



Workshop on
Nutrition and Physical Activity
in the Arab Countries of the Near East

Cairo, Egypt
18 - 21 October 1999



**PROGRAMME
AND ABSTRACTS**

**WORKSHOP ON
NUTRITION AND PHYSICAL ACTIVITY
IN THE ARAB COUNTRIES OF
THE NEAR EAST**

Cairo, Egypt, 18-21 October 1999

Organized by

**Food and Agriculture Organization (FAO)
Arab Nutrition Society (ANSO)
Lebanese Association for Food Science and
Nutrition (LAFSN)**

**PROGRAMME, ABSTRACTS AND LIST
OF PARTICIPANTS**

PROGRAMME

Monday, 18 October 1999

08:30 - 09:00	Registration
09:00 - 09:30	Opening Ceremony
09:30 - 10:00	Coffee Break

First Session: Nutrition and Physical Activity

Chairman: W. Mousa

10:00 - 11:00	Patterns of Food Consumption in the Arab Countries S. Miladi (FAO/RNE/Cairo)
11:00 - 11:30	Status of Physical Activity in the Arab Countries M. Ragheb (Egypt)
11:30 - 12:15	Macro-nutrients, Energy Balance and Physical Activity Ayed F. Melhim (Jordan)
12:15 - 13:00	Micro-nutrients, Fluids and Electolytes Balance Ron Maughan (Scotland)
13:00 - 13:30	Nutritional Ergogenic Aids and Exercise Performance Ron Maughan (Scotland)
13:30 - 14:30	Round table discussions on above

Tuesday, 19 October 1999

Second Session: Diet and Physical Activity

Chairman: H.Al-Hazza

08:30 - 09:30	Physical Activity, Physical Fitness, Fatness and Health Van Mechelen (Netherland)
---------------	---

10:30 - 14:30

Countries experiences

Bahrain - F. Al-Mabroos

Jordan - H. Takruri

S. Arabia - H. Al-Hazza

Egypt - N.Salem

Kuwait - J. Ramadan

Tunisia - N.Zouari

Thursday 21 October 1999

Fifth Session : Working groups

Chairman: A. Musaiger

09:00 - 12:00

*Group 1: Process for Programme
Development for the Promotion of
Physical Activity in the Arab
Countries*

*Group 2: Programmes and Activities
to Promote Proper Nutrition and
Healthy Lifestyle*

12:00 - 12:30

Coffee Break

12:30 - 14:30

Recommendations and Conclusions

ABSTRACTS

PATTERN OF FOOD CONSUMPTION IN THE ARAB COUNTRIES

SAMIR S. MILADI

FAO/RNE. Cairo, Egypt

Since ancient time the traditional diet of the Arab population was basically a mixture of wheat and grain legumes. Fruit, specially dates and vegetables were also commonly consumed in addition to milk and dairy products. Meat and fish are consumed occasionally. Majority of the population were nomads and farmers, accordingly physical activities and continuous movements were part of their daily life. Overweight and obesity were rarely seen or reported among the population.

During the last three decades the region witnessed a very rapid change in the lifestyle. Urban population almost triple, food imports and food industry were expanded at a fast rate. New food habits were introduced. The consumption of food rich in fat and refined sugar has increased steeply. The per capita energy intake increased by 30% and that for fat by 45%, during this period. However, there are big variations among countries in terms of energy intake.

A large percentage of the population became less active, using more cars and machines and spending more time for watching TV. Information on sound food habits is limited. Promotion programmes for physical activity are scarce. These factors contributed to the occurrence of obesity, which reaches in some countries to more than 50% of the total population. In addition obesity is more prevalent among females than males and is increasing among school children.

Obesity, lack of physical activity, stress and cigarette smoking have led to the increase morbidity and mortality caused by the non-communicable diseases, especially cardiovascular disease, cancer and diabetes mellitus. There is an urgent need for the promotion of healthy lifestyle, which should include dietary modification, and diversification, physical activity programme, management of stress and anti-smoking campaigns.

