

# 道動處方 Exercise Prescription

醫生手冊 Doctor's Handbook





# Acknowledgements

Special thanks must be given to the Exercise Prescription Development Committee for developing and endorsing these guidelines



and the following organisations for providing comments on specific sections or technical support for the production of this handbook.



#### Statement Of Intent

This document is considered as the commonly accepted practice in the primary care settings and is not intended to be construed as a standard practice of individual patient care. Standards of care are determined on the basis of all the facts and circumstances involved in a particular case and are subject to change as scientific knowledge and technology advance and patterns of care evolve. The management must be made by the appropriate primary care practitioners responsible for clinical decisions regarding a particular treatment procedure or care plan. The management should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available.

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#### Message from Dr. PY LAM, Director of Health

Participation in physical activity can be considered a 'vital sign' as it reflects an individual's level of physical and mental well-being. Providing guidance and motivation, including advice on exercise, to patients is part of a doctor's clinical duties. I am glad to see primary care doctors playing an active role in this area. I highly recommend this Handbook to fellow colleagues as it not only provides the latest scientific evidence and recommendations that are relevant to the subject but also provides the techniques and skills required to motivate patients to lead an active life and enjoy better health.



#### Message from Dr. CHOI Kin, President, Hong Kong Medical Association

The Hong Kong Medical Association has worked with the Department of Health in the Exercise Prescription Project over the past few years. The project provided doctors with the necessary knowledge to prescribe exercise for their patients safely and with rationale. To increase physical activity participation for better health, I sincerely hope the new government will align its policy with provision of greater accessibility to recreational and sports facilities for enjoyment of people from all walks of life.

# Message from Dr. Henry YEUNG Chiu-fat,

President, Hong Kong Doctors Union

In medicine, prevention is better than cure. The preventive and therapeutic benefits of exercise are universally accepted, especially for heart diseases, diabetes, hypertension, to name just a few. Giving out a prescription of EXERCISE which is more than just tablets will definitely help your patients. Now we can boast about practising holistic medicine and put our belief into practice. With a well written Exercise Prescription Doctor's Handbook to assist us, doctors will once more be firmly the cornerstone of healthcare. Thumbs up for the Handbook!



## Message from Dr. CHEUNG Hon-ming,

President, Association of Licentiates of Medical Council of Hong Kong

> Diseases like hypertension, diabetes mellitus and cardiovascular diseases have been shown to be associated with sedentary life style. Physical exercise is an important component of healthy life style. Adequate and appropriate physical exercise is indispensable to the health of the body. The Exercise Prescription Project developed by the Department of Health in conjunction with the other professional organizations serves as a good reference to healthcare providers to advocate and advise their patients and the public at their contact points.



# Message from Prof. Sian GRIFFITHS,

Chairperson, Task Force on Conceptual Model and Preventive Protocols under the Working Group on Primary Care

> Changing populations' lifestyles is not an easy task. The Exercise Prescription Project established in 2005 aims to promote physical activities in a collaborative manner. Medical practitioners can contribute through integrating physical activities as one of their components with their clinical consultation, as suggested by the British Medical Journal in the October 2011 Editorial. The School of Public Health and Primary Care of the Chinese University of Hong Kong has played an important role in providing public health education. Empowering the generation with knowledge is crucial in promoting physical activities. Tackling the problem with the right strategy and educating the medical professionals, our students and the public would be the most effective way in modifying populations' lifestyle behaviors.



# Message from Dr. Ruby LEE,

President, Hong Kong College of Family Physicians

Regular physical activity has been found to be effective in the prevention, control, and rehabilitation of noncommunicable diseases. On behalf of the Hong Kong College of Family Physicians, I would like to express my heartiest congratulations to the Exercise Prescription Development Committee in developing and updating this Exercise Prescription Doctor's Handbook which contains important and interesting training material and reference for primary care practitioners. With increasing evidence of the health benefit of physical activity, it will certainly contribute to better patient care.

#### Preface

The rising trend of overweight and obesity has largely been attributed to the way we choose to live our lives, through unhealthy dietary habits and lack of physical activity. The good news is, medical research has revealed that with a lifestyle embracing healthy diet, physical activity and avoidance of tobacco smoke, over 80% of heart diseases, type 2 diabetes and one third of cancer cases can be prevented.

What if there were one prescription that is not only safe and cheap but could prevent and treat dozens of diseases, such as diabetes, hypertension and obesity? Would you prescribe it to your patients? Certainly. Groundbreaking research has shown that exercise, at the correct frequency, intensity and duration, not only improves quality of life but decreases the incidence of disease, chronic ill health and obesity. At a time when the local community is faced with an impending health crisis from non-communicable disease, the Department of Health (DH) and the Hong Kong Medical Association are relaunching the Exercise Prescription Project (EPP), and with the support of many partner organisations, inviting you to co-write this part of history of medical care in Hong Kong.

