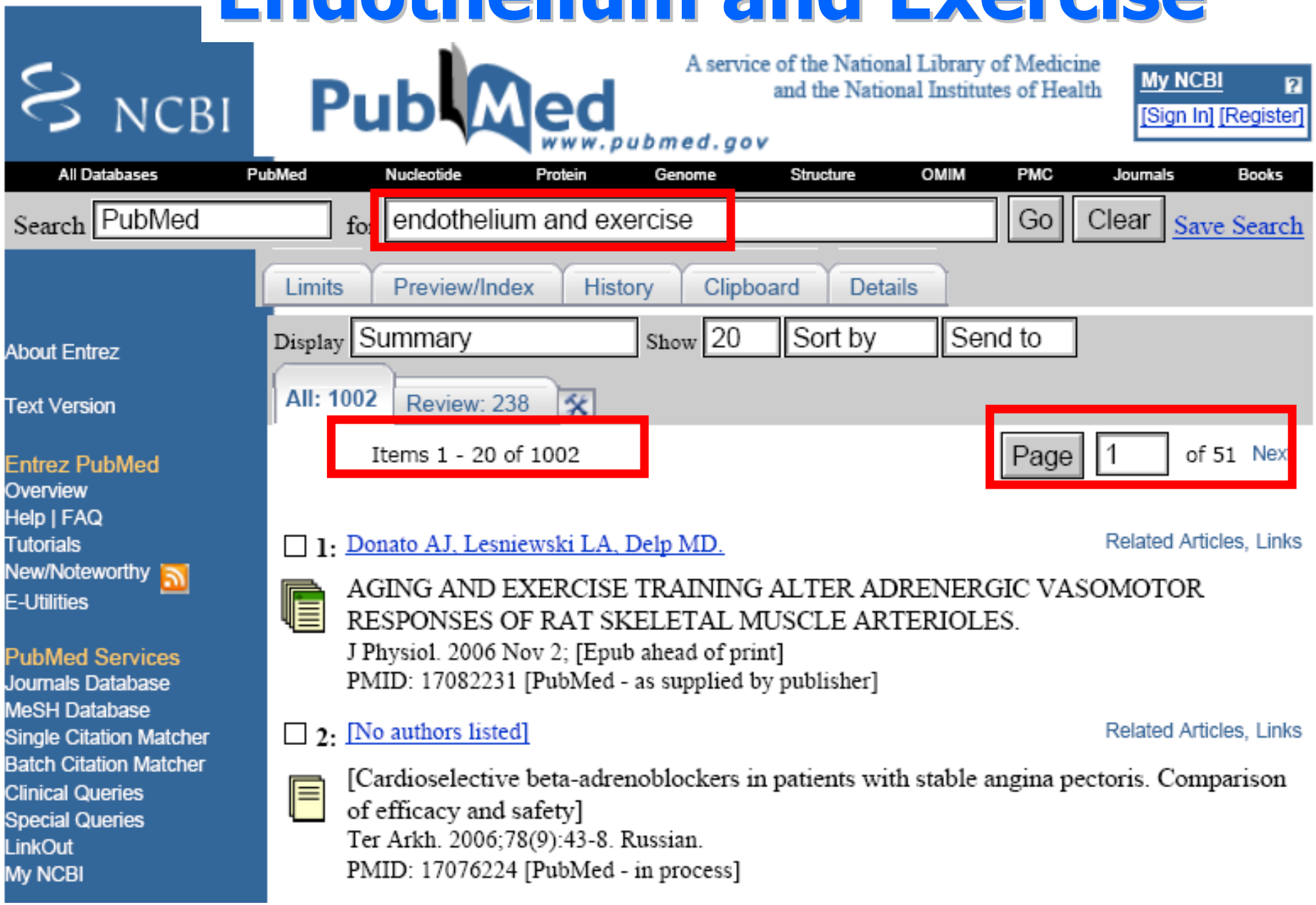
Keywords heart electrophysiology, physical training.