STATUS OF PHYSICAL ACTIVITY IN THE ARAB COUNTRIES

MOHAMED RAGHEB

Programme, Planning and Monitoring Unit, World Bank Project, Cairo, Egypt

The practice of physical activity in the Arab countries varies from one country to another depending on several factors. However, the level of practice is still far from satisfactory. To evaluate the present status one should consider historical, socio-economical and geographical factors as well as motives at the first place besides political support. Historically, the Arabs have led an active life through the ways they earned their livings, as farmers or travelling Bedouins. Modern technology is blamed for the significant lack of physical activity and prevalence of obesity and non-communicable diseases. Heavy traffic and modern crowded cities have deprived the children and youths of their playing space and drove them to leisure themselves by TV and computer games where they lose the natural fitness and movement potential. Physical education classes are more oriented to acquisition of raw sports skills. The role of the media seems limited to short session in the daily morning TV programs. Observations and available surveys showed that the main motives of the practice are weight control, rehabilitation of diabetes, coronary heart disease, physical appearance and physical fitness. The main sorts of exercise are walking, jogging and aerobic classes, which are all of aerobic nature and muscular strength and flexibility are almost overlooked. Hot and humid weather is a limiting factor for enjoying out door activities. Connecting physical activity to sports created a misconception, which stands as a barrier. Official physical activity is promoted in terms of sports for all departments, which are affiliated to the Ministries or Supreme Authorities of Youth, and Sport. There is another role played by NGO's such as National Federation of Sports for All, National Federation of Sports Medicine, Associations of Diabetes and Cardiac diseases. What should be encouraged is the adaptation of active life-style with gradual quantitative increase of natural locomotion. A formula that mixes exercise with fun and social interaction proved effective in approach to gain interest and continuity. Acquiring the habits of being physically active should start from the early school years. The curriculum has to emphasize the different approaches of physical activity and the life long sport skills. Awareness campaign should target all age groups and different levels of mobility.

MACRO-NUTRIENTS, ENERGY BALANCE AND PHYSICAL ACTIVITY

AYED F. MELHIM

*Department of Exercise Science, Faculty of Physical Education,
Yarmouk University, Irbid, Jordan*

The human body requires substantial amount of some nutrients, particularly those that may provide energy and support growth and development of the body tissue. These nutrients are referred to as macronutrients, because the daily requirement is greater than other nutrients. Our diet supplies the necessary substrate fuels from the three energy-yielding macronutrients (carbohydrates, fats and protein) for meeting our energy demands.

Energy in the body is available for immediate use in the form of ATP, which is classified as a high-energy compound and is stored in the muscle cell in small amounts. The other energy stores such as carbohydrates, fats and proteins are used to replenish ATP at varying rates. It is important to have adequate energy stores from these macronutrients as a back up system.

The energy balance involved in physical activity requires a base of sound nutrition to supply the substrate fuels necessary for meeting widely varying levels of energy demands for different types of activities. The purpose of the present paper is to shed some light on the interrelationship between physical activity and macronutrients need and intake.

MICRONUTRIENTS, FLUIDS AND ELECTROLYTES IN PHYSICAL ACTIVITY

RON MAUGHAN

*Department of Biomedical Sciences, University Medical School,
Foresterhill, Aberdeen, Scotland*

Physical activity increases the body's energy expenditure and thus there is a requirement for an increased energy intake. Many vitamins play vital role in energy metabolism, and there may be need for an increased intake of some of these micronutrients. However, provided a varied diet is eaten in sufficient amounts to meet the energy demand, there is no need for supplementation. Iron deficiency is not more common in active people than in sedentary individuals, but the consequences are more apparent: supplementation, however, is not warranted unless a deficiency exists. A high intake of food to meet the energy demand decreases the likelihood of an inadequate intake of minerals such as calcium. Body loses water, electrolytes and number of minerals in sweat during exercise, especially in warm environments. Dehydration should be prevented by intake of carbohydrate-electrolyte beverages during exercise wherever possible. After exercise, losses of water and electrolytes (especially sodium and potassium) should be replaced.