Join us as we embark on a territory-wide movement to promote exercise as a form of prescription for disease prevention and management. Our mission is to put exercise in the forefront and centre in the care plan designed by doctors for their patients. The effective tackling of the issue of physical inactivity in our population would require concerted efforts from society as a whole and collaboration amongst the Government,

public and private organisations, academic and professional bodies, media and members of the public. Your support is therefore pivotal.

The professional manuals of Exercise Prescription Project, consisting of sciencebased recommendations and resources for healthcare practitioners as well as members of the public, were first developed in 2005 with the concerted effort of many parties. In the light of growing interest in primary care and increasing evidence of the health benefit of physical activity, it is timely for this manual to be reviewed, updated and re-launched. It is our hope that primary care practitioners will find this doctor's handbook useful in every day patient care.



## **1** OVERVIEW OF THE EXERCISE PRESCRIPTION PROJECT

- **2** BENEFITS OF PHYSICAL ACTIVITY
- **3** PRE-PARTICIPATION HEALTH SCREENING
- **4** GENERAL PRINCIPLES OF EXERCISE PRESCRIPTION
- 5 RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO HEALTHY ADULTS AND ELDERLY
- 6 RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO PATIENTS WITH DIABETES
- 7 RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO PATIENTS WITH HYPERTENSION
- 8 RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO PATIENTS WITH HEART DISEASE
- **9** RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO PATIENTS WITH OSTEOARTHRITIS
- **10** RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO OVERWEIGHT AND OBESE PATIENTS
- **11** RECOMMENDATIONS FOR PRESCRIBING EXERCISE TO PATIENTS WITH OSTEOPOROSIS
- **12** LEGAL CONSIDERATIONS FOR EXERCISE PRESCRIPTION
- **13** EXERCISE-RELATED MUSCULOSKELETAL INJURY

## **14** EXERCISE PRESCRIPTION CASE STUDIES

Overview of the Exercise Prescription Project 1

# 1 Overview of the Exercise Prescription Project

# Background

Physical inactivity has been identified by the World Health Organization (WHO) as the fourth leading risk factor for global mortality which accounts for 5.5% of deaths globally (1). Physical inactivity is also well-known to be one of the major risk factors for heart diseases, cerebrovascular disease, diabetes mellitus, hypertension, some types of cancers and obesity in both men and women at any age (1). In Hong Kong, the Behavioural Risk Factor Survey conducted by the Department of Health (DH) in April 2010 found that a mere 45.4% of the 2013 respondents had done moderate physical activities for at least 10 mins a day in the week prior to the survey. This level of physical activity was clearly not enough for optimal health gain (2).

Studies have shown that interventions to promote regular physical activity are cost-effective in the prevention and control of non-communicable diseases (3). One of the most consistent predictors of greater levels of physical activity has been higher levels of self-efficacy, which reflects confidence in the ability to exercise, and level of social support. Other predictors include accessibility to exercise equipment and perceived satisfaction with exercising (4). The role of primary care practitioners on health promotion is well recognised. In Hong Kong, primary care practitioners are providing an easily accessible, credible and meaningful source of professional advice, social support and encouragement for people to participate in more physical activities. The Thematic Household Survey revealed that on average a person in Hong Kong would visit a doctor 4 times a year (5). Furthermore, the core concept of prescribing exercise, namely providing patients with written personalised health advice on doing regular exercise, has been tested in many primary care settings both overseas and locally with favourable outcomes (6).

Since 2005, the Government has collaborated with various professional bodies and non-governmental organisations to implement the Exercise Prescription Project (EPP) as a measure to tackle the high prevalence of physical inactivity among the local population.

#### Project Aim

EPP aims to promote physical activities among members of the public through conjoint efforts of the Government, medical practitioners, professionals and community groups in Hong Kong. 10 10 11 12 13 14 15 16

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#### **Project Objectives**

EPP facilitates the inclusion of exercise by medical practitioners as an integral part of the care plan for patients in the prevention, management and rehabilitation of non-communicable diseases.

## Project Approach

Through organising a series of capacity building programmes, EPP empowers doctors with the knowledge and technique of prescribing exercise in the clinical settings. By doing so, it is hoped that growing numbers of individuals will be engaged in regular physical activities.

#### Outcome

The Hong Kong Medical Association (HKMA) has since 2005 organised five 8-module certification courses (each lasting four half-days) to build capacity of some 400 health care professionals. Evaluation results showed that a larger proportion of doctors receiving training were able to offer general advice on exercise as well as prescribe exercise to their clients. In addition, participating doctors were better able to provide written instruction, stage-matched advice and relevant health education materials in every day practice. A substantial decrease was also seen among those who perceived insufficient skills or lack of motivation as barriers in exercise prescription.

In the light of growing interest in primary care and increasing evidence of the health benefit of physical activity, the training materials and training programmes have been reviewed, revised and relaunched. These should contribute to better patient care.

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