REDUCTION OF RESTING BLOOD PRESSURE

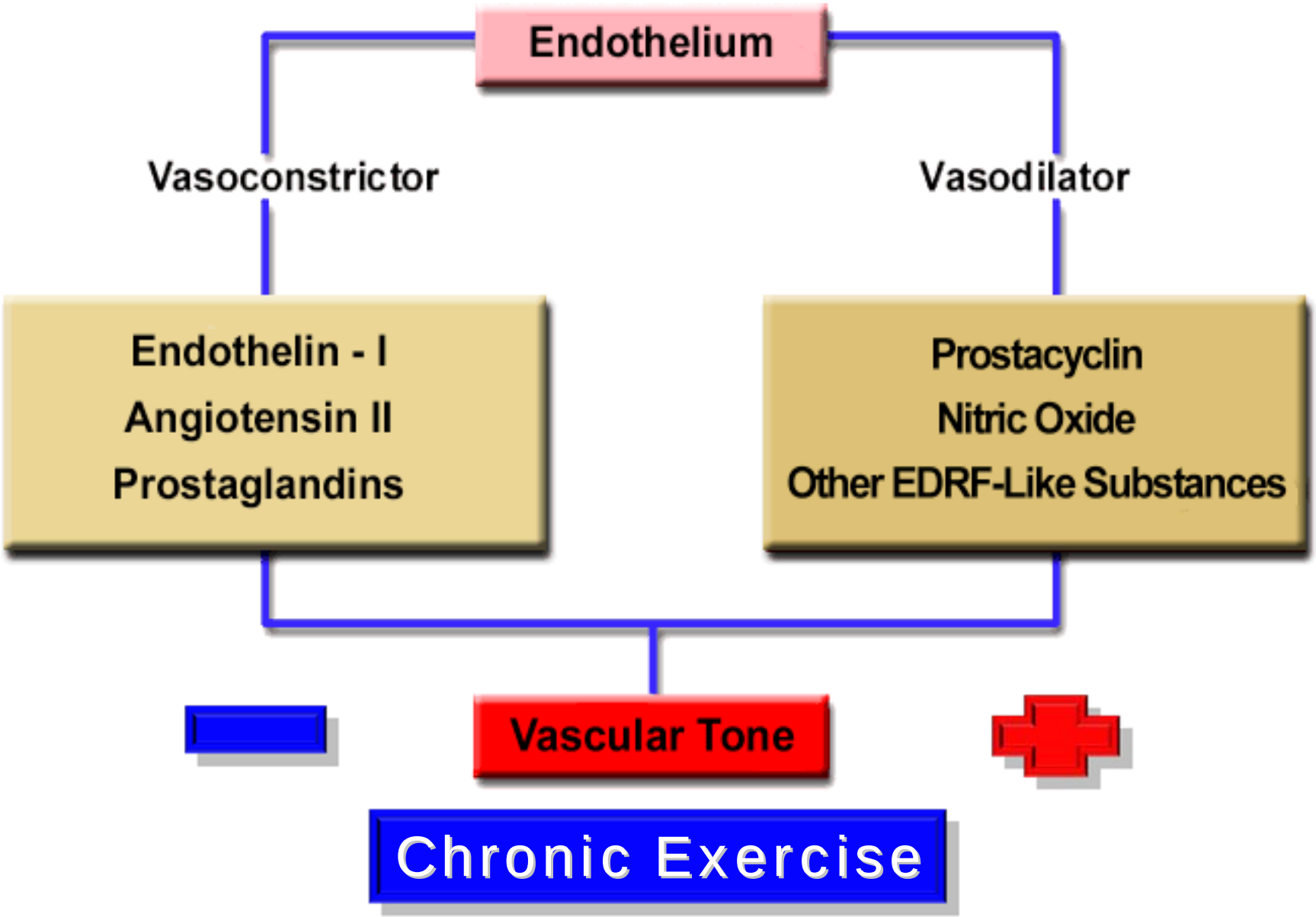


J.Appl.Phys 1997

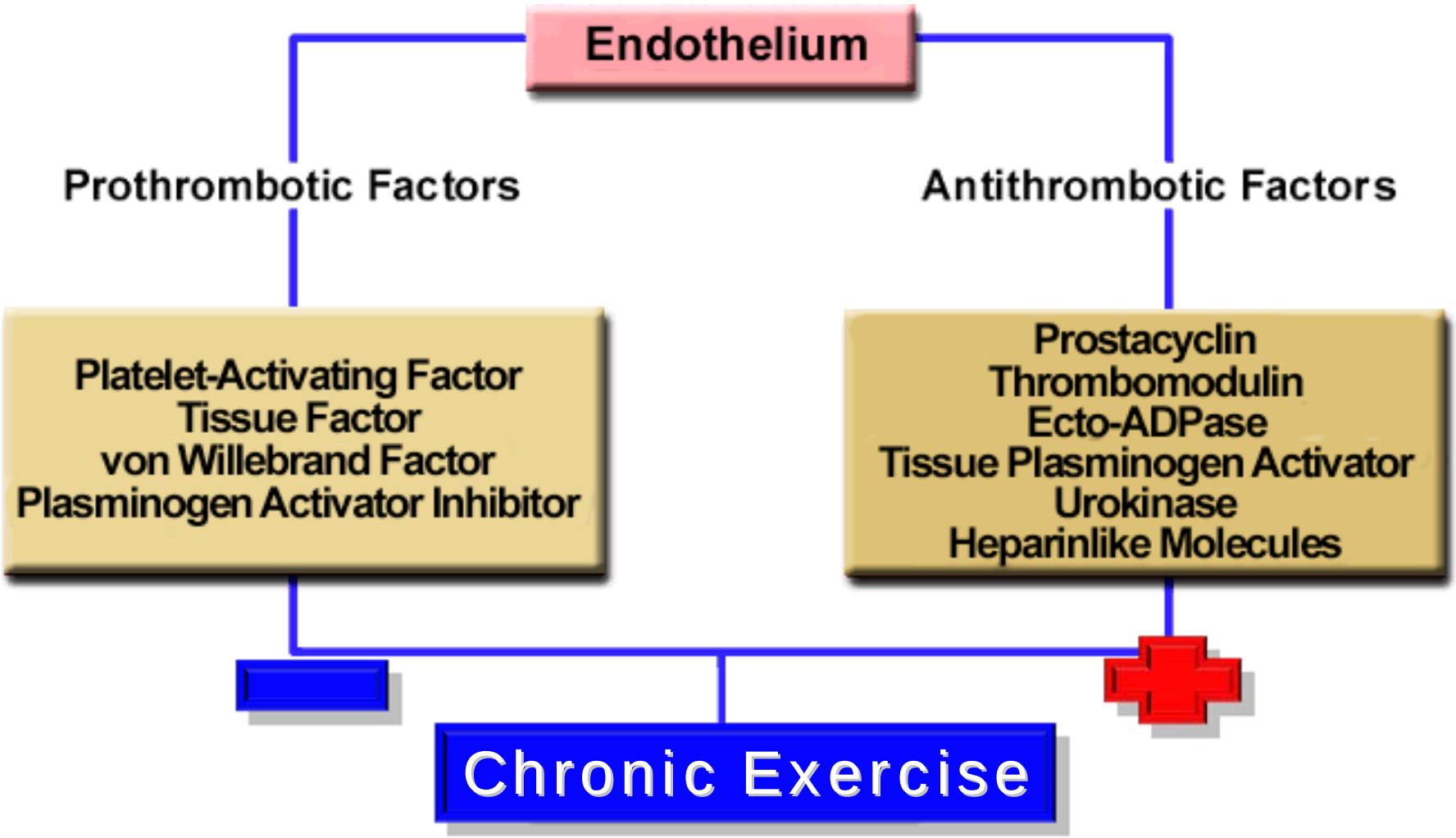
Endothelium and Exercise



ENDOTHELIUM AND EXERCIS



ENDOTHELIUM AND EXERCI



Possible Biological Mechanisms for Exercise-Induced Reductions in All-Causes and Cardiac Mortality

Metabolic Influence

- Reduction of obesity
- Enhanced glucose tolerance
- Improved lipid profile

Lifestyle Influence

- Decreaded likelihood of smoking
- Possible reduction of stress
- Short term reduction of appetite

CRMS

MECHANISMS FOR EXERCISE-INDUCED REDUCTIONS IN ALL-CAUSES & CARDIAC MORTALITY

METABOLIC INFLUENCE

- REDUCTION OF OBESITY
- ENHANCED GLUCOSE TOLERANCE

- TRIGLYCERIDE CONCENTRATIONS ARE LOWER IN HYPTRIGL MEN AFTER 2 WEEKS OF AEROBIC EXERCISE (45MIN/DAY)
- HDL-C CONCENTRATIONS ARE FREQUENTLY INCREASE BY EXERCISE REGIMENS REQUIRING 1000/1200 KCAL/WEEK (INACTIVE PEOPLE HAVE LOWER THRESHOLD THAN PHYSICAL ACTIVE)

