



**A companion guide for  
health care professionals**  
to help patients with metastatic  
colorectal cancer move more

MyMove Program

# Foreword

## **MyMove** is part of the **Support Harmonized Advances for better Patient Experiences (SHAPE)**

program: an international, multistakeholder initiative that aims to transform the lives of patients with metastatic colorectal cancer (mCRC). The SHAPE program is funded by an unrestricted grant from Servier.

The SHAPE Steering Committee has identified the need for lifestyle support in mCRC, particularly to help individuals incorporate physical activity into their lives.

The MyMove program patient brochure and this companion guide are designed to support this endeavor.

The MyMove program is intended to help patients introduce physical activity and exercise into their lives in a way that is meaningful for them.

Evidence supports the potential benefits of physical activity and exercise at all stages of cancer care, from pretreatment through to palliative care.

The evidence base continues to grow, along with an understanding among health care professionals as to the importance of encouraging their cancer patients to move more.<sup>1</sup>

With this in mind, the **MyMove program** has been developed with input from patients, cancer experts, and fitness expert Mark Wild who has a decade of experience in cancer rehabilitation and exercise.

## **The SHAPE Steering Committee**

- **Co-Chair:** Professor Julien Taieb, HEGP, France (oncologist)
- **Co-Chair:** Professor Alberto Sobrero IRCCS, Italy (oncologist)
- Dr Alexander Stein, University Cancer Centre, Germany (oncologist)
- Zorana Maravic, Director of Group & Project Development, Digestive Cancers Europe
- Sarah Dauchy, Unit of Psycho-Oncology, Gustave Roussy Institute, France (onco-psychologist)
- Claire Taylor, St Mark's Hospital, UK (oncology nurse)
- Klaus Meier, HKK Soltau, Germany (oncology specialist hospital pharmacist)

“ Over the past decade, I have been fortunate enough to witness the power of exercise in helping cancer patients before, during, and after treatment. It is apparent that movement is a mechanism that provides many powerful benefits to the individual's mental and emotional state, providing a sense of strength and momentum that improves quality of life.

My training routines address all major muscle groups and movement patterns, and are designed to improve posture. The aim is to provide the essential foundation of a stronger, more supple body, which is capable of performing daily activities and other forms of exercise with confidence. ”

– **Mark Wild, Fitness Trainer,  
Cancer and Exercise Rehabilitation Expert**

# Why Move?

## The evidence base

---

Physical activity is a basic human function and an important foundation for health<sup>1</sup>. There is a growing evidence base to support the potential benefits of physical activity for patients with cancer from pretreatment through to palliative care, including research conducted specifically in patients with metastatic colorectal cancer (mCRC)<sup>2</sup>.

### Survival

In a study of 1231 patients with mCRC taking part in a Phase 3 chemotherapy trial, increased physical activity improved progression-free survival and overall survival. Greater walking duration and nonvigorous activity were associated with reduced all-cause mortality risk<sup>3</sup>.

### Managing treatment-related side effects

Cancer prehabilitation may decrease treatment-related morbidity by optimizing patients' health before treatment<sup>4</sup>. Moreover, appropriate exercise during treatment, together with rest, can help manage a range of therapy-related side effects<sup>5,6,7</sup>.

### Physical functioning

Pretreatment exercise may be beneficial for cancer patients undergoing surgery, improving lung function and exercise capacity<sup>8</sup>. During treatment, exercise interventions may improve physical fitness<sup>5,9,10</sup> and prevent decreases in muscle strength and endurance<sup>11</sup>. After treatment, exercise and physical activity may positively affect physical function and exercise capacity<sup>12,13</sup>. There is also encouraging evidence for maintained or improved physical functioning in metastatic cancer (due to exercise interventions)<sup>14,15</sup>.

### Quality of life

Posttreatment, improved outcomes have been reported for various quality of life domains, including self-esteem, emotional well-being, sleep disturbance, social functioning, anxiety, depression, fatigue, and pain (due to exercise interventions)<sup>12,16,17</sup>. Also, in patients with metastatic disease, exercise interventions may lead to improved quality of life<sup>14,18</sup>. In a study of 102 recently resected colorectal cancer survivors, improved cardiovascular fitness resulting from regular home-based exercise led to increased quality of life<sup>19</sup>.

