

Getting fit for treatment and the things you want to be able to do

The web link is www.egfrpositive.org.uk >patient support>videos

EGFR+ group 27 Feb 2024, Cathy Sandsund, Physiotherapist, Royal Marsden NHSFT Hospital.

Part 1. *Clickable Links for specific slide pages:*

Slide 6: Eating well resources – avoiding muscle loss

[Eating well | The Royal Marsden](#)

[Eat well during cancer | World Cancer Research Fund UK \(wcrf-uk.org\)](#)

[Living with cancer – your questions answered | Living with cancer | World Cancer Research Fund \(wcrf-uk.org\) prehabilitation.pdf \(malnutritionpathway.co.uk\)](#)

RMH patient information: Resistance training and protein intake: [resistance training and protein intake](#)

Slide 6: Wellbeing for treatment

There are a video series co-designed with people with cancer. There are a number of videos promoting psychological support:

[Royal MILE Prehabilitation Programme Video 1: Psychological introduction | Royal Marsden Patient Information Library](#)

Slide 8 & 18: getting started from lower levels of activity.

Or effective activity for days you are not wanting to do much. Effective but low-level strength and balance exercises in standing:

[CSP launches video to demonstrate six simple exercises to stop falls | The Chartered Society of Physiotherapy](#)

Slide 10: General information from Macmillan regarding resilience for treatment (often called prehabilitation)

<https://www.macmillan.org.uk/cancer-information-and-support/stories-and-media/videos/prehabilitation-videos>

Slides 16-18 Links to well-structured exercises:

[Exercise at home | The Royal Marsden](#)

[Yoga | The Royal Marsden](#)

[Strength training | The Royal Marsden](#)

And another raft of very good resources to access:

[Top Tips on Physical Activity & Cancer :: South East London Cancer Alliance \(selca.nhs.uk\)](#)

Supporting people with bone metastases to exercise:

RMH Physiotherapy recommendations for safe exercising for people with bony metastases are outlined in the 4th slide here:



- **Maintaining physical function** is a key objective of cancer rehabilitation in people with advanced cancer
- Bone **mets** can lead to an abrupt decrease in physical function and overall performance status, associated with increased use of healthcare, reduced QoL and fewer treatment options
- **Exercise advice and prescription is often underutilised for people with bone mets** due to uncertainties around safety and the risk of adverse skeletal events
- People with bone **mets** often request information and support and are keen to remain active



- A systematic review of the literature conducted by Campbell et al (2021) reported on 17 trials which met their eligibility criteria
- They concluded that exercise is feasible in individuals with **bone mets and participation in aerobic and resistance exercise does not appear to result in adverse events** including pathological fracture or increased pain
- Participation in structured exercise showed an overall trend towards increasing physical function and muscular strength across all trials

CARE DELIVERY **INCAP** Full-length article is available online at ascopubs.org

Exercise Recommendation for People With Bone Metastases: Expert Consensus for Health Care Providers and Exercise Professionals

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original contributions

- All studies had **at least one session of supervised exercise first** before participants exercised alone to allow prescriptions to be individualised, demonstrated and practiced to ensure proper technique and appropriate modifications
- There was also **a level of pre-exercise screening** in all trials including current level of function, the absence of bone pain and unstable bone mets; some studies used either the Mirels or Taneichi screens to understand the risk of a skeletal adverse event
- Most studies prescribed exercise within the Department of Health's Physical Activity guidelines, including moderate to vigorous cardiovascular exercise and strength training

The RMH approach

- All patients with bone mets should be encouraged to continue to be active as long as they are asymptomatic
- Anyone who is not meeting the DoH guidelines and is not confident to safely increase their physical activity level, or who has ambitious exercise goals should be referred to physiotherapy for a specialist assessment and support
- In addition, bone mets where there is deemed a higher fracture risk eg large amount of the cortex involved, large sclerotic lesion, involvement of a load bearing joint, should also be referred to physiotherapy for advice to minimise fracture risk
- Anyone who has uncontrolled symptoms or new neurology would require an urgent medical review before continuing with any form of exercise

Supporting people experiencing fatigue to exercise:

