

EXERCISE MEDICINE IN CANCER MANAGEMENT

FITNESS PROFESSIONALS AND PERSONAL TRAINERS

Overview

This course is designed as an introduction to the application of exercise medicine as part of supportive care for people with cancer. Fitness professionals and personal trainers will benefit most from this course because it builds on your extensive knowledge of exercise programming, supervision, exercise technique and motivating behavior change. In this course we concentrate on developing skills and knowledge of the impact of cancer and treatments on patient health and fitness, exercise as a medicine, delivering and monitoring safe and effective exercise for people with cancer.

Structure

This course is delivered entirely online through our learning management system. It consists of seven key components:

- 1) Background readings – key scientific, professional, and lay publications are prescribed and provided at specific stages throughout the course.
- 2) Pre-recorded lecture videos.
- 3) Multiple choice and true false quizzes following each major section.
- 4) Discussion forums on key topics, controversies, and questions.
- 5) Video presentations of practical skills, techniques, exercises, and assessments.
- 6) Video demonstrations of digital tools for exercise assessment and prescription.
- 7) Virtual real-time Q&A session with the instructor

Syllabus

Topic	Approximate Study Time (mins)
Introduction and course orientation	10
Cancer biology, sites, types, and staging	60
Cancer treatments	60
Physical and psychological consequences of cancer and treatments	60
Exercise medicine within cancer management	60
Review of principles of exercise prescription <ul style="list-style-type: none"> • Exercise dosage • FITT Principle • Overload • Progressive overload • Acute physiological responses to exercise • Adaptations to chronic exercise • Specificity of training • Variation in Training • Cardiorespiratory (Aerobic) training (MICT & HIIT) 	30

<ul style="list-style-type: none"> • Neuromuscular and musculoskeletal (Resistance) training • Strength and Power • Flexibility training • Components of an exercise session • Periodization • Auto-regulation of session volume and intensity • Stages of change model 	
Virtual Practical Session 1 – Foundation exercise training methods	30
Review of exercise acute and chronic effects <ul style="list-style-type: none"> • Muscular system • Nervous system • Metabolic system • Endocrine system • Skeletal system 	30
Absolute and relative contraindications to exercise	10
Implementing rating of perceived exertion and wellness check	10
Virtual Practical Session 2 - Introduction to MyWellness Exercise Prescription Platform	60
Targeted exercise prescription <ul style="list-style-type: none"> • cardiorespiratory • muscle hypertrophy • muscle strength • functional performance • balance • skeletal health • fat loss • lymphoedema • bone metastatic disease • pre-habilitation for surgery • neoadjuvant and adjuvant to chemotherapy, radiation therapy, immunotherapy, steroid therapy 	60
Virtual Practical Session 3 – Targeted exercise prescriptions	30
Implementation and maintenance of a safe and effective exercise program for people with cancer	30
Telehealth implementation of exercise medicine – COVID-19 and beyond	30
Long term planning, prescription and periodisation	20
Nutritional considerations	20
Graduation to self-management <ul style="list-style-type: none"> • Fitness centre • Home based • Group exercise • Park fit 	20

• Sport as medicine	
Clinician, allied health and patient feedback	20
Case studies and scenarios	40
	Total 690 mins