

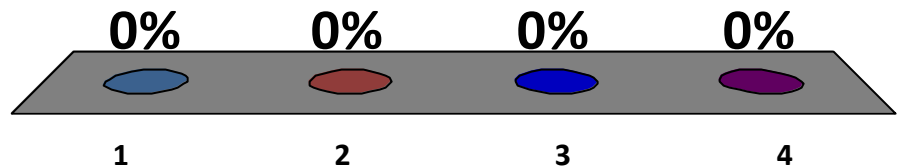


Exercise



What is the recommended number of times a week that you should exercise?

- 😊 1. 3 to 5 times a week
- 2. 1 to 2 times a week
- 3. 3 to 4 times a week
- 4. 4 to 5 times a week



Evidence

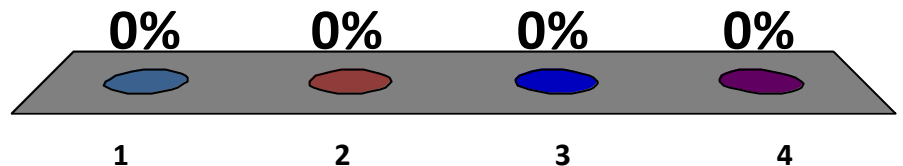
- Velthuis et al 2010 recommend regular frequency of three to five times a week in their Meta-analysis of Randomised Controlled Trials.
- The majority of trials included in the review by Pastakia and Kumar (2011) recommended the frequency of exercise to be three times per week
- The American Cancer Society (2007) recommends a frequency of at least five days a week to reduce the risk of cancer.



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What is the recommended length of time that you should exercise?

1. 10 to 20 minutes
2. 20 to 30 minutes
3. 30 to 40 minutes
4. 40 to 50 minutes



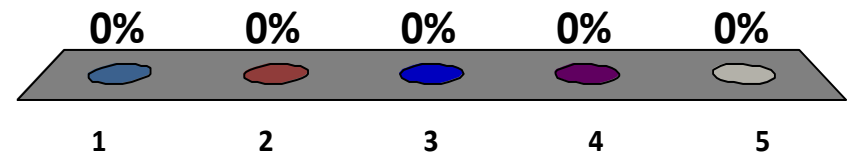
Evidence

- Velthuis et al's (2010) review findings propose a frequency of at least 20 minute sessions of exercise.
- The American Cancer Society (2007) recommends at least 30 minutes of exercise
- Pastakia and Kumar's (2011) findings propose that an exercise session lasting longer than 30 minutes is sufficient to have a positive effect on the quality of life of people with and survivors of breast cancer.



What type of exercise should you do?

1. Aerobic
2. Resistance
3. Strength training
4. Flexibility exercises
- 😊 5. Mixed exercise types



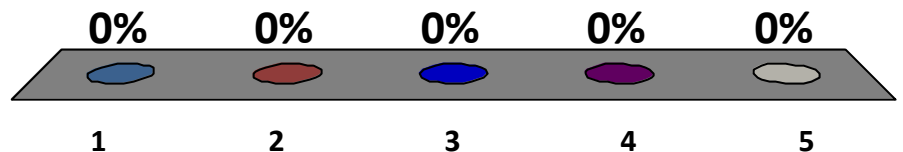
Evidence



- Hayes et al (2009) report exercise programmes should include aerobic, resistance or mixed exercise types.
- Exercise and resistance training as an intervention for cancer recovery has been studied extensively and has demonstrated a therapeutic benefit for cancer survivors (Courneya et al., 2002).
- Weight training improves body composition and strength in breast cancer survivors and therefore, should be included in the routine (Kushi et al., 2006; Ohira, Schmitz, Ahmed & Yee, 2006).
- The American Cancer Society (2007) states that resistance training should be an integral component of the exercise plan.

What type of exercise is more effective in reducing cancer-related-fatigue?

