

## October 14, 2022

# EM178: BRESCIA - Exercise Medicine



**ROBERT NEWTON** 

PhD, DSc, AEP, CSCS\*D, FACSM, FESSA, FNSCA

Professor Robert Newton, PhD, DSc, AEP, CSCS \* D, FACSM, FESSA, FNSCA is Professor of Exercise Medicine in the Exercise Medicine Research Institute that he established (2004) at Edith Cowan University, Perth, Western Australia. Current major clinical and research directions include: exercise medicine as neoadjuvant, adjuvant and rehabilitative cancer therapy to reduce side-effects and enhance effectiveness of surgery, chemotherapy and radiation therapy; the influence of targeted exercise medicine on tumor biology and exercise medicine for reducing decline in quality of life, strength, body composition and functional ability in cancer patients.

Is an Accredited Exercise Physiologist, Fellow of the American College of Sports Medicine, Fellow of Exercise and Sports Science Australia, Member of the American Society of Clinical Oncology, American College of Sports Medicine and Clinical Oncology Society of Australia. In 2018 he received the career achievement award from the Cancer Council WA. In 2019, Professor Newton was named the Western Australian Scientist of the Year. In 2021, The University of Queensland awarded Professor Newton a Higher Doctorate (DSc) for his research into exercise oncology.

Has published over 980 scientific papers including 502 refereed scientific journal articles, 450 conference abstracts and papers, three books, 17 book chapters and has a current Scopus h-Index of 88 with his work by him being cited over 26,500 times.

Exercise medicine is now established as a highly effective therapy for reducing side effects of cancer treatment, enhancing the effectiveness of chemotherapy and radiation therapy, improving physical function and quality of life for people with cancer, and ultimately increasing survival.

In the first day Professor Newton will focus on the principles of exercise prescription and the mechanisms by which targeted exercise influences tumor biology. The application of exercise medicine within cancer management across various cancers, surgery and treatments will be explored in detail.

On the second day, he will focus will be on practical implementation of an exercise medicine service for cancer patients. Health and fitness assessment of patients with cancer will be explored in detail with

practical examples. Targeted exercise therapy to address the predominant health issues presented by patients with cancer will be discussed with practical demonstrations. The day will finish with a series of case



studies and real-world scenarios.

40 Seats	<b>€</b> €427.00	<b>16</b> Hours	<b>★ 18</b> ECM
INTENDED FOR	PAYMENTS	CALENDAR	LANGUAGE
Doctors, Physiotherapists, TNPEE	Deposit €213.50 within 7 days from the registration	14-15 October 2022	English With Italian Translation
	Balance €213.50 by date September 16, 2022		

# **SCHEDULE**

Total: **€427.00** 

## **PROGRAM**

#### DAY 1

Lopic	Start Time	Approximate Duration (mins)
Introduction	09:00	30
Principles of exercise prescription  Exercise dosage FITT Principle Overload Progressive overload Acute physiological responses to exercise		



<ul> <li>Adaptations to chronic exercise</li> <li>Specificity of training</li> <li>Variation in Training</li> <li>Cardiorespiratory (Aerobic) training (MICT &amp; HIIT)</li> <li>Neuromuscular and musculoskeletal (Resistance) training</li> <li>Strength and Power</li> <li>Flexibility training</li> <li>Components of an exercise session</li> <li>Periodization</li> <li>Stages of change model</li> </ul>	09:30	120
Practical Session 1 – Foundation exercise training methods	11:30	90
Lunch	13:00	60
<ul> <li>Exercise acute and chronic effects</li> <li>Muscular system</li> <li>Nervous system</li> <li>Metabolic system</li> <li>Skeletal system</li> </ul>	14:00	30
Lecture – Exercise Medicine within Cancer Management	14:30	60
Patient Flow  At diagnosis  On referral – physician or self-referral  Pre- Initial consultation  At consultation  Ongoing monitoring and patient review	15:30	30
Coffee Break	16:00	15
Introduction to MyExerciseMedicine patient flow and assessment platform	16:15	30



Health history	16:45	15
Pre-exercise screening	17:00	15
Practical Session 2 – Patient flow, forms and risk stratification	17:15	60
Finish Day 1	18:15	Total 510 mins

#### DAY 2

Marketing your Exercise Medicine Service	09:00	30
Building clinician referrals	09:30	10
Recruiting the patient	09:40	10
Informed consent and research participation	09:50	10
Absolute and relative contraindications to exercise assessment	10:00	10
Rating of perceived exertion	10:10	10
Practical Session 3 - Introduction to MyWellness Exercise Prescription Platform	10:20	70
Coffee Break	11:30	10
MyExerciseMedicine assessment, data analytics, visualization and reporting	11:40	30
Practical Session 4 - Assessments of cardiorespiratory capacity  • CPET  • Steep Ramp Test	12:10	30



Step test		
• 400m walk		
6 minute walk		
Practical Session 5 - Assessments of neuromuscular strength		
Chest press		
• Leg press	12.40	20
Leg extension	12:40	30
Seated row		
• Plank		
Lunch	13:10	50
Practical Session 6 - Assessments of functional capacity  Timed 6 meter walk  Timed up and go  Sit to stand  Stair climb  Assessments of quality of life and psychosocial wellbeing - fatigue, anxiety  SF36  HADS  DASS	14:00	
Assessments of cancer specific health and status  • FACT-G  • EORTC	14:30	10
Assessment of body composition  • DEXA		



• pQCT		
bioimpedence	14:40	20
height		
weight		
hip and waist circumference		
• BMI		
Targeted exercise prescription		
cardiorespiratory		
muscle hypertrophy		
muscle strength		
functional performance		
• balance		
skeletal health	15:00	30
• fat loss		
• lymphoedema		
bone metastatic disease		
pre-habilitation for surgery		
chemotherapy, radiation therapy, immunotherapy,		
steroid therapy		
Practical Session 7 – Targeted exercise prescriptions	15:30	30
Coffee Break	16:00	10
Telehealth implementation of exercise medicine – COVID-19 and beyond	16:10	30
Long term planning, prescription and periodisation	16:40	10
Nutritional considerations	16:50	10
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Graduation to self-management		
Fitness centre		
Home based		
Group exercise	17:00	10
Park fit		
Sport as medicine		
Clinician and patient feedback	17:10	10
Case studies and scenarios	17:20	20
Test	17:40	20
Finish Day 2	18:00	Total 500 mins