### Fatigue

Evidence suggests that exercise interventions may reduce fatigue – a common side effect of cancer treatment – during<sup>5,9,10,20,21</sup> and after cancer treatment<sup>9,12,20,21</sup>. Improvements in fatigue have also been seen in advanced patient populations due to exercise interventions<sup>14,18,22,23</sup>.

### Bone health

Resistance training has been shown to improve bone health in patients with cancer; evidence has shown resistance training to be effective, practical and without side effects<sup>24</sup>.

“ It doesn't take a lot of physical activity to improve outcomes. While exercise is by no means a substitute for chemotherapy, patients can experience a wide range of benefits from as little as 30 minutes of exercise a day\*\* ”

NB: Evidence not specific to mCRC, unless stated; \*\*Brendan Jon Guercio, MD, resident physician at Brigham & Women's Hospital in Boston, MA: <https://www.asco.org/about-asco/press-center/news-releases/physical-activity-linked-longer-survival-advanced-colorectal>

# Support your patients to move more

When undertaking behavioral change programs, patients must understand the consequences and personal relevance of their changed behaviors; have positive feelings toward the outcomes of that change; and have plans and goals for changing over time and in specific contexts<sup>25</sup>.

Patients are more likely to be active and work to overcome physical limitations if they:

**are motivated, confident, focused on positive achievements and the possibility of regaining control, with support from a social network and health care practitioners.**

Without these drivers, patients are unlikely to become more physically active<sup>26</sup>.

Factors that may impact a daily physical activity or exercise routine for someone with cancer may include:

- **Individual motivation and confidence, wellbeing,** and personal response to cancer; the presence or absence of a social stigma attached to cancer
- **Severity of physical symptoms** and side effects, specifically pain and fatigue
- Presence of family, friends, and a social network to provide **support**
- Access to an **appropriate physical environment**
- The **support of healthcare professionals**, who can greatly influence physical activity and exercise behaviors.

Health care professionals can help patients with both physical and psychological support when introducing individualized physical activity and exercise programs, such as MyMove.

# What do the guidelines say?

Physical activity guidelines for cancer survivors (a person diagnosed with cancer, from the time of diagnosis throughout their life) suggest the following<sup>27</sup>:



**Avoid inactivity and return to normal activity** as soon as possible after diagnosis or treatment



Adults aged 18 to 64 years should engage in at least **150 minutes per week** of moderate intensity or 75 minutes per week of vigorous intensity aerobic physical activity, or an equivalent combination. Activity should be done in episodes of **at least 10 minutes per session** and preferably spread throughout the week



Adults should also do **muscle strengthening** activities involving all major muscle groups at least **two days per week**



Adults aged older than 65 years should also follow these recommendations if possible, but, if chronic conditions limit activity, **older adults should be as physically active as their abilities allow** and avoid long periods of physical inactivity

**For those living with advanced cancer, recommendations should be based on individual physical abilities.**

The MyMove program has been devised with these guidelines in mind: every person with cancer is different, and while physical activity is vital, it is important to take every day at a time and invest in rest, especially for patients with advanced cancer.

# The MyMove philosophy

The MyMove program is designed with the understanding that everyone with cancer is different – and things change from one day to the next. Over a period of eight weeks, MyMove helps people with mCRC make movement a part of their lives in a way that is meaningful for them. Some days, individuals will be able to do more than others. Other days they will need to invest in rest.

**Do what you can; when you can do more, do more!**



## So, why MyMove?

**MyMove provides a foundation** to help patients introduce physical activity and exercise into their lives in a manner that suits them, day-by-day.

**MyMove supports patients to continue their activities of daily living** – an integral part of the program.

**MyMove provides two tailored exercise routines** designed to work all of the major muscle groups and improve strength, flexibility, motor skills, and range of movement.

**MyMove encourages each individual to “listen to their body”** and remember their personal physical abilities, which is vital for people with advanced cancer.