- 😊 1. Aerobic
2. Resistance
3. Strength training
4. Flexibility exercises
5. Mixed exercise types



Evidence

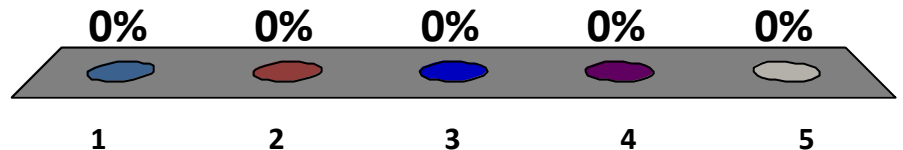
- Positive effects of aerobic exercise include: cardiovascular; musculoskeletal and neuro-chemistry of the brain (Pastakia and Kumar 2011).
- Exercise programmes using aerobic exercise performed with or without weight training report significant quality of life-related outcomes (Pastakia and Kumar 2011).
- ‘Increased cardiovascular and muscular endurance should lead to an increased ability to cope with day-to-day tasks and this would contribute to the improvement in the quality of life (Pastakia and Kumar 2011 p242).’








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What is the recommended level of intensity that you should exercise at?

- 😊 1. Very light
- 😊 2. Light
- 😊 3. Moderate
- 4. Hard
- 5. Maximum



	Target zone	% of max HR bpm range	Example duration	Training benefit
Maximize Performance	5 MAXIMUM 	90–100% 171–190 bpm	Less than 5 minutes	<i>Benefits:</i> Increases maximum sprint race speed <i>Feels like:</i> Very exhausting for breathing and muscles <i>Recommended for:</i> Very fit persons with athletic training background
	4 HARD 	80–90% 152–171 bpm	2–10 minutes	<i>Benefits:</i> Increases maximum performance capacity <i>Feels like:</i> Muscular fatigue and heavy breathing <i>Recommended for:</i> Fit users and for short exercises
Improve Fitness	3 MODERATE 	70–80% 133–152 bpm	10–40 minutes	<i>Benefits:</i> Improves aerobic fitness <i>Feels like:</i> Light muscular fatigue, easy breathing, moderate sweating <i>Recommended for:</i> Everybody for typical, moderately long exercises
Lose Weight	2 LIGHT 	60–70% 114–133 bpm	40–80 minutes	<i>Benefits:</i> Improves basic endurance and helps recovery <i>Feels like:</i> Comfortable, easy breathing, low muscle load, light sweating <i>Recommended for:</i> Everybody for longer and frequently repeated shorter exercises
	1 VERY LIGHT 	50–60% 104–114 bpm	20–40 minutes	<i>Benefits:</i> Improves overall health and metabolism, helps recovery <i>Feels like:</i> Very easy for breathing and muscles <i>Recommended for:</i> Basic training for novice exercisers, weight management and active recovery

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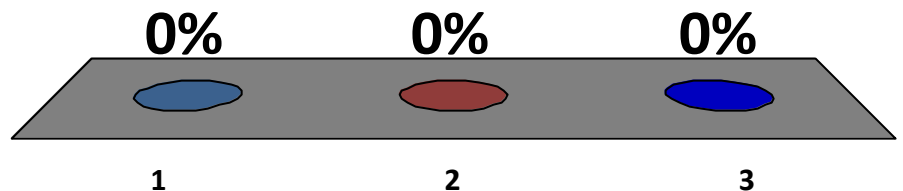
Evidence



- ‘The trials that used the heart rate to monitor intensity used age-predicted HR_{max} using the formula $220 - \text{age}$ (Pastakia and Kumar 2011 p241)’
- The general consensus from Pastakia and Kumar’s (2011) review findings was that the exercise intensity range to train within should be 50 – 80% of maximum heart rate (HR_{max})
- The general exercise prescription is low to moderate intensity (Hayes et al., 2009)
- Hsieh et al., 2008 reported that moderate intensity maintains or enhances cardiopulmonary function with simultaneous reductions in fatigue despite treatment type.
- The American Cancer Society (2007) recommends moderate physical activity.