PHYSICAL ACTIVITY, PHYSICAL FITNESS, FATNESS AND HEALTH

W. VAN MECHLEN

*Institute for Research in Extramural Medicine, Medical Faculty and Department of
Social Medicine, Vrije Universiteit Amsterdam, The Netherlands*

The relation between activity, fitness and health is complex. In the past the emphasis was placed on physical activities vigorous to enhance the physical fitness status of individuals, thereby promoting good health. Recent research has shown that in adults both physical activities of at least moderate intensity, as well as physical (aerobic) fitness are independently related to good health.

Despite our current levels of knowledge many questions are still unanswered. A key point here is to unravel the interrelationship between physical activity, physical fitness, body fatness (as a proxy measure of nutritional status) and health. Until recently the current belief was that (extreme) overweight was related to ill health status, regardless of the amount of physical activity and/or the fitness status of the persons involved. However, recent research has shown that health risks regarding for instance NIDDM and cardiovascular disease is most likely caused by inactivity or low levels of fitness, rather than by overweight or obesity per se. The purpose of this presentation is to give an overview of the points mentioned above.

NUTRITIONAL ERGOGENIC AIDS AND EXERCISE PERFORMANCE

RON MAUGHAN

*Department of Biomedical Sciences, University Medical School,
Foresterhill, Aberdeen, Scotland*

The use of nutritional supplements in sports is widespread. Nutritional ergogenic aids are aimed primarily at enhancing performance, (either by affecting energy metabolism or by an effect on the central nervous system) at increasing lean body mass or muscle mass by stimulation of protein synthesis, at reducing body fat content. Although not strictly ergogenic (i.e. capable of enhancing work performance), supplements aimed at increasing resistance to infection and improving general health are seen by athletes as important in reducing the interruptions to training that minor illness and infection can cause. Creatine is widely used: supplementation can increase muscle creatine phosphate levels, and can improve strength and power. Ingestion of bicarbonate can enhance performance of exercise where metabolic acidosis may be a limiting factor. Caffeine can also improve performance, by direct effects on muscle and possibly by CNS effects on the perception of effort and fatigue. Carnitine plays essential role in fatty acid oxidation in muscle but, although supplements are used by athletes, there is not good evidence of a beneficial effect of supplementation. None of these products contravenes the International Olympic committee regulations on doping in sports, although caffeine is not permitted over a urine concentration of 12ml/l. Supplementation is particularly prevalent among strength and power athletes, where an increase in muscle mass can benefit performance. Protein supplements have not generally been shown to be effective. Individual amino acids, especially ornithine, arginine and glutamine are also commonly used, but this is not supported by documented evidence. Chromium and hydroxymethylbutyrate (HMB) are also used by strength athletes, but again there is no sound evidence of a beneficial effect. Athletes use a wide variety of supplements aimed at improving or maintaining general health, and vitamin and mineral supplementation is widespread. There is a theoretical basis, and limited evidence, to support the use of antioxidant vitamins and glutamine during periods of intensive training, but further evidence is required before the use of these supplements can be recommended.

NUTRITION, EXERCISE AND NON-COMMUNICABLE DISEASES

NAHLA HWALLA (BABA)

American University of Beirut, Lebanon

The concept of positive health being related to a balance between food intake and physical activity dates back to antiquity. This principle continues to develop in terms of knowledge base and understanding. The exercising individual needs to have appropriate nutritional habits as diet can influence physical performance and optimum nutrition requires a balanced exercise schedule. Furthermore, programmes aiming at prevention of obesity, diabetes and heart diseases include recommendations for both exercise and nutrition.

Lately, scientists are urging universities to establish a separate discipline that unite the two fields; nutrition and exercise, and are suggesting curricula that could fulfill such a discipline. The proposed models include areas such as energy balance and body composition for diseases prevention and management. Furthermore, the classical treatment of obesity with diet and exercise is recently challenged and it is becoming more evident that, unless metabolic factors are clearly identified, treatment will be unsuccessful.

