



Physiotherapy Eating Disorder
Professional Network

Managing physical activity and exercise with an eating disorder



Patient Information Leaflet

July 2020

It is widely known that there are positive physical and psychological health benefits of physical activity and exercise, including improved heart and lung function, improved muscular and skeletal strength, improved sleep patterns and positive effect on self-esteem, confidence, and mood. As a result, exercise can play an important part in what is considered to be a healthy balanced lifestyle; physically, socially and psychologically.

Physical activity and exercise can encompass a wide range of activities such as running, dancing, gardening or housework. These activities can be broken down further into those that are planned and structured exercise, such as playing a sport or going to the gym, or those of incidental exercise which are neither planned nor structured but still involve physical activity and body movement, such as hoovering, washing the car, walking to and from the shops.

Currently the Department of Health (2019) recommends, for adults, 150 minutes of moderate intensity physical activity per week, such as walking, gardening or housework – including both structured and incidental exercise opportunities - and two strength training sessions; or 75 minutes of higher intensity physical activity per week, such as running or tennis, and two strength training sessions. However, it is important to acknowledge that these recommendations are directed at the general adult population and are not appropriate for every individual. There is a need to take into account an individual's physical and mental health and vital to understand that this amount of activity can be detrimental to someone who has an eating disorder and/or is under weight.

If physical activity and exercise become interlinked with an eating disorder it can often become driven, rigid, and compulsive, with exercise levels becoming excessive and increasing beyond that of nutritional intake. When this happens the health benefits of exercise are lost, and exercise becomes more harmful to the body than helpful.

The aim of this booklet is therefore to provide you with an insight into the relationship between exercise and eating disorders. It discusses what you might experience if your exercise and activity increase to unhealthy levels, or the way in which you are exercising becomes unhealthy, and goes on to suggest ways in which you can try and make changes to your exercising behaviour.

Exercise and eating disorders

The relationship between an eating disorder and exercise can vary between individuals and it can be influenced by a number of factors. Often individuals already lead an active lifestyle or introduce exercise for overall health benefits, however, as eating disorder symptoms develop, exercise can become a factor that greatly influences weight loss, and then the reasons for exercising and the way in which someone exercises can change dramatically. At this point exercise becomes a very powerful tool in maintaining an eating disorder because of the strong influence that it can have on weight control and management of emotions.

The term compulsive exercise is often used to describe the type of exercising behaviour associated with an eating disorder, and refers to any form of exercise, physical activity or body movement that is associated with compulsion and dependence on activity, where the individual is unable to, or unwilling to, reduce or stop exercising even when it is detrimental to health.

As part of the eating disorder, an individual may develop unhelpful beliefs, rules or assumptions about exercise, such as: developing a psychological dependence on exercise

for managing mood and emotions, developing rigid routines relating to exercise, a dependence on exercise to give permission to eat, or to compensate for what they have eaten. Individuals may also have an overwhelming belief about the perceived negative consequences of not exercising, both physically and psychologically.

It is important to begin to understand the part that exercise might play in maintaining an eating disorder in order to work on developing a healthier and more positive relationship with exercise, alongside weight restoration. Individuals often find it helpful to understand that drive and urges to be active can be partly influenced by the brain chemical Leptin. In the majority of individuals with a restricted diet and subsequent low weight, the levels of Leptin in the brain significantly reduce, which results in an increased urge to be active. The key point to remember is that as weight returns to within normal ranges, the amount of Leptin produced then increases and the urge to be active reduces. It is therefore important to acknowledge that the powerful drive to exercise and be active becomes less intense as weight is restored to healthier levels.

When activity levels have become excessive and/or compulsive in someone with an eating disorder, exercise can occur in many different ways. It may be that someone is openly and deliberately engaging in exercise as a way to burn calories or lose weight, such as running, swimming and cycling. Or someone may become more secretive or covert in how they exercise, for example, by making excuses to 'fetch something' from upstairs in order to do more steps, or by standing for long periods of time or engaging in high levels of exercise in their bedroom. Another example might be attending gym/exercise classes in different leisure centres in order to keep the number of sessions they are doing hidden or avoid being questioned by leisure centre staff.

“Walking to the shops or train station is not exercise” – this is not true.

Whether it be structured exercise, or incidental exercise, all forms of physical activity and body movement can have direct and indirect effects on the body and can be a means to influence weight, shape, physical fitness and mood.

It is important to take into account all forms of physical activity and exercise when identifying overall accumulative activity levels, the effect both physically and psychologically, and how to begin to address them.

How do you know if your relationship with exercise is becoming unhealthy, unhelpful or you are developing compulsive exercising behaviour?

Consider whether any of the following points are familiar to you:

- I make myself exercise even when I am injured or tired
- I exercise every day, and feel guilty if I miss a day
- I feel lazy if I have not reached the exercise targets I set for myself
- I must always exercise for longer/harder than I did the last time
- I make excuses to miss social events or study so that I can still exercise
- I exercise to allow myself to eat or to compensate for what I have eaten
- People will like me more if I am fit and active
- I need to exercise in order to cope with the way that I feel
- I make up for any exercise I have missed by doing more the next time
- I cannot cope with my anxiety if I do not exercise
- I used to really enjoy exercise but now it feels like a chore

If you recognise any of these, then it may be time to talk about your exercise and how it is affecting you.