**MyMove encourages patients to be positive** about the possibility of regaining control over their quality of life.

**MyMove helps patients understand the many benefits of movement** – for themselves, their family and friends.

**MyMove encourages patients to include a social network** and seek support from friends, family, and their health care professionals.

**MyMove includes elements of planning and recording** of movement over an 8-week period – with the aim of making MyMove a part of a regular routine.

# Are there any precautions to consider?

Despite the benefits of exercise for many people with cancer, specific precautions may be advisable in certain instances:

- Someone with severe anemia should avoid more strenuous exercise, but may continue daily physical activity
- Someone with low immunity should avoid public gyms or swimming pools
- Someone with severe fatigue may want to start slowly and gradually build up the amount they do
- Someone who is having radiation treatment should avoid swimming
- Someone with a catheter or feeding tube should avoid swimming or working muscles in the area of the catheter/tube
- Someone with multiple comorbidities should consider a modified program in consultation with their doctor or nurse
- Someone with peripheral neuropathy may want to take extra care conducting certain movements due to weakness or loss of balance.

## You may want to review:

American Cancer Society nutrition and physical activity guidelines (in full): <https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21142>

Global strategy on health, diet and health: [http://www.who.int/dietphysicalactivity/factsheet\\_adults/en/](http://www.who.int/dietphysicalactivity/factsheet_adults/en/), World Health Organisation

Exercise guidelines for cancer patients: <https://www.cancerresearchuk.org/about-cancer/coping/physically/exercise-guidelines>, Cancer Research UK