The concept of functional foods is also being developed to improve exercise performance of athletes. One typical example is creatine. New strategies and programmes for prevention of disease include intervention at the various medical and community levels to improve cardiovascular health by reducing risk factors which includes a sedentary life style in addition to smoking, hypertension, obesity, and hypercholesterolemia.

EXERCISE AND MENTAL WELL-BEING

STUART BIDDLE

*Department of Physical Education, Sports Science and Research Management,
Loughborough University, Loughborough, Leicestershire, UK*

This paper reviews the evidence on the proposed link between exercise and mental well being. Evidence is drawn from narrative and meta-analytic reviews, experimental studies, and epidemiological (population) surveys. The areas of anxiety, depression and emotion/mood are the focus of the review. Despite methodological weaknesses, the evidence clearly points to a positive relationship between exercise and mental health/well-being. This relationship could be causal in the case of depression.

RECOMMENDATIONS FOR DAILY PHYSICAL ACTIVITY FOR CHILDREN AND ADULTS

W. VAN MECHLEN

Institute for Research in Extramural Medicine, Medical Faculty and Department of Social Medicine, Vrije Universiteit Amsterdam, The Netherlands

It is now beyond debate that a physical active lifestyle will both improve functional as well as health status of an individual. As a consequence consensus meetings have been held to formulate recommendations for the amount and quality of desired levels of habitual daily physical activity.

For adults this recommendation was formulated by the US Centers of Disease Control (CDC) and the American College of Sports Medicine (ACSM). According to the CDC/ACSM consensus document it is recommended that every US adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week. For children this recommendation was formulated by the UK Health Education Authority (HEA). According to the HEA consensus documents it is recommended that:

1. All young people should participate in physical activity of at least moderate intensity for one hour per day.
2. Young people who currently do little activity should participate in physical activity of at least moderate intensity for at least half an hour per day.
3. At least twice a week, some of these activities should help to enhance and maintain muscular strength and flexibility and bone health.

The aim of this presentation is to present a rationale for these recommendations.

SOCIO-CULTURAL BARRIERS TO PHYSICAL ACTIVITY IN THE ARAB COUNTRIES

ABDULRAHMAN O. MUSAIGER¹ AND MONA AL-ANSARI²

¹Bahrain Center for Studies and Research, ²Bahrain University, Bahrain

Studies on socio-cultural barriers to physical activity in the Arab countries are limited and most of these studies focus on factors associated with physical activity in women of various ages. In general, females cited higher levels of perceived barriers than males and these barriers differed from one country to another according to social, cultural and economic situations. The most important barriers mentioned in literature are: time constraints, unsuitable weather, lack of motivation, lack of sports facilities and training places, school/university work, family activities, family's disliking towards outdoor exercise practise, lack of interest in sports, religious factors, socio-cultural attitude towards women's sport, lack of indoor facilities and physiological factors (among women) such as pregnancy and lactation. Progress in age and handicapping were also cited in some studies. Suggestions to overcome some of these barriers are discussed.

SOCIO-CULTURAL BARRIERS TO PHYSICAL ACTIVITY IN THE ARAB COUNTRIES

ABDULRAHMAN O. MUSAIGER¹ AND MONA AL-ANSARI²

¹Bahrain Center for Studies and Research, ²Bahrain University, Bahrain

Studies on socio-cultural barriers to physical activity in the Arab countries are limited and most of these studies focus on factors associated with physical activity in women of various ages. In general, females cited higher levels of perceived barriers than males and these barriers differed from one country to another according to social, cultural and economic situations. The most important barriers mentioned in literature are: time constraints, unsuitable weather, lack of motivation, lack of sports facilities and training places, school/university work, family activities, family's disliking towards outdoor exercise practise, lack of interest in sports, religious factors, socio-cultural attitude towards women's sport, lack of indoor facilities and physiological factors (among women) such as pregnancy and lactation. Progress in age and handicapping were also cited in some studies. Suggestions to overcome some of these barriers are discussed.