What are the risks of high levels of, and/or compulsive exercise?

At a low body weight (unhealthy weight range) the body does not have the full ability to withstand the relatively high demand and stress that physical activity and exercise can place on it. At a low weight there are significant changes in the body, including to the muscular and skeletal system, the heart, and the circulatory system.

When the body has lost weight and is in an unhealthy weight range there will be significant reduction in muscle mass, which in turn reduces the support around the joints of the body, particularly in the spine and lower limbs. Exercising on top of these already weakened and therefore vulnerable joints can lead to joint damage, and if continued, degenerative changes such as arthritis. In addition, reduced muscle mass means that these weakened muscles are unable to withstand the demand of exercise, particularly if the activity and movements are repetitive and of long duration, and therefore at increased risk of repetitive strain injuries.

Osteoporosis is a condition of low bone mineral density, where deterioration inside the bones leads to reduced bone strength. Many females and males with Anorexia Nervosa, and to a lesser extent Bulimia Nervosa, develop bone density significantly lower than expected for their age, significantly increasing their risk of breaking bones through minor impact and leaving them more vulnerable to fractures with advancing age.

It is important to know that the best treatment for improving bone health when you have an eating disorder is weight restoration, good nutrition and for females, restarting your menstruation. If exercise contributes to further reduction in weight or prevents weight restoration then it will be counter-productive to bone health, making it vital to address activity and exercise levels and compulsive exercise behaviours.

It is also important to know which specific weight bearing and strengthening exercises are appropriate for your bone health, what exercises, sports and activities are effective and where caution may be advised, such as with over-flexing and loading the spine in a rounded position. This information can be found in more detail in the patient leaflet 'Activity, Exercise & Activity with an Eating Disorder' 2019 and from support of a Physiotherapist.

In addition to the risk to the muscular and skeletal system, exercising at a low body weight can place extreme stress on both the cardiovascular and circulatory systems. The body may have experienced some muscle shrinkage of the heart muscle, and this in addition to altered blood chemicals that can result from dieting, vomiting, laxative abuse or dehydration, can lead to lowered blood pressure (hypotension), altered heart rhythms and dizziness or fainting.

Listening to your body and noticing any pain or discomfort, or increased fatigue or lightheadedness, whilst you are exercising is a vital step in keeping yourself safe. Some of the signs and symptoms that may be experienced include:

- Joint pain
- Neck or back pain or discomfort
- Difficulty in completing tasks you were able to in the past
- Fatigue and muscle tightness
- Muscular and ligament injuries
- Stress fractures
- Alterations in posture, such as an increased forward spinal curve
- Friction burns and bruising or pressure areas, for example to the back from repeated sit ups.
- Increased callous formation on the feet or alterations in foot structure

If you experience any of the above symptoms, then they may indicate that your exercise levels are too high or that your exercise is placing too much demand on your body. It is important that you listen to what your body is telling you and speak with your Physiotherapist or medical professional (GP/Consultant). It is vital to reduce the risks of exercising on your body in order to keep yourself safe, whilst you allow your body to rest, recover and reach a healthy weight range.

The importance of rest and recovery

During any exercise, whether it be strengthening, or aerobic, increased stress is placed on muscle tissues. As a result of this stress, microscopic damage occurs in these tissues. This is the normal physiological process that occurs following exercise, however, in order for muscle structures to gain the benefits of exercise, the body needs to repair this microdamage, and the success of this is dependent on both time and nutrition. For healthy individuals it takes approximately 48 hours for muscle tissue to recover, repair and replenish and this requires the correct amount of protein, vitamins and minerals. If you are over-exercising, not having adequate periods of relative rest, and your nutritional intake is low, then you are not allowing your body the chance to repair properly. This will result in your muscles and joints becoming more vulnerable to injury and, without that time to recover, will soon start to become tired and fatigued. Therefore, remember to ensure adequate rest and recovery between activities and only carry out a frequency and level of activity appropriate to your body weight.

It is often believed that *“If I do more exercise, then I will be fitter”* or *“I must exercise every day to maintain my muscle strength”*. However, there is only so much the body can take before the positive benefits of exercise become outweighed by the negatives. Therefore, more is not always better, and rest and recovery are key.

The negative effects of compulsive exercising behaviour not only have a significant impact physically, but socially and psychologically as well. These may include:

- A deterioration in relationships as exercise takes priority. For example, not wanting to spending time with family or loved ones if they choose more sedentary activities, or they might notice high exercise urges and engagement if spending time together.
- Withdrawal and isolation. For example, an individual might stop attending their running club but continue running alone in order to run further, faster, or more frequently, or in

fear of not feeling good enough compared to running partners.