## References

1. Macmillan. Physical Activity and Exercise. A concise evidence review. [https://www.macmillan.org.uk/\\_images/the-importance-physical-activity-for-people-living-with-and-beyond-cancer\\_tcm9-290123.pdf](https://www.macmillan.org.uk/_images/the-importance-physical-activity-for-people-living-with-and-beyond-cancer_tcm9-290123.pdf). Published 2017. Accessed on February 13 2019
2. World Health Organization. Physical Activity Strategy for the WHO European Region 2016-2025. <http://www.euro.who.int/en/publications/abstracts/physical-activity-strategy-for-the-who-european-region-20162025> Published 2016. Accessed October 12, 2018.
3. Guercio BJ, Venook AP, Niedzwiecki D, et al. Association of physical activity with survival and progression in metastatic colorectal cancer: results from CALGB 80405 (Alliance). ASCO Gastrointestinal Cancer Symposium 2017. *J Clin Oncol*. 2017;35(suppl 48):abstract 659.
4. Silver JK, Baima J. Cancer prehabilitation: an opportunity to decrease treatment-related morbidity, increase cancer treatment options, and improve physical and psychological health outcomes. *Am J Phys Med Rehabil* 2013;92(8):715-727.
5. Furmaniak AC, Menig M, Markes MH. Exercise for women receiving adjuvant therapy for breast cancer. *Cochrane Database Syst Rev*. 2016;9:CD005001.
6. Adams SC, Segal RJ, McKenzie DC, et al. Impact of resistance and aerobic exercise on sarcopenia and dynapenia in breast cancer patients receiving adjuvant chemotherapy: a multicenter randomized controlled trial. *Breast Cancer Res and Treat*. 2016;158(3):497-507.
7. Gardner JR, Livingston PM, Fraser SF. Effects of exercise on treatment-related adverse effects for patients with prostate cancer receiving androgen-deprivation therapy: a systematic review. *J Clin Oncol*. 2014;32(4):335-346.
8. Cavalheri V, Granger C. Preoperative exercise training for patients with non-small cell lung cancer. *Cochrane Database of Syst Rev* 2017;6:CD012020.
9. Baumann FT, Zopf EM, Bloch W. Clinical exercise interventions in prostate cancer patients – a systematic review of randomized controlled trials. *Support Care Cancer*. 2012;20(2):221-233.
10. van Haren IE, Timmerman H, Potting CM, et al. Physical exercise for patients undergoing hematopoietic stem cell transplantation: systematic review and meta-analyses of randomized controlled trials. *Phys Ther* 2013;93(4):514-528.
11. Van Moll CC, Schep G, Vreugdenhil A, Savelberg HH, Husson O. The effect of training during treatment with chemotherapy on muscle strength and endurance capacity: A systematic review. *Acta Oncol*. 2016;55(5):539-546.
12. Fong DY, Ho JW, Hui BP et al. Physical activity for cancer survivors: meta-analysis of randomised controlled trials. *BMJ*. 2012;344:e70.
13. Cavalheri V, Tahirah F, Nonoyama M, Jenkins S, Hill K. Exercise training undertaken by people within 12 months of lung resection for non-small cell lung cancer. *Cochrane Database Syst Rev* 2013;(7):CD009955.
14. Dittus KL, Gramling RE, Ades PA. Exercise interventions for individuals with advanced cancer: a systematic review. *Prev Med* 2017;104:124-132
15. Quist M, Adamsen L, Rørth M, Laursen JH, Christensen KB, Langer SW. The impact of a multidimensional exercise intervention on physical and functional capacity, anxiety, and depression in patients with advanced stage lung cancer undergoing chemotherapy. *Integr Cancer Ther*. 2015;14(4):341-349
16. Mishra SI, Scherer RW, Geigle PM, et al. Exercise interventions on health-related quality of life for cancer survivors. *Cochrane Database Syst Rev*. 2012;(8):CD007566.
17. Craft LL, Vaniterson EH, Helenowski IB, et al. Exercise effects on depressive symptoms in cancer survivors: a systematic review and meta-analysis. *Cancer Epidemiology Biomarkers Prev*. 2012;21(1):3-19.
18. Bourke L, Gilbert S, Hooper R, Rademaker AW, Courneya KS. Lifestyle changes for improving disease-specific quality of life in sedentary men on long-term androgen-deprivation therapy for advanced prostate cancer: a randomised controlled trial. *Eur Urol* 2014;65(5):865-872.
19. Courneya KS, Friedenreich CM, Quinney HA, Fields AL, Jones LW, Fairey AS. A randomized trial of exercise and quality of life in colorectal cancer survivors. *Eur J Cancer Care (Engl)*. 2003;12(4):347-357.
20. Cramp F, Byron-Daniel J. Exercise for the management of cancer-related fatigue in adults. *Cochrane Database of Syst Rev*. 2012;11:CD006145.
21. Capozzi LC, Nishimura KC, McNeely ML, Lau H, Culos-Reed SN. The impact of physical activity on health-related fitness and quality of life for patients with head and neck cancer: a systematic review. *Br J Sports Med*. 2016;50(6):325-338.
22. Jensen W, Baumann FT, Stein A, et al. Exercise training in patients with advanced gastrointestinal cancer undergoing palliative chemotherapy: a pilot study. *Supportive Care Cancer*. 2014;22(7):1797-1806.
23. Chevillat AL, Kollasch J, Vandenberg J, et al. A home-based exercise program to improve function, fatigue, and sleep quality in patients with stage VI lung and colorectal cancer. A randomized controlled trial. *J Pain Symptom Manage* 2013;45(5):811-821.
24. Rief H, Petersen LC, Omlor G, et al. The effect of resistance training during radiotherapy on spinal bone metastases in cancer patients: a randomized trial. *Radiother and Oncol*. 2014;112(1):133-139.
25. National Institute of Health and Care Excellence (NICE). Behaviour change: general approaches. Considerations. <https://www.nice.org.uk/guidance/ph6/chapter/2-Considerations> Published October 2007. Accessed February 13, 2019.
26. Macmillan. What motivates people with cancer to get active? [https://www.macmillan.org.uk/\\_images/barriers-and-motivators\\_tcm9-298088.pdf](https://www.macmillan.org.uk/_images/barriers-and-motivators_tcm9-298088.pdf). Published June 2016. Accessed February 13, 2019.
27. Rock C, Doyle CL, Demark-Wahnefried W, et al. Nutrition and physical activity guidelines for cancer survivors. *CA Cancer J Clin* 2012;62(4):243-274.