EUROFIT FOR CHILDREN AND ADULTS

W. VAN MECHLEN

Institute for Research in Extramural Medicine, Medical Faculty and Department of Social Medicine, Vrije Universiteit Amsterdam, The Netherlands

In order to improve health and fitness status of the population there is a need for easy to apply field tests for measuring physical fitness. In order to set up such a measuring tool a few years ago the Council of Europe launched the EUROFIT test battery.

The purpose of this presentation is to give an overview of the EUROFIT for children and adults initiative of the Council of Europe.

CDC- PAHO/WHO COLLABORATING CENTER ON PHYSICAL ACTIVITY AND HEALTH PROMOTION

BECKY LANKENAU

*WHO Collaborating Center on Physical Activity and Health Promotion,
Center for Disease Control and Prevention, Atlanta, Georgia, USA*

The WHO Collaborating Center on Physical Activity and Health Promotion was formally designated in July 1998. This center is the only one of its kind in the western Hemisphere and joins only 4 others in the rest of the world that are focused on physical activity (PA). Priority attention is on collaborative assistance to PAHO, our regional WHO office of reference in Washington DC. Currently, we are working with PAHO on a physical activity component for the CARMEN Project (community-based CVD prevention in the Western Hemisphere). In addition, we are developing multiple risk factor counseling materials for health professionals that will incorporate our PACE project (PA counseling materials for physicians). In addition to the activities with PAHO, the Collaborating Center will continue to pursue ongoing commitments to WHO headquarters in Geneva and other WHO regional offices. These activities include the development of standardized PA surveillance and monitoring tools, dialogue/ potential workshop on policy and environmental issues, a workshop on the economic aspects of PA, and participating in the launch of an international "Active Living Network" of countries as part of WHO's Active Living Initiative.

The terms of reference for this center are:

1. To support the development of national and physical activity policies, environmental guidelines, strategies and programmes.
2. To strengthen national capacity for community -based physical activity promotion.
3. To train health, sport and education professionals to understand the health benefits of physical activity and methods to promote active living.
4. To promote the development of support networks and partnerships involving public, private and government sectors.
5. To establish and maintain surveillance and evaluation systems to monitor health status and physical behaviors, as well as physical activity intervention and promotion activities.

PATTERNS OF PHYSICAL ACTIVITY IN BAHRAIN

ABDULRAHMAN O. MUSAIGER¹ AND FAISAL
AL-MAHROOS²

*¹Bahrain Center for Studies and Research, ²Arabian Gulf University,
Manama, Bahrain*

Studies on patterns of physical activity among Bahraini community have received little attention by concerned authorities in the country. Practicing exercise was only studied among the factors that associated with health problems such as chronic diseases. In a community study among population aged 30-79 years, it was found that 12.7% of men and 8.3% of women practice exercise regularly. The practice decreased with age in both sexes. Another study among adults aged 40- 69 years showed that the majority of Bahrainis walk less than one kilometer on average weekdays (65% of men and 94% of women). The men were more active than women as 21% of them walk 1-3 Km/day compared to 5% of women. Exercise was also found to be less practiced by schoolgirls compared to schoolboys. Several socio-cultural barriers to practice physical activity were reported by schoolgirls in Bahrain. Studies demonstrated that lack of physical activity is important risk factors for obesity, diabetes mellitus, hypertension and acute myocardial infarction in the Bahraini population. These studies are discussed; and recommendations to promote physical activity among school children and the public are provided.

AN OVERVIEW OF THE PHYSICAL ACTIVITY STATUS IN JORDAN

HAMED R. TAKRURI¹ AND AYED F. MELHEM²

¹*Dept. Nutrition and Food Technology, Faculty of Agriculture, University of Jordan, Amman.* ²*Dept. Exercise Science, Faculty of Physical Education, Yarmuk University, Irbid, Jordan*

The purpose of this paper is to provide an overview of physical activity status in Jordan through official statistics on athletic activities in different sectors of the community. In recent years, development in physical activity in Jordan has been achieved in different elements including manpower, sports establishments, legislation, scientific material and supporting services such as athletic security, athletic media and counseling and education of the public.