- TOTAL PLASMA CHOLESTEROL UNCHANGED AFTER 1 YEAR OF

Enhanced glucose tolerance

- INCREASED PHYSICAL ACTIVITY WITH OR WITHOUT WEIGTH REDUCTION,IMPROVES INSULIN ACTION AND REDUCES INSULIN RESISTANCE IN OBESE PERSONS. *(EVIDENCE A)*
- ENDURANCE EXERCISE TRAINING WHEN COMBINED WITH WEIGTH LOSS OF > 4-5 KG IMPROVES THE LIPID-LIPOPROTEIN PROFIL BY RAISING HDL CHOLESTEROL AND LOWERING TRIGLICERIDIS AMONG OVERWEIGTH AND OBESE MEN AND WOMEN. *(EVIDENCE A)*
- DYNAMIC AOROBIC PHYSICAL ACTIVITY WITH OR WITHOUT WEIGTH LOSS,REDUCES BLOOD PRESSURE AMONG OVERWEIGTH AND OBESE WITH THE GREATEST EFFECT SEEN AMONG PERSONS WITH HYPERTENSION. *(EVIDENCE A)*

Exercise as Therapy. Evidence Based Sport Medicine D.MacAuley,T.B Best 2002


Infiammatory Markers
and Exercise

Inflammation, insulin, and endothelial function in overweight children and adolescents: the role of exercise.

Kelly AS, Wetzsteon RJ, Kaiser DR, Steinberger J, Bank AJ, Dengel DR.

University of Minnesota, Minneapolis, and St Paul Heart Clinic, St Paul, Minnesota, USA.

Inflammatory markers and physical function among older adults with knee osteoarthritis.

Penninx BW, Abbas H, Ambrosius W, Nicklas BJ, Davis C, Messier SP, Pahor M.
Sticht Center on Aging, Department of Internal Medicine, Wake Forest University School of Medicine, Wake Forest University, Winston-Salem, North Carolina 27157, USA.

Can exercise training with weight loss lower serum C-reactive protein levels?

Okita K, Nishijima H, Murakami T, Nagai T, Morita N, Yonezawa K, Iizuka K, Kawaguchi H, Kitabatake A.
Department of Cardiovascular Medicine, Hokkaido University Graduate School of Medicine, Kita-15, Nishi-7, Kita-ku, Sapporo 060-8638, Japan

Low cardiorespiratory fitness is associated with elevated C-reactive protein levels in women with type 2 diabetes.

McGavock JM, Mandic S, Vonder Muhll I, Lewanczuk RZ, Quinney HA, Taylor DA, Welsh RC, Haykowsky M.
Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, Alberta, Canada.

EXERCISE-DRUG

GENERICALLY SPEAKING, ANY EXERCISE PRESCRIPTION RESEMBLES A DRUG PRESCRIPTION: EXERCISE A, TAKEN N TIMES DAILY, FOR X DURATION OF WEEKS/MONTHS/YEARS.

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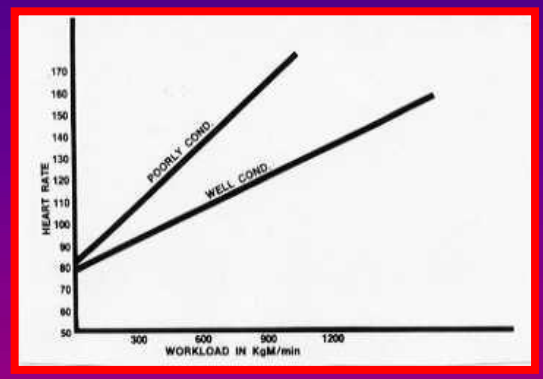