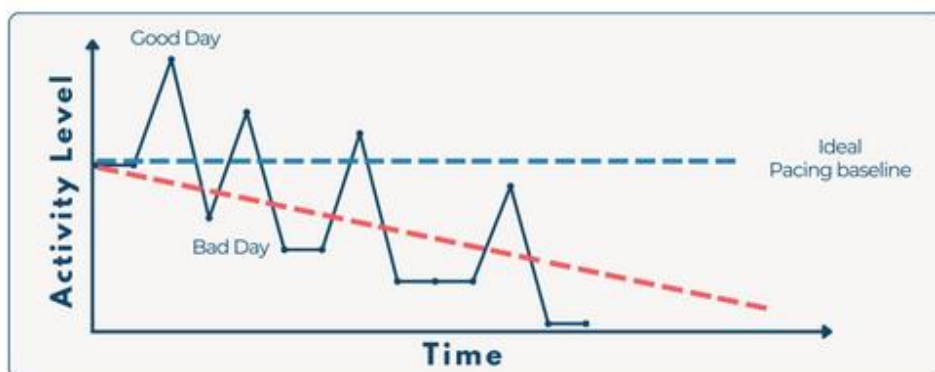
RMH Physiotherapy recommendations for safe exercising for people with fatigue are outlined in the 4th slide here:

Fatigue

- Cancer related fatigue is the most common side effect caused by the cancer itself, or the side effects of treatments
- As many as 9 out of 10 people with cancer (90%) get cancer-related fatigue (CRF)
- Cancer-related fatigue usually gets better after treatment finishes. But it may continue for months or even years
- Everyone is different and there is no way to know how long fatigue may last for each person
- Building up activity levels gradually is one of the most evidence-based interventions to manage cancer related fatigue

Tips on exercise and fatigue

- People typically have good days and bad days, or even varying energy levels throughout the day
- Keeping an activity diary for a week to monitor fatigue levels can be helpful to identify when someone might have sufficient energy for being active
- To avoid a boom or bust cycle, it is important that people plan their activity sessions, bearing in mind what other activities they have to fit within their day – you want to avoid completely running down the battery



Prescribing exercise for people with fatigue

- We know there is strong evidence to support aerobic or strengthening or a combination of aerobic and strengthening exercise at the doses outlined below:

| Strong Evidence | Dose | Dose | Dose |
|--|--|---|---|
|  Cancer-related fatigue | 3x/week for 30 min per session of moderate intensity | 2x/week of 2 sets of 12-15 reps for major muscle groups at moderate intensity | 3x/week for 30 min per session of moderate aerobic exercise, plus 2x/week of resistance training 2 sets of 12-15 reps for major muscle groups at moderate intensity |

- Using an activity diary to establish your baseline before fatigue is triggered can be a useful starting point from which to build

Reference:

Mina DS, Langelier D, Adams SC, Alibhai SMH, Chasen M, Campbell KL, Oh P, Jones JM, Chang E. Exercise as part of routine cancer care. *Lancet Oncol*. 2018 Sep;19(9):e433-e436. doi: 10.1016/S1470-2045(18)30599-0. PMID: 30191843.

Q&A starts at 40mins into the presentation: www.egfrpositive.org.uk >patient support>videos

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| Think about Recovery positions | https://thoracickey.com/positions-to-ease-breathlessness/ |
| Inspiratory muscle training: | Medical Breathing Trainers |
| IMT General | https://www.powerbreathe.com/inspiratory-muscle-training/ |
| Cambridge Breathlessness intervention services Resources (via NHS site) | https://www.cuh.nhs.uk/patient-information/?department=&service=202&keyword= |
| Breathing training | https://www.physiotherapyforbpd.org.uk/self-help/ |
| Active cycle of breathing: | https://www.physio-pedia.com/Active_Cycle_of_Breathing_Technique |

Singing and playing instruments

With thanks to Dr Jenovara Williams and Dr Sarah Upjohn for advice for these following sections.