Data on the participants in athletic activities in schools, armed forces, athletic clubs are provided with reference to the physical activities in older adults and handicapped. The efforts of the Ministry of Youth and Sports to encourage physical activity in the country are outlined. Finally, the type of diet and sound nutrition of athletes are included among recommendations to promote physical activities in Jordan.

PATTERNS OF PHYSICAL ACTIVITY AMONG SAUDI CHILDREN, ADOLESCENTS AND ADULTS WITH SPECIAL REFERANCE TO HEALTH

HAZZAA M. AL-HAZZAA

*Exercise Physiology Laboratory, King Saud University,
Riyadh, Saudi Arabia*

During the past two decades, Saudi Arabia has witnessed a tremendous development and urbanization at astounding rate. The standard of living rises and mechanization has been apparent in all aspects of people's life. As industrialization and modernization progressed, substantial changes in physical activity patterns and eating habits have occurred. Indeed, physical inactivity and sedentary living with associated low level of physical fitness are increasingly becoming prevalent in Saudi society. From the available published studies, it appears that most Saudi children, adolescents, more so adults do not meet the minimal weekly requirement of moderate to vigorous physical activity necessary for an effectively functioning cardiorespiratory system. Evidence from heart rate telemetry indicate that the average saudi boy spends less than 10 minutes a day in activities that promote cardiorespiratory fitness, and many children may never engage in any activity of moderate to high intensity level at all. Obese boys tend to be physically less active than lean boys. Moreover, inactive children exhibit higher levels for most of coronary artery disease risk factors compared with active children. In addition, the proportion of Saudi adults aged 18years and older who are classified as regularly active varied from approximately 22% in young males (college students) to about 19% in adult males. These figures are considerably lower than what have been reported from many Western countries. Data on the patterns of physical activity of Saudi women are yet to be established. Furthermore, the most influencing factors on the levels of physical activity in Saudi children and adolescents appears to be obesity, cardiorespiratory fitness, TV viewing, and physical education programmes. As for Saudi adults, the most important reason for being physically active was to maintain health, while time constraint seems to be the major factor for not being active. Based on the available evidences, promotion of physical activity appears to be warranted. Finally, studies with nationally representative samples are urgently needed.

HABITUAL PHYSICAL ACTIVITY IN KUWAIT

JASEM RAMADAN

Department of Physiology, Faculty of Medicine, Kuwait University

Regular physical activity increases or sustains exercise capacity and plays a role in both primary and secondary prevention of all cause of cardiovascular disease morbidity and mortality. Regular exercise also helps control blood lipids and blood sugar and prevents obesity. The aim of this study was to show the impact of physical activity on the physique of Kuwaiti adult males, and survey the possible avenues available for physical activities in the country.

We studied 45 adult Kuwaiti males who served as subjects. After obtaining a consent form, a simple questionnaire was given to assess their physical activity level. Each subject performed a graded exercise stress test, using the Bruce protocol to measure his maximal aerobic power. Body composition was assessed from their height, weight and skin-folds. Of the 45 subjects, 22.2% indicated never being involved in any form of regular physical activity, 42.2% said to exercise only once a week. 35.5% were involved in two or more exercise sessions per week. Significantly ($P < 0.05$) lower skin-fold thickness at different body sites were found in the two exercising groups compared to the non-exercising one. Body weights and body mass index of the exercising groups were significantly ($P < 0.05$) lower than in non-exercising groups. Percent body fat was significantly ($P > 0.01$) lower in the exercising groups, as was the absolute fat mass ($P > 0.001$). A variety of sports playgrounds and facilities were used for the physical activities. These facilities are used either by athletes or by general public and are classified as: (a) standard sports clubs (b) sports facilities at schools, university and other higher education institutions (c) private sports centers (d) community facilities and walk-jog tracks (e) physical fitness center (f) the beach front and (g) home exercise equipment. In conclusion, it was apparent that the availability of sports facilities is not a limiting factor for inactivity in Kuwait. Subjects exercising even only once a week showed significantly positive health benefits in terms of lower body weight and body fat compared to those that never exercise.