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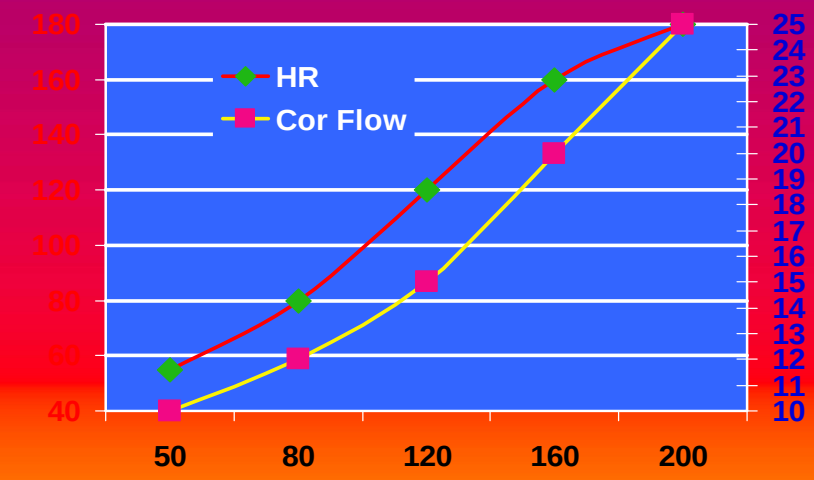

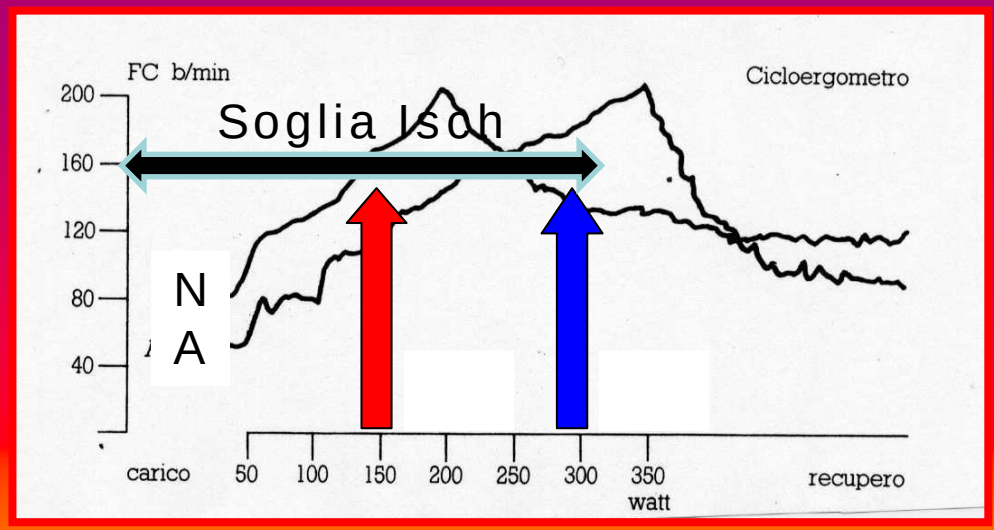

FUTURE DIRECTIONS

CLASSE DELLE SPECIALIZZAZIONI IN MEDICINA CLINICA GENERALE

LO SPECIALISTA IN MEDICINA DELLO SPORT DEVE AVERE MATURATO CONOSCENZE TEORICHE, SCIENTIFICHE E PROFESSIONALI RELATIVE ALLA MEDICINA DELLE ATTIVITÀ FISICO-MOTORIE E SPORTIVE, CON PREVALENTE INTERESSE ALLA TUTELA DELLA SALUTE DEI PRATICANTI TALI ATTIVITÀ IN CONDIZIONI FISIOLOGICHE E PATOLOGICHE. HA COMPETENZA, PERTANTO, NELLA FISIOPATOLOGIA DELLE ATTIVITÀ MOTORIE SECONDO LE DIVERSE TIPOLOGIE DI ESERCIZIO FISICO NONCHÉ NELLA VALUTAZIONE FUNZIONALE, NELLA DIAGNOSTICA E NELLA CLINICA LEGATE ALL'ATTIVITÀ MOTORIE E SPORTIVE NELLE ETÀ EV... ANZIANA E NEGLI STATI DI MALATTIA E DI DISABILITÀ

D.M. 1/8/2005 relativo al riassetto delle Scuole di Specializzazione Mediche

PER LA TIPOLOGIA MEDICINA DELLO SPORT GLI OBIETTIVI FORMATIVI SONO I SEGUENTI:

OBIETTIVI FORMATIVI DI BASE: LO SPECIALIZZANDO DEVE APPRENDERE I PRINCIPI FONDAMENTALI DELLA BIOMECCANICA, DELLA STRUTTURA E DELLA FUNZIONE DEGLI APPARATI DIRETTAMENTE ED INDIRETTAMENTE IMPLICATI NELLE ATTIVITÀ MOTORIE E SPORTIVE, E ACQUISIRE LE PRINCIPALI CONOSCENZE DEI MECCANISMI FISIOPATOLOGICI E LE CORRELAZIONI BIOCHIMICHE, GENETICHE E NUTRIZIONALI DALL'ETÀ EVOLUTIVA A QUELLA ADULTA, NONCHÉ LA CAPACITÀ DI ELABORARE STATISTICAMENTE I DATI RACCOLTI;

OBIETTIVI DELLA FORMAZIONE GENERALE: LO SPECIALIZZANDO DEVE ACQUISIRE CONOSCENZE DI EPIDEMIOLOGIA, METODOLOGIA E SEMEIOTICA FISICA, STRUMENTALE E DI LABORATORIO, NONCHÉ DI DIAGNOSTICA PER BIOIMMAGINI, COMPRESA LA MEDICINA

***OBIETTIVI FORMATIVI DELLA TIPOLOGIA DELLA SCUOLA*:LO SPECIALIZZANDO DEVE:**

ACQUISIRE CONOSCENZE APPROFONDITE DI DIAGNOSTICA GENERALE E DIFFERENZIALE E COMPETENZA PER IL TRATTAMENTO TERAPEUTICO DI CONDIZIONI MORBOSE ACUTE DI FREQUENTE RISCONTRO NELLA PRATICA DEL MEDICO DELLO SPORT;

ESSERE IN GRADO DI EFFETTUARE UNA COMPLETA VALUTAZIONE CLINICA E STRUMENTALE DELLO SPORTIVO, A RIPOSO E SOTTO SFORZO ED ACQUISIRE GLI STRUMENTI PER UNA CORRETTA VALUTAZIONE DEI COMPORTAMENTI NEURO- E PSICOMOTORI E DELLE MOTIVAZIONI ALLA PRATICA SPORTIVA, SPECIE IN ETÀ EVOLUTIVA;

CONOSCERE LE PATOLOGIE DI INTERESSE INTERNISTICO, CARDIOLOGICO ED ORTOPEDICO-TRAUMATOLOGICO CHE LIMITANO E CONTROINDICANO L'ATTIVITÀ FISICA E SPORTIVA, NONCHÉ LE PATOLOGIE EVENTUALMENTE PROVOCATE DALL'ATTIVITÀ SPORTIVA;

CONOSCERE GLI EFFETTI DEI FARMACI SULLE CAPACITÀ DI PRESTAZIONI CON PARTICOLARE RIGUARDO AGLI ASPETTI TOSSICOLOGICI;

- ACQUISIRE I PRINCIPALI CONCETTI DI TERAPIA E RIABILITAZIONE NELLE DIVERSE LESIONI TRAUMATOLOGICHE DI INTERESSE SPORTIVO, CONOSCERE LE PRINCIPALI TECNICHE DI PRONTO SOCCORSO ED ESSERE IN GRADO DI RICONOSCERE CONDIZIONI DI URGENZA E DI EMERGENZA, COMPRESE QUELLE DI CARATTERE TOSSICO O TRAUMATICO;
- CONOSCERE L'INFLUENZA DELL'ATTIVITÀ SPORTIVA SU PATOLOGIE PREESISTENTI E L'UTILIZZAZIONE DELLA STESSA A FINI TERAPEUTICI;
- CONOSCERE L'ORGANIZZAZIONE E LE RISORSE DELLA MEDICINA DEI SERVIZI ED ACQUISIRE UN RUOLO ATTIVO NELL'ATTUAZIONE DEGLI OBIETTIVI DI BENESSERE E TUTELA DELLA SALUTE DI TUTTI I PRATICANTI ATTIVITÀ MOTORIA NELLE COMUNITÀ TERRITORIALI;
- ACQUISIRE LA CONOSCENZA DEI CONCETTI FONDAMENTALI RELATIVAMENTE AI SEGUENTI AMBITI: TEORIA DEL MOVIMENTO E DELLO SPORT; METODOLOGIA E PRATICA DELL'ALLENAMENTO SPORTIVO; REGOLAMENTAZIONE DELLE DIVERSE SPECIALITÀ SPORTIVE; ORGANIZZAZIONE SPORTIVA NAZIONALE ED INTERNAZIONALE;