Exercises that might improve breath control

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| Physical prep | <p>See how this fits into your overall training programme. Singing and playing instruments contribute to your weekly physical activity programme. Keep noting the amount and type you are doing. It can be cardiovascular work and strengthening.</p> <p>Clear the nasal passages. Take any breathing medication you use >30 mins ahead of the session. Make sure any pain relief is optimal. Ensure your blood pressure and blood counts are good before a longer or arduous session.</p> |
| | <p>Consider nutrition (see slide show), hydration, thoracic and neck flexibility exercises as a warm up. Keep sipping water.</p> <p>Take regular pauses for breath control, stretches and restoration.</p> |
| Training ideas | Practice ordinary breathing control. Through the nose. Through the mouth. |
| | Practice whistling to strengthen embouchure |
| | Blow out through the mouth piece or head joint |
| | Blow out through straws |
| | Breath in/ out at differing speeds |
| | Practice high/ low/short/long notes. Legato, staccato, slurred tongued. |
| | Use rests, Slings, straps or props to de-weight the instruments initially, then take low-resistance pieces to build up endurance. Build time rather than resistance if fatigue is an issue. |
| | Complete the session with instrument specific stretches. |
| | Make a note of the specifics of the session and how you feel afterwards. |

Other considerations and resources

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| Before playing | Are you fit to play? Are your clotting factors, immunity and blood pressure in good range? |
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| | <p>If you have bony disease, is it well managed, the lesions sclerotic and areas pain free? - particularly those in ribs, thoracic spine and upper humerous.</p> <p>If you have brain metastases, are you symptomatic?</p> <p>Is the instrument/ mouth piece clean as there are known risks of fungal and bacterial transmission? https://pubmed.ncbi.nlm.nih.gov/21903519/</p> |
| Advice for before playing | <p>Consider nutrition, hydration, ergonomic positions, adaptation of instrument and pieces.</p> <p>Gentle stretches ahead of playing.</p> |
| Advice after playing | <p>Gentle stretches of the muscles that have been working hard.</p> <p>Rehydrate.</p> |
| General advice | <p>Everyone starts treatment in their own place and responds individually, so advice can only be tailored to you as an individual. Adhere to your body's responses: start with a short session and guage the response the following day. Gradually build up time before resistance – similar to generic physical activity training principles.</p> <p>Things will be different, don't expect your voice or musical voice back exactly as it was. It can be a grieving process to work through that change. Build on skills you may have already learned for managing this grief.</p> <p>Then you can explore possibilities rather than be disappointed by the limitations</p> |
| British Lung Foundation | <p>https://www.asthmaandlung.org.uk/groups-support</p> <p>https://breatheahr.org/research/breathe-sing-for-lung-health/</p> |
| Tenovus | <p>https://www.tenovuscancercare.org.uk/support-and-information/get-support/sing-with-us</p> |
| Singing teacher and Voice Rehabilitation | <p>www.jenevorawilliams.com</p> |
| Vocal Health First Aid and Rehabilitaion Training | <p>www.vocalhealth.co.uk</p> |

Instrument and or Singing return:

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| Reasonable Adjustments | <p>Think of reasonable adjustments: think where you can you use slings or harnesses or supports.</p> |
| | <p>Rest the end of the oboe/ clarinet (or on your elbows for trumpet) on a table if it's too heavy</p> |
| | <p>Consider the repertoire – start with less challengeing pieces https://www.bbc.co.uk/teach/ten-pieces</p> |

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| | <p>Consider the size and weight of the instrument. Can you start training on a lighter or smaller one? Eg a P-bone instead of a T-bone – plastic replicas are a good deal lighter and have good quality sound for practicing</p> |
| | <p>There are many pieces available to download freely with different arrangements of the same pieces for various abilities.</p> |
| | <p>Your body is likely to feel different. If you have had surgery it may feel more asymmetrical in how it functions initially. But humans are amazing at adapting to the demands we place on our bodies in the shorter and longer term.</p> |
| | <p>The shorter-term adaptations (to get you doing what you love to do) may not be the most useful or ergonomic – so bear this in mind when working more longer-term. If in doubt keep an eye on flexibility, mobility and ergonomic positioning. https://alexandertechnique.com/musicians/ This way your body will work its' way into more effective ways of working over time.</p> |
| | <p>Breath management will improve, keep everything moving (wiggle hips, shoulders etc – reducing stiffness int the joints and improving blood supply to the muscles) and you will be working more efficiently.</p> |
| | <p>Pitch, range and stamina (including loudness) will improve with vocal fitness and flexibility.</p> |
| | <p>Mindset is everything with healing. Acknowledge this and work to your strengths – they have got your through other challenges before. Enjoy what you can do. Even small amounts of creativity can lift the spirits. If it's getting you down, leave it for another day and do something else that gives you joy.</p> |
| | <p>Keep a diary of progress to see how far you have come.</p> |
| | <p>Talk to other people in a similar position, you are not alone.</p> |