- Anxiety and guilt. For example, feeling guilty for not exercising long enough or intensely enough, or increased anxiety about what might happen if they are not exercising at all.
- Poor engagement in study or occupational activities. Being unable to concentrate or focus on tasks due to pre-occupation with thoughts of exercise or missing lectures or working hours in order to exercise.
- Negative self-image. For example, having continued high and unachievable standards for exercise performance that result in self-doubt and criticism for not reached, or through comparisons with others who are perceived to be fitter or stronger.

How can you start to work on developing a healthier relationship with exercise?

If you feel that you are concerned about your exercising behaviour then it is important that you receive the right support and guidance. You will have your own individual relationship with exercise, including individual factors that have initiated and maintained your exercise, and therefore it is important to explore these and develop a helpful way of challenging them that is right for you.

You may want to begin by understanding the reasons for your exercise and the ways in which you are exercising to then identify what you might feel ready to work on and change. It may be that some aspects of your exercise feel easier to work on first. You might also find it beneficial to talk through your activity levels and what is right for you and at what stage.

At whatever stage in your recovery journey you are, it is recommended that you do this with support and guidance from identified health professionals or ward team.

For example, a Physiotherapist can help you to identify your current level of activity and the impact that this might be having on your body. They can help support you to develop a plan for appropriate and adapted levels of activity in relation to your body weight, doing this alongside weight restoration and developing a healthier relationship with the exercise. Alongside this work, sessions with your psychological therapist can help you understand how your relationship with exercise and eating have developed, and the ways in which exercise can contribute to keeping your eating disorder and it's associated problems going.

Useful strategies that you might find helpful to get you started in challenging your activity levels and exercising behaviour:

- Consider if using an activity diary would be helpful to understand your activity levels more – include in this the amount of activity that you carry out but also the reasons why you exercise and how it made you feel.
- If your exercise levels are high, try to cut down the amount that you do, whether this be by 10 repetitions or by 10 minutes, it will be a positive step in the right direction.
- Write a pros and cons list for changing your exercising behaviour. What are you concerned might happen if you stop? What might be the benefits of you stopping your exercise? You can consider this both in the short and long term.
- Engage in alternative activities – these can be helpful at the time of the urge to exercise. For example, talk about your thoughts and feelings with others, or participate in enjoyable activities, use distraction techniques, read a book, listen to music, or try arts and crafts activities.
- Use anxiety management techniques to help lessen the anxiety and challenging emotions you have when trying to stop or cut down your exercise. And remember urges and anxiety pass and become more manageable with time and practise.
- Understand the consequences of compulsive and excessive exercise, physically, psychologically, and socially, and the benefits of changing your behaviour on your recovery and wellbeing.
- Avoid the use of activity and exercise apps, or pedometers, as they may increase your focus on the amount of exercise you are doing instead of you trying to listen to your body and when it is time to stop.
- Minimise the use of social media and internet sites related to exercise, remembering that you need to do what is right for you and your body, and not what others are doing or what you read about online.
- Try to break up any exercise or activity routine you might have developed, for example not going for a walk at the same time each day or on the same route.
- Acknowledge the need for your body to rest as part of your recovery. Challenge any belief that you might have that 'more is better' or that you need to be active every day.
- Consider any rules or beliefs that you have that will be influencing or maintaining your exercise. Consider the source of this belief? What evidence do you have to say whether they are helpful or unhelpful? Are they true? If not, could you challenge them? For example, *"If I do not exercise then my muscles will turn to fat tissue" – this is not true. Muscle that is not used over a longer period of time may look less defined but will not turn to fat. Muscle and fat tissue are two very different tissue structures and are both important for different body functions, and it is not possible for one to convert to the other, and visa versa.*
- Some individuals find it helpful to cut out compulsive exercise altogether for a period of abstinence. So, for example, change your environment or cancel your gym membership. You might find you will need support to achieve this to relieve any increased guilt and anxiety from stopping, but many find that accepting a total withdrawal from their exercise routine brings about a greater sense of relief.

Remember that any activity that unsettles your exercise and nutritional balance will be counter-productive to you in challenging your eating disorder, and in your journey to recovery and weight restoration.

As your body weight restores towards a healthy weight range, the amount of exercise that you will safely be able to engage in will increase and widen in opportunity. It is important to work with the Physiotherapist to identify an appropriate type and amount of exercise for you, in order to reach a natural balance between activity and nutrition and maintain a healthy weight

When engaging in exercise it is important that it is fun, social and enjoyable. Try to avoid solitary, rigid or secretive exercise as this may lead you to over exercise and feed into your compulsive exercise tendencies. Engaging in exercise groups or exercising with others, i.e. time limited sessions and social sessions, will therefore be supportive in guiding you through to healthier exercising behaviours.

Allow yourself to rest and to listen to your body – to give exercise a miss if you are feeling unwell, tired, you are injured, or you just don't feel like it. It is ok to do this and will keep your body safe now and longer term.

For further information and advice for what is appropriate for you discuss with your Physiotherapist.

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Linked document: Exercise, Activity & Osteoporosis with an Eating Disorder, Lynn Hammond. Physiotherapist, July 2019