The reformation of sports medicine

P McCrory

Br. J. Sports Med. 2007;41;281-282

1. THE SEM SPECIALIST OF THE FUTURE SHOULD BE A CLINICIAN SCIENTIST
2. THE SEM SPECIALIST OF THE FUTURE SHOULD BE REDEPLOYABLE
3. THE SEM SPECIALIST OF THE FUTURE SHOULD BE SCEPTICAL
4. THE SEM SPECIALIST OF THE FUTURE SHOULD BE RESILIENT
5. THE SEM SPECIALIST OF THE FUTURE SHOULD UNDERSTAND PUBLIC HEALTH, PSYCHOLOGY, ANTHROPOLOGY AND SOCIOLOGY
6. THE SEM SPECIALIST OF THE FUTURE SHOULD BE HORIZONTALLY INTEGRATED

ExeRcise is Medicine™

Calling on physicians to assess and review every patient's physical activity program at every visit.

MAY-KIT HAPPEN MAY 2008

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Start the conversation with your physician to improve your health and wellness.

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Media

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Policy Makers & Advocates

Learn more»

Working together to advance the cause of Exercise is Medicine.

Supporting Organizations

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AMERICAN COLLEGE of SPORTS MEDICINE

ACSM certified Personal Trainer℠

Exam Blueprint KSAs Competency Area	percentages are approximate
Exercise Physiology and Related Exercise Science	24%
Exercise Prescription (Training) and Programming	28%
Human Behavior	4%
Health Appraisal and Fitness Exercise Testing	13%
Safety, Injury Prevention and Emergency Procedures	8%
Nutrition and Weight Management	9%
Program Administration, Quality Assurance, and Outcome Assessment	4%
Clinical and Medical Considerations	10%

ACSM Health/Fitness Instructor®

Exam Blueprint KSAs Competency Area	percentages are approximate
Exercise Physiology and Related Exercise Science	23%
Exercise Prescription (Training) and Programming	31%
Human Behavior	4%
Health Appraisal and Fitness Exercise Testing	12%
Safety, Injury Prevention and Emergency Procedures	7%
Nutrition and Weight Management	8%
Program Administration, Quality Assurance, and Outcome Assessment	8%
Pathophysiology and Risk Factors	5%
Electrocardiography and Diagnostic Techniques	1%
Medical and Surgical Management	1%

ACSM Exercise Specialist®

Exam Blueprint KSAs Competency Area	percentages are approximate
Exercise Physiology and Related Exercise Science	10%
Exercise Prescription (Training) and Programming	19%
Human Behavior	5%
Health Appraisal and Fitness Exercise Testing	26%
Safety, Injury Prevention and Emergency Procedures	5%
Nutrition and Weight Management	2%
Patient Management and Medications	2%
Program Administration, Quality Assurance, and Outcome Assessment	2%
Pathophysiology and Risk Factors	10%
Electrocardiography and Diagnostic Techniques	17%
Medical and Surgical Management	6%

ACSM Registered Clinical Exercise Physiologist®

Exam Blueprint KSAs Competency Area	percentages are approximate
Exercise Physiology and Related Exercise Science	19%
Exercise Prescription and Programming	21%
Human Behavior	5%
Health Appraisal and Fitness Exercise Testing	25%
Safety, Injury Prevention and Emergency Procedures	4%
Medical and Surgical Management	13%
Program Administration, Quality Assurance, and Outcome Assessment	4%
Pathophysiology and Risk Factors	9%