When should you start exercising?

1. During treatment
2. After treatment
- 😊 3. During and after treatment



Evidence

- 'A number of systematic reviews (Oldervolla et al., 2004; Conn et al., 2006; McNeely et al., 2006; Cheema et al., 2008; Cramp and Daniel, 2008) have demonstrated the positive impact of exercise for survivors of breast cancer during and after adjuvant therapy (Pastakia and Kumar 2011 p 238).'
- More recent investigations show the benefits of early mobilisation, starting during cancer treatment (Velthuis et al., 2010)
- Cramp and Daniel's (2008) meta-analysis provides evidence that exercise is beneficial in the management of cancer-related-fatigue, also during cancer treatment.
- Velthuis et al (2010) found significant positive effects of aerobic exercise during breast cancer treatment.
- The general consensus is that exercise prescription is for people undertaking or having completed cancer treatment (Hayes et al., 2009).



Summary



- An exercise programme should commence during and post cancer treatment
- An exercise session lasting longer than 30 minutes is sufficient to have a positive effect on the quality of life in people with and survivors of breast cancer
- A frequency of at least three sessions per week with an exercise intensity of 50-80% of maximum heart rate (HR_{max}) is the range to train within
- For those who are inactive or just beginning an exercise programme, a gradual increase to the recommended level will provide substantial cardiovascular benefits (Kushi et al., 2006).

Benefits of exercise



- Increased survival rate
- Lower recurrence rates
- Increased lean body mass
- Decreased body fat
- Helps maintain bone mineral density (Goodwin et al 1998)
- Significantly reduces the amount of oestrogen in the blood of postmenopausal women (McTiernan et al., 2004)
- Increased levels of protein (sex hormone binding globulin) that binds to oestrogen making less available to breast tissue (Ligibel 2008)
- Lowers insulin levels
- Improves breast cancer prognosis

Againstbreastcancer.org.uk/news/research-news/285/physical-activity-exercise-and-breast-cancer/

Get Active Feel Good



Move more

Author: Caroline Belchamber

Get Active Feel Good



My Activity Diary

Author: Caroline Belchamber

Helpful Tips when exercising



- Always start with a warm-up
- Don't go into any pain
- Reduce your intensity if you start to fatigue
- Stop if you experience dizziness or nausea – gain advice from a health care professional
- Be cautious if you have an altered blood count – gain advice from a health care professional
- Always follow the advice of your lymphoedema specialist and adjust your exercise accordingly
- Always follow the advice of your physiotherapist for your shoulder range of movement and adjust your exercise accordingly
- If you note anything unusual or different from your normal exercise response – gain advice from a health care professional
- Monitor your pulse regularly
- Always finish with a cool down

Lets Exercise!



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Information to get you started

Ask your GP to refer you to specialist services such as 'exercise on referral' and / or Physiotherapy if for example you have had surgery



Start walking: Free guided health walks which include:

- a) Walking for Health (England): 0300 060 2287
- b) The Ramblers Association: 020 7339 8500

Helpful Tips to get you started



- Use stairs rather than an elevator
- If you can, walk or bike to your destination
- Exercise with your family, friend and co-workers
- Take an exercise break to stretch or take a short walk
- Walk to visit nearby friends or co-workers instead of sending an e-mail
- Plan active vacations rather than only driving trips
- Wear a pedometer every day and increase your daily steps
- Use a stationary bicycle or treadmill while watching TV

(Adkins2009)

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Resources

Move more: Your complete guide to becoming more active: Get Active Feel Good: Macmillan Cancer Support

[http://be.macmillan.org.uk/be/p-19569-move more-your-complete-guide-to-becoming More active.aspx](http://be.macmillan.org.uk/be/p-19569-move-more-your-complete-guide-to-becoming-more-active.aspx)

Get Active Feel Good: My activity diary: Macmillan Cancer Support

<http://be.macmillan.org.uk/be/p-20037-get-active-feel-good-my-activity-diary.aspx>