



23<sup>rd</sup> - 25<sup>th</sup> June 2023 (Friday - Sunday)

Sunday, 25 June 2023 • 12:30 - 14:00

## Workshop 4

# Fall Prevention from What You Eat to What You Do: Assessment to Isometric and Dynamic Resistance Training



### Dr. CHAN Ying Ho

MBChB(CUHK), PGDipMSM(Otago), DCH(Ireland), PGDipClinDerm(Lond), MScSMHS(CUHK), FHKCFP, FRACGP, FHKAM(Family Medicine)  
*Vice-President, Board of Education, Hong Kong Institute of Musculoskeletal Medicine*  
*Clinical Assistant Professor (Honorary), the Jockey Club School of Public Health and Primary Care, Chinese University of Hong Kong*  
*Private Family Physician and Musculoskeletal Physician*

Dr Chan is a specialist in family medicine with special interest in musculoskeletal medicine and sports medicine. He has obtained the Postgraduate diploma in Musculoskeletal Medicine (Otago) in 2014 and the Master in Sports Medicine and Health Science (CUHK) in 2018. He is also accredited in Musculoskeletal Ultrasound by American Registry of Diagnostic Medical Sonography in 2014 and Certified Interventional Pain Sonologist by World Institute of Pain in 2019. He is currently the Vice-president of Board of Education, Hong Kong Institute of Musculoskeletal Medicine.

Dr Chan also has special interest in rehabilitation exercise and muscle training. He has obtained the credential of Certified Personal Trainer by American College of Sports Medicine in 2013 and Corrective Exercise Specialist by National Academy of Sports Medicine in 2019. His daily clinical practice incorporates biomechanical assessment, exercise therapy, manual therapy and ultrasound-guided injection to help patients with various musculoskeletal problems.



### Ms. Sally S.P. POON

Registered Dietitian (Health and Care Professions Council, UK)  
Accredited Practising Dietitian (Dietitians Australia)  
Master of Nutrition & Dietetics (The University of Sydney, Australia)  
BSc Nutrition (King's College, London)  
*Private Practice Dietitian*

Sally is currently Chairman of Hong Kong Practising Dietitians Union, Committee Member of PolyU Laboratory for Probiotic and Prebiotic Research in Human Health, Member of Board of Advisor of Love 21 Foundation, and Honorary Advisor of Cancerinformation.com.hk Charity Foundation. Sally has 15 years of experience in dietetics. She provides medical nutrition therapy to patients affected by various health conditions such as cancers, malnutrition, and metabolic syndrome. Sally is leading a nutrition and exercise community programme at Love 21 Foundation for people affected by Down syndrome, autism spectrum disorder or other intellectual disabilities.

Fall is a common problem in Hong Kong. The annual fall rates in Hong Kong older Chinese community-dwelling people ranged from 18-29%. Around 70-75% fallers reported injuries, and fractures occurred in 4.6-8% of the subjects. 4.4% of those who fell died within 9 months.

Risk factors of fall can be divided into intrinsic and extrinsic factors. Intrinsic factors include any musculoskeletal or neurological diseases that lead to impaired mobility, balance, gait, or muscle strength. Other intrinsic risk factors include cardiovascular diseases, use of certain medications, malnutrition, incontinence, visual impairment, and impaired mental state. Extrinsic factors include poorly fitted footwear or any environment hazards. For fall risk management, both strength training and balance training should be implemented and are supported with level 1 evidence. It is very important for family doctors to be able to identify these risk factors and to implement some basic strength and balance training for their patients with risk factors of fall.

The musculoskeletal aspect of fall management, including assessment of the musculoskeletal risk factors, and the management of those musculoskeletal problems, will be discussed in the workshop. Simple biomechanical assessments of lower limb, various muscle release or stretching technique, muscle strengthening technique, including isometric and dynamic strengthening, balance and proprioception exercises, and some simple manual therapy for lower limb joints will be discussed and demonstrated. Candidates will be given opportunities to practice these exercises and manual therapy during the hands-on session.

Good nutrition is important for musculoskeletal health and may help prevent falls in the ageing population. Unfortunately, malnutrition and deficiencies of calcium and vitamin D are commonly found among elderly people. They can increase the risk of osteosarcopenia (coexistence of osteoporosis and sarcopenia). Non-pharmaceutical interventions including resistance training and balanced eating have positive effects on bone and muscle, enhancing the quality of life and mobility. Several nutrients including protein, calcium, vitamin D, vitamin K and isoflavones have been shown to be protective factors for musculoskeletal health. They will be discussed in this workshop.