PROMOTING NUTRITION, PHYSICAL ACTIVITY AND HEALTH IN TUNISIA

NOURI ZOUARI

Endocrinologie Metabolism Nutrition Dept, CHU H. Bourguiba, Sfax, Tunisia

The Tunisian traditional diet reveals to be healthy and hygienic. It includes fresh season products obtained according to traditional processes (biological or organic), rich in vegetables, leguminous plants, cereals, fruits and sea foods.

The traditional diet is more respected in rural areas than in urban ones and the rural people are physically more active than the city-dwellers. Thus, the prevalence of type II diabetics is about 3.8% in urban areas and 1.3% in rural areas. This shows the influence of certain factors such as environment, food habits and decrease in physical activities.

The change in lifestyle especially the change in food habits and lack of physical activity have played an important role in occurrence of chronic diseases in the Tunisia. However, the concerned authority in the country has launched programmes to promote healthy lifestyle and sound food habits for school children as well as the public. This paper discuss the experience of Tunisia in promoting physical activity and healthy eating.

LIST OF PARTICIPANTS

Bahrain

Dr. Jamal M. Saleh

Consultant and Head of Orthopedics
Bahrain Defence Force Medical Services
Riffa

Tel: +973-659960

Fax: +973-624469

Dr. Faisal Al-Mahroos

Diabetes Specialist and Epidemiologist
Dept. of Family and Community Medicine
College of Medicine and Medical Sciences
Arabian Gulf University

P.O. Box 22979

Tel: +973-401401

Fax: +973-403232

Dr. Neriman Lotfi

Fitness and Nutrition Specialist
Sports Medicine Center
Bahrain Defence Force Medical Services
Riffa

Tel: +973-681101

Fax: +973-669923

Egypt

Dr. Wafaa A. Moussa

Professor of Nutrition
Nutrition Institute
Cairo

Tel: +202-4177229

Fax: +202-3647476

Dr. Mohammed A. Ragheb

Professor of Exercise Science
Programme, Planning and Monitoring Unit
World Bank Project
Cairo

Tel: +202-4847639

Fax: +202-5883362

Dr. Leila Shalabi

Director Prevention and Rehabilitation of Cardio-vascular Diseases
Fouad Hospital, 6th October City
Tel: +011-356050 Fax: ++011-356050

Dr. Naguib Salem

Prof. of Physiotherapy
Cairo University
Cairo
Tel: +202-4536606

Jordan

Dr. Hamed Takruri

Head, Dept. of Nutrition & Food Technology
Faculty of Agriculture
University of Jordan
Amman
Tel: +962-6-5355000 Fax: +962-6-5355577

Dr. Ayed F. Melhim

Assistant Professor of Exercise Physiology
Dept. of Exercise Science
Faculty of Physical Education
Yarmouk University
Irbid
Tel: +962-2-7103553 Fax: +962-2-7271100

Kuwait

Dr. Jasem Ramadan

Exercise Physiologist
Department of Physiology
College of Medicine
Kuwait University
Kuwait
Tel: +965-5319593 Fax: +965-5338937