LM-68 CLASSE DELLE LAUREE MAGISTRALI IN

SCIENZE E TECNICHE DELLO SPORT

OBIETTIVI FORMATIVI QUALIFICANTI

LM-67CLASSE DELLE LAUREE MAGISTRALI IN

Scienze e Tecniche delle Attività Motorie e Sportive, Preventive e Adattative

OBIETTIVI FORMATIVI QUALIFICANTI

The reformation of sports medicine

P McCrory

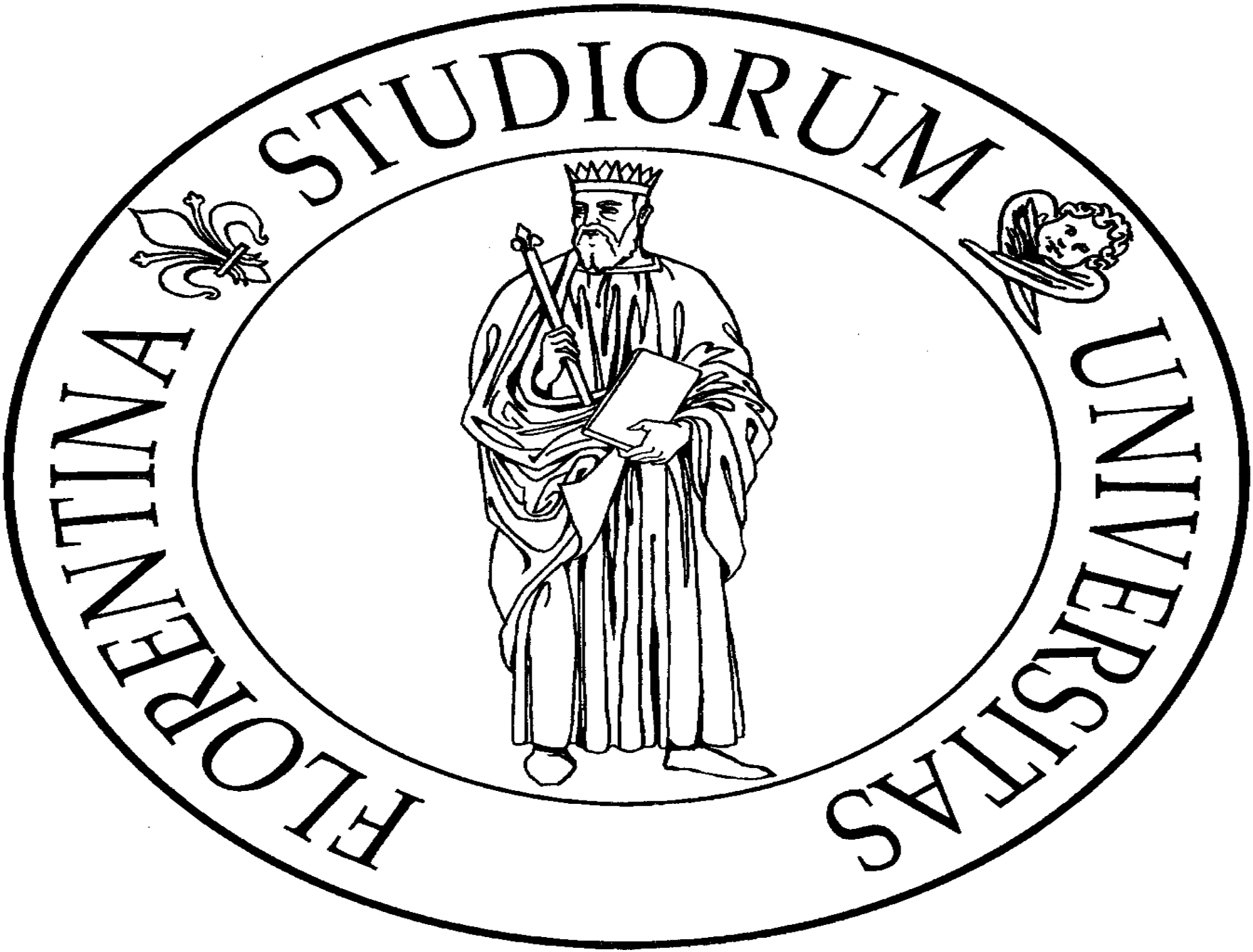
Br. J. Sports Med. 2007;41;281-282

CURRENTLY, WE ARE AT A CROSSROAD OF SPORT AND EXERCISE MEDICINE (SEM) AS A SPECIALTY.

THERE ARE MANY THREATS TO ITS VIABILITY AND AN INEXPLICABLE RELUCTANCE TO DEBATE THE FUTURE OF SEM AND JUST HOW SEM WILL BE PRACTICED, GIVEN THE CHANGING DEMANDS OF THE MEDICAL WORKPLACE.

WE NEED ARE FORMATION FOR OUR SPECIALTY IN THE SAME WAY THAT

ON OCTOBER 31, 1517, MARTIN LUTHER PROTESTED THE ROLE OF THE CHURCH IN SOCIETY BY POSTING HIS 95 THESES ON THE DOOR OF THE CASTLE CHURCH IN WITTENBERG. THESE THESES WERE WIDELY DISSEMINATED AND LED TO A REFORMATION IN RELIGIOUS PRACTICE THAT ECHOES TO THIS DAY.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