Dr. Mustafa J. Hayyat

Associate Professor

Exercise Education Department

The Public Authority for Applied Education and Training

Ministry of Education

Tel: +065-2545099

Fax: +965-5398831

Lebanon

Dr. Nahla Baba

Professor of Nutrition

President, LAFSN

Dept. of Food Technology and Nutrition

Faculty of Agriculture Sciences

American University of Beirut

Beirut

Tel: +961-3-706700

Fax: +961-1-744460

Ms. Rania Mekary

Instructor of Physical Education

American University of Beirut

Beirut

Fax: +961-1-744460

Saudi Arabia

Dr. Hazza M. Al-Hazza

Professor and Director

Exercise Physiology Laboratory

College of Education

King Saud University

Riyadh

Tel.: +9661-4674832

Fax: +9661-4674815 / 4674852

Dr. Khalid Al-Mazini

Dept. of Physical Education

College of Education

King Saud University

Riyadh

Tel: +9661-4674832

Fax: +9661-4674852

Dr. Sulieman N. Al-Shehri

General Director
School Health
General Presidency of Girls Education
Riyadh
Tel.: +9661-4036957 Fax: +9661-4031665

Tunisia

Dr. Nouri Zouari

Dept. of Physiology
Faculty of Medicine
Sfax University
Tel.: +216-4-345357/245257 Fax: +216-4-246217/243427

United Arab Emirates

Dr. Ahmed Al-Hashemi

Director, Dubai Medical Area
Ministry of Health
Dubai
Tel.: +9714-3965801 Fax: +9714-3965840

Dr. Bassam Ali Darwish

Medical Editor
Al-Bayan Press Print & Pub. Est.
Dubai
Tel.: + 9714-4064403 Fax: +9714-447846

Dr. Juma B. Fairouz

Director, Dept. Disease Control
Ministry of Health
Dubai
Tel: +9714-3968391 Fax: +9714-3968214

International Speakers

Dr. Willem Van Mechelen

Professor of Social Medicine
Institute for Research in Extramural Medicine
Medical Faculty and Department of Social Medicine
Vrije University Amsterdam
The Netherlands
Tel: +31-20-4448410/8505 Fax: +31-20-4448181

Dr. Ron Maughan

Dept. of Biomedical Sciences
University Medical School
Aberdeen AB25 2ZD
Scotland
Tel: +44-1224-663123 (ext. 52482) Fax: +44-1224-662990

Prof. Stuart Biddle

Professor of Exercise and Sport Psychology
Dept. of Physical Education, Sports Science and Recreation Management
Loughborough University
Leicestershire LE11 3TU
UK
Tel: +44-1509-223287 Fax: +44-1509-223971

Dr. Becky Lankenau

Managing Director
Nutrition and Physical Activity
Center for Disease Control and Prevention
Atlanta, Georgia
USA
Tel: +1-770-488-5520 Fax: +1-770-488-5473

Private Sector

Dr. E. Maureen S. Edmondson

International Scientific Affairs

Mars Confectionery

Berks SL1 4JX, U.K.

Tel: +44-1753-514791

Fax: +44-1753-514775

Mr. Omar Salim

MARS Ltd./Effemey

Marketing Manager

Dubai-UAE

Tel.: +9714-8081500

Fax: +9714-815324

Dr. Yannis Manios

Mediterranean Area

Kellogg's Company

UK

Tel: +44-161-869-2000

Fax : +44-161-869-2100

Mr. Guy Taylor

IMC Limited

Dubai Liaison Office

P.O. Box 15407

Dubai

United Arab Emirates

Tel: +9714-3352351

Fax: +9714-3352257

Ms. Nahla El-Mazny

IMC Limited

Dubai Liaison Office

P.O. Box 15407

Dubai

United Arab Emirates

Tel: +9714-3352351

Fax: +9714-3352257

Food and Agriculture Organization

Mr. William D. Clay

Chief, Nutrition Programmes Services

Food and Nutrition Division

FAO of UN

Rome – Italy

Tel: +396-5705-4152

Fax: +396-57054593

Dr. Samir S. Miladi

Food and Nutrition Officer

FAO/RNE

Cairo – Egypt

Tel: +202-3316000

Fax: +202-7495981/3373419

Non-Governmental Organizations

Dr. A. O. Musaiger

Coordinator, Arab Nutrition Society

Director, Environmental & Biological Programme

Bahrain Center for Studies & Research

Manama

Tel: +973-754948

Fax: +973